รายงานสถิติพลังงานของประเทศไทย 2557

ENERGY STATISTICS OF THAILAND 2014



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ENERGY STATISTICS OF THAILAND 2014



สิ่งพิมพ์รัฐบาล
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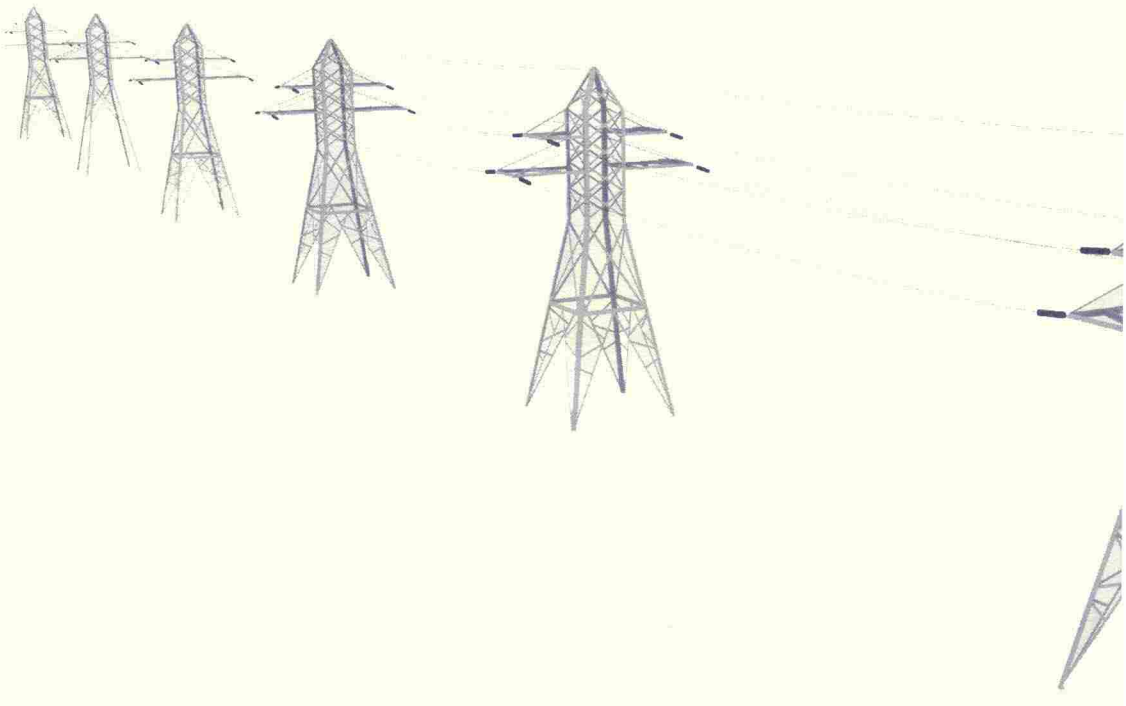
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บทนำ

สำนักงานนโยบายและแผนพลังงาน (สนพ.) เป็นหน่วยงานหนึ่งที่มีบทบาทสำคัญในกระทรวงพลังงาน มีภารกิจหลักในการวางนโยบายและแผนพลังงาน รวมถึงมาตรการในการบริหารจัดการพลังงานของประเทศ โดยคำนึงถึงการพัฒนาเศรษฐกิจ สังคม ควบคู่ไปกับการรักษาสิ่งแวดล้อม การดำเนินงานดังกล่าวมีความจำเป็นต้องใช้ข้อมูลสนับสนุนจำนวนมาก เพื่อใช้ในการวิเคราะห์และจัดทำข้อเสนอแนะด้านพลังงานแก่ผู้บริหาร ด้วยเหตุนี้ สนพ. จึงได้จัดทำหนังสือรายงานสถิติพลังงานของประเทศไทยขึ้น เพื่อติดตามสถานการณ์พลังงานของประเทศอย่างต่อเนื่อง

หนังสือรายงานสถิติพลังงานของประเทศไทย เป็นหนังสือที่ได้มีการจัดทำขึ้นปีละครั้ง เพื่อเป็นการเพิ่มช่องทางในการให้บริการข้อมูลผ่านทางสื่อสิ่งพิมพ์และแผ่น CD ที่สามารถตอบสนองความต้องการของผู้ใช้ได้อย่างรวดเร็ว และมีประสิทธิภาพ โดยมีการเผยแพร่หนังสือดังกล่าวไปยังหน่วยงานต่างๆ ทั้งในและต่างประเทศ ซึ่งมีการตอบรับเป็นอย่างดี จึงได้ดำเนินการจัดทำอย่างต่อเนื่อง มีการรวบรวมข้อมูลตั้งแต่อดีตจนถึงปัจจุบัน (ค.ศ. 1989 ถึง ค.ศ. 2013) ซึ่งครอบคลุมเรื่องพลังงานทุกด้าน ได้แก่ การผลิต การใช้ การนำเข้า การส่งออก ราคาและมูลค่าพลังงาน รวมทั้งข้อมูลปริมาณการปลดปล่อยก๊าซคาร์บอนไดออกไซด์ (CO_2) จากการใช้พลังงาน ซึ่งข้อมูลดังกล่าวเหล่านี้ได้นำมาใช้เป็นสารสนเทศทางการบริหารพลังงานของไทย ตลอดจนใช้ประกอบการวิเคราะห์แนวโน้มเพื่อกำหนดนโยบายและแผนด้านพลังงานของประเทศ

สนพ. หวังเป็นอย่างยิ่งว่า รายงานสถิติพลังงานของประเทศไทย 2557 จะเป็นประโยชน์ต่อหน่วยงาน องค์กร และผู้ที่สนใจทั่วไป เพื่อนำข้อมูลไปใช้ในการศึกษา วิจัย วิเคราะห์และการอ้างอิง ที่จะนำไปสู่การพัฒนาทางด้านพลังงานของประเทศต่อไป



INTRODUCTION

The Energy Policy and Planning Office (EPPO) is a pivotal agency under the Ministry of Energy, being tasked with the development of national energy policies and planning, including measures to manage and administer the energy sector, with due consideration of economic and social development, concurrently with environmental protection. In order to undertake the mentioned tasks, it is crucial to acquire substantial information and data for analysis and development of recommendation on energy issues to be presented to the management. As a consequence of this, EPPO has published a report on energy statistics of Thailand with a view to following up continuously national energy situations.

This report on energy statistics of Thailand is issued annually, with the first one issued in 2010, to be another channel to provide energy information via printed matters and in the form of CD, which is expected to promptly and efficiently respond to the users' needs. After EPPO's first publication and dissemination of the report, there has been favorable response and feedback from concerned agencies/organizations, both domestic and overseas. Therefore, the second issue of such a report is consecutively prepared by EPPO this year, with data collection from the past up to the present (1989-2013), covering all aspects of energy, i.e. production, consumption, import, export, prices and nominal value of energy, including the information about carbon dioxide (CO_2) emissions from the use of energy. The mentioned information/data has much contributed to energy management of the country, particularly in support of decision making of the management based on close follow-ups on energy situation movements, and to the analysis of energy trends to assess the impact which may occur from energy use. The analysis outcome will form the basis for the development of recommendations on the energy policy and management plan as well as the energy development plan of the country.

EPPO Hopefully the "Energy Statistics of Thailand 2014" is useful to organizations and people that are interested in general to bring information to use in education, research, analysis and reference. That will lead to the development of the country's energy.

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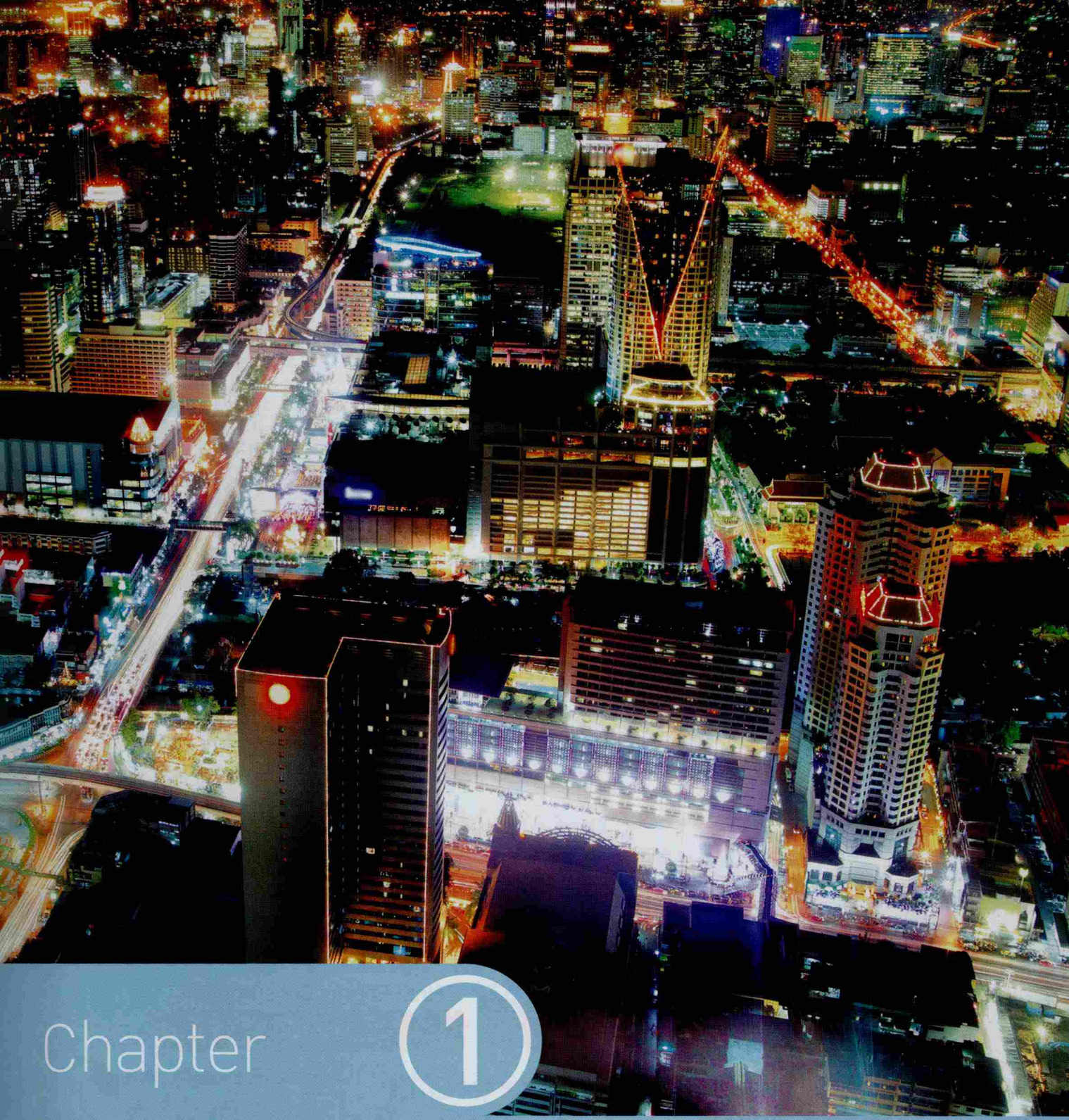
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*Note : M = Monthly

Y = Yearly



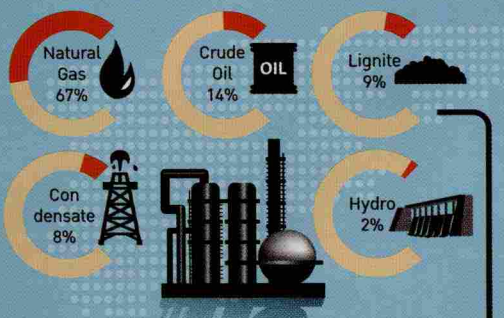


Chapter 1

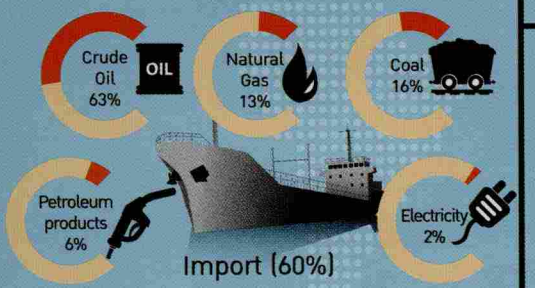
Thailand's Energy Situation in 2013



Energy Overview 2013



Domestic Production Primary Energy (47%)



Import (60%)



Stock Change (-7%)



Supply (100%) - Export (11%) =

Export
- Petroleum Product 90%
- Crude Oil 10% OIL

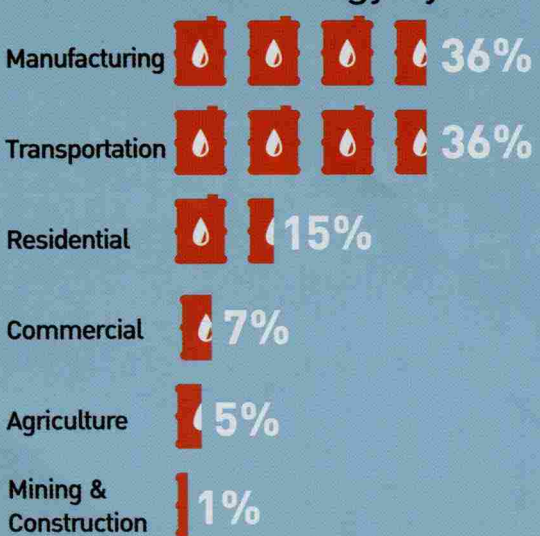
Total Primary Energy Supply
- Oil 38% OIL
- Natural Gas 44%
- Coal 11%
- Lignite 5%
- Hydro/Import Electricity 2%

Own use & Loss (19%)

Non-Energy Use (17%)

Final Energy Consumption (64%)
- Petroleum Products 55%
- Electricity 22%
- Natural Gas 13%
- Coal/Lignite 10%

Share of Final Energy by sector 2013



บทที่ 1 สถานการณ์พลังงานไทยปี 2556

ภาพรวมเศรษฐกิจ

สำนักงานคณะกรรมการพัฒนาการเศรษฐกิจและสังคมแห่งชาติ (สศช.) รายงานอัตราการเจริญเติบโตทางเศรษฐกิจไทยปี 2556 ขยายตัวร้อยละ 2.9 จากปัจจัยสนับสนุนจากการใช้จ่ายภาครัฐ และการขยายตัวในด้านการผลิตของสาขาโรงแรมและภัตตาคาร อสังหาริมทรัพย์ และเกษตรกรรม โดยจำนวนนักท่องเที่ยวต่างชาติเพิ่มขึ้นเป็น 26.7 ล้านคน หรือเพิ่มขึ้นจากปี 2555 ร้อยละ 19.6 ส่งผลให้สาขาโรงแรมและภัตตาคารขยายตัวร้อยละ 12.1 สำหรับสาขาอสังหาริมทรัพย์ขยายตัวร้อยละ 4.6 ตามความต้องการซื้อที่อยู่อาศัยที่ยังมีเพิ่มขึ้นอย่างต่อเนื่อง และสาขาเกษตรกรรมขยายตัวร้อยละ 1.4 จากการขยายพื้นที่เพาะปลูกข้าวและยางพารา รวมทั้งการขยายการผลิตสินค้าปศุสัตว์เพื่อตอบสนองการบริโภคที่เพิ่มขึ้น ทั้งนี้ เศรษฐกิจปี 2556 ชะลอตัวค่อนข้างมากเมื่อเทียบกับปี 2555 ที่ขยายตัวถึงร้อยละ 6.5 ปัจจัยเหล่านี้ส่งผลต่อสถานการณ์พลังงานของประเทศในปี 2556 ดังนี้

การใช้ การผลิต และการนำเข้าพลังงานเชิงพาณิชย์ขั้นต้น

การใช้พลังงานเชิงพาณิชย์ขั้นต้น ในปี 2556 เพิ่มขึ้นร้อยละ 0.7 เมื่อเทียบกับปี 2555 หรืออยู่ที่ระดับ 2,001 เทียบเท่าพันบาร์เรลน้ำมันดิบต่อวัน โดยก๊าซธรรมชาติมีสัดส่วนการใช้มากที่สุดคิดเป็นร้อยละ 46 มีการใช้เพิ่มขึ้นร้อยละ 2.0 การใช้น้ำมันมีสัดส่วนรองลงมาที่ร้อยละ 36 มีการใช้เพิ่มขึ้นร้อยละ 2.5 ส่วนการใช้ถ่านหิน/ลิกไนต์ซึ่งมีสัดส่วนการใช้ที่ร้อยละ 16 มีการใช้ลดลงร้อยละ 3.2 และการใช้ไฟฟ้าพลังน้ำ/ไฟฟ้านำเข้า มีสัดส่วนร้อยละ 2 การใช้ลดลงร้อยละ 17.9

สำหรับการผลิตพลังงานเชิงพาณิชย์ ในปี 2556 ลดลงเล็กน้อยเมื่อเทียบกับปี 2555 คือ ลดลงร้อยละ 0.7 โดยอยู่ที่ระดับ 1,078 เทียบเท่าพันบาร์เรลน้ำมันดิบต่อวัน โดยลดลงในส่วนของการผลิตลิกไนต์และไฟฟ้าพลังน้ำ ในขณะที่การนำเข้าพลังงานเชิงพาณิชย์ (สุทธิ) เพิ่มขึ้นร้อยละ 3.3 อยู่ที่ระดับ 1,121 เทียบเท่าพันบาร์เรลน้ำมันดิบต่อวัน จากการนำเข้าน้ำมันดิบ ก๊าซธรรมชาติและก๊าซธรรมชาติเหลว และไฟฟ้าที่เพิ่มมากขึ้น ทั้งนี้ การนำเข้าพลังงานเชิงพาณิชย์ (สุทธิ) คิดเป็นร้อยละ 56 ของการใช้พลังงานเชิงพาณิชย์ขั้นต้น

การใช้ การผลิต และการนำเข้าพลังงานเชิงพาณิชย์ขั้นต้น

หน่วย: เทียบเท่าพันบาร์เรลน้ำมันดิบต่อวัน

	2552	2553	2554	2555	2556
การใช้	1,663	1,782	1,854	1,981	2,001
การผลิต	895	989	1,018	1,082	1,078
การนำเข้า (สุทธิ)	922	1,001	1,018	1,082	1,121
การนำเข้า/การใช้ (%)	55	56	55	55	56
อัตราการเปลี่ยนแปลง (%)					
การใช้	2.8	7.2	4.0	6.9	0.7
การผลิต	5.5	10.5	2.9	6.3	-0.7
การนำเข้า (สุทธิ)	-3.2	8.5	1.8	6.3	3.3
GDP (%)	**-2.3**	**7.8**	**0.1**	**6.5**	**2.9**

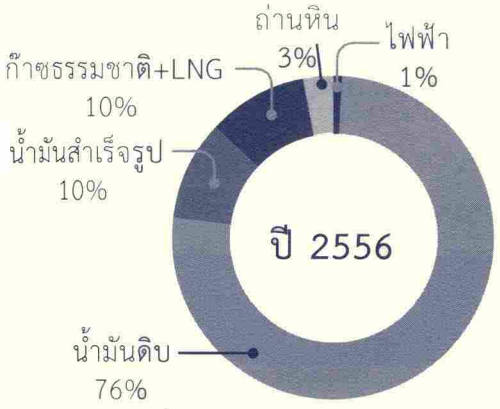
การใช้พลังงานเชิงพาณิชย์ขั้นต้น	น้ำมัน	ก๊าซธรรมชาติ	ถ่านหิน/ลิกไนต์	พลังน้ำ/ไฟฟ้านำเข้า	รวม
อัตราการเปลี่ยนแปลง (%)	2.5	2.0	-3.2	-17.9	0.7

มูลค่าการใช้พลังงานขั้นสุดท้าย ปี 2556 รวม 2.13 ล้านล้านบาท เพิ่มขึ้นร้อยละ 1.0

พลังงานเชิงพาณิชย์ขั้นสุดท้าย	น้ำมันสำเร็จรูป	ไฟฟ้า	ก๊าซธรรมชาติ	ถ่านหิน/ลิกไนต์	พลังงานทดแทน
มูลค่าการใช้ (ล้านบาท)	1,325,898	537,695	121,005	26,096	118,529
อัตราการเปลี่ยนแปลง (%)	1.1	2.5	-1.2	-17.4	0.2

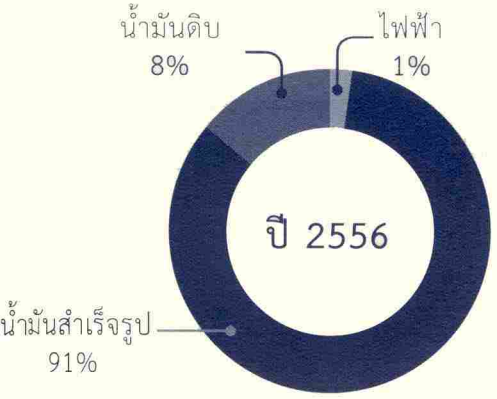
มูลค่าการใช้พลังงาน ในปี 2556 มีมูลค่า 2,129,223 ล้านบาท เพิ่มขึ้นจากปี 2555 ซึ่งอยู่ที่ระดับ 2,107,811 ล้านบาท อยู่ 21,412 ล้านบาท หรือคิดเป็นเพิ่มขึ้นร้อยละ 1.0 โดยการใช้น้ำมันสำเร็จรูป ไฟฟ้า และพลังงานทดแทน มีมูลค่าเพิ่มขึ้น ในขณะที่ก๊าซธรรมชาติ และถ่านหิน/ลิกไนต์ มีมูลค่าลดลง ทั้งนี้ การใช้น้ำมันสำเร็จรูปมีมูลค่าการใช้สูงสุด โดยมีมูลค่าการใช้เพิ่มขึ้นร้อยละ 1.1 ไฟฟ้าเพิ่มขึ้นร้อยละ 2.5 และพลังงานทดแทนเพิ่มขึ้นร้อยละ 0.2 ส่วนมูลค่าการใช้ก๊าซธรรมชาติ และถ่านหิน/ลิกไนต์ ลดลงร้อยละ 1.2 และ 17.4 ตามลำดับ

มูลค่าการนำเข้าและค่าการส่งออกพลังงาน



มูลค่าการนำเข้าพลังงาน ปี 2556
รวม 1.42 ล้านล้านบาท
(ลดลงร้อยละ 2.1)

ปี 2556	น้ำมันดิบ	น้ำมันสำเร็จรูป	ก๊าซธรรมชาติ +LNG	ถ่านหิน	ไฟฟ้า
มูลค่าการนำเข้า (ล้านบาท)	1,072,221	138,501	146,738	39,714	18,546
อัตราการเปลี่ยนแปลง (%)	-4.2	11.5	4.6	-15.0	20.1



มูลค่าการส่งออกพลังงาน ปี 2556
รวม 3.76 ล้านล้านบาท
(ลดลงร้อยละ 6.3)

ปี 2556	น้ำมันดิบ	น้ำมันสำเร็จรูป	ไฟฟ้า
มูลค่าการส่งออก (ล้านบาท)	29,115	342,208	4,424
อัตราการเปลี่ยนแปลง (%)	-43.5	-0.6	-15.3

มูลค่าการนำเข้าพลังงาน ในปี 2556 มีมูลค่ารวม 1,415,720 ล้านบาท ลดลงจากปี 2555 ซึ่งอยู่ที่ระดับ 1,445,999 ล้านบาท อยู่ 30,279 ล้านบาท หรือคิดเป็นลดลงร้อยละ 2.1 โดยมูลค่าการนำเข้าน้ำมันดิบมีสัดส่วนมากที่สุดคิดเป็นร้อยละ 76 มีมูลค่าการนำเข้าลดลงร้อยละ 4.2 เนื่องจากราคาน้ำมันดิบในตลาดโลกปรับตัวลดลง ส่วนมูลค่าการนำเข้าก๊าซธรรมชาติและ LNG ซึ่งมีสัดส่วนรองลงมา คือคิดเป็นร้อยละ 10 มีมูลค่าการนำเข้าเพิ่มขึ้นร้อยละ 4.6 ทั้งนี้ ประเทศไทยเริ่มมีการนำเข้า LNG ตั้งแต่เดือนพฤษภาคม 2554 และมีแนวโน้มการนำเข้าเพิ่มขึ้นทุกปีเนื่องจากมีความต้องการก๊าซธรรมชาติเพิ่มขึ้น

มูลค่าการส่งออกพลังงาน ในปี 2556 มีมูลค่ารวม 375,747 ล้านบาท ลดลงจากปี 2555 ซึ่งอยู่ที่ระดับ 401,138 ล้านบาท อยู่ 25,391 ล้านบาท หรือคิดเป็นลดลงร้อยละ 6.3 ทั้งนี้ มูลค่าการส่งออกพลังงานในปี 2556 ลดลงทุกประเภท โดยมูลค่าการส่งออกน้ำมันสำเร็จรูปซึ่งมีสัดส่วนมากที่สุดคิดเป็นร้อยละ 91 มีมูลค่าการส่งออกอยู่ที่ระดับ 342,208 ล้านบาท ลดลงร้อยละ 0.6 เมื่อเทียบกับปี 2555

สถานการณ์พลังงานแต่ละชนิด

น้ำมันดิบ ปี 2556 มีปริมาณการนำเข้าอยู่ที่ระดับ 868 พันบาร์เรลต่อวัน เพิ่มขึ้นร้อยละ 0.6 คิดเป็นมูลค่า 1,072 พันล้านบาท ลดลงร้อยละ 4.2 เมื่อเทียบกับปี 2555 เนื่องจากราคาเฉลี่ยน้ำมันดิบนำเข้าลดลงจากราคาเฉลี่ยปี 2555 อยู่ 4 เหรียญสหรัฐต่อบาร์เรล อยู่ที่ระดับ 110 เหรียญสหรัฐต่อบาร์เรล โดยส่วนใหญ่ประเทศไทยนำเข้าน้ำมันดิบจากกลุ่มประเทศตะวันออกกลาง (คิดเป็นสัดส่วนร้อยละ 75)

การนำเข้าน้ำมันดิบ

การนำเข้าน้ำมันดิบ	2553	2554	2555	2556	อัตราการเปลี่ยนแปลง (%)		
					2554	2555	2556
ปริมาณ (พันบาร์เรล/วัน)	816	794	860	868	-2.7	8.3	0.6
ราคาเฉลี่ย (USD/บาร์เรล)	79	110	114	110	38.7	3.4	-3.7
มูลค่า (พันล้านบาท)	751	977	1,119	1,072	30.1	14.5	-4.2

การใช้น้ำมันสำเร็จรูป

หน่วย: ล้านลิตรต่อวัน

ชนิด	2553	2554	2555	2556	อัตราการเปลี่ยนแปลง (%)		
					2554	2555	2556
เบนซิน	20.3	20.1	21.1	22.5	-1.1	5.0	6.3
ดีเซล	50.6	52.6	56.2	57.2	3.8	7.1	1.5
เครื่องบิน	12.9	13.9	13.9	15.2	7.7	0.2	9.2
น้ำมันเตา	7.2	6.7	6.5	5.9	-6.0	-3.7	-8.8
LPG*	30.4	35.0	37.4	38.2	15.0	7.2	1.8
รวม	**121.4**	**128.3**	**135.0**	**139.0**	**5.6**	**5.5**	**2.6**

* รวมโพรเพนและบิวเทน

น้ำมันสำเร็จรูป ในปี 2556 มีการใช้น้ำมันสำเร็จรูปเพิ่มขึ้นจากปี 2555 ร้อยละ 2.6 โดยการใช้น้ำมันเบนซินเพิ่มขึ้นร้อยละ 6.3 น้ำมันดีเซลเพิ่มขึ้นร้อยละ 1.5 น้ำมันเครื่องบินเพิ่มขึ้นร้อยละ 9.2 และ LPG (รวมโพรเพนและบิวเทน) มีการใช้เพิ่มขึ้นร้อยละ 1.8 ในขณะที่การใช้น้ำมันเตาลดลงร้อยละ 8.8

- **น้ำมันกลุ่มเบนซิน** ในปี 2556 การใช้น้ำมันเบนซินเฉลี่ยอยู่ที่ระดับ 22.5 ล้านลิตรต่อวัน เพิ่มขึ้นร้อยละ 6.6 เมื่อเทียบกับปี 2555 ที่มีการใช้อยู่ที่ระดับ 21.1 ล้านลิตรต่อวัน ทั้งนี้ การใช้น้ำมันเบนซินที่เพิ่มขึ้นสูงมากในปี 2556 เป็นผลมาจากจำนวนรถยนต์จดทะเบียนใหม่ที่เพิ่มขึ้นจากนโยบายคืนเงินภาษีให้กับผู้ซื้อรถยนต์คันแรกของรัฐบาล

น้ำมันเบนซิน (เบนซินออกเทน 95) ในปี 2556 มีปริมาณการใช้น้ำมันเบนซิน หรือ เบนซินออกเทน 95 (ตามประกาศราชกิจจานุเบกษาฉบับที่ 129 ตอนพิเศษ 160ง กำหนดมาตรฐานคุณภาพน้ำมันเบนซินให้เหลือเพียงน้ำมันเบนซินออกเทน 95 และเปลี่ยนชื่อ "เบนซินออกเทน 95" เป็น "เบนซิน" โดยมีผลตั้งแต่วันที่ 1 มกราคม 2556 เป็นต้นไป) เฉลี่ยอยู่ที่ระดับ 1.70 ล้านลิตร จากปี 2555 ซึ่งมีการใช้เฉลี่ยเพียง 0.12 ล้านลิตรต่อวัน เนื่องจากภายหลังที่มีการประกาศยกเลิกเบนซินออกเทน 91 ตั้งแต่วันที่ 1 มกราคม 2556 แต่ผ่อนผันให้สำหรับน้ำมันเบนซินออกเทน 91 ที่ผลิตก่อนวันที่ประกาศจะมีผลใช้บังคับ และคงเหลือค้างอยู่ที่คลังน้ำมันและสถานีบริการ สามารถจำน่ายได้จนถึงวันที่ 31 มีนาคม 2556 ทำให้ตั้งแต่เดือนเมษายน 2556 ไม่มีการจำหน่ายน้ำมันเบนซินออกเทน 91 ภายในประเทศ ดังนั้น ผู้ใช้รถยนต์ที่เคยใช้น้ำมันเบนซินออกเทน 91 บางส่วน จึงเปลี่ยนไปใช้น้ำมันเบนซินออกเทน 95 แทน

น้ำมันแก๊สโซฮอล ในปี 2556 มีปริมาณการใช้เพิ่มขึ้นจาก 12.2 ล้านลิตรต่อวันในปี 2555 เป็น 20.5 ล้านลิตรต่อวัน ทั้งนี้นอกจากปัจจัย/มาตรการจูงใจทางด้านราคาของน้ำมันในกลุ่มแก๊สโซฮอลที่มีราคาถูกกว่าน้ำมันเบนซิน และการยกเลิกการจำหน่ายน้ำมันเบนซินออกเทน 91 ปัจจัยสำคัญที่ทำให้การใช้น้ำมันกลุ่มแก๊สโซฮอลทุกประเภทเพิ่มขึ้นนั้นมาจากจำนวนรถใหม่เพิ่มขึ้นตั้งแต่เดือนธันวาคม 2555 ตามนโยบายคืนภาษีให้กับผู้ซื้อรถคันแรก ประกอบกับนโยบายลดภาษีสรรพสามิตให้กับรถยนต์นั่งหรือรถยนต์โดยสารที่มีที่นั่งไม่เกิน 10 คน ประเภทใช้เชื้อเพลิงทดแทนที่มีความจุของกระบอกสูบไม่เกิน 3,000 ลูกบาศก์เซนติเมตร ที่ใช้เชื้อเพลิงประเภทเอทานอลไม่น้อยกว่าร้อยละ 20 และ 85 เป็นส่วนผสมกับน้ำมันเชื้อเพลิง (รถยนต์ที่ใช้น้ำมันแก๊สโซฮอล 95(E20) และน้ำมันแก๊สโซฮอล 95(E85)) ทำให้ผู้บริโภคตัดสินใจซื้อรถยนต์ที่ใช้แก๊สโซฮอลเพิ่มขึ้นเนื่องจากมีราคาถูกลง

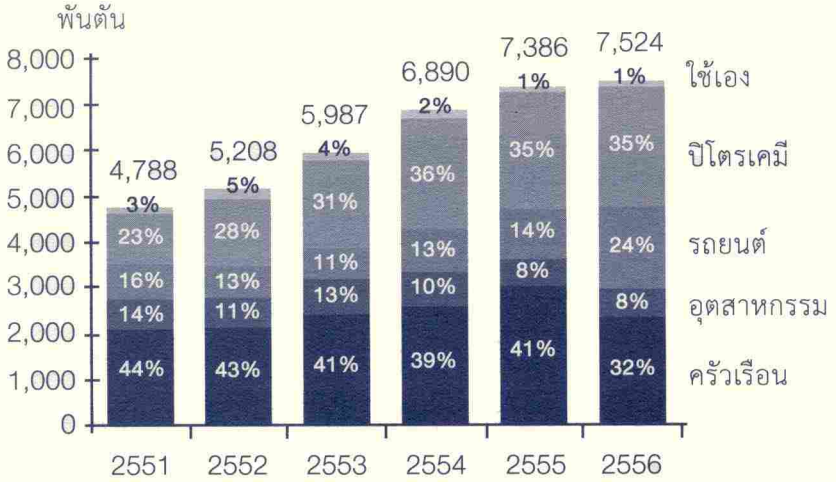
- **น้ำมันดีเซล** ในปี 2556 มีปริมาณการใช้เฉลี่ย 57.2 ล้านลิตรต่อวัน เพิ่มขึ้นร้อยละ 1.5 จากปี 2555 ที่มีปริมาณการใช้อยู่ที่ 56.2 ล้านลิตรต่อวัน การที่น้ำมันดีเซลมีปริมาณการใช้เพิ่มขึ้นไม่มากนักเนื่องจากฐานที่สูงของปี 2555 ที่เกิดจากปริมาณรถยนต์ดีเซลที่เพิ่มขึ้นจากนโยบายคืนภาษีให้กับผู้ซื้อรถคันแรกในปีที่แล้ว รวมทั้ง รถบางส่วนมีการเปลี่ยนไปใช้ NGV แทนการใช้น้ำมันดีเซลโดยเฉพาะกลุ่มรถบรรทุก ทั้งนี้ รัฐบาลมีการตรึงราคาขายปลีกน้ำมันดีเซลให้อยู่ที่ระดับที่ไม่เกิน 30 บาทต่อลิตร โดยราคาขายปลีกน้ำมันดีเซลในกรุงเทพฯ ปัจจุบันอยู่ที่ระดับ 29.99 บาทต่อลิตร ไม่มีการเปลี่ยนแปลงนับตั้งแต่เดือนกุมภาพันธ์ 2555 เป็นต้นมา

- **น้ำมันเครื่องบิน** ในปี 2556 มีปริมาณการใช้เฉลี่ย 15.2 ล้านลิตรต่อวัน เพิ่มขึ้นร้อยละ 9.2 จากปี 2555 ที่มีปริมาณการใช้อยู่ที่ 14.0 ล้านลิตรต่อวัน ทั้งนี้ เนื่องจากการขยายตัวของเศรษฐกิจภาคการท่องเที่ยว จากจำนวนนักท่องเที่ยวต่างชาติที่เพิ่มขึ้น ทั้งนี้ จำนวนนักท่องเที่ยวที่เข้าประเทศไทยที่ท่าอากาศยานสุวรรณภูมิ ในปี 2556 มีจำนวนทั้งสิ้น 15,370,049 คน เพิ่มขึ้นร้อยละ 8.7 จากปี 2555 ประกอบกับในปี 2556 มีสายการบินเปิดใหม่รวมทั้งสายการบินต้นทุนต่ำ (Low Cost) จัดกิจกรรมส่งเสริมการท่องเที่ยวโดยการลดราคาตั๋วโดยสารเครื่องบินทั้งภายในประเทศและต่างประเทศ โดยเฉพาะภายหลังจากที่ประเทศญี่ปุ่นยกเว้นวีซ่าเข้าประเทศญี่ปุ่นให้กับคนไทย ตั้งแต่วันที่ 1 กรกฎาคม 2556 ทำให้บริษัททัวร์และสายการบิน จัดกิจกรรมลดราคาทัวร์และตั๋วโดยสารสำหรับเดินทางไปประเทศญี่ปุ่นเพิ่มขึ้น

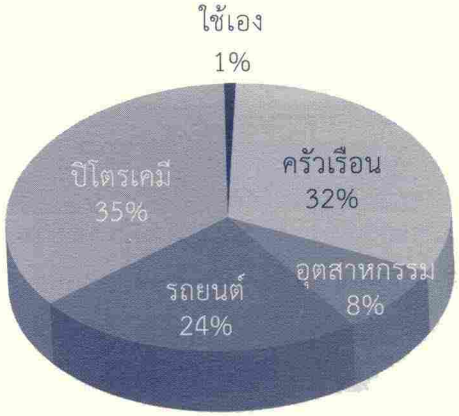
- **LPG** ในปี 2556 การใช้อยู่ที่ระดับ 7,524 พันตัน เพิ่มขึ้นจากปี 2555 ร้อยละ 1.9 โดยในปี 2556 มีสัดส่วนการใช้ LPG เป็นวัตถุดิบในอุตสาหกรรมปิโตรเคมีมากที่สุด คิดเป็นร้อยละ 35 และมีการใช้เพิ่มขึ้นร้อยละ 3.4 รองลงมาเป็นการใช้ในภาคครัวเรือน คิดเป็นสัดส่วนร้อยละ 32 ของปริมาณการใช้ทั้งหมด มีการใช้ลดลงร้อยละ 20.9 การใช้เป็นเชื้อเพลิงในรถยนต์ มีสัดส่วนการใช้เพิ่มขึ้น โดยคิดเป็นสัดส่วนร้อยละ 24 มีการใช้เพิ่มขึ้นร้อยละ 67.3 ในขณะที่การใช้ในภาคอุตสาหกรรมคิดเป็นสัดส่วนร้อยละ 8 มีการใช้ลดลงร้อยละ 2.0 ซึ่งลดลงอย่างต่อเนื่องตั้งแต่รัฐบาลได้

ประกาศปรับขึ้นราคาขายปลีก LPG ในภาคอุตสาหกรรม ทั้งนี้ สัดส่วนการใช้ LPG ที่ลดลงในสาขาครัวเรือนสอดคล้องกับสัดส่วนที่เพิ่มขึ้นในการใช้เป็นเชื้อเพลิงของรถยนต์ โดยคาดว่าจะเป็นผลมาจากการเพิ่มราคา LPG ภาคครัวเรือนเดือนละ 0.50 บาท ตั้งแต่เดือนกันยายน 2556 ประกอบกับมาตรการเข้มงวดตรวจสอบและปราบปรามการลักลอบนำ LPG ไปจำหน่ายผิดประเภท ทำให้การลักลอบนำ LPG ภาคครัวเรือนมาขายให้กับภาคขนส่งและการลักลอบส่งออก LPG ไปขายในประเทศเพื่อนบ้านมีปริมาณลดลง ทั้งนี้ คณะรัฐมนตรี มีมติเมื่อวันที่ 13 สิงหาคม 2556 เห็นชอบตามมติคณะกรรมการนโยบายพลังงานแห่งชาติ (กพช.) ให้ปรับราคาขายปลีก LPG ภาคครัวเรือน โดยให้ปรับเพิ่มขึ้นเดือนละ 0.50 บาทต่อกิโลกรัม ตั้งแต่วันที่ 1 กันยายน 2556 เป็นต้นไป จนสะท้อนต้นทุนที่ 24.82 บาทต่อกิโลกรัม ทำให้ราคาขายปลีก LPG ณ เดือนธันวาคม 2556 ของภาคครัวเรือนอยู่ที่ 20.13 บาทต่อกิโลกรัม ปรับเพิ่ม 2 บาทต่อกิโลกรัมเมื่อเทียบกับเดือนธันวาคม 2555 ในขณะที่ภาคอุตสาหกรรมอยู่ที่ 30.13 บาทต่อกิโลกรัม และภาคขนส่งอยู่ที่ 21.38 บาทต่อกิโลกรัม

การใช้ LPG รายสาขา



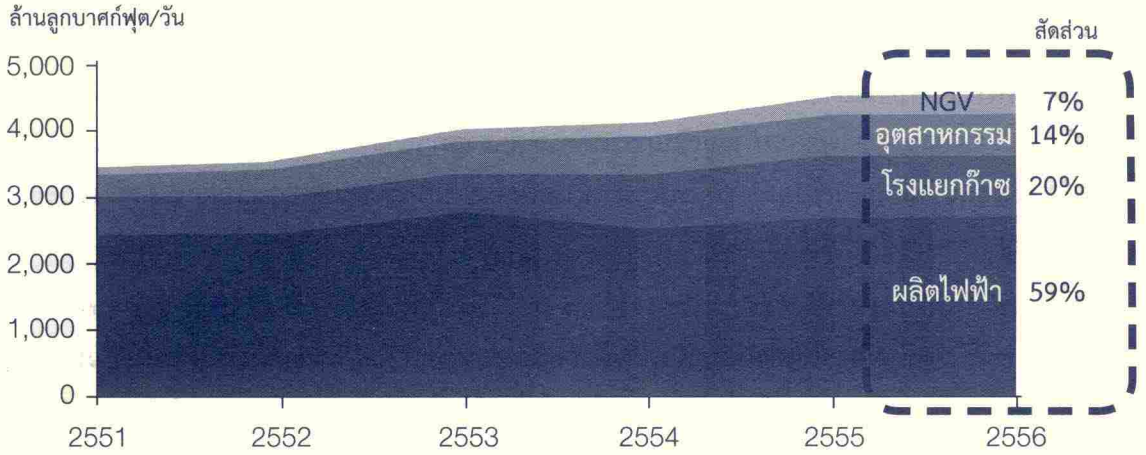
สัดส่วน ปี 2556



การใช้ ปี 2556	ครัวเรือน	อุตสาหกรรม	รถยนต์	ปิโตรเคมี	ใช้เอง	รวม
ปริมาณการใช้ (พันตัน)	2,409	601	1,775	2,641	98	7,524
อัตราการเปลี่ยนแปลง (%)	-20.9	-2.0	67.3	3.4	-10.6	1.9

การใช้ก๊าซธรรมชาติ ในปี 2556 มีปริมาณการใช้อยู่ที่ระดับ 4,568 ล้านลูกบาศก์ฟุตต่อวัน เพิ่มขึ้นจากปี 2555 ซึ่งอยู่ที่ระดับ 4,534 ล้านลูกบาศก์ฟุตต่อวัน หรือเพิ่มขึ้นร้อยละ 0.5 โดยมีการใช้เพิ่มขึ้นในทุกสาขา ยกเว้นการใช้เป็นวัตถุดิบในอุตสาหกรรมปิโตรเคมีและอื่นๆ มีการใช้ลดลงร้อยละ 3.2 โดยการใช้เพื่อการผลิตไฟฟ้า มีสัดส่วนสูงสุดร้อยละ 59 ของการใช้ทั้งหมด มีการใช้เพิ่มขึ้นร้อยละ 0.7 การใช้เป็นเชื้อเพลิงในโรงงานอุตสาหกรรมเพิ่มขึ้นร้อยละ 0.9 และการใช้เพื่อเป็นเชื้อเพลิงสำหรับรถยนต์ (NGV) เพิ่มขึ้นร้อยละ 10.2 ทั้งนี้ ในปี 2556 มีผู้ผลิตไฟฟ้ารายเล็ก ประเภทโรงไฟฟ้าพลังความร้อนร่วม (Cogeneration) ที่ใช้ก๊าซธรรมชาติเป็นเชื้อเพลิง เริ่มจ่ายไฟฟ้าเข้าระบบ รวมกำลังการผลิตทั้งสิ้น 1,170 MW ซึ่งส่งผลให้การใช้ก๊าซธรรมชาติในการผลิตไฟฟ้าเฉพาะในส่วนของ SPP เพิ่มขึ้นจาก 419 ล้านลูกบาศก์ฟุตต่อวันในปี 2555 เป็น 593 ล้านลูกบาศก์ฟุตต่อวัน ในปี 2556 หรือเพิ่มขึ้นร้อยละ 41.5

การใช้ก๊าซธรรมชาติรายสาขา



การใช้ ปี 2556	ผลิตไฟฟ้า	โรงแยกก๊าซ	อุตสาหกรรม	NGV	รวม
ปริมาณการใช้ (ล้านลูกบาศก์ฟุต/วัน)	2,695	930	635	307	4,568
อัตราการเปลี่ยนแปลง (%)	0.7	-3.2	0.9	10.2	0.5

การใช้ลิกไนต์/ถ่านหิน ในปี 2556 มีการใช้อยู่ที่ระดับ 15,846 พันตันเทียบเท่าน้ำมันดิบ ลดลงจากปีก่อนร้อยละ 3.4

การใช้ลิกไนต์ ในปี 2556 อยู่ที่ระดับ 5,030 พันตันเทียบเท่าน้ำมันดิบ เพิ่มขึ้นร้อยละ 2.3 โดยส่วนใหญ่ร้อยละ 83 ของลิกไนต์ทั้งหมด ถูกนำไปใช้เป็นเชื้อเพลิงในการผลิตไฟฟ้าของ กฟผ. และส่วนที่เหลือนำไปใช้ในภาคอุตสาหกรรมร้อยละ 17 ซึ่งอุตสาหกรรมที่มีการนำไปใช้มากที่สุดคือ อุตสาหกรรมผลิตปูนซีเมนต์ในกระบวนการผลิตปูนเม็ด (Clinker)

การใช้ถ่านหินนำเข้า ในปี 2556 มีปริมาณการใช้ที่ระดับ 10,816 พันตันเทียบเท่าน้ำมันดิบ ลดลงร้อยละ 5.9 โดยภาคอุตสาหกรรมเป็นสาขาหลักที่มีการใช้ถ่านหินมากที่สุด คิดเป็นสัดส่วนร้อยละ 55 มีการใช้ลดลงร้อยละ 10.3 ส่วนหนึ่งเป็นผลมาจากฐานการขยายตัวที่สูงเนื่องจากราคาที่ลดลงในปี 2555 ถ่านหินนำเข้าส่วนที่เหลือนำไปใช้ในภาคการผลิตไฟฟ้าของ IPP และ SPP ในสัดส่วนร้อยละ 32 และ 13 ตามลำดับ

ไฟฟ้า

กำลังผลิตในระบบไฟฟ้า ในปี 2556 อยู่ที่ 33,681 เมกะวัตต์ เพิ่มขึ้นจากปี 2555 ซึ่งอยู่ที่ 32,600 เมกะวัตต์ หรือเพิ่มขึ้น 1,081 เมกะวัตต์ โดยการไฟฟ้าฝ่ายผลิตแห่งประเทศไทยมีกำลังผลิตในระบบไฟฟ้าสูงสุดคิดเป็นสัดส่วนร้อยละ 45 รองลงมาคือผู้ผลิตไฟฟ้าอิสระ/ผู้ผลิตไฟฟ้ารายใหญ่ (IPP) ร้อยละ 38 ผู้ผลิตไฟฟ้ารายเล็ก (SPP) ร้อยละ 10 และซื้อจากต่างประเทศร้อยละ 7

ความต้องการพลังไฟฟ้าสูงสุดสุทธิในระบบของ กฟผ. ปี 2556 เกิดขึ้น ณ วันพฤหัสบดีที่ 16 พฤษภาคม 2556 เวลา 14.00 น. อยู่ที่ระดับ 26,598 เมกะวัตต์ มีค่าสูงกว่าพลังไฟฟ้าสูงสุดของปี 2555 ซึ่งเกิดเมื่อวันพฤหัสบดีที่ 26 เมษายน 2555 เวลา 14.30 น. ซึ่งอยู่ที่ระดับ 26,121 เมกะวัตต์ อยู่ 477 เมกะวัตต์ หรือเพิ่มขึ้นร้อยละ 1.8

การผลิตไฟฟ้า ปริมาณการผลิตและการรับซื้อไฟฟ้าของ กฟผ. ในปี 2556 มีจำนวน 177,398 กิกะวัตต์ชั่วโมง เพิ่มขึ้นจากปี 2555 ร้อยละ 0.2 โดยส่วนใหญ่เป็นการผลิตไฟฟ้าจากก๊าซธรรมชาติคิดเป็นสัดส่วนร้อยละ 67 รองลงมาคือ ลิกไนต์/ถ่านหินคิดเป็นสัดส่วนร้อยละ 20 ไฟฟ้านำเข้า พลังงานหมุนเวียนมีสัดส่วนร้อยละ 9 พลังน้ำคิดเป็นสัดส่วนร้อยละ 3 และน้ำมันคิดเป็นสัดส่วนร้อยละ 1

การใช้ไฟฟ้า ในปี 2556 อยู่ที่ระดับ 164,341 กิกะวัตต์ชั่วโมง เพิ่มขึ้นจากปี 2555 ร้อยละ 1.6 โดยการใช้ไฟฟ้าในภาคอุตสาหกรรมที่มีสัดส่วนการใช้มากที่สุดคิดเป็นร้อยละ 46 มีการใช้ไฟฟ้าเพิ่มขึ้นร้อยละ 1.4 ภาคครัวเรือนและภาคธุรกิจมีสัดส่วนการใช้รองลงมาคิดเป็นร้อยละ 23 มีการใช้ไฟฟ้าเพิ่มขึ้นร้อยละ 3.2 และ 0.8 ตามลำดับ และการใช้ไฟฟ้าในส่วนราชการและองค์กรไม่ที่แสวงหากำไรเพิ่มขึ้นร้อยละ 1.4 ในขณะที่ภาคเกษตรกรรมมีการใช้ไฟฟ้าลดลงร้อยละ 6.2 ทั้งนี้การใช้ไฟฟ้าแบ่งเป็นเขตนครหลวงและเขตภูมิภาค ดังนี้

เขตนครหลวง การใช้ไฟฟ้าปี 2556 อยู่ที่ระดับ 47,984 กิกะวัตต์ชั่วโมง ลดลงร้อยละ 0.5 โดยการใช้ไฟฟ้าในเขตนครหลวงลดลงในทุกสาขา ทั้งนี้ ภาคอุตสาหกรรมมีสัดส่วนการใช้ไฟฟ้าสูงสุด คือ คิดเป็นร้อยละ 29 มีการใช้ลดลงร้อยละ 3.3

เขตภูมิภาค การใช้ไฟฟ้าปี 2556 อยู่ที่ระดับ 114,619 กิกะวัตต์ชั่วโมง เพิ่มขึ้นร้อยละ 2.6 การใช้ไฟฟ้าเพิ่มขึ้นเกือบทุกสาขายกเว้นภาคเกษตรกรรมมีการใช้ไฟฟ้าลดลงร้อยละ 6.2 จากฐานการขยายตัวที่สูงในปีที่แล้ว ส่วนภาคอุตสาหกรรมซึ่งมีสัดส่วนการใช้ไฟฟ้าสูงที่สุด คิดเป็นร้อยละ 50 มีการใช้ไฟฟ้าเพิ่มขึ้นร้อยละ 1.3

ค่าเอฟที ในปี 2556 มีการเปลี่ยนแปลง ดังนี้

ครั้งที่ 1 : ช่วงเดือนมกราคม - เมษายน 2556 อยู่ที่อัตรา 52.04 สตางค์ต่อหน่วย ปรับเพิ่มขึ้น 4.04 สตางค์ต่อหน่วย เพื่อเกลี่ยภาระต้นทุนค้างจ่ายแก่ กฟผ. ที่แบกรับภาระการลดค่าไฟฟ้าช่วงน้ำท่วมในช่วงปลายปี 2554 และเตรียมการรองรับต้นทุนด้านเชื้อเพลิงที่จะเพิ่มขึ้นจากการที่ประเทศเมียนมาร์หยุดจ่ายก๊าซธรรมชาติในเดือนเมษายน

ครั้งที่ 2 : ช่วงเดือนพฤษภาคม - สิงหาคม 2556 อยู่ที่อัตรา 46.92 สตางค์ต่อหน่วย ปรับลดลง 5.12 สตางค์ต่อหน่วย เนื่องจากราคาก๊าซธรรมชาติและน้ำมันเตาในตลาดโลกปรับตัวลดลง ประกอบกับปัจจัยเงินบาทแข็งค่าขึ้น รวมทั้งการใช้น้ำมันเตาและน้ำมันดีเซลทดแทนก๊าซธรรมชาติช่วงที่ประเทศเมียนมาร์หยุดจ่ายก๊าซน้อยกว่าแผนที่กำหนดไว้

ครั้งที่ 3 : ช่วงเดือนกันยายน - ธันวาคม 2556 อยู่ที่อัตรา 54.00 สตางค์ต่อหน่วย ปรับเพิ่มขึ้น 7.08 สตางค์ต่อหน่วย เนื่องจากการอ่อนค่าของเงินบาท

สิ่งพิมพ์รัฐบาล
สมบัติห้องสมุดรัฐสภา

Chapter 1 : Thailand's Energy Situation in 2013

Overview

Thailand's GDP growth rate in 2013, estimated by the National Economic and Social Development Board (NESDB), was at 2.9%. From the first quarter through the third quarter, Thailand's economy grew by 3.7 percent due to expansion of the two major sectors, the public construction sector and services sector. The expected number of foreign tourists was 26.7 million, or 19.6 percent increase from the previous year, that was led by an expansion in hotels and restaurants and the growth of private consumption. The hotel and restaurant sector increased 12.1 percent, and the private construction grew 4.6%, driven by an investment in property in Bangkok area and many major cities, along the area nearby electric rail or high-speed rail from the government project plan. And the agricultural sector grew 1.4% from rice plantations and timber, as well as the expansion of livestock production. The effects on the overall energy demand of the country can be summarized as follows.

Consumption, Production and Import of Primary Commercial Energy

The total primary energy consumption in 2013 increased by 0.7% from that in 2012, or at a level of 2,001 thousand barrels per day (KBD) of crude oil equivalent. Natural gas accounted for the largest share of energy consumption, i.e. 46% or an increase of 2.0%, due to the increasing number of NGV vehicles. Oil consumption was the second largest, held a share of 36%, or an increase of 2.5% as some of gasoline and diesel consumption was replaced by NGV. As for coal and lignite, their consumption decreased by 3.2%; whereas the demand for hydropower and imported electricity decreased by 17.9%.

The total primary energy production in 2013 decreased by 0.4% from that in 2012, or at a level of 1,078 thousand barrels per day (KBD) of crude oil equivalent by the decrease in the production of lignite and hydropower. While energy net import increase 3.3% or at a level of 1,121 thousand barrels per day (KBD) of crude oil equivalent from the increase imported crude oil, natural gas, natural gas liquids and electricity. Commercial energy imports (net) accounted for 56% of the primary commercial energy consumption.

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Consumption, Production and Import of Primary Commercial Energy

Unit : KBD of crude oil equivalent

	2009	2010	2011	2012	2013
Consumption	1,663	1,782	1,854	1,981	2,001
Production	895	989	1,018	1,082	1,078
Import (Net)	922	1,001	1,018	1,082	1,121
Import/Consumption (%)	55	56	55	55	56
Growth Rate (%)					
Consumption	2.8	7.2	4.0	6.9	0.7
Production	5.5	10.5	2.9	6.3	-0.7
Import (Net)	-3.2	8.5	1.8	6.3	3.3
GDP (%)	-2.3	7.8	0.1	6.5	2.9

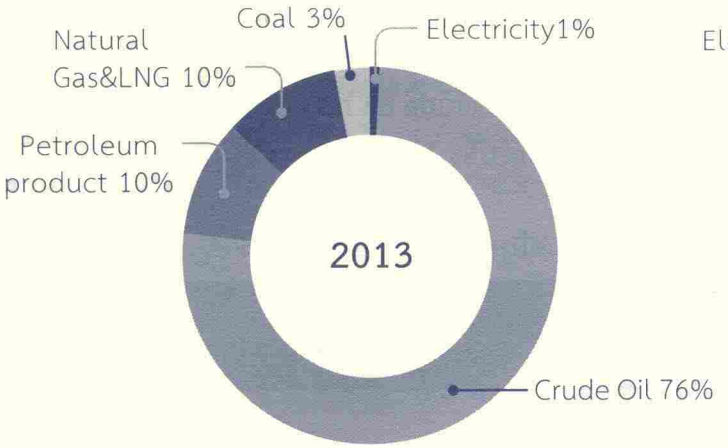
Consumption of Primary Commercial Energy	Petroleum	Natural Gas & LNG	Coal/ Lignite	Hydro/ Imported Electricity	Total
Growth Rate (%)	2.5	2.0	-3.2	-17.9	0.7

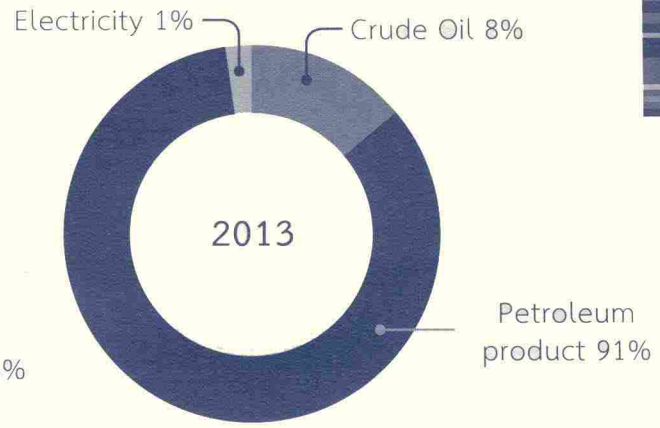
In 2013 Expenditure on Final Energy Consumption 2,129 Billion Baht (increase 1.0%)

Final Energy Consumption	Petroleum products	Electricity	Natural Gas	Lignite/ Coal	Renewable
Value of Consumption (Million Baht)	1,325,898	537,695	121,005	26,096	118,529
Growth Rate (%)	1.1	2.5	-1.2	-17.4	0.2

Expenditure on Energy. A total of THB 2,129 billion was spent on energy consumption, an increase of THB 21 billion or 1.0%, compared to the previous year. The consumption value of petroleum products, electricity and renewable energy increased since the energy price, on average, increased when compared with the 2012 level. While the value of consumption of natural gas and lignite/coal decreased by 1.2% and 17.4% respectively.

Value of Energy Import & Export





Value of Energy Import 2013
1,416 Billion Baht
(decrease 2.1%)

Value of Energy Export 2013
376 Billion Baht
(decrease 6.3%)

2013	Crude Oil	Petroleum product	NG+LNG	Coal	Electricity
Value of Import (Million Baht)	1,072,221	138,501	146,738	39,714	18,546
Growth (%)	-4.2	11.5	4.6	-15.0	20.1

2013	Crude Oil	Petroleum product	Electricity
Value of Export (Million Baht)	29,115	342,208	4,424
Growth (%)	-43.5	-0.6	-15.3

Energy Import. The total energy import in 2013 was worth THB 1,416 billion, decreasing by THB 30 billion or 2.1% from the previous year. The value of crude oil import decreased as the import price decreased from US$ 114 a barrel in 2012 to US$ 110 a barrel this year. Similarly, the import value of petroleum products, natural gas and electricity import also increased, but the value of coal import decreased by 15.0% due to higher prices of coal import in 2013.

Energy Export. In 2013, the value of total energy export was THB 376 billion, decreased around THB 25 billion or 6.3% from 2012. The exports of all energy types declined, especially crude oil, the second largest with a share of 8%, decreased for 43.5%.and the petroleum products accounted for 91% the largest share of energy export, in amount of THB 342 billion, with a decrease of 0.6%.

Energy Situation by Energy Type

Crude Oil; crude oil imports in 2013 was at 868 KBD or 0.6% increase. However, the import value was THB 1,072 billion, or 4.2% decrease, as the price of crude oil had declined around 3.7%, from an average import price at US$ 114 a barrel in 2012 to US$ 110/barrel in 2013.

Crude Oil Import

Crude Oil Import	2010	2011	2012	2013	Growth Rate (%)		
					2011	2012	2013
Quantity (KBD)	816	794	860	868	-2.7	8.3	0.6
Average Price ($ US/barrel)	79	110	114	110	38.7	3.4	-3.7
Value (Billion THB)	751	977	1,119	1,072	30.1	14.5	-4.2

Petroleum Product Consumption

Unit: M.Litres/Day

Product	2010	2011	2012	2013	Growth Rate (%)		
					2011	2012	2013
Gasoline	20.3	20.1	21.1	22.5	-1.1	5.0	6.3
Diesel	50.6	52.6	56.2	57.2	3.8	7.1	1.5
Jet petroleum	12.9	13.9	13.9	15.2	7.7	0.2	9.2
Fuel oil	7.2	6.7	6.5	5.9	-6.0	-3.7	-8.8
LPG*	30.4	35.0	37.4	38.2	15.0	7.2	1.8
Total	**121.4**	**128.3**	**135.0**	**139.0**	**5.6**	**5.5**	**2.6**

* Including Propane and Butane

Petroleum Products. Compared with 2012, the total-petroleum-product consumption in 2013 increased by 2.6%. Almost all type of petroleum products consumption increased, except fuel oil which decreased by 8.8%. Gasoline consumption increased by 6.3% due to a high growth of brand-new-car sales in 2012 but delivery to customers end in mid-2013, and diesel and LPG slightly increased by 1.5% and 1.8% respectively. Jet petroleum demand increased by 9.2% as a result of the intensive program of tourism promotion in 2013.

• **Gasoline** - The average consumption of gasoline in 2013 was at a level of 22.5 million litres per day or an increase of 6.6% compared with that in 2012.

The volume of **gasoline octane 95** in 2013 was 1.70 million liters per day, compared to 0.12 million liters per day in 2012 because gasoline octane 91 had been no longer for sale in the market since April 2013. Then gasoline octane 91 cars had to switch to use gasoline octane 95 instead.

The volume of **gasohol** consumption in 2013 was 20.5 million liters per day, compared to 12.2 million liters per day in 2012. The consumption increased in all type of gasohol because of cheaper price than gasoline and the cancellation gasoline octane 91. Anyway a key factor was an increase in a number of brand new cars since December 2012 according to tax-return policy for the first-car buyer, along with a reduction of the excise-tax policy for a car that using alternative fuels with a cylinder capacity not exceeding 3,000 cubic centimeters for gasohol 95(E20) and 95(E85) use.

• **Diesel** - Diesel consumption in 2013 was at an average of 57.2 million liters per day or an increase of 1.5%. The consumption has not much increased because of not only the high-base effect from last year, First Car Tax Rebate Scheme, but also a decline of a number of diesel vehicles, especially truck to switch to use NGV instead. The government has fixed the retail price of diesel at a level not exceeding 30 Baht per liter, and diesel price in Bangkok remained unchanged since February 2012, at 29.99 Baht per liter.

• **Jet Oil** - in 2013 jet oil consumption was 15.2 million liters per day, or 9.2% increase from the previous year due to the growth in Tourist industry. Tourist visited Thailand in 2013 around 15.4 million people accounted for 8.7% increase.

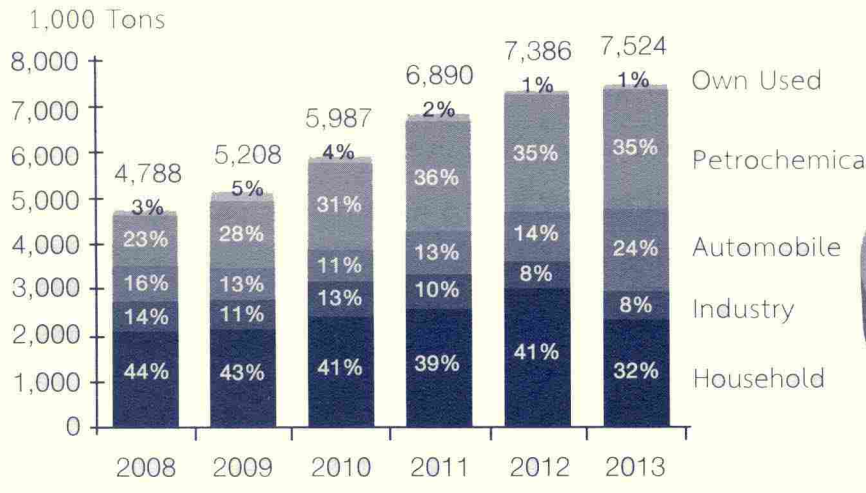
• **LPG, Propane and Butane** - The demand of these products increased in all sectors, the demand level in 2013 was at 7,524 thousand tons, growing by 1.9%. The sector consumption as the follows.

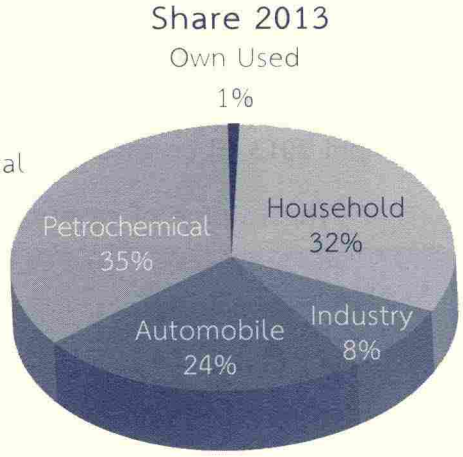
- The use as feedstock in the petrochemical industry accounted for the largest share of the total demand, i.e. 35%, with growth rate of 3.4%, being at 2,641 thousand tons.

- The household consumption, the largest share of total demand in the past, was the second largest share in 2013, holding a share of 32%. The consumption decreased by 20.9%.

- The use as fuel for vehicles accounted for a share of 24%, increased highly by 67.3%. The proportion of LPG in household sector decreased corresponds to a proportion which increased in transportation (as fuel for vehicles). It was as a result of not only the increase in household LPG price by 0.50 baht a month since September 2013, but also the higher strict measures to control and suppress the illegal sale of household LPG in transportation sector and the illegal export of LPG to neighboring countries.

LPG Consumption by Sector



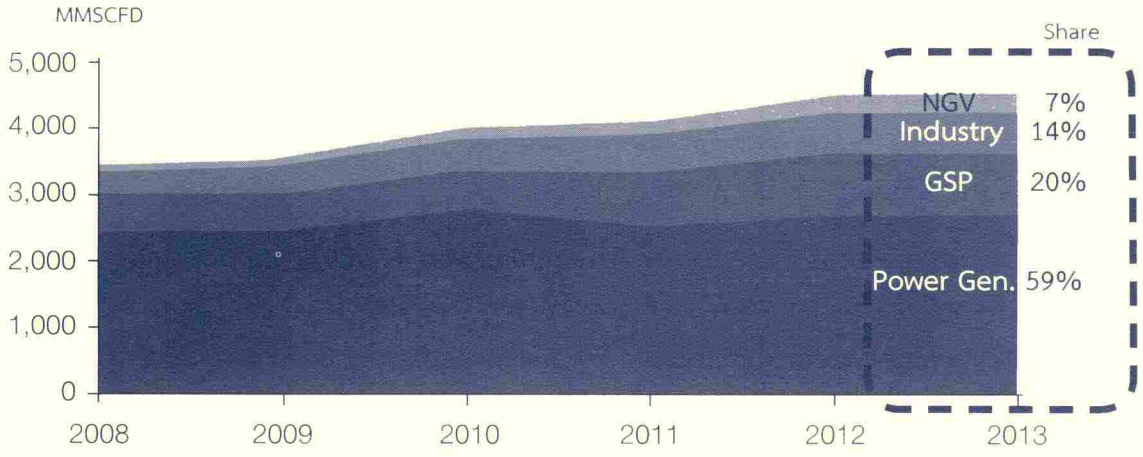


2013	Household	Industry	Automobile	Petro-chemical	Own Used	Total
Consumption (Thousand Tons)	2,409	601	1,775	2,641	98	7,524
Growth Rate (%)	-20.9	-2.0	67.3	3.4	-10.6	1.9

Natural Gas Consumption. In 2013, the demand of natural gas was at a level of 4,568 MMSCFD, increasing by 0.5% from that in 2012 due to growing demand in almost all sectors, excepted gas separation plants. Natural gas was used in various manufacturing sectors and in power sector. Power generation was the largest share 59%, increased by 0.7%. Natural gas demand in the industrial sector and for a use as a fuel for vehicles (NGV) increased by 0.9% and 10.2% respectively. Natural gas as feedstock in the gas separation plant (GSP), non-energy, declined by 3.2%.

In 2013, the Small Power Producers (SPP) with combined heat and power plants type (Cogeneration) that uses natural gas as fuel started operation as total capacity 1,170 MW. Natural gas demand for electricity generation in the SPP resulted to increase from 419 MMSCFD in 2012 to 593 MMSCFD in 2013 or 41.5% increase.

Natural Gas Consumption by Sector



2013	Power Generation	Gas Separtion Plant	Industry	NGV	Total
Consumption (MMSCFD)	2,695	930	635	307	4,568
Growth Rate (%)	0.7	-3.2	0.9	10.2	0.5

Lignite/Coal Consumption. In 2013, lignite/coal consumption all together were 15,846 ktoe (thousand tons of crude oil equivalents), increasing by 3.4% from that in 2012, divided into consumption of lignite at 5,030 thousand tons of crude oil equivalents and of imported coal at 10,816 thousand tons of crude oil equivalents. Of the total lignite consumption, 83% was used for power generation by EGAT; and the remaining 17% was used in the industrial sector, e.g. cement manufacturing, paper, food, etc.

Electricity

Installed Capacity. Thailand's installed capacity in 2013 was at 33,681 MW. The peak load occurred on Thursday, 16 May 2013, at 14.00 hrs, reaching 26,598 MW which was 477 MW higher than the 2012 peak load (26,121 MW), or an increase of 1.8%.

Power Generation. The amount of power generation, together with power purchase by EGAT, in 2013 totaled 177,398 gigawatts-hours (GWh), increasing by 0.2% compared with that in the previous year. The share of individual fuel types used for power generation was as follows: natural gas, 67%; .ignite/coal, 20%; hydropower, 3%; import and renewable energy, 9%; and oil, 1%.

Power Demand. In 2013, power demand totaled 164,341 GWh, increasing by 1.6% from that in 2012. Industrial sector accounted for the largest share, i.e. 46% or an increase of 1.4%, households and businesses with a share of 23%, accounted for an increase of 3.2% and 0.8% respectively. Demand for power of the government and non-profit sectors raised by 1.4% while agriculture declined around 6.2%. Thailand's power consumption in metropolitan areas (MEA) and that in provincial areas (PEA) were the follows.

Metropolitan Areas - The total consumption was 47,984 GWh, or somewhat decrease of 0.5%. The power consumption in MEA area deceased in every sector. Manufacturing sector had the largest share of 29% and it's consumption in 2013 declined around 3.3%.

Provincial Areas - The total consumption in this area was 114,619 GWh, 2.6% increase. Electricity consumption increased in almost every sector, excepted in agricultural sector with 6.2% decrease. In the industrial sector which had the largest share of 50%, the electricity consumption increased by 1.3%.

The Automatic Tariff Adjustment Mechanism (Ft). In the period of January - April 2013 (4-month long), the Ft rate was at 0.5204 Baht per unit. After that, in the period of May - August 2013, the Ft rate was at 0.4692 Baht per unit. During September - December 2013, the last period of the year, Ft-adjusted increased again to 0.5400 Baht per unit.

Table 1.1-1

Production, Consumption and Import (Net) of Primary Commercial Energy

Unit : BBL/Day (Crude Oil Equivalent)

								Growth Rate (%)						
	2007	2008	2009	2010	2011	2012	2013	2007	2008	2009	2010	2011	2012	2013
Production	793,721	848,354	894,765	988,589	1,017,647	1,082,135	1,077,848	3.7	6.9	5.5	10.5	2.9	6.3	-0.7
Crude	134,563	143,935	154,041	153,174	139,991	148,977	149,481	4.4	7.0	7.0	-0.6	-8.6	6.4	0.1
Condensate	71,760	77,265	76,361	80,663	76,576	81,584	82,967	4.8	7.7	-1.2	5.6	-5.1	6.5	1.4
Natural Gas	451,905	499,246	537,370	629,965	642,689	718,065	726,714	6.9	10.5	7.6	17.2	2.0	11.7	0.9
Lignite	100,152	97,138	96,072	101,052	123,167	96,185	94,661	-8.6	-3.0	-1.1	5.2	21.9	-21.9	-1.9
Hydro	35,341	30,770	30,921	23,735	35,224	37,324	24,025	0.1	-12.9	0.5	-23.2	48.4	6.0	-35.8
Import (Net)	997,647	951,994	922,035	1,000,632	1,018,109	1,082,444	1,121,300	2.0	-4.6	-3.2	8.5	1.8	6.3	3.3
Crude	752,196	765,697	762,294	786,243	761,723	819,173	843,173	-1.5	1.8	-0.4	3.1	-3.1	7.5	2.7
Condensate														
Petroleum Products	-105,480	-166,681	-193,992	-162,977	-133,279	-155,152	-142,354	15.6	58.0	16.4	-16.0	-18.2	16.4	-8.5
Coal	180,274	199,304	204,976	211,422	204,254	229,556	216,724	28.5	10.6	2.9	3.1	-3.4	12.4	-5.9
Electricity	7,700	4,789	4,239	12,425	18,457	17,973	21,515	-13.2	-37.8	-11.5	193.1	48.6	-2.6	19.4
NG & LNG	162,957	148,885	144,518	153,519	166,954	170,894	182,242	4.2	-8.6	-2.9	6.2	8.8	2.4	6.4
Stock Change	-44,837	-38,522	-94,140	-83,022	-128,328	-147,940	-140,344							
Consumption	1,603,870	1,617,994	1,662,572	1,782,055	1,853,746	1,981,126	2,000,863	3.8	0.9	2.8	7.2	4.0	6.9	0.7
Petroleum Products	666,775	633,720	642,701	652,464	673,881	709,223	729,073	-1.0	-5.0	1.4	1.5	3.3	5.2	2.5
NG & LNG	614,667	647,953	681,717	783,291	809,449	888,761	908,746	6.2	5.4	5.2	14.9	3.3	9.8	2.0
Coal	180,274	199,304	204,962	211,422	204,254	229,556	216,724	28.5	10.6	2.8	3.2	-3.4	12.4	-5.9
Lignite	99,113	101,458	98,032	98,718	112,481	98,289	100,780	-7.8	2.4	-3.4	0.7	13.9	-12.6	2.3
Hydro & Imported Elec.	43,041	35,559	35,160	36,160	53,681	55,297	45,540	-2.5	-17.4	-1.1	2.8	48.5	3.0	-17.9
Import/Consumption	62	59	55	56	55	55	56							
Non - Energy Use	232,335	220,876	248,368	290,188	310,338	331,393	338,629	7.7	-4.9	12.5	16.8	6.9	6.8	1.9

Table 1.1-1Y

Production, Consumption and Import (Net) of Primary Commercial Energy

Unit : BBL/Day (Crude Oil Equivalent)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Production	**221,339**	**250,465**	**290,923**	**309,599**	**331,936**	**368,138**	**392,644**	**450,073**	**523,408**	**524,089**	**547,787**	**588,596**
Crude	21,351	23,968	24,503	26,317	24,940	26,553	23,763	26,419	27,463	29,420	34,006	57,937
Condensate	16,784	17,538	19,799	24,146	26,192	27,863	27,271	32,436	40,774	42,177	45,171	47,528
Natural Gas	104,075	113,361	140,605	149,430	168,747	186,479	197,527	227,592	281,002	305,034	334,169	350,069
Lignite	54,660	73,846	86,017	91,295	96,021	107,695	114,816	131,686	142,732	124,868	119,305	106,981
Hydro	24,469	21,752	19,999	18,411	16,036	19,548	29,267	31,940	31,437	22,590	15,136	26,081
Import (Net)	**301,537**	**354,756**	**371,980**	**419,731**	**492,902**	**540,526**	**640,253**	**739,280**	**709,378**	**621,827**	**657,304**	**684,592**
Crude	204,186	210,001	220,739	277,501	323,859	372,885	452,114	633,170	728,757	679,728	698,895	643,063
Condensate	-14,459	-15,157	-17,039	-14,532	-10,227	-16,662	-12,871	-21,935	-21,452	-16,405	-11,749	-4,423
Petroleum Products	104,984	154,493	161,350	149,664	166,417	163,753	170,416	77,912	-40,379	-65,105	-75,019	-40,892
Coal	5,691	4,264	5,871	6,247	11,704	19,001	29,356	48,717	41,133	20,424	40,997	52,177
Electricity	1,135	1,155	1,059	851	1,149	1,549	1,238	1,416	1,319	2,796	3,910	5,088
Natural Gas										389	270	29,579
Stock Change	**8,754**	**439**	**-7,222**	**-2,954**	**3,222**	**-6,985**	**8,397**	**32,823**	**-36,720**	**-30,508**	**-41,583**	**-10,736**
Consumption	**510,109**	**600,472**	**664,612**	**718,553**	**804,947**	**899,880**	**1,007,874**	**1,120,759**	**1,175,656**	**1,086,464**	**1,118,679**	**1,147,162**
Petroleum Products	323,925	386,018	410,794	451,899	509,873	566,110	635,902	685,204	681,331	610,785	611,174	578,832
Natural Gas	104,075	113,361	140,605	149,430	168,747	186,479	197,527	227,592	281,003	305,423	334,439	379,610
Coal	5,691	4,265	5,872	6,248	11,704	19,001	29,356	48,717	41,133	20,424	40,997	52,177
Lignite	50,814	73,921	86,283	91,714	97,438	107,193	114,584	125,890	139,433	124,446	113,023	105,374
Hydro & Imported Elec.	25,604	22,907	21,058	19,262	17,185	21,097	30,505	33,356	32,756	25,386	19,046	31,169
Import/Consumption	**59**	**59**	**56**	**58**	**61**	**60**	**64**	**66**	**60**	**57**	**59**	**60**
Non-Energy Use	**4,013**	**4,310**	**5,513**	**13,731**	**16,669**	**15,769**	**16,626**	**35,771**	**93,850**	**89,960**	**127,995**	**136,762**

Table 1.1-1Y (Cont.)

Production, Consumption and Import (Net) of Primary Commercial Energy

Unit : BBL/Day (Crude Oil Equivalent)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Production	**594,367**	**631,698**	**666,413**	**676,286**	**737,579**	**765,110**	**793,721**	**848,354**	**894,765**	**988,589**	**1,017,647**	**1,082,135**	**1,077,848**
Crude	61,914	75,567	96,322	85,516	113,890	128,950	134,563	143,935	154,041	153,174	139,991	148,977	149,481
Condensate	47,188	48,897	57,032	62,075	63,243	68,488	71,760	77,265	76,361	80,663	76,576	81,584	82,967
Natural Gas	341,406	356,897	373,241	387,695	411,849	422,782	451,905	499,246	537,370	629,965	642,689	718,065	726,714
Lignite	116,451	117,635	107,822	114,898	123,422	109,599	100,152	97,138	96,072	101,052	123,167	96,185	94,661
Hydro	27,408	32,702	31,996	26,102	25,175	35,291	35,341	30,770	30,921	23,735	35,224	37,324	24,025
Import (Net)	**750,732**	**797,090**	**868,283**	**988,292**	**979,921**	**978,120**	**997,647**	**951,994**	**922,035**	**1,000,632**	**1,018,109**	**1,082,444**	**1,121,300**
Crude	674,211	682,197	709,070	813,422	762,121	763,858	752,196	765,697	762,294	786,243	761,723	819,173	843,173
Condensate	-3,482	-4,560											
Petroleum Products	-76,091	-66,410	-57,345	-55,733	-51,046	-91,286	-105,480	-166,681	-193,992	-162,977	-133,279	-155,152	-142,354
Coal	61,850	70,025	88,931	94,170	107,164	140,264	180,274	199,304	204,976	211,422	204,254	229,556	216,724
Electricity	4,973	4,856	4,278	5,795	7,494	8,873	7,700	4,789	4,239	12,425	18,457	17,973	21,515
Natural Gas	89,271	110,982	123,349	130,638	154,188	156,411	162,957	148,885	144,518	153,519	166,954	170,894	182,242
Stock Change	**8,762**	**-4,166**	**-32,091**	**-12,553**	**-21,594**	**-17,340**	**-44,837**	**-38,522**	**-94,140**	**-83,022**	**-128,328**	**-147,940**	**-140,344**
Consumption	**1,199,134**	**1,282,157**	**1,348,049**	**1,450,894**	**1,520,122**	**1,544,741**	**1,603,870**	**1,617,994**	**1,662,572**	**1,782,055**	**1,853,746**	**1,981,126**	**2,000,863**
Petroleum Products	560,322	589,160	623,627	686,612	689,418	673,786	666,775	633,720	642,701	652,464	673,881	709,223	729,073
Natural Gas	430,562	467,743	496,438	518,173	565,854	579,007	614,667	647,953	681,717	783,291	809,449	888,761	908,746
Coal	61,850	70,025	88,931	94,170	107,157	140,264	180,274	199,304	204,962	211,422	204,254	229,556	216,724
Lignite	114,019	117,671	102,779	120,042	125,024	107,520	99,113	101,458	98,032	98,718	112,481	98,289	100,780
Hydro & Imported Elec.	32,381	37,558	36,274	31,897	32,669	44,164	43,041	35,559	35,160	36,160	53,681	55,297	45,540
Import/Consumption	**63**	**62**	**64**	**68**	**64**	**63**	**62**	**59**	**55**	**56**	**55**	**55**	**56**
Non-Energy Use	**137,203**	**150,797**	**218,738**	**226,237**	**218,972**	**215,829**	**232,335**	**220,876**	**248,368**	**290,188**	**310,338**	**331,393**	**338,629**

Table 1.1-2Y
Primary Commercial Energy Production (Physical Unit)

Year	Hydro (GWh)	Lignite (Tons)					NG (MMSCF)	Condensate (1,000 Barrels)	Crude Oil (1,000 Barrels)					
		EGAT			Others	Total			Benjamas	Sirikit	Tantawan	Fang	Others	Total
		Mae-Moh	Krabi	Total										
1989	5,512	6,541,191	318,585	6,859,776	2,150,146	9,009,922	211,399	6,731		7,372		421		7,793
1990	4,900	9,652,991	156,262	9,809,254	2,629,219	12,438,473	230,261	7,034		8,307		441		8,748
1991	4,505	11,513,775	242,699	11,756,475	2,889,540	14,646,015	285,599	7,940		8,308		450	186	8,944
1992	4,159	11,844,352	253,950	12,098,302	3,290,259	15,388,561	304,356	9,710		8,601		489	542	9,632
1993	3,613	11,221,088	211,800	11,432,888	4,105,039	15,537,927	342,762	10,504		8,054		469	580	9,103
1994	4,404	11,906,553	225,065	12,131,618	4,963,253	17,094,871	378,779	11,174		8,119		531	1,042	9,692
1995	6,593	13,191,880	144,232	13,336,112	5,084,686	18,420,798	401,221	10,937		6,435		514	1,724	8,674
1996	7,215	16,381,301		16,381,301	5,309,093	21,690,394	463,555	13,044		6,844		472	2,353	9,669
1997	7,082	17,692,415		17,692,415	5,746,141	23,438,556	570,777	16,352		6,450	1,962	483	1,129	10,024
1998	5,089	14,419,327		14,419,327	5,576,868	19,996,195	619,591	16,914		7,540	2,268	376	554	10,738
1999	3,410	12,021,265		12,021,265	6,240,043	18,261,308	678,770	18,115	1,176	8,535	1,846	363	492	12,412
2000	5,891	13,621,615	30,000	13,651,615	4,134,132	17,785,747	713,015	19,113	8,914	8,595	2,728	321	647	21,205
2001	6,174	15,314,436	133,000	15,447,436	4,159,559	19,606,995	693,469	18,924	10,551	7,742	2,897	240	1,168	22,598
2002	7,367	14,994,739	187,000	15,181,739	4,420,245	19,601,984	724,936	19,609	12,823	7,516	2,062	241	4,940	27,582
2003	7,208	15,591,841	146,000	15,737,841	3,105,554	18,843,395	758,134	22,872	17,985	6,982	1,895	309	7,986	35,158
2004	5,896	16,561,572	95,868	16,657,440	3,402,404	20,059,844	789,651	24,963	14,412	6,240	1,648	291	8,707	31,299
2005	5,671	16,534,142	36,522	16,570,664	4,307,512	20,878,176	836,555	25,363	16,724	6,252	2,427	292	15,875	41,570
2006	7,950	15,763,798	56,000	15,819,798	3,250,810	19,070,608	858,763	27,466	18,251	6,853	3,028	354	18,580	47,067
2007	7,961	16,117,809	27,112	16,144,921	2,094,255	18,239,176	917,917	28,778	15,378	7,486	2,812	354	23,085	49,115
2008	6,951	16,420,847	23,248	16,444,095	1,651,290	18,095,385	1,016,856	31,071	16,455	7,665	2,381	431	25,748	52,680
2009	6,966	15,631,766		15,631,766	1,934,334	17,566,100	1,091,516	30,623	10,609	7,783	2,262	454	35,116	56,225
2010	5,347	15,987,263		15,987,263	2,270,799	18,258,062	1,279,597	32,349	9,733	7,960	1,409	421	36,386	55,909
2011	7,935	17,558,336		17,558,336	3,768,770	21,327,106	1,305,442	30,710	9,883	8,386	1,981	381	30,466	51,097
2012	8,431	16,590,461		16,590,461	1,475,968	18,066,429	1,462,542	32,808	9,311	10,403	1,372	346	33,094	54,526
2013	5,412	17,071,961		17,071,961	1,038,802	18,110,763	1,476,114	33,273	7,538	12,004	1,005	349	33,664	54,561

Table 1.1-3Y
Primary Commercial Energy Production

Unit : KTOE

Year	Hydro	Lignite					NG	Condensate	Crude Oil						
		EGAT			Non EGAT	Total			Benjamas	Sirikit	Tantawan	Fang	Others	Total	Grand Total
		Mae-Moh	Krabi	Total											
1989	1,221	1,620	82	1,702	937	2,639	5,194	838		1,008		58		1,066	10,958
1990	1,086	2,391	40	2,431	1,146	3,577	5,658	875		1,136		60		1,196	12,392
1991	998	2,852	63	2,915	1,260	4,175	7,017	988		1,136		62	25	1,223	14,401
1992	921	2,934	65	2,999	1,434	4,433	7,478	1,208		1,176		67	74	1,317	15,357
1993	800	2,779	55	2,834	1,790	4,624	8,422	1,307		1,101		64	79	1,245	16,398
1994	976	2,949	58	3,007	2,164	5,171	9,307	1,391		1,110		73	142	1,325	18,170
1995	1,461	3,268	37	3,305	2,217	5,522	9,858	1,361		880		70	236	1,186	19,388
1996	1,598	4,058		4,058	2,314	6,372	11,390	1,623		936		65	322	1,322	22,305
1997	1,569	4,382		4,382	2,505	6,887	14,024	2,035		882	268	66	154	1,371	25,886
1998	1,127	3,572		3,572	2,431	6,003	15,223	2,105		1,031	310	51	76	1,468	25,926
1999	755	2,978		2,978	2,720	5,698	16,677	2,254	161	1,167	252	50	67	1,697	27,081
2000	1,305	3,374	8	3,382	1,802	5,184	17,519	2,378	1,219	1,175	373	44	88	2,899	29,285
2001	1,368	3,793	34	3,827	1,813	5,640	17,039	2,355	1,443	1,059	396	33	160	3,090	29,492
2002	1,632	3,714	48	3,762	1,927	5,689	17,812	2,440	1,753	1,028	282	33	675	3,771	31,344
2003	1,597	3,862	38	3,900	1,354	5,254	18,627	2,846	2,459	955	259	42	1,092	4,807	33,131
2004	1,306	4,102	25	4,127	1,483	5,610	19,402	3,106	1,971	853	225	40	1,190	4,280	33,704
2005	1,256	4,096	9	4,105	1,878	5,983	20,554	3,156	2,287	855	332	40	2,171	5,684	36,633
2006	1,761	3,905	14	3,919	1,417	5,336	21,100	3,418	2,496	937	414	48	2,541	6,435	38,050
2007	1,764	3,992	7	3,999	913	4,912	22,553	3,581	2,103	1,024	384	48	3,156	6,716	39,526
2008	1,540	4,067	6	4,073	720	4,793	24,984	3,867	2,250	1,048	326	59	3,521	7,203	42,387
2009	1,543	3,872		3,872	843	4,715	26,819	3,811	1,451	1,064	309	62	4,802	7,688	44,576
2010	1,185	3,960		3,960	990	4,950	31,440	4,026	1,331	1,088	193	58	4,975	7,644	49,245
2011	1,758	4,349		4,349	1,643	5,992	32,075	3,822	1,351	1,147	271	52	4,166	6,987	50,634
2012	1,868	4,109		4,109	643	4,752	35,935	4,083	1,273	1,422	188	47	4,525	7,455	54,093
2013	1,199	4,229		4,229	453	4,681	36,268	4,141	1,031	1,641	137	48	4,603	7,460	53,750

Table 1.1-4Y
Primary Commercial Energy Import (Net) (Physical Unit)

Year	Coal (Tons)	Crude Oil (M. Litres)	Condensate (Barrels)	Petroleum Products (Million Litres)							Electricity (GWh)	NG & LNG (MMSCF)		
				Gasoline	Diesel	J.P.& Kerosene	Fuel Oil	LPG	Others	Total		NG	LNG	Total
1989	455,031	11,849	-5,798,632	610	4,304	495	247	695		6,351	665			
1990	340,897	12,187	-6,078,577	643	5,576	524	1,777	519	-5	9,035	676			
1991	469,422	12,810	-6,833,180	786	5,144	580	2,665	191	-94	9,272	620			
1992	500,854	16,148	-5,843,959	953	4,271	679	3,175	-56	-551	8,472	500			
1993	935,759	18,794	-4,101,385	635	5,328	648	3,331	-6	-566	9,370	673			
1994	1,519,212	21,639	-6,682,085	594	4,715	515	3,499	131	-176	9,278	907			
1995	2,347,159	26,237	-5,161,711	379	5,729	178	3,701	-112	-368	9,507	725			
1996	3,905,824	36,844	-8,820,929	-885	4,063	-163	1,727	-218	-401	4,123	832			
1997	3,288,765	42,291	-8,602,987	-1,881	52	-231	231	-870	-187	-2,885	773			
1998	1,632,980	39,446	-6,578,884	-1,691	-1,487	-261	462	-870	-510	-4,358	1,637	791		791
1999	3,277,890	40,558	-4,711,795	-1,657	-891	-1,119	598	-1,346	-727	-5,142	2,290	549		549
2000	4,183,196	37,420	-1,778,593	-1,073	-1,031	-1,205	-147	-1,240	2,076	-2,620	2,988	60,247		60,247
2001	4,945,205	39,125	-1,396,547	-1,336	-1,324	-879	-1,504	-1,403	1,823	-4,624	2,913	181,330		181,330
2002	5,598,838	39,589	-1,828,900	-1,006	-1,625	-1,188	-767	-1,270	1,784	-4,072	2,844	225,429		225,429
2003	7,110,436	41,148	41	-969	-1,543	-625	-569	-1,426	1,523	-3,609	2,506	250,548		250,548
2004	7,549,953	47,333	-110	-1,167	-1,668	-376	-325	-1,643	1,566	-3,613	3,403	266,082		266,082
2005	8,568,291	44,227		-2,022	-1,090	-601	539	-1,755	1,196	-3,732	4,389	313,190		313,190
2006	11,214,797	44,328	124	-1,922	-2,576	-1,017	-314	-1,067	1,017	-5,879	5,197	317,705		317,705
2007	14,413,796	43,651	51	-1,417	-2,498	-443	-1,942	-514	511	-6,304	4,510	331,002		331,002
2008	15,979,001	44,556		-1,478	-3,717	-1,407	-3,370	798	-320	-9,495	2,812	303,246		303,246
2009	16,388,840	44,237		-1,337	-4,411	-1,618	-3,795	1,367	-1,121	-10,915	2,483	293,548		293,548
2010	16,904,205	45,627		-1,342	-5,444	-1,827	-3,133	2,901	232	-8,613	7,277	311,830		311,830
2011	16,331,105	44,204		-935	-4,649	-1,297	-3,151	2,631	491	-6,910	10,810	303,402	35,719	339,121
2012	18,404,370	47,668		-1,265	-5,356	-781	-3,492	3,186	-595	-8,303	10,555	300,622	47,452	348,075
2013	17,328,117	48,931	-24	-1,372	-4,678	-1,540	-3,506	3,598	8	-7,489	12,601	300,375	69,798	370,172

Table 1.1-5Y

Primary Commercial Energy Import (Net)

Unit : KTOE

Year	Coal	Crude Oil	Condensate	Petroleum Products							Electricity	NG & LNG			Grand Total
				Gasoline	Diesel	J.P.& Kerosene	Fuel Oil	LPG	Others	Total		NG	LNG	Total	
1989	284	10,190	-722	454	3,710	405	233	438		5,240	57				15,049
1990	213	10,481	-756	479	4,806	429	1,673	327	-4	7,710	58				17,706
1991	293	11,016	-850	585	4,434	474	2,508	120	-70	8,051	53				18,563
1992	313	13,887	-727	710	3,682	555	2,989	-35	-411	7,490	43				21,006
1993	584	16,163	-510	473	4,593	530	3,135	-4	-421	8,306	57				24,600
1994	948	18,610	-832	442	4,064	421	3,293	83	-131	8,172	77				26,975
1995	1,465	22,564	-642	282	4,938	146	3,484	-70	-275	8,505	62				31,954
1996	2,438	31,686	-1,098	-659	3,502	-133	1,626	-137	-299	3,900	71				36,997
1997	2,053	36,370	-1,071	-1,401	45	-189	217	-548	-139	-2,015	66				35,403
1998	1,019	33,923	-819	-1,260	-1,282	-214	435	-548	-380	-3,249	140	19		19	31,033
1999	2,046	34,880	-586	-1,234	-768	-915	563	-848	-542	-3,744	195	13		13	32,804
2000	2,611	32,181	-221	-800	-889	-985	-138	-782	1,547	-2,047	255	1,480		1,480	34,259
2001	3,087	33,648	-174	-996	-1,142	-718	-1,415	-884	1,358	-3,797	248	4,455		4,455	37,467
2002	3,495	34,046	-228	-750	-1,401	-971	-722	-800	1,330	-3,314	242	5,539		5,539	39,780
2003	4,438	35,388		-722	-1,330	-511	-536	-899	1,135	-2,863	214	6,156		6,156	43,333
2004	4,713	40,707		-869	-1,438	-307	-306	-1,035	1,167	-2,788	290	6,538		6,538	49,460
2005	5,348	38,035		-1,506	-939	-491	508	-1,106	987	-2,547	374	7,695		7,695	48,905
2006	7,000	38,122		-1,432	-2,220	-832	-295	-672	896	-4,555	443	7,806		7,806	48,816
2007	8,997	37,540		-1,056	-2,154	-362	-1,828	-324	459	-5,265	384	8,133		8,133	49,789
2008	9,974	38,318		-1,101	-3,204	-1,150	-3,172	503	-217	-8,341	240	7,451		7,451	47,642
2009	10,230	38,044		-996	-3,802	-1,322	-3,572	861	-850	-9,681	212	7,212		7,212	46,017
2010	10,551	39,239		-1,000	-4,693	-1,494	-2,949	1,828	173	-8,135	620	7,662		7,662	49,937
2011	10,194	38,015		-696	-4,008	-1,060	-2,966	1,658	421	-6,651	921	7,455	878	8,333	50,812
2012	11,488	40,995		-942	-4,617	-639	-3,287	2,007	-288	-7,766	899	7,386	1,166	8,552	54,168
2013	10,816	42,080		-1,022	-4,032	-1,258	-3,300	2,267	241	-7,104	1,074	7,380	1,715	9,095	55,961

Remark : LPG includes Propane and Butane

Table 1.1-6Y
Primary Commercial Energy Consumption (Physical Unit)

Year	Hydro/Import (GWh)	Lignite (Tons)					NG & LNG (MMSCF)	Petroleum (Million Litres)	Imported Coal (Tons)
		EGAT			Others	Total			
		Mae-Moh	Krabi	Total					
1989	6,177	6,545,092	219,112	6,764,205	1,799,380	8,563,585	211,399	19,409	455,031
1990	5,576	9,619,613	255,710	9,875,323	2,600,686	12,476,010	230,261	22,957	340,987
1991	5,125	11,504,708	219,982	11,724,690	2,934,444	14,659,135	285,599	24,379	469,513
1992	4,659	12,129,274	241,265	12,370,539	3,193,113	15,563,652	304,356	26,856	500,946
1993	4,285	11,239,942	249,845	11,489,787	4,222,965	15,712,752	342,762	30,202	935,759
1994	5,311	11,908,173	247,711	12,155,884	4,897,708	17,053,592	378,779	33,523	1,519,212
1995	7,318	13,374,488	193,005	13,567,493	4,939,136	18,506,629	401,221	37,660	2,347,159
1996	8,047	16,405,340		16,405,340	4,688,467	21,093,807	463,555	40,793	3,905,842
1997	7,855	18,010,806		18,010,806	5,235,658	23,246,464	570,777	40,600	3,288,780
1998	6,726	15,388,095		15,388,095	5,029,499	20,417,594	620,381	36,521	1,632,970
1999	5,700	13,893,584		13,893,584	4,610,512	18,504,096	679,318	36,585	3,277,940
2000	8,879	14,120,569		14,120,569	3,722,528	17,843,097	773,183	35,027	4,183,209
2001	9,087	15,744,116		15,744,116	3,753,746	19,497,862	874,564	34,150	4,945,198
2002	10,211	15,035,329		15,035,329	4,503,816	19,539,145	950,087	35,908	5,598,850
2003	9,713	15,406,532		15,406,532	2,753,088	18,159,620	1,008,373	37,949	7,110,439
2004	9,300	16,536,694		16,536,694	4,006,700	20,543,394	1,055,404	41,650	7,549,950
2005	10,060	16,571,091		16,571,091	4,475,747	21,046,838	1,149,371	41,725	8,567,691
2006	13,147	15,815,374		15,815,374	3,036,745	18,852,119	1,176,088	41,051	11,214,800
2007	12,471	15,811,050		15,811,050	2,159,379	17,970,429	1,248,521	41,031	14,413,800
2008	9,763	16,407,465		16,407,465	2,124,087	18,531,552	1,319,738	39,532	15,979,000
2009	9,448	15,818,265		15,818,265	2,042,528	17,860,793	1,384,714	40,065	16,387,662
2010	12,624	16,004,196		16,004,196	2,017,685	18,021,881	1,591,032	40,827	16,904,203
2011	18,745	17,161,168		17,161,168	2,856,989	20,018,157	1,644,165	42,248	16,331,105
2012	18,986	16,754,281		16,754,281	1,611,596	18,365,877	1,810,211	44,669	18,404,375
2013	18,013	16,884,947		16,884,947	1,776,159	18,661,106	1,845,859	45,841	17,328,104

Table 1.1-7Y

Primary Commercial Energy Consumption

Unit : KTOE

Year	Hydro/Import Electricity	Lignite					NG & LNG	Petroleum	Imported Coal	Total
		EGAT			Others	Total				
		Mae-Moh	Krabi	Total						
1989	1,278	1,621	56	1,677	858	2,535	5,194	16,166	284	25,457
1990	1,144	2,383	66	2,449	1,241	3,690	5,658	19,265	213	29,970
1991	1,051	2,850	57	2,907	1,400	4,307	7,017	20,501	293	33,169
1992	964	3,004	62	3,066	1,523	4,589	7,478	22,615	313	35,959
1993	857	2,784	64	2,848	2,014	4,862	8,422	25,446	584	40,171
1994	1,053	2,950	64	3,014	2,336	5,350	9,307	28,253	948	44,911
1995	1,523	3,313	50	3,363	2,356	5,719	9,858	31,736	1,465	50,301
1996	1,669	4,064		4,064	2,236	6,300	11,390	34,290	2,438	56,087
1997	1,635	4,461		4,461	2,497	6,958	14,024	34,003	2,053	58,673
1998	1,267	3,812		3,812	2,399	6,211	15,243	30,482	1,019	54,222
1999	950	3,441		3,441	2,199	5,640	16,691	30,502	2,046	55,829
2000	1,560	3,498		3,498	1,776	5,274	18,997	28,967	2,611	57,409
2001	1,616	3,900		3,900	1,791	5,691	21,488	27,964	3,087	59,846
2002	1,874	3,724		3,724	2,148	5,872	23,344	29,403	3,495	63,988
2003	1,811	3,816		3,816	1,313	5,129	24,776	31,123	4,438	67,277
2004	1,596	4,096		4,096	1,911	6,007	25,931	34,361	4,713	72,608
2005	1,630	4,105		4,105	2,135	6,240	28,240	34,407	5,348	75,865
2006	2,204	3,917		3,917	1,449	5,366	28,896	33,627	7,000	77,093
2007	2,148	3,916		3,916	1,030	4,946	30,676	33,277	8,997	80,044
2008	1,780	4,064		4,064	1,013	5,077	32,426	31,714	9,974	80,971
2009	1,755	3,918		3,918	974	4,892	34,022	32,075	10,229	82,973
2010	1,805	3,964		3,964	962	4,926	39,092	32,563	10,551	88,937
2011	2,679	4,251		4,251	1,363	5,614	40,397	33,631	10,194	92,515
2012	2,767	4,150		4,150	769	4,919	44,477	35,492	11,488	99,143
2013	2,273	4,182		4,182	847	5,029	45,353	36,386	10,816	99,857

Table1.2-1Y
Final Modern Energy Consumption (Physical Unit)

Year	Solid Fossil Fuel (Thousand Tons)			Petroleum Products (M. Litres)								Electricity (GWh)*	NG in Industry (MMSCF)		
	Coal**	Lignite**	Total	LPG***	Premium	Regular	J.P.	Kerosene	Diesel	Fuel Oil	Total		Energy	Others	Total
1989	455	1,799	2,254	1,571	1,526	1,796	2,112	119	8,632	2,439	18,196	32,749	3,512	930	4,442
1990	341	2,601	2,942	1,716	1,746	1,941	2,292	123	9,765	2,679	20,262	38,174	5,551	4,990	10,541
1991	470	2,804	3,273	1,845	1,885	2,005	2,468	111	9,889	2,950	21,153	44,204	7,685	6,063	13,748
1992	501	3,141	3,641	2,059	2,217	2,118	2,724	112	10,282	3,553	23,065	49,290	11,873	6,263	18,135
1993	936	4,223	5,159	2,224	2,748	2,164	2,899	107	11,746	3,705	25,592	55,184	14,543	6,101	20,644
1994	1,519	4,898	6,417	2,404	3,419	2,173	3,134	114	12,814	4,202	28,259	62,483	19,211	5,189	24,400
1995	2,335	4,939	7,275	2,629	4,087	2,206	3,295	101	14,863	4,464	31,645	70,532	26,093	6,610	32,703
1996	3,840	4,688	8,528	2,902	4,842	2,076	3,393	98	16,507	4,585	34,404	78,282	28,057	6,670	34,727
1997	3,197	5,236	8,432	2,985	5,382	1,973	3,543	86	16,807	4,429	35,205	83,211	34,886	7,742	42,628
1998	1,528	5,030	6,558	2,757	4,969	2,199	3,315	55	14,979	3,688	31,962	82,435	33,514	6,303	39,817
1999	2,205	4,611	6,816	2,983	4,685	2,340	3,298	52	15,160	4,169	32,688	83,685	44,002	8,180	52,182
2000	2,053	3,723	5,776	3,375	3,427	3,335	3,494	49	14,945	4,009	32,634	90,257	66,281	7,704	73,985
2001	2,603	3,754	6,357	3,728	3,001	3,856	3,717	57	15,151	3,917	33,427	95,870	68,782		68,782
2002	3,197	4,504	7,700	3,882	2,985	4,341	3,778	62	16,036	4,283	35,366	103,248	76,205		76,205
2003	4,885	2,753	7,638	3,975	3,085	4,550	3,761	36	17,528	4,386	37,321	110,245	82,732		82,732
2004	5,356	4,007	9,363	4,035	3,029	4,631	4,242	23	19,569	4,768	40,298	119,304	98,784		98,784
2005	6,495	4,476	10,971	4,364	2,886	4,362	4,293	21	19,545	4,354	39,825	125,770	99,772		99,772
2006	7,265	3,037	10,302	5,074	2,656	4,559	4,519	20	18,350	3,956	39,134	131,428	107,803		107,803
2007	8,665	2,159	10,825	5,812	2,625	4,712	4,932	18	18,702	3,441	40,242	137,320	135,136		135,136
2008	10,072	2,124	12,196	6,828	2,809	4,311	4,636	16	17,635	3,038	39,274	139,978	162,535		162,535
2009	10,778	2,043	12,821	6,894	3,233	4,292	4,431	18	18,452	2,620	39,940	139,292	197,533		197,533
2010	11,289	2,018	13,307	7,587	2,908	4,509	4,712	15	18,468	2,475	40,674	153,884	234,578		234,578
2011	10,196	2,857	13,053	8,178	2,394	4,937	5,077	13	19,181	2,142	41,921	153,332	295,160		295,160
2012	10,625	1,612	12,237	8,930	2,376	5,329	5,091	13	20,546	2,044	44,329	164,276	343,669		343,669
2013	9,533	1,776	11,309	9,025	4,749	3,446	5,562	11	20,832	1,838	45,463	166,515	352,486		352,486

* Including Power Generation from SPP

** : Preliminary data

*** : Excluding LPG and Propane used as Feedstock in Petrochemical Industries

Table 1.2-2Y

Final Modern Energy Consumption

Unit : KTOE

Year	Solid Fossil Fuel			Petroleum Products								Electricity*	NG in Industry			Total
	Coal**	Lignite**	Total	LPG***	Premium	Regular	J.P.	Kerosene	Diesel	Fuel Oil	Total		Energy	Others	Total	
1989	284	858	1,142	990	1,137	1,338	1,727	97	7,441	2,296	15,026	2,791	86	23	109	19,068
1990	213	1,241	1,454	1,082	1,301	1,446	1,874	101	8,417	2,521	16,742	3,253	136	123	259	21,708
1991	293	1,337	1,630	1,163	1,405	1,494	2,017	91	8,524	2,777	17,471	3,767	189	149	338	23,206
1992	313	1,498	1,811	1,297	1,652	1,578	2,227	92	8,863	3,344	19,053	4,200	292	154	446	25,510
1993	584	2,014	2,598	1,401	2,047	1,612	2,369	88	10,124	3,487	21,128	4,702	357	150	507	28,935
1994	948	2,336	3,284	1,515	2,547	1,619	2,562	93	11,046	3,955	23,337	5,324	472	127	599	32,544
1995	1,458	2,356	3,814	1,656	3,045	1,644	2,693	82	12,812	4,202	26,134	6,010	641	162	803	36,761
1996	2,397	2,236	4,633	1,829	3,608	1,547	2,773	80	14,229	4,315	28,381	6,670	689	164	853	40,537
1997	1,995	2,497	4,492	1,881	4,010	1,470	2,896	70	14,487	4,169	28,983	7,090	857	190	1,047	41,612
1998	954	2,399	3,353	1,737	3,702	1,639	2,709	45	12,912	3,471	26,215	7,024	823	155	978	37,570
1999	1,376	2,199	3,575	1,880	3,491	1,744	2,696	42	13,068	3,924	26,845	7,131	1,081	201	1,282	38,833
2000	1,282	1,776	3,058	2,127	2,553	2,484	2,856	40	12,882	3,774	26,716	7,691	1,629	189	1,818	39,283
2001	1,625	1,791	3,416	2,349	2,236	2,873	3,039	46	13,060	3,687	27,290	8,169	1,690		1,690	40,565
2002	1,995	2,148	4,143	2,446	2,224	3,235	3,088	51	13,822	4,032	28,898	8,798	1,872		1,872	43,711
2003	3,049	1,313	4,362	2,505	2,298	3,390	3,074	29	15,109	4,128	30,533	9,394	2,033		2,033	46,322
2004	3,343	1,911	5,254	2,543	2,257	3,451	3,467	19	16,868	4,488	33,093	10,166	2,427		2,427	50,940
2005	4,054	2,135	6,189	2,750	2,150	3,250	3,509	17	16,847	4,098	32,621	10,717	2,451		2,451	51,978
2006	4,535	1,449	5,984	3,198	1,979	3,397	3,693	16	15,817	3,723	31,823	11,199	2,649		2,649	51,655
2007	5,409	1,030	6,439	3,663	1,956	3,510	4,031	15	16,120	3,239	32,534	11,701	3,320		3,320	53,994
2008	6,287	1,013	7,300	4,303	2,093	3,212	3,790	13	15,201	2,859	31,471	11,928	3,993		3,993	54,692
2009	6,728	974	7,702	4,344	2,409	3,198	3,622	14	15,906	2,466	31,959	11,869	4,853		4,853	56,383
2010	7,047	962	8,009	4,781	2,166	3,360	3,851	12	15,919	2,330	32,419	13,112	5,764		5,764	59,304
2011	6,364	1,363	7,727	5,153	1,784	3,678	4,150	11	16,534	2,016	33,326	13,065	7,252		7,252	61,370
2012	6,632	769	7,401	5,627	1,770	3,970	4,162	11	17,710	1,924	35,174	13,998	8,444		8,444	65,017
2013	5,950	847	6,797	5,687	3,538	2,567	4,547	9	17,956	1,730	36,034	14,189	8,661		8,661	65,681

* Including Power Generation from SPP

** Preliminary data

*** Excluding LPG and Propane used as Feedstock in Petrochemical Industries

Table 1.3-1
Energy Reserves
31 December 2013

Energy Type (Original Unit)	Reserves*			Production 2013	Available for use (Year)		
	P1	P1+P2	P1+P2+P3		P1	P1+P2	P1+P2+P3
Petroleum							
- Crude Oil (MMBBL.)	258	570	805	55	5	10	15
- Condensate (MMBBL.)	204	473	570	33	6	14	17
- Natural Gas (BCF)	8,415	17,213	20,441	1,846	5	9	11

Energy Type (KTOE)	Reserves*			Production 2013	Available for use (Year)		
	P1	P1+P2	P1+P2+P3		P1	P1+P2	P1+P2+P3
Petroleum	**267,420**	**559,723**	**683,238**	**56,894**			
- Crude Oil	35,277	77,937	110,069	7,455	5	10	15
- Condensate	25,387	58,862	70,933	4,083	6	14	17
- Natural Gas	206,757	422,923	502,235	45,356	5	9	11

Energy Type (MMBBL Crude oil Equivalent)	Reserves*			Production 2013	Available for use (Year)		
	P1	P1+P2	P1+P2+P3		P1	P1+P2	P1+P2+P3
Petroleum	**1,956**	**4,094**	**4,997**	**416**			
- Crude Oil	258	570	805	55	5	10	15
- Condensate	186	430	519	30	6	14	17
- Natural Gas	1,512	3,093	3,673	332	5	9	11

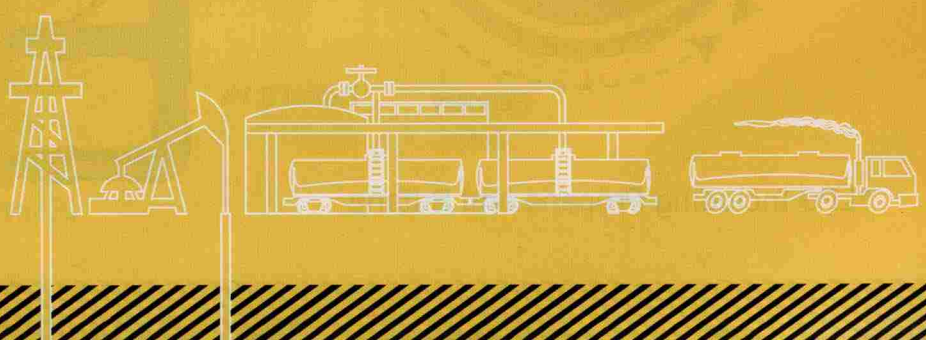
Remark : P1 = Proved Reserves, P2 = Probable Reserves, P3 = Possible Reserves
Includes Malaysia-Thailand Joint Development Area

Source : * Department Of Mineral Fuels

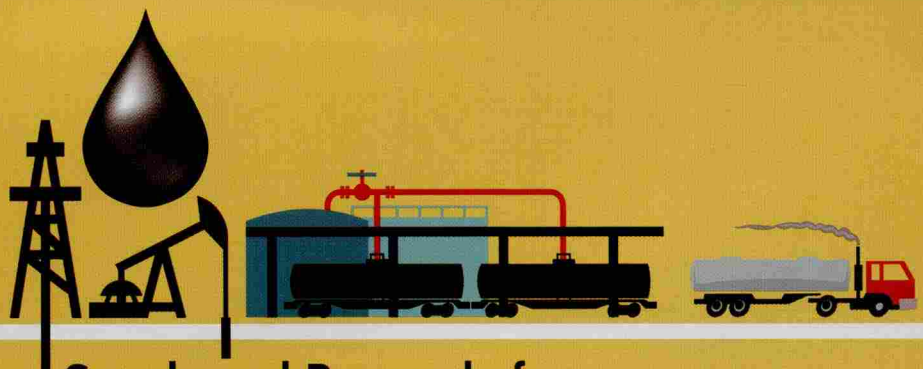


Chapter 2

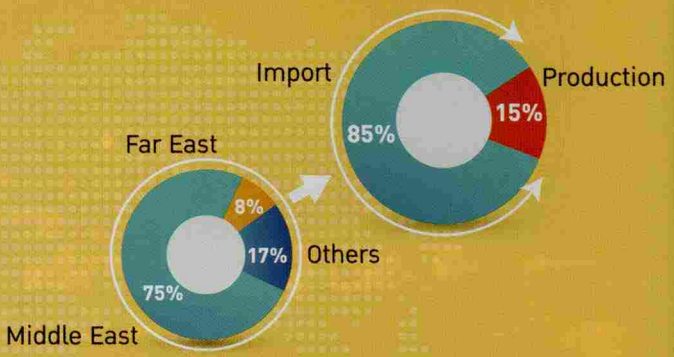
Oil

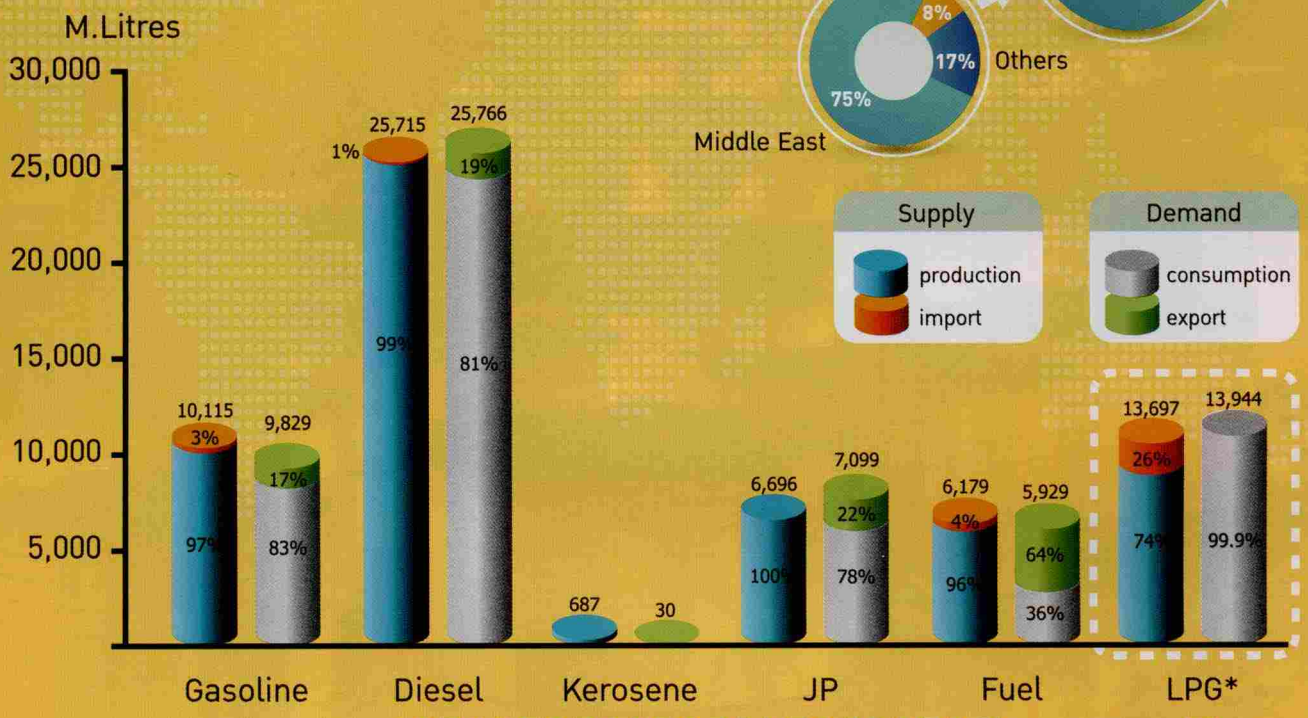


Supply and Demand of Petroleum Products 2013

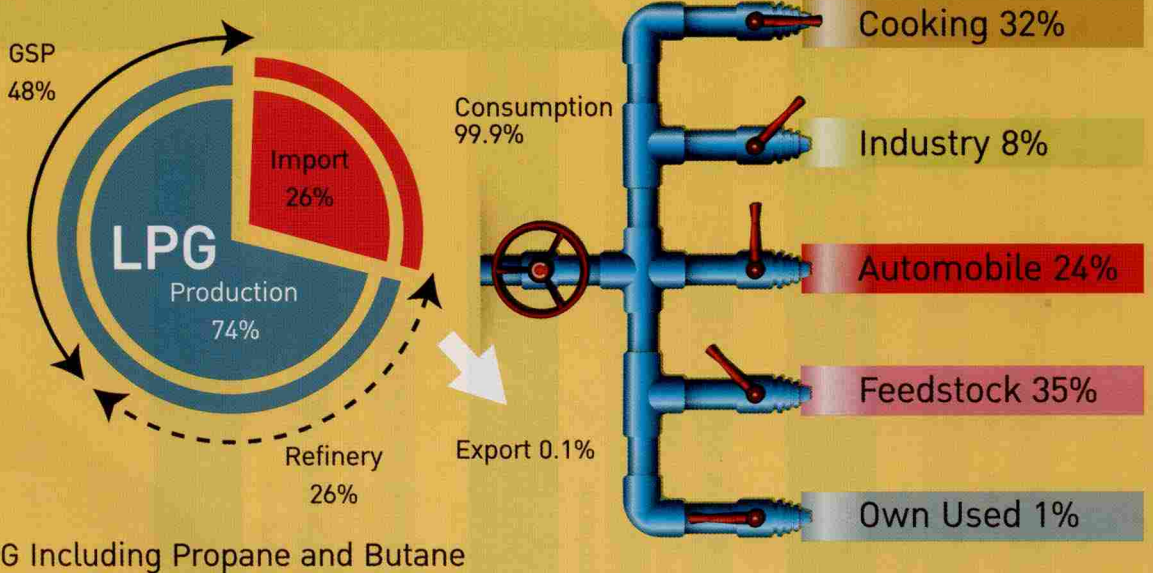


Crude Oil Supply 2013





Supply and Demand of LPG, Porpane and Butane 2013



*LPG Including Propane and Butane

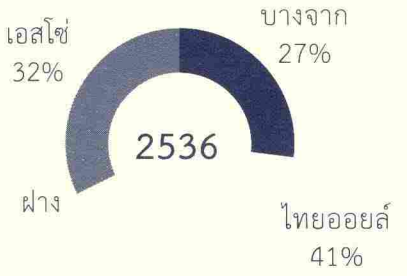
บทที่ 2 น้ำมัน

การผลิตน้ำมันดิบ ในปี 2556 มีปริมาณการผลิตน้ำมันดิบในประเทศรวมทั้งสิ้น 149,481บาร์เรลต่อวัน โดยแหล่งน้ำมันดิบที่สำคัญของไทย ได้แก่ แหล่งเบญจมาศ สิริกิติ์ ทานตะวัน จัสมิน และบิกออย์โปรเจ็คของบริษัทยูโนแคลประเทศไทย จำกัด เป็นต้น

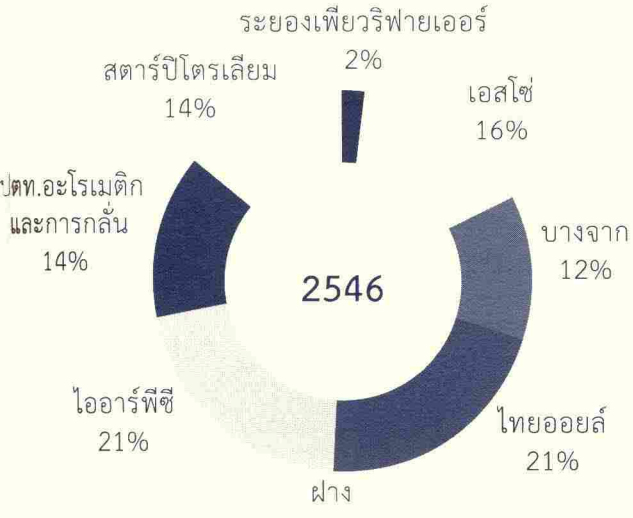
การนำเข้าและส่งออกน้ำมันดิบ การนำเข้าส่วนใหญ่มาจากกลุ่มประเทศตะวันออกกลาง ร้อยละ 75 กลุ่มประเทศตะวันออกไกล ร้อยละ 8 และแหล่งอื่นๆ ร้อยละ 17 ในขณะที่ไทยก็มีการส่งออกน้ำมันดิบไปยังต่างประเทศเช่นกัน อาทิ เกาหลี สหรัฐอเมริกา และสิงคโปร์ เป็นต้น

การกลั่นน้ำมัน ในปี 2556 ประเทศไทยมีโรงกลั่นน้ำมันจำนวนทั้งสิ้น 8 โรง ประกอบด้วย บริษัทเอสโซ่ประเทศไทย จำกัด (มหาชน) บริษัทบางจากปิโตรเลียม จำกัด (มหาชน) บริษัทไทยออยล์ จำกัด (มหาชน) บริษัท พีทีที โกลบอล เคมิคอล จำกัด (มหาชน) บริษัทสตาร์ปิโตรเลียม รีไฟน์นิ่ง จำกัด บริษัทไออาร์พีซี จำกัด (มหาชน) บริษัทระยองเพียวริฟายเออร์ จำกัด (มหาชน) และโรงกลั่นน้ำมันฝาง โดยมีกำลังการกลั่นรวมทั้งสิ้น 1,236,500 บาร์เรลต่อวัน

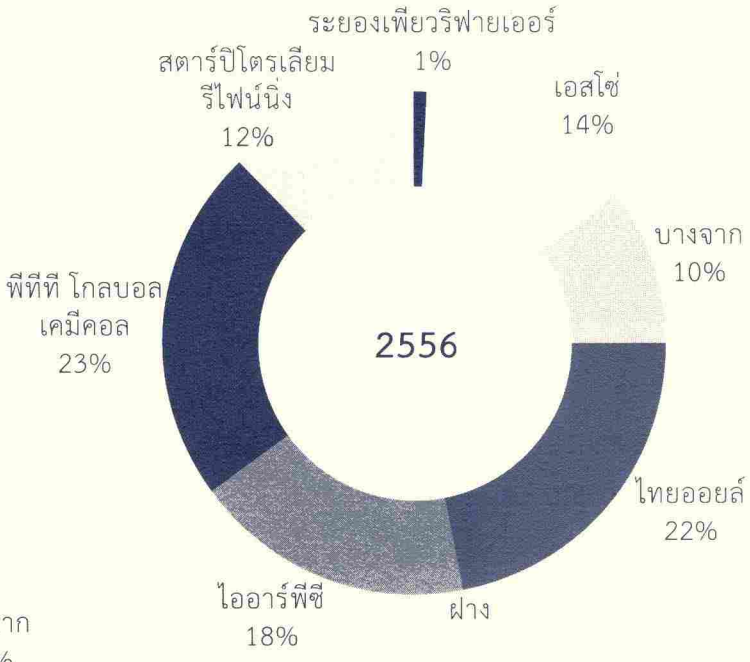
การกลั่นน้ำมันของประเทศไทย ปี 2536 2546 และ 2556



กำลังการกลั่น รวมทั้งสิ้น 449.9 พันบาร์เรล/วัน



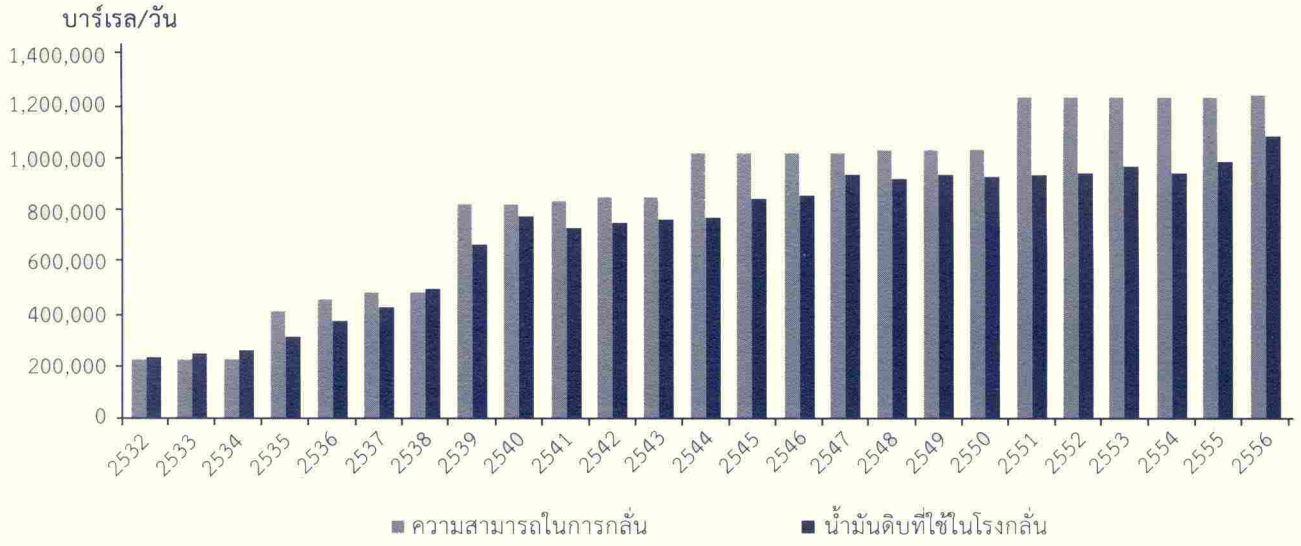
กำลังการกลั่น รวมทั้งสิ้น 1,014.5 พันบาร์เรล/วัน



กำลังการกลั่น รวมทั้งสิ้น 1,236.5 พันบาร์เรล/วัน

การใช้น้ำมันดิบเพื่อการกลั่นในปี 2556 อยู่ที่ระดับ 1,077,147 บาร์เรลต่อวัน คิดเป็นสัดส่วนร้อยละ 87 ของความสามารถในการกลั่นของประเทศ

การใช้กำลังการกลั่นของไทย

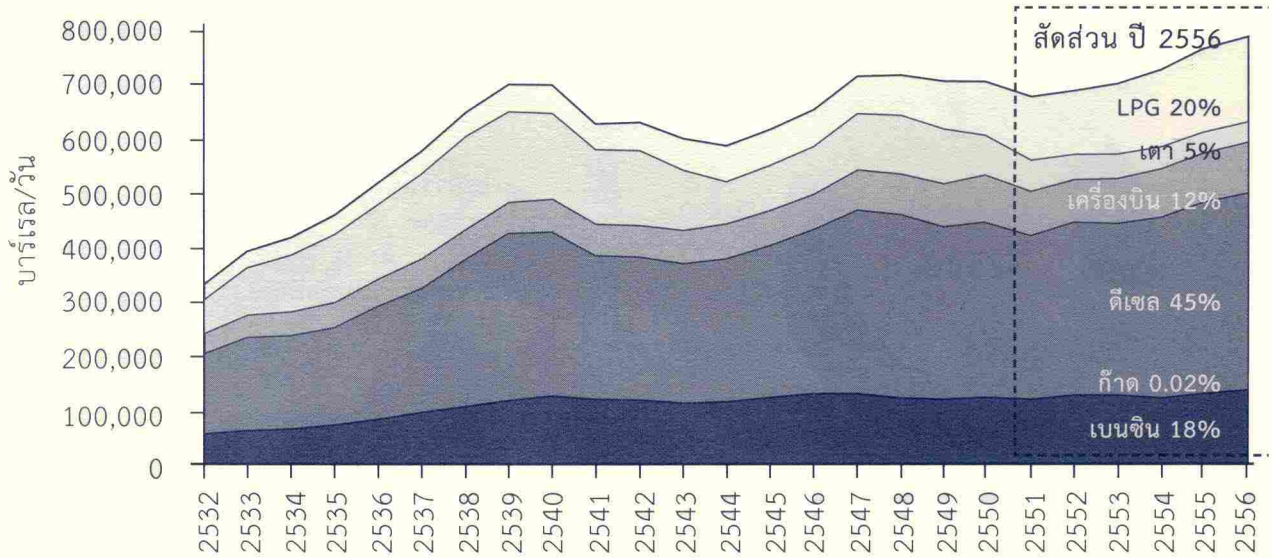


การผลิตและการใช้น้ำมันสำเร็จรูป ในปี 2556 การผลิตน้ำมันสำเร็จรูปอยู่ที่ระดับ 1,012 พันบาร์เรลต่อวัน ในขณะที่การใช้น้ำมันสำเร็จรูปอยู่ที่ระดับ 790 พันบาร์เรลต่อวัน โดยการใช้น้ำมันดีเซลมีสัดส่วนมากที่สุดคือร้อยละ 45 รองลงมาเป็นก๊าซปิโตรเลียมเหลว (LPG) ร้อยละ 20 น้ำมันเบนซิน ร้อยละ 18 น้ำมันเครื่องบิน ร้อยละ 12 และน้ำมันเตา ร้อยละ 5

การใช้น้ำมันสำเร็จรูป

หน่วย : พันบาร์เรล/วัน

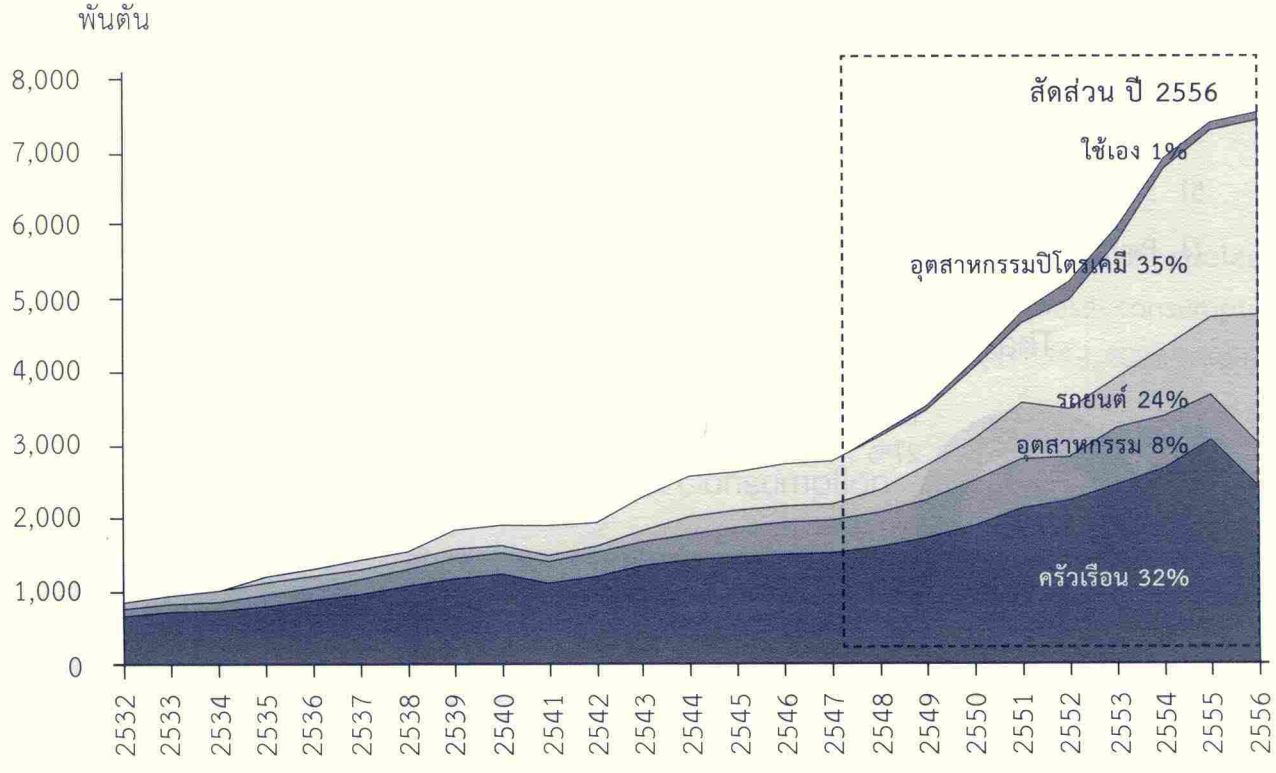
ปี	เบนซิน	ก๊าด	ดีเซล	เครื่องบิน	เตา	LPG	รวม
2536	85	2	207	50	138	38	520
2546	132	1	302	65	86	68	654
2556	141	0.2	360	96	37	155	790



การนำเข้าและส่งออกน้ำมันสำเร็จรูป ในปี 2556 มีการส่งออก 204 พันบาร์เรลต่อวัน โดยน้ำมันดีเซลมีสัดส่วนการส่งออกมากที่สุด ร้อยละ 41 ของการส่งออกน้ำมันสำเร็จรูปทั้งหมด ในขณะที่การนำเข้าน้ำมันสำเร็จรูปมีปริมาณเพียง 75 พันบาร์เรลต่อวัน ทั้งนี้ปริมาณ LPG มีสัดส่วนการนำเข้ามากที่สุดถึงร้อยละ 83 ของการนำเข้าน้ำมันสำเร็จรูปทั้งหมด

การใช้ LPG ในปี 2556 สาขาครัวเรือนมีสัดส่วนการใช้มากที่สุด คิดเป็นสัดส่วนร้อยละ 32 ในขณะที่การใช้ในสาขาอุตสาหกรรมปิโตรเคมีและสาขาขนส่งมีสัดส่วนอยู่ที่ร้อยละ 35 และ 24 ตามลำดับ สัดส่วนที่เหลือเป็นการใช้ในสาขาอุตสาหกรรมและใช้เองอยู่ที่ร้อยละ 8 และ 1 ตามลำดับ

การใช้ LPG รายสาขา



การนำเข้าและส่งออก LPG ในปี 2556 มีการนำเข้าในรูปแบบของ LPG โพรเพน และบิวเทน อยู่ที่ระดับ 1,949 พันตัน เพิ่มขึ้นจากปีก่อนร้อยละ 12.7 และมีการส่งออกอยู่ที่ระดับ 6 พันตัน ลดลงจากปีก่อนร้อยละ 39.2 โดยส่วนใหญ่ส่งออกไปประเทศเพื่อนบ้าน ได้แก่ กัมพูชา มาเลเซีย และลาว ตามลำดับ

Chapter 2 : Oil

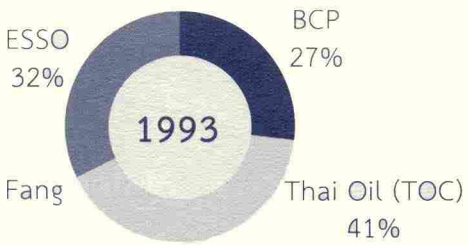
Crude Oil Production. The accumulated domestic oil production in 2013 totaled 149,481 barrels per day (BBL/D). Major crude oil fields in Thailand comprise Benjamas, Sirikit, Tantawan, Jasmin and Big Oil Project of Unocal (Thailand) Co., Ltd.

Crude Oil Import and Export. Most of the imports were from the Middle East, holding a share of 75%; the remainder was from the Far East, accounting for 8%, and from other sources, 17%. Concurrently, Thailand also exported crude oil to such countries as Korea, the USA and Singapore.

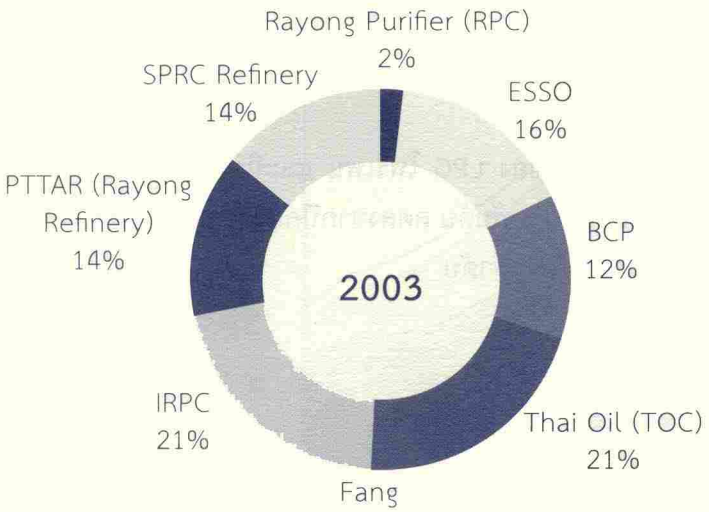
Oil Refining. As of 2013, there are eight oil refineries in Thailand, with a total refining capacity of 1,236,500 BBL/D, comprising:

1) ESSO Thailand Co., Ltd.
2) Bangchak Petroleum Public Co., Ltd.
3) Thai Oil Public Co., Ltd.
4) PTTGC Public Co., Ltd.
5) Star Petroleum Refining Co., Ltd.
6) IRPC Public Co., Ltd.
7) Rayong Purifier Public Co., Ltd.
8) Fang Oil Refinery.

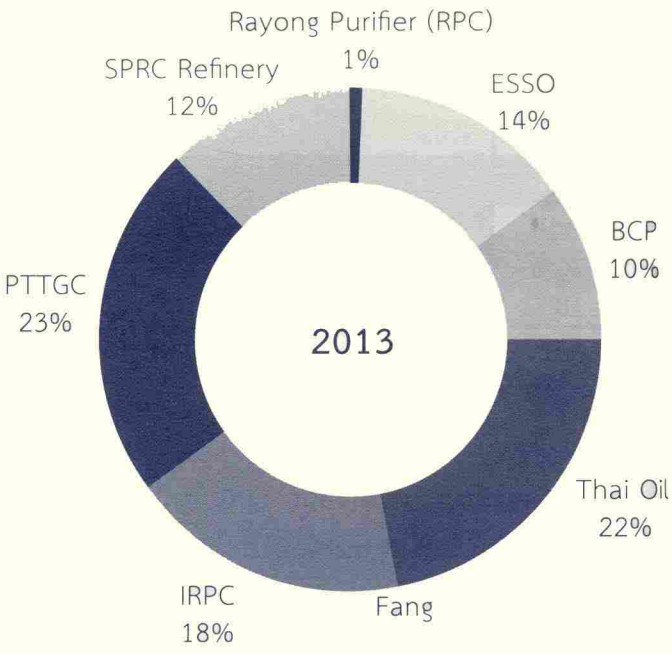
Thailand's Refining Capacity in 1993, 2003 and 2013



Total Capacity: 449.9 Thousand Barrels/Operating Day



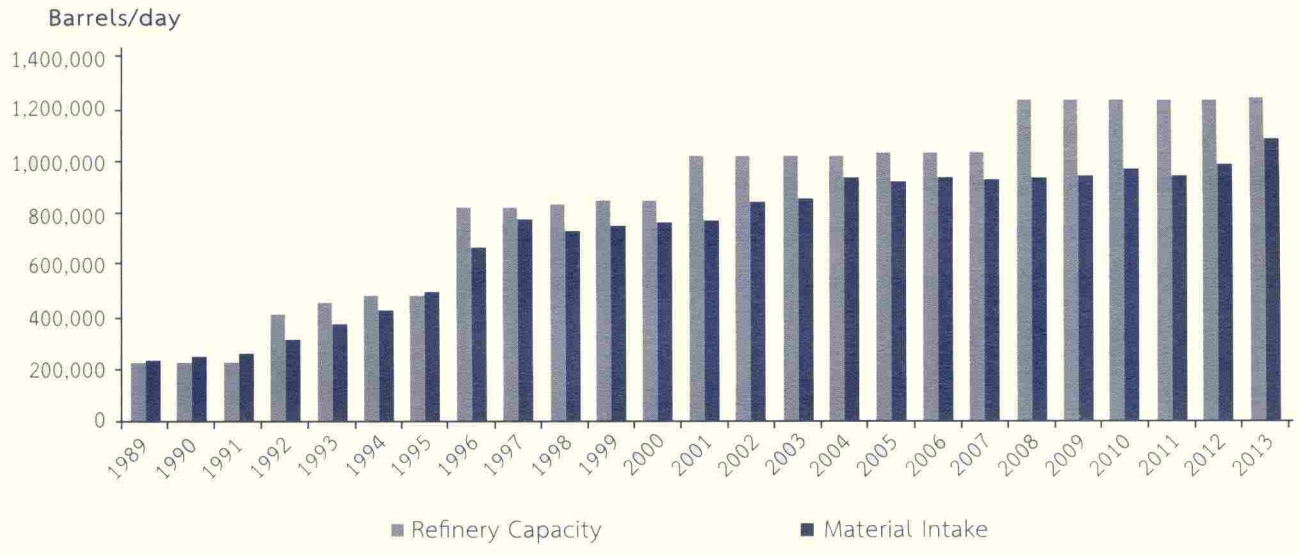
Total Capacity: 1,014.5 Thousand Barrels/Operating Day



Total Capacity: 1,236.5 Thousand Barrels/Operating Day

The refinery intake of crude oil in 2013 was at a volume of 1,077,147 BBL/D, accounting for 87% of the total domestic refining capacity.

Refinery Utilization Ratio

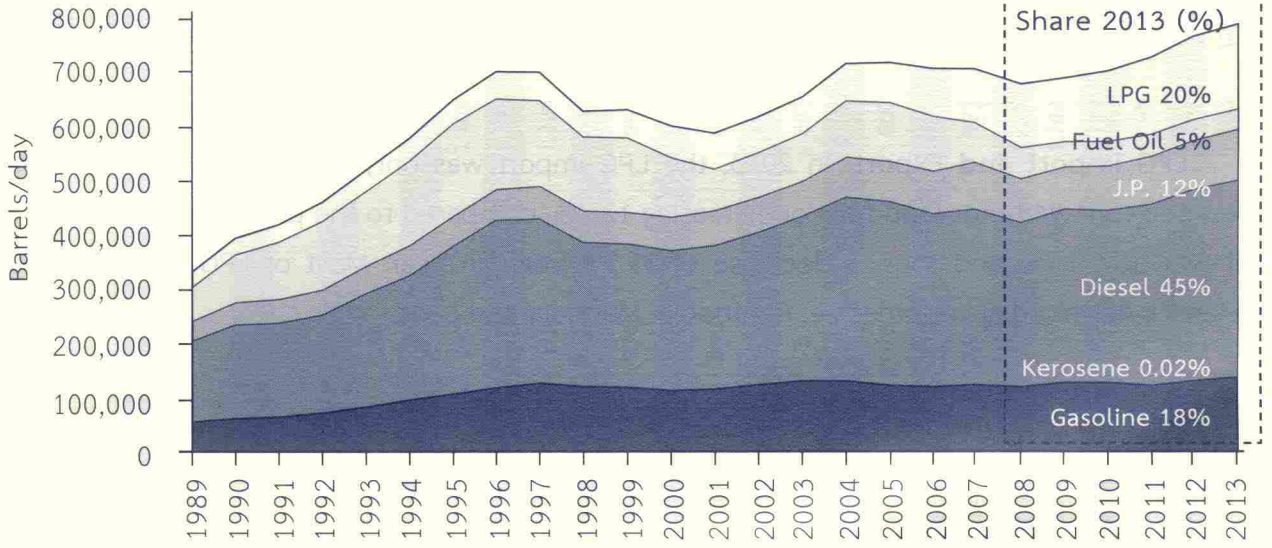


Production and Consumption of Petroleum Products. In 2013, the production of petroleum products was at a volume of 1,012 KBD while the consumption was at 790 KBD. Diesel consumption accounted for the largest share of 45%; others comprised liquefied petroleum gas (LPG), 20%; gasoline, 18%; jet petroleum, 12% and fuel oil, 5%.

Petroleum Product Consumption

Unit : 1,000 Barrel/day

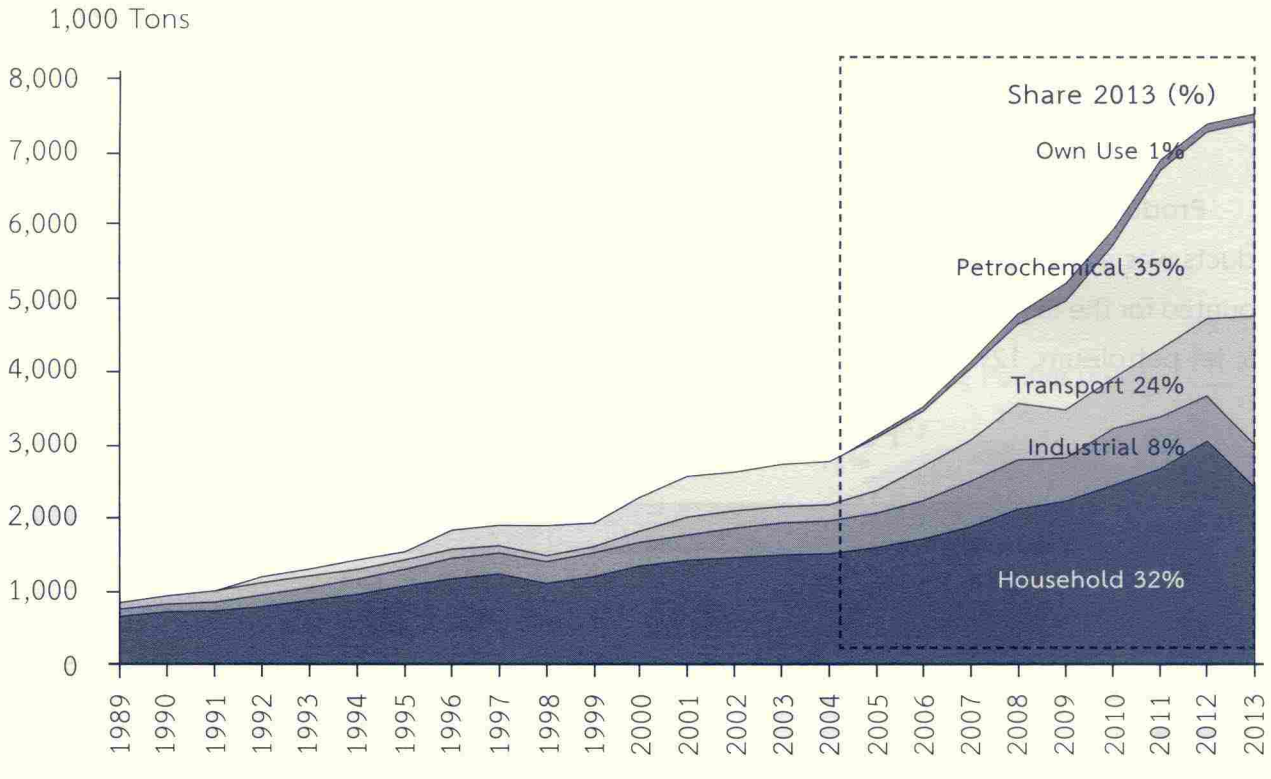
Year	Gasoline	Kerosene	Diesel	J.P.	Fuel Oil	LPG	Total
1993	85	2	207	50	138	38	520
2003	132	1	302	65	86	68	654
2013	141	0.2	360	96	37	155	790



Import and Export of Petroleum Products. In 2013, the export volume of petroleum products was 204 KBD, with diesel accounting for the largest share, i.e. 41%, of the total export; while the petroleum product import volume was only 75 KBD, with LPG accounting for the largest share of 83% of the total import.

LPG Consumption. In 2013, the share of LPG consumption in the household sector was 32%, decreasing from the consumption share of this sector in the previous year, while that in the petrochemical and transport sectors increased to 35% and 24% respectively. The industrial sector and own (on-site) use accounted for the remaining share of 8% and 1% respectively.

LPG Consumption by Sector



LPG Import and Export. In 2013, the LPG import was only under propane and butane, accounted for 1,949 thousand tons or increasing 12.7%, compared to the previous year. The export of it was at 6 thousand tons, a decrease of 39.2% year on year. Most of LPG exports went to Thailand's neighboring countries i.e. Cambodia, Malaysia and Laos.

Table 2.1.1-1Y

Production of Crude Oil

Unit : Barrels/Day

Year	Bung Ya & Muang	Chaba	Fang	Bualaung	Songkhla	Neung & Sawng	Unocal	Sirikit	Wichian Buri	Nasanun	Tan Tawan	Jusmin	Nang-Nual	Banyen	Benjamas	Others	Total
1989			1,153					20,197									21,351
1990			1,209					22,759									23,968
1991	111		1,233			398		22,762									24,503
1992	188		1,336			1,293		23,500									26,317
1993	158		1,285			1,186		22,065					246				24,940
1994	229		1,454			957		22,245					1,669				26,553
1995	196		1,409			1,285		17,631	143				3,077			22	23,763
1996	434		1,290			956		18,701	273				4,696			69	26,419
1997	518		1,324			812		17,672	198		5,374		1,485			80	27,463
1998	509		1,030			638		20,658	221		6,213					151	29,420
1999	570		996			546		23,384	140		5,056				3,223	91	34,006
2000	635		878			548		23,483	200		7,454				24,354	385	57,937
2001	902		658			597	1,149	21,212	180		7,938				28,906	372	61,914
2002	803		661			463	11,634	20,591	159		5,649				35,132	475	75,567
2003	733		847			436	20,231	19,127	223		5,193				49,275	257	96,322
2004	856		796			390	22,021	17,050	172		4,503				39,378	350	85,516
2005	1,098		800			354	29,794	17,129	150		6,650	5,768	1,912		45,819	4,416	113,890
2006	1,050		970			370	38,679	18,775	96		8,296	8,649	684		50,004	1,377	128,950
2007	1,460		971			344	39,215	20,511	309	1,202	7,703	19,267	504		42,132	945	134,563
2008	1,674		1,178	3,324	287	327	35,559	20,942	174	8,222	6,505	18,292		1,445	44,960	1,046	143,935
2009	1,539	3,862	1,244	8,916	5,063	290	33,766	21,324	121	8,346	6,196	13,637		6,596	29,067	14,074	154,041
2010	1,486	3,739	1,154	8,327	7,926	261	36,998	21,808	105	6,689	3,860	13,868		3,891	26,665	16,397	153,174
2011	1,163	2,167	1,045	7,641	9,787	237	30,643	22,974	118	2,474	5,428	12,762		4,620	27,077	11,855	139,991
2012	1,210	1,699	945	7,200	19,883	251	28,281	28,423	128	1,375	3,748	10,408		3,685	25,439	16,302	148,977
2013	1,184	1,196	956	12,317	20,322	199	29,816	32,889	122	1,186	2,754	10,478		2,745	20,652	12,665	149,481

Source : Department of Mineral Fuels (DMF)
Compiled by : Energy Policy and Planning Office (EPPO)

Table 2.1.1-2Y
Production of Condensate

Unit : Barrels/Day

Year	Pailin	Erawan	Bannpot	Satun	South Satun	Platong & Kapong	Phuhorm	Funan & Jakrawan	Bongkot	Gomin	Arthit	Trat	Others	Total
1989		7,325	1,863	5,409		3,199							646	18,441
1990		7,885	1,172	5,506	541	1,526							2,640	19,270
1991		9,691	599	6,152	1,765	1,667							1,881	21,753
1992		8,476	362	6,990	1,436	1,589		6,571					1,106	26,530
1993		9,271	389	6,465	1,485	1,729		7,296	1,557				586	28,778
1994		8,978	565	7,245	403	1,988		6,381	3,410				1,644	30,615
1995		9,152	176	6,922	703	2,718		5,480	4,150	261			402	29,964
1996		7,999	385	6,944	1,085	2,879		4,843	7,803	3,349			353	35,639
1997		9,529	865	7,261	1,689	5,816		6,748	10,103	2,499			288	44,800
1998		9,601	566	7,420	1,881	5,436		7,438	10,830	1,026			2,142	46,341
1999	3,261	9,936	553	6,409	2,036	3,496		6,610	13,581	789		824	2,136	49,631
2000	9,207	8,569	359	4,607	1,571	3,302		6,307	13,393	1,410		2,198	1,297	52,220
2001	8,272	8,928	233	3,823	1,288	1,965		6,926	16,208	607		2,589	1,008	51,847
2002	11,330	9,029	393	3,353	850	690		8,260	16,111	647		2,306	756	53,724
2003	16,975	12,070	237	3,226	864	111		5,568	15,729	4,798		2,473	612	62,663
2004	19,003	11,726	1,358	3,917	482			6,683	17,665	4,505		2,047	818	68,204
2005	21,620	11,599	1,779	3,586	566			6,247	17,839	4,022		1,984	245	69,487
2006	25,269	11,101	3,414	2,497	692		32	8,302	17,685	1,219		4,928	111	75,250
2007	25,276	11,291	3,829	3,931	459		464	11,746	17,869	550		3,111	319	78,845
2008	23,268	10,594	2,645	4,136	355	302	458	10,240	18,505	800	12,610	969	11	84,893
2009	22,106	12,496	1,759	2,937	380		409	6,591	18,300	753	17,520	647	2	83,900
2010	22,435	11,180	3,789	2,730	170		428	6,733	19,568	2,519	17,508	1,567	2,091	88,627
2011	18,048	10,531	2,886	2,625	132	1,536	380	5,508	20,556	4,372	15,811	1,208	543	84,136
2012	11,861	9,025	2,344	3,901	138	6,705	435	7,842	27,359	3,453	10,548	1,422	4,606	89,639
2013	11,234	5,863	1,915	2,533	12	6,752	376	7,671	32,480	2,573	9,230	2,757	7,763	91,159

Source : Department of Mineral Fuels (DMF)
Compiled by : Energy Policy and Planning Office (EPPO)

Table 2.1.2-1Y
Import of Crude Oil Classified by Sources

Unit : Million Litres

Year	Middle East	Far East	Others	Total
1989	8,264	3,358	228	11,849
1990	7,726	4,357	104	12,187
1991	7,375	5,220	214	12,810
1992	9,468	5,789	891	16,148
1993	10,822	7,435	537	18,794
1994	13,190	8,035	415	21,639
1995	16,605	8,951	681	26,237
1996	26,534	9,669	642	36,844
1997	32,597	8,226	1,468	42,291
1998	33,307	5,717	421	39,446
1999	32,281	6,309	1,969	40,558
2000	28,980	8,086	2,104	39,170
2001	32,011	7,320	2,011	41,342
2002	31,453	7,957	2,867	42,278
2003	35,482	8,153	1,390	45,025
2004	40,966	7,278	2,378	50,621
2005	38,233	6,409	3,391	48,033
2006	38,912	5,724	3,489	48,125
2007	36,747	4,222	5,703	46,671
2008	39,145	3,344	4,736	47,225
2009	36,601	6,025	3,995	46,620
2010	34,397	4,250	8,718	47,365
2011	35,725	3,716	6,648	46,090
2012	37,460	4,022	8,575	50,056
2013	37,572	4,370	8,431	50,374

Source : Department of Energy Business (DOEB)

Compiled by : Energy Policy and Planning Office (EPPO)

Table 2.1.2-2Y
Quantity and Value of Petroleum Products Import

Description	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
1. Crude Oil												
-Value (M.Baht)	32,592.6	42,792.3	39,854.6	48,644.4	51,024.4	55,362.6	72,121.9	121,936.8	166,545.2	137,100.4	169,633.0	285,862.0
-Quantity (M.Litres)	11,849.2	12,186.7	12,809.8	16,147.9	18,794.0	21,639.1	26,236.8	36,844.4	42,290.8	39,445.6	40,557.9	39,169.9
-Quantity (BBL/D)	204,186.0	210,001.0	220,739.0	277,502.0	323,859.0	372,886.0	452,115.0	633,170.0	728,758.0	679,729.0	698,896.0	673,134.0
-Value (M.US$)	1,263.3	1,673.3	1,560.0	1,910.8	2,013.1	2,199.0	2,889.9	4,798.3	5,312.2	3,277.2	4,442.9	7,042.7
-Price ($/BBL)	17.0	21.8	19.4	18.8	17.0	16.2	17.5	20.7	20.0	13.2	17.4	28.6
2. Petroleum Products												
-Value (M.Baht)	22,329.4	38,170.7	37,910.3	32,295.0	35,032.1	29,449.4	33,148.4	32,620.4	12,960.8	5,189.6	9,727.8	9,160.4
-Quantity (M.Litres)	6,360.3	9,063.2	9,400.9	9,217.3	10,408.5	9,826.5	10,483.0	8,445.9	3,083.5	1,406.9	2,069.5	1,300.2
-Quantity (BBL/D)	109,600.0	156,178.0	161,998.0	158,399.0	179,359.0	169,330.0	180,644.0	145,143.0	53,134.0	24,243.0	35,661.0	22,344.0
-Value (M.US$)	866.9	1,489.9	1,484.9	1,267.2	1,380.6	1,168.8	1,328.8	1,285.9	451.6	127.7	254.7	237.2
-Price ($/BBL)	21.7	26.1	25.1	21.9	21.1	18.9	20.2	24.2	23.3	14.4	19.6	29.0
3. Others												
-Value (M.Baht)	790.9	892.9	1,129.1	1,162.5	2,221.8	3,389.4	4,054.5	4,480.4	7,811.2	5,348.3	5,394.1	29,867.2
-Quantity (M.Litres)	87.6	108.8	127.2	161.4	357.5	651.4	733.1	747.0	1,382.6	921.1	1,148.4	4,141.5
-Quantity (BBL/D)	1,510.0	1,874.0	2,192.0	2,773.0	6,160.0	11,225.0	12,633.0	12,838.0	23,825.0	15,873.0	19,789.0	71,172.0
-Value (M.US$)	30.7	34.8	44.2	45.7	87.6	134.6	162.4	176.5	258.1	129.4	141.4	747.1
-Price ($/BBL)	55.8	50.9	55.3	45.0	39.0	32.9	35.2	37.6	29.7	22.3	19.6	28.7
4. Total Petroleum												
-Value (M.Baht)	55,712.8	81,855.9	78,894.0	82,102.0	88,278.3	88,201.4	109,324.9	159,037.6	187,317.2	147,638.4	184,754.9	324,889.5
-Quantity (M.Litres)	18,297.0	21,358.6	22,338.0	25,526.6	29,559.9	32,116.9	37,452.9	46,037.3	46,756.8	41,773.6	43,775.7	44,611.6
-Quantity (BBL/D)	315,296.0	368,054.0	384,929.0	438,674.0	509,379.0	553,441.0	645,391.0	791,151.0	805,716.0	719,845.0	754,346.0	766,649.0
-Value (M.US$)	2,160.9	3,198.0	3,089.1	3,223.6	3,481.3	3,502.4	4,381.1	6,260.7	6,021.9	3,534.4	4,839.0	8,027.0
-Price ($/BBL)	18.8	23.8	22.0	20.1	18.7	17.3	18.6	21.6	20.5	13.5	17.6	28.6

Source : Department of Energy Business (DOEB)
Compiled by : Energy Policy and Planning Office (EPPO)
Remarks : Excluding Lube Oil and Grease
: Including Propane and Butane

Table 2.1.2-2Y (Cont.)
Quantity and Value of Petroleum Products Import

Description	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1. Crude Oil													
-Value (M.Baht)	284,373.3	286,952.7	346,056.8	486,627.4	644,933.3	753,782.9	715,789.3	1,002,667.3	623,023.9	751,466.6	977,374.0	1,119,337.8	1,072,221.2
-Quantity (M.Litres)	41,341.6	42,277.7	45,024.8	50,621.2	48,032.7	48,125.4	46,671.3	47,225.0	46,620.2	47,365.3	46,090.0	50,056.0	50,373.5
-Quantity (BBL/D)	712,401.0	728,532.0	775,870.0	872,308.0	827,702.0	829,300.0	804,242.0	811,561.0	803,362.0	816,201.0	794,226.0	860,211.0	868,040.0
-Value (M.US$)	6,365.4	6,663.7	8,309.6	12,037.8	15,932.4	19,824.4	20,706.9	30,131.3	18,150.4	23,676.0	31,943.7	35,872.7	34,752.6
-Price ($/BBL)	24.5	25.1	29.3	37.8	52.7	65.5	70.5	101.4	61.9	79.5	110.2	113.9	109.7
2. Petroleum Products													
-Value (M.Baht)	3,910.6	7,391.2	8,909.1	15,774.5	29,362.6	23,513.8	15,409.3	21,353.8	21,749.7	41,415.1	49,674.6	70,469.8	72,372.0
-Quantity (M.Litres)	469.5	981.5	998.0	1,715.0	2,164.7	1,503.7	932.2	1,229.0	1,887.8	3,112.8	3,093.7	3,889.6	4,353.1
-Quantity (BBL/D)	8,090.0	16,913.0	17,197.0	29,553.0	37,303.0	25,912.0	16,063.0	21,120.0	32,530.0	53,640.0	53,311.0	66,843.0	75,013.0
-Value (M.US$)	87.4	171.0	214.0	394.6	728.6	615.0	445.4	640.4	635.4	1,308.8	1,624.2	2,261.0	2,343.5
-Price ($/BBL)	29.6	27.7	34.1	36.6	53.5	65.0	76.0	82.8	53.5	66.9	83.5	92.4	85.6
3. Others													
-Value (M.Baht)	26,757.0	20,462.4	24,259.1	28,902.3	30,462.2	38,867.3	34,841.6	19,708.8	7,366.4	25,419.6	44,604.9	53,701.1	66,129.5
-Quantity (M.Litres)	3,924.8	3,011.1	2,999.5	2,837.2	2,417.5	2,630.6	2,208.8	1,039.3	699.7	1,768.9	2,429.3	2,714.5	3,434.9
-Quantity (BBL/D)	67,632.0	51,888.0	51,687.0	48,890.0	41,659.0	45,330.0	38,061.0	17,860.0	12,058.0	30,483.0	41,862.0	46,649.0	59,191.0
-Value (M.US$)	601.9	475.4	580.8	716.0	755.0	1,019.7	1,008.0	598.4	212.0	800.3	1,454.6	1,721.4	2,148.7
-Price ($/BBL)	24.4	25.1	30.8	40.1	49.7	61.6	72.6	91.5	48.2	71.9	95.2	100.8	99.5
4. Total Petroleum													
-Value (M.Baht)	315,040.9	314,806.3	379,225.0	531,304.2	704,758.1	816,164.0	766,040.2	1,043,729.9	652,140.0	818,301.2	1,071,653.5	1,243,508.7	1,210,722.6
-Quantity (M.Litres)	45,735.8	46,270.3	49,022.3	55,173.4	52,614.9	52,259.7	49,812.2	49,493.3	49,207.6	52,247.0	51,613.1	56,660.1	58,161.6
-Quantity (BBL/D)	788,123.0	797,333.0	844,755.0	950,751.0	906,663.0	900,542.0	858,367.0	850,541.0	847,949.0	900,324.0	889,400.0	973,703.0	1,002,244.0
-Value (M.US$)	7,054.7	7,310.1	9,104.4	13,148.4	17,416.0	21,459.2	22,160.3	31,370.0	18,997.9	25,785.1	35,022.5	39,855.1	39,244.8
-Price ($/BBL)	24.5	25.1	29.5	37.9	52.6	65.3	70.7	100.8	61.4	78.5	107.9	111.8	107.3

Source : Department of Energy Business (DOEB)
Compiled by : Energy Policy and Planning Office (EPPO)
Remarks : Excluding Lube Oil and Grease
: Including Propane and Butane



Table 2.1.3-1Y
Quantity and Value of Petroleum Products Export

Description	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
1. Crude Oil													
-Value (M.Baht)													14,448.50
-Quantity (M.Litres)												1,749.75	2,216.18
-Quantity (BBL/D)												30,069.00	38,189.00
-Value (M.US$)													324.22
-Price ($/BBL)													23.26
2. Petroleum Products													
-Value (M.Baht)													
-Quantity (M.Litres)	9.47	23.75	34.56	194.51	472.50	412.75	810.40	4,399.43	6,350.68	5,851.66	7,100.70	6,393.56	6,916.20
-Quantity (BBL/D)	163.00	409.00	596.00	3,343.00	8,142.00	7,112.00	13,965.00	75,604.00	109,435.00	100,836.00	122,360.00	109,873.00	119,180.00
-Value (M.US$)													
-Price ($/BBL)													
3. Others													
-Value (M.Baht)													
-Quantity (M.Litres)			9.04	399.66	480.85	308.65	456.87	415.90	451.32	410.85	718.39	1,026.48	1,009.63
-Quantity (BBL/D)			156.00	6,868.00	8,286.00	5,319.00	7,873.00	7,147.00	7,777.00	7,080.00	12,379.00	17,640.00	17,398.00
-Value (M.US$)													
-Price ($/BBL)													
4. Total Petroleum													
-Value (M.Baht)													14,448.50
-Quantity (M.Litres)	9.47	23.75	43.60	594.16	953.35	721.39	1,267.27	4,955.29	6,802.00	6,262.51	7,839.15	9,169.79	10,142.01
-Quantity (BBL/D)	163.00	409.00	751.00	10,211.00	16,428.00	12,431.00	21,838.00	85,157.00	117,212.00	107,916.00	135,085.00	157,583.00	174,768.00
-Value (M.US$)													324.22
-Price ($/BBL)													5.08

Source : Department of Energy Business (DOEB)
Compiled by : Energy Policy and Planning Office (EPPO)

Table 2.1.3-1Y (Cont.)
Quantity and Value of Petroleum Products Export

Description	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1. Crude Oil												
-Value (M.Baht)	18,075.02	29,355.84	33,883.08	52,858.33	56,834.78	45,811.90	56,575.07	27,409.67	26,107.31	38,925.85	51,531.16	29,114.92
-Quantity (M.Litres)	2,688.87	3,876.48	3,287.85	3,805.71	3,797.65	3,020.28	2,668.79	2,383.15	1,738.44	1,886.17	2,387.95	1,443.00
-Quantity (BBL/D)	46,335.00	66,800.00	56,502.00	65,580.00	65,441.00	52,046.00	45,863.00	41,067.00	29,957.00	32,503.00	41,037.00	24,866.00
-Value (M.US$)	420.60	703.76	836.35	1,300.09	1,494.26	1,324.73	1,703.53	804.19	822.34	1,283.21	1,662.48	961.12
-Price ($/BBL)	24.87	28.86	40.44	54.31	62.56	69.73	101.49	53.65	75.21	108.17	110.69	105.90
2. Petroleum Products												
-Value (M.Baht)			70,954.44	99,398.18	138,062.55	127,171.65	225,446.99	174,515.78	198,590.18	230,722.50	268,489.76	265,214.56
-Quantity (M.Litres)	7,132.47	6,129.89	7,004.38	7,092.74	8,399.38	7,746.61	10,403.64	11,681.60	11,957.35	10,495.11	11,597.59	11,874.36
-Quantity (BBL/D)	122,907.00	105,631.00	120,370.00	122,222.00	144,739.00	133,490.00	178,786.00	201,298.00	206,050.00	180,852.00	199,304.00	204,620.00
-Value (M.US$)			1,753.33	2,440.45	3,637.40	3,683.57	6,765.35	5,131.02	6,286.60	7,619.14	8,683.33	8,634.76
-Price ($/BBL)			39.80	54.70	68.85	75.60	103.39	69.83	83.59	115.42	119.04	115.61
3. Others												
-Value (M.Baht)			15,504.54	12,135.82	22,863.33	31,904.92	34,936.97	30,770.25	33,273.94	47,534.09	75,893.96	76,277.02
-Quantity (M.Litres)	963.81	1,342.06	1,473.34	1,019.77	1,527.38	2,128.50	2,268.05	2,239.99	2,014.59	2,432.90	3,440.83	3,660.52
-Quantity (BBL/D)	16,608.00	23,127.00	25,319.00	17,573.00	26,320.00	36,678.00	38,976.00	38,600.00	34,715.00	41,924.00	59,131.00	63,078.00
-Value (M.US$)			384.48	299.71	602.41	923.28	1,042.18	906.92	1,051.14	1,564.14	2,452.47	2,492.19
-Price ($/BBL)			41.49	46.73	62.71	68.97	73.06	64.37	82.96	102.22	113.32	108.25
4. Total Petroleum												
-Value (M.Baht)	18,075.02	29,355.84	120,342.06	164,392.34	217,760.66	204,888.47	316,959.02	232,695.70	257,971.43	317,182.44	395,914.88	371,323.38
-Quantity (M.Litres)	10,785.15	11,348.43	11,765.57	11,918.21	13,724.41	12,895.39	15,340.48	16,304.74	15,710.37	14,814.17	17,426.37	17,007.63
-Quantity (BBL/D)	185,850.00	195,557.00	202,191.00	205,375.00	236,500.00	222,214.00	263,626.00	280,964.00	270,722.00	255,279.00	299,472.00	293,077.00
-Value (M.US$)	420.60	703.76	2,974.16	4,040.26	5,734.06	5,931.58	9,511.06	6,842.13	8,160.07	10,466.49	12,798.28	12,111.56
-Price ($/BBL)	6.20	9.86	40.19	53.90	66.43	73.13	98.57	66.72	82.58	112.33	116.77	113.22

Source : Department of Energy Business (DOEB)
Compiled by : Energy Policy and Planning Office (EPPO)



Table 2.2-1Y
Refining Capacity

Unit: Barrels/Day

Company	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
ESSO	69,680	69,680	69,680	145,000	145,000	145,000	145,000	145,000	145,000	145,000	145,000	145,000	160,000
BCP	68,000	68,000	68,000	80,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000
THAI OIL (TOP)	83,500	83,500	83,500	183,500	183,500	210,000	210,000	210,000	210,000	210,000	210,000	210,000	210,000
FANG	1,100	1,100	1,100	1,200	1,400	1,700	1,700	2,500	2,500	2,500	2,500	2,500	2,500
TPI / IRPC								65,000	65,000	65,000	65,000	65,000	215,000
RRC								145,000	145,000	145,000	145,000	145,000	145,000
STAR REFINERY CO.,LTD.								130,000	130,000	130,000	145,000	145,000	145,000
RAYONG PURIFIER CO.,LTD.										17,000	17,000	17,000	17,000
Total	222,280	222,280	222,280	409,700	449,900	476,700	476,700	817,500	817,500	834,500	849,500	849,500	1,014,500

Company	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
ESSO	160,000	160,000	160,000	160,000	160,000	160,000	170,000	170,000	170,000	170,000	170,000	177,000
BCP	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000
THAI OIL (TOP)	210,000	210,000	210,000	220,000	220,000	220,000	275,000	275,000	275,000	275,000	275,000	275,000
FANG	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
TPI / IRPC	215,000	215,000	215,000	215,000	215,000	215,000	215,000	215,000	215,000	215,000	215,000	215,000
RRC / PTTAR / PTTGC	145,000	145,000	145,000	145,000	145,000	145,000	280,000	280,000	280,000	280,000	280,000	280,000
STAR REFINERY CO.,LTD.	145,000	145,000	145,000	145,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000
RAYONG PURIFIER CO.,LTD.	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000
Total	1,014,500	1,014,500	1,014,500	1,024,500	1,029,500	1,029,500	1,229,500	1,229,500	1,229,500	1,229,500	1,229,500	1,236,500

Remarks : Since mid of September 2007 RRC merged with ATC to form PTTAR.
Since mid of October 2011 PTTAR merged with PTTCH to form PTTGC.

Source by : Department of Energy Business (DOEB)

Compiled by : Energy Policy and Planning Office (EPPO)

Table 2.2-2Y
Material Intake by Refinery

Unit : BBL/D

Year	Thai Oil	Bangchak	ESSO	TPI / IRPC	RRC /PTTAR / PTTGC	SPRC	RPC	Total
1989	96,972	50,732	77,716					225,420
1990	103,611	64,837	72,354					240,803
1991	105,693	69,242	73,691					248,626
1992	150,198	77,025	78,409					305,631
1993	192,327	90,489	74,903					357,719
1994	209,436	107,774	96,810					414,020
1995	214,493	110,400	150,404	10,192				485,490
1996	194,645	97,795	150,675	36,179	104,224	75,488		659,006
1997	205,889	98,563	144,951	49,631	132,081	136,346		767,461
1998	187,864	91,296	120,497	56,076	129,590	130,875	5,611	721,808
1999	164,056	95,091	118,480	58,917	147,630	150,265	7,518	741,957
2000	169,385	85,597	134,558	65,953	142,983	142,948	8,205	749,629
2001	192,555	73,819	135,659	66,769	138,253	138,253	10,706	756,014
2002	204,849	72,709	126,901	129,884	142,159	142,159	9,028	827,688
2003	225,616	74,655	136,917	127,116	135,347	135,347	11,093	846,091
2004	223,125	90,113	129,869	178,104	146,469	147,073	11,097	925,850
2005	226,465	62,738	152,965	178,124	138,709	138,709	11,487	909,198
2006	229,326	57,070	150,485	169,417	153,689	153,689	11,822	925,498
2007	208,907	65,827	148,266	189,299	147,782	147,702	12,976	920,759
2008	272,648	73,540	141,046	171,788	127,455	127,455	11,498	925,432
2009	268,177	85,098	137,506	140,469	142,634	152,514	10,234	936,633
2010	255,423	88,575	124,933	173,097	146,312	162,738	10,686	961,764
2011	275,498	89,918	110,206	157,863	134,267	156,640	11,515	935,909
2012	271,235	76,731	142,254	174,920	147,439	163,012	1,155	976,745
2013	297,279	99,909	141,928	182,876	171,388	183,766		1,077,147

Remarks : Since mid of September 2007 RRC merged with ATC to form PTTAR.
Since mid of October 2011 PTTAR merged with PTTCH to form PTTGC.
Since November 2006 TPI changed the name to IRPC

Source : Department of Energy Business (DOEB)

Compiled by : Energy Policy and Planning Office (EPPO)



Table 2.3.1-1Y
Production of Petroleum Products

Unit : Million Litres

Year	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
1989	2,757.1	1,601.3	1,155.8	131.0	4,202.6	4,075.0	127.6	1,662.6	3,403.4	882.5	13,039.2
1990	3,044.9	1,777.2	1,267.7	140.1	4,427.0	4,305.4	121.6	1,778.1	3,540.1	1,347.1	14,277.2
1991	3,106.1	1,919.5	1,186.6	100.2	4,794.6	4,655.4	139.2	1,856.0	3,587.6	1,817.3	15,261.7
1992	3,751.3	2,270.6	1,480.6	121.6	6,093.5	5,936.3	157.3	2,083.5	4,328.7	2,355.0	18,733.5
1993	4,603.2	2,442.2	2,161.0	124.6	7,273.9	7,069.9	204.0	2,321.4	4,739.5	2,655.4	21,717.9
1994	5,025.0	2,034.7	2,990.3	120.6	8,432.9	8,218.6	214.3	2,700.4	5,763.6	2,535.9	24,578.3
1995	6,181.6	2,247.4	3,934.2	113.0	10,073.7	9,866.5	207.2	3,138.3	6,000.6	3,151.2	28,658.4
1996	7,969.5	2,693.4	5,276.1	189.3	13,929.9	13,754.5	175.4	3,572.0	8,354.1	3,761.1	37,775.8
1997	9,419.5	2,879.6	6,539.9	122.7	17,272.5	17,128.3	144.3	3,810.8	8,701.9	4,650.6	43,978.1
1998	8,722.1	2,798.9	5,923.2	114.9	16,437.3	16,326.4	111.0	3,567.4	7,846.2	4,472.4	41,160.3
1999	8,631.5	2,762.7	5,868.8	346.7	15,948.2	15,817.1	131.1	4,119.0	7,828.8	4,984.7	41,858.8
2000	8,086.5	3,792.3	4,294.2	491.2	16,105.7	15,991.3	114.4	4,347.8	6,990.7	5,575.6	41,597.5
2001	8,327.2	4,131.3	4,195.9	587.1	16,666.8	16,558.7	108.1	4,237.2	6,465.9	6,348.4	42,632.6
2002	8,250.8	4,305.3	3,945.5	549.6	17,520.0	17,418.6	101.4	4,669.9	5,979.6	6,359.3	43,329.1
2003	8,639.7	4,662.2	3,977.4	697.3	19,176.8	19,072.2	104.6	4,257.3	6,080.9	6,679.3	45,531.2
2004	8,957.2	4,846.3	4,110.9	1,119.5	21,243.3	21,127.1	116.1	4,630.8	6,721.5	7,069.8	49,742.1
2005	9,232.7	5,076.1	4,156.6	1,016.7	20,797.2	20,713.0	84.2	4,836.6	6,159.2	7,734.9	49,777.1
2006	9,089.9	5,034.7	4,055.2	1,041.1	21,149.4	21,095.3	54.0	5,602.9	6,308.1	7,702.6	50,893.9
2007	8,702.9	5,068.1	3,634.8	123.4	21,994.9	21,963.5	31.4	5,322.6	6,452.0	8,276.7	50,872.4
2008	8,449.0	4,900.1	3,548.9	194.9	20,769.0	20,765.4	3.7	6,001.9	6,873.3	8,065.4	50,353.4
2009	8,852.1	5,190.3	3,661.8	92.9	22,489.0	22,489.0		5,975.0	6,884.2	8,273.0	52,566.1
2010	8,741.9	5,305.0	3,436.9	466.7	23,304.8	23,304.8		6,196.1	5,999.8	8,178.4	52,887.6
2011	8,325.9	5,699.7	2,626.2	151.8	23,098.6	23,098.2	0.4	6,292.7	5,815.8	10,041.5	53,726.3
2012	9,150.1	6,646.8	2,503.3	75.9	25,124.6	25,124.6		5,857.8	6,138.1	10,530.1	56,876.5
2013	9,853.3	4,786.7	5,066.6	687.1	25,518.2	25,518.2		6,680.1	5,911.2	10,087.1	58,737.0

Source : Department of Energy Business (DOEB)
Compiled by : Energy Policy and Planning Office (EPPO)

Table 2.3.1-2Y
Production of Petroleum Products

Unit : Barrels/Day

Year	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
1989	47,510.5	27,593.7	19,916.8	2,257.4	72,419.4	70,220.6	2,198.8	28,650.0	58,647.6	15,207.2	224,693.8
1990	52,469.9	30,624.8	21,845.0	2,414.2	76,286.3	74,190.9	2,095.4	30,640.3	61,003.2	23,213.3	246,026.7
1991	53,524.5	33,076.9	20,447.5	1,726.6	82,620.8	80,222.1	2,398.7	31,982.7	61,821.7	31,315.8	262,991.7
1992	64,466.0	39,020.2	25,444.0	2,089.6	104,716.6	102,015.2	2,703.1	35,804.9	74,388.6	40,470.6	321,936.5
1993	79,322.6	42,084.1	37,238.4	2,147.1	125,344.3	121,828.9	3,515.3	40,002.5	81,671.3	45,758.0	374,244.8
1994	86,591.1	35,062.0	51,529.0	2,078.1	145,316.2	141,623.4	3,692.8	46,533.4	99,318.7	43,698.7	423,536.5
1995	106,521.7	38,727.3	67,794.3	1,947.2	173,590.6	170,020.1	3,570.4	54,079.3	103,402.7	54,301.6	493,843.7
1996	136,955.7	46,286.0	90,669.6	3,253.1	239,385.0	236,370.8	3,014.2	61,384.7	143,565.0	64,634.4	649,177.2
1997	162,317.4	49,621.4	112,695.9	2,114.3	297,640.8	295,155.9	2,486.5	65,667.9	149,951.7	80,139.4	757,834.2
1998	150,299.7	48,230.8	102,068.9	1,979.9	283,248.6	281,337.5	1,912.7	61,473.6	135,206.2	77,068.6	709,278.4
1999	148,738.5	47,607.0	101,131.5	5,974.3	274,820.4	272,561.2	2,259.1	70,978.8	134,906.3	85,896.6	721,314.5
2000	138,966.3	65,170.6	73,795.7	8,441.2	276,776.1	274,810.2	1,965.9	74,716.8	120,135.0	95,816.5	714,853.3
2001	143,494.8	71,190.8	72,304.0	10,116.9	287,203.3	285,340.5	1,862.7	73,015.7	111,420.8	109,396.0	734,649.0
2002	142,178.3	74,189.2	67,989.1	9,470.7	301,905.7	300,158.4	1,747.3	80,472.0	103,040.8	109,583.8	746,650.1
2003	148,879.8	80,339.3	68,538.8	12,015.9	330,455.8	328,653.3	1,802.4	73,362.0	104,786.4	115,098.1	784,597.5
2004	154,351.0	83,511.7	70,839.2	19,291.2	366,065.9	364,063.5	2,000.6	79,798.2	115,825.3	121,827.2	857,160.6
2005	159,098.4	87,471.6	71,626.8	17,519.8	358,378.7	356,927.7	1,450.9	83,344.6	106,135.7	133,288.3	857,763.3
2006	156,637.7	86,758.2	69,879.4	17,940.3	364,447.8	363,515.5	930.5	96,549.5	108,701.5	132,731.7	877,007.5
2007	149,968.9	87,333.8	62,635.1	2,126.4	379,017.5	378,476.4	541.0	91,719.3	111,181.2	142,624.6	876,637.5
2008	145,593.7	84,438.8	61,154.8	3,358.5	357,892.7	357,830.7	63.7	103,425.1	118,441.1	138,983.4	867,694.3
2009	152,539.9	89,439.5	63,100.3	1,600.8	387,531.9	387,531.9		102,961.5	118,628.9	142,560.8	905,823.4
2010	150,640.9	91,416.1	59,224.8	8,042.2	401,589.8	401,589.8		106,771.5	103,388.9	140,930.7	911,364.0
2011	143,472.4	98,217.6	45,254.8	2,615.8	398,036.5	398,029.6	6.8	108,436.2	100,218.2	173,035.7	925,816.1
2012	157,244.3	114,225.1	43,019.1	1,304.3	431,765.8	431,765.8		100,666.1	105,483.1	180,959.5	977,422.8
2013	169,792.7	82,484.7	87,307.9	11,840.1	439,731.2	439,731.2		115,111.9	101,862.1	173,821.5	1,012,160.9

Source : Department of Energy Business (DOEB)
Compiled by : Energy Policy and Planning Office (EPPO)

Table 2.3.2-1Y
Sale of Petroleum Products

Unit : Million Litres

Year	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium		Total	HSD	LSD				
1989	3,321.7	1,795.8	1,525.9	119.2	8,649.7	8,520.2	129.5	2,112.3	3,634.1	1,571.5	19,408.5
1990	3,686.9	1,940.6	1,746.3	123.0	9,928.0	9,811.1	117.0	2,292.3	5,210.1	1,716.3	22,956.6
1991	3,890.4	2,005.1	1,885.3	111.3	9,950.6	9,811.1	139.5	2,467.9	6,113.7	1,844.8	24,378.7
1992	4,335.0	2,117.7	2,217.3	112.3	10,353.8	10,194.8	158.9	2,724.2	7,271.0	2,216.0	27,012.3
1993	4,911.8	2,163.9	2,747.9	107.5	12,033.3	11,833.7	199.6	2,898.6	8,026.8	2,415.6	30,393.4
1994	5,591.2	2,172.6	3,418.6	113.7	13,288.8	13,069.1	219.7	3,133.7	8,991.1	2,636.9	33,755.3
1995	6,293.3	2,206.2	4,087.1	100.9	15,619.1	15,424.1	194.9	3,294.5	9,722.4	2,847.6	37,877.7
1996	6,918.1	2,076.1	4,842.0	98.4	17,826.6	17,665.5	161.1	3,393.0	9,653.1	3,395.7	41,284.8
1997	7,355.3	1,973.0	5,382.3	85.9	17,535.2	17,387.8	147.4	3,542.7	9,094.4	3,512.0	41,125.4
1998	7,168.3	2,199.2	4,969.2	55.1	15,285.0	15,167.2	117.8	3,314.5	7,940.5	3,519.5	37,282.9
1999	7,025.6	2,340.1	4,685.4	51.7	15,294.9	15,159.5	135.4	3,297.7	7,931.1	3,585.4	37,186.3
2000	6,761.6	3,334.5	3,427.1	48.8	14,973.7	14,868.1	105.6	3,493.7	6,373.4	4,229.6	35,880.6
2001	6,857.1	3,856.0	3,001.0	56.5	15,225.9	15,121.0	104.8	3,717.4	4,563.8	4,757.7	35,178.3
2002	7,326.0	4,341.4	2,984.7	61.8	16,076.9	15,963.6	113.2	3,777.7	4,782.7	4,859.4	36,884.4
2003	7,635.1	4,550.3	3,084.8	35.8	17,550.3	17,450.8	99.5	3,761.3	4,990.6	5,064.7	39,037.8
2004	7,660.7	4,631.3	3,029.3	23.3	19,623.9	19,519.3	104.6	4,241.9	6,064.2	5,132.7	42,746.6
2005	7,248.1	4,362.1	2,886.0	21.3	19,593.8	19,516.6	77.2	4,292.7	6,204.8	5,738.7	43,099.2
2006	7,215.1	4,558.9	2,656.3	19.7	18,371.0	18,311.8	59.2	4,518.5	5,851.3	6,514.1	42,489.8
2007	7,336.8	4,711.6	2,625.2	18.2	18,709.7	18,676.9	32.8	4,931.8	4,221.5	7,621.9	42,839.8
2008	7,120.6	4,311.4	2,809.2	15.7	17,643.0	17,633.6	9.4	4,636.5	3,287.3	8,867.4	41,570.4
2009	7,524.4	4,291.6	3,232.8	17.6	18,465.3	18,465.3		4,431.5	2,730.9	9,643.7	42,813.4
2010	7,416.8	4,509.2	2,907.6	15.3	18,480.1	18,480.1		4,711.7	2,615.2	11,087.4	44,326.4
2011	7,331.1	4,936.8	2,394.3	13.0	19,192.1	19,192.1		5,076.5	2,455.9	12,758.9	46,827.6
2012	7,705.0	5,328.9	2,376.0	13.4	20,564.6	20,564.6		5,091.4	2,363.3	13,678.1	49,415.8
2013	8,194.9	3,445.8	4,749.1	11.0	20,891.9	20,891.9		5,562.4	2,154.9	13,933.2	50,748.2

Source : Department of Energy Business (DOEB)
Compiled by : Energy Policy and Planning Office (EPPO)
* Including Propane and Butane

Table 2.3.2-2Y
Sale of Petroleum Products

Unit : Barrels/Day

Year	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium		Total	HSD	LSD				
1989	57,239.7	30,945.3	26,294.4	2,054.0	149,052.1	146,820.6	2,231.5	36,399.2	62,623.0	27,080.1	334,448.6
1990	63,532.9	33,440.5	30,092.3	2,119.5	171,079.9	169,065.5	2,016.1	39,501.0	89,780.7	29,575.3	395,589.7
1991	67,039.6	34,552.0	32,487.6	1,917.9	171,469.3	169,065.5	2,403.8	42,527.0	105,351.6	31,789.7	420,095.9
1992	74,496.9	36,392.6	38,104.2	1,929.8	177,929.8	175,197.4	2,730.6	46,815.3	124,952.0	38,081.9	464,206.8
1993	84,640.4	37,288.4	47,351.9	1,852.4	207,358.6	203,919.0	3,439.5	49,948.8	138,318.3	41,625.7	523,742.4
1994	96,347.9	37,438.3	58,909.5	1,959.2	228,993.4	225,207.5	3,785.8	54,000.1	154,935.2	45,439.2	581,674.6
1995	108,446.5	38,017.3	70,429.1	1,738.7	269,149.3	265,789.0	3,358.5	56,771.0	167,537.0	49,070.0	652,712.3
1996	119,213.1	35,775.4	83,437.6	1,695.6	307,189.1	304,413.0	2,776.0	58,468.3	166,342.8	58,514.9	711,423.4
1997	126,747.0	33,998.8	92,748.1	1,480.2	302,167.7	299,627.7	2,540.0	61,048.0	156,715.2	60,519.0	708,675.8
1998	123,524.6	37,896.7	85,629.5	949.4	263,392.1	261,362.1	2,029.9	57,115.6	136,831.2	60,648.2	642,462.0
1999	121,065.5	40,324.7	80,739.1	890.8	263,562.7	261,229.4	2,333.2	56,826.1	136,669.2	61,783.8	640,798.3
2000	116,197.9	57,303.3	58,894.6	838.6	257,322.7	255,508.0	1,814.7	60,039.1	109,526.7	72,685.6	616,608.8
2001	118,161.9	66,446.8	51,713.4	973.6	262,373.6	260,566.0	1,805.9	64,058.4	78,643.6	81,984.9	606,195.2
2002	126,242.1	74,811.2	51,432.5	1,064.9	277,038.1	275,085.7	1,950.6	65,097.5	82,415.7	83,737.4	635,595.4
2003	131,568.5	78,411.0	53,157.4	616.9	302,427.9	300,713.3	1,714.5	64,814.9	85,998.3	87,275.2	672,702.3
2004	131,648.9	79,588.8	52,058.4	400.4	337,236.3	335,438.8	1,797.5	72,896.9	104,213.1	88,205.3	734,600.6
2005	124,899.7	75,167.9	49,731.7	367.0	337,641.6	336,311.3	1,330.3	73,972.0	106,921.5	98,889.6	742,689.5
2006	124,331.0	78,559.2	45,773.5	339.4	316,570.2	315,550.1	1,020.1	77,863.0	100,829.9	112,251.3	732,187.0
2007	126,428.2	81,190.5	45,237.6	313.6	322,406.7	321,841.5	565.2	84,985.0	72,745.1	131,341.0	738,219.9
2008	122,367.3	74,091.3	48,276.0	269.8	303,194.6	303,033.1	161.5	79,678.1	56,492.1	152,386.1	714,386.8
2009	129,660.9	73,953.1	55,707.8	303.2	318,195.2	318,195.2		76,363.8	47,059.0	166,180.8	737,763.3
2010	127,806.7	77,702.8	50,103.9	263.6	318,450.2	318,450.2		81,192.3	45,065.2	191,058.7	763,835.6
2011	126,329.9	85,071.2	41,258.7	224.0	330,719.5	330,719.5		87,478.5	42,320.2	219,862.1	806,936.8
2012	132,410.2	91,577.0	40,831.5	230.2	353,402.3	353,402.3		87,495.6	40,613.2	235,057.9	849,211.3
2013	141,215.0	59,378.2	81,836.8	189.5	360,010.5	360,010.5		95,851.6	37,133.3	240,097.8	874,497.1

Source : Department of Energy Business (DOEB)
Compiled by : Energy Policy and Planning Office (EPPO)
* Including Propane and Butane

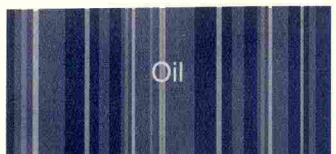


Table 2.3.3-1Y
Import of Petroleum Products

Unit : Million Litres

Year	Gasoline				Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium	BASE ULG		Total	HSD	LSD				
1989	613.6	206.9	406.7			4,309.6	4,309.6		495.3	247.2	694.6	6,360.2
1990	652.7	180.3	472.4			5,590.2	5,590.2		524.2	1,777.5	518.5	9,063.2
1991	802.5	105.2	697.3			5,161.7	5,161.7		580.7	2,664.9	191.2	9,400.9
1992	1,058.7	71.2	987.6			4,294.7	4,294.7		685.2	3,175.4	3.3	9,217.3
1993	938.8	109.3	829.6			5,382.6	5,382.6		655.5	3,350.1	81.4	10,408.4
1994	833.1	416.0	417.1			4,786.4	4,786.4		524.9	3,524.1	157.9	9,826.4
1995	653.2	289.1	364.1			5,815.9	5,815.9		192.1	3,745.8	76.1	10,482.9
1996	351.9	119.9	232.1			5,133.8	5,133.8		71.9	2,741.8	146.4	8,445.8
1997	68.1	47.7	20.5		37.2	2,005.5	2,005.5		23.2	945.9	3.6	3,083.4
1998	25.0	16.8	8.2			716.0	716.0		1.6	661.4	2.8	1,406.8
1999	51.8	18.7	33.1			1,084.5	1,084.5		4.0	929.1		2,069.4
2000	29.1	17.7	11.4			645.5	645.5		3.0	622.6		1,300.2
2001	144.2	144.2				321.7	321.7		3.6			469.4
2002	224.2	217.4	6.9			706.5	706.5		50.8			981.4
2003	139.3	139.3				605.3	605.3		42.5	210.9		997.9
2004	192.7	169.8	22.9			713.5	713.5		49.8	753.1	5.9	1,715.0
2005						719.4	719.4		2.6	1,442.8		2,164.7
2006						364.8	364.8		33.9	1,105.0		1,503.7
2007	162.1	135.2	26.9			191.0	191.0		42.8	536.3		932.1
2008						89.6	89.6		47.9	254.3	837.2	1,229.0
2009	14.1	14.1				385.3	385.3		10.5	83.2	1,394.7	1,887.7
2010						61.2	61.2		3.3	101.2	2,947.1	3,112.8
2011	34.1	18.5		15.6		56.0	56.0		10.8	331.7	2,661.2	3,093.7
2012	305.0	62.5		242.5		15.3	15.3		2.8	362.5	3,204.1	3,889.6
2013	262.2			262.2		196.7	196.7		16.2	268.4	3,609.6	4,353.1

Source : Department of Energy Business (DOEB)
Compiled by : Energy Policy and Planning Office (EPPO)
*Including Propane and Butane

Table 2.3.3-2Y
Import of Petroleum Products

Unit : Barrels/Day

Year	Gasoline				Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium	BASE ULG		Total	HSD	LSD				
1989	10,573.5	3,565.3	7,008.2			74,263.3	74,263.3		8,535.0	4,259.7	11,969.3	109,600.2
1990	11,247.3	3,106.9	8,140.4			96,330.6	96,330.6		9,033.0	30,629.9	8,934.8	156,178.0
1991	13,828.7	1,812.8	12,015.9			88,946.7	88,946.7		10,006.6	45,921.7	3,294.7	161,997.6
1992	18,193.7	1,223.5	16,971.8			73,804.3	73,804.3		11,775.1	54,569.1	56.7	158,399.4
1993	16,177.4	1,883.4	14,295.7			92,753.3	92,753.3		11,295.6	57,729.1	1,402.6	179,359.2
1994	14,356.0	7,168.5	7,187.4			82,479.5	82,479.5		9,045.1	60,727.5	2,720.9	169,330.2
1995	11,255.9	4,981.7	6,274.1			100,219.9	100,219.9		3,310.2	64,547.8	1,311.3	180,643.5
1996	6,047.3	2,060.4	3,988.6			88,224.2	88,224.2		1,235.6	47,117.7	2,515.8	145,142.4
1997	1,173.5	821.9	353.2		641.0	34,558.9	34,558.9		399.7	16,299.8	62.0	53,134.2
1998	430.8	289.4	141.3			12,338.1	12,338.1		27.5	11,397.2	48.2	24,242.8
1999	892.6	322.2	570.3			18,688.1	18,688.1		68.9	16,010.3		35,661.3
2000	500.0	304.1	195.9			11,092.9	11,092.9		51.5	10,699.3		22,343.9
2001	2,484.8	2,484.8				5,543.5	5,543.5		62.0			8,089.8
2002	3,863.4	3,746.2	118.9			12,174.4	12,174.4		875.3			16,913.0
2003	2,400.4	2,400.4				10,430.5	10,430.5		732.3	3,634.2		17,197.1
2004	3,311.5	2,918.0	393.5			12,261.4	12,261.4		855.8	12,942.0	101.3	29,472.5
2005						12,396.7	12,396.7		44.8	24,862.4		37,302.8
2006						6,286.2	6,286.2		584.1	19,041.4		25,911.9
2007	2,793.3	2,329.7	463.5			3,291.3	3,291.3		737.5	9,241.5		16,062.7
2008						1,539.7	1,539.7		823.1	4,370.1	14,387.2	21,120.3
2009	242.9	242.9				6,639.5	6,639.5		180.9	1,433.7	24,033.5	32,529.7
2010						1,054.6	1,054.6		56.8	1,743.8	50,784.6	53,640.3
2011	587.6	318.7		268.8		964.9	964.9		186.1	5,715.8	45,857.9	53,311.1
2012	5,241.4	1,074.0		4,167.3		262.9	262.9		48.1	6,229.5	55,062.4	66,843.2
2013	4,518.2			4,518.2		3,389.5	3,389.5		279.1	4,625.0	62,200.8	75,012.9

Source : Department of Energy Business (DOEB)
Compiled by : Energy Policy and Planning Office (EPPO)
*Including Propane and Butane

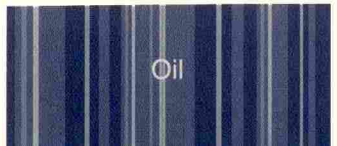


Table 2.3.4-1Y
Export of Petroleum Products

Unit : Million Litres

Year	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
1989	4.1	3.9	0.2		5.4	5.4					9.4
1990	9.3	8.5	0.8		14.5	14.5					23.7
1991	16.7	16.0	0.7		17.4	17.4		0.3		0.2	34.5
1992	105.6	104.5	1.1		23.3	23.3		6.2		59.4	194.5
1993	304.2	301.5	2.7	0.3	54.1	54.1		7.2	19.5	87.2	472.5
1994	239.4	235.1	4.2	0.4	71.2	71.2		9.6	25.5	27.0	373.0
1995	274.0	255.8	18.2	0.3	87.3	87.3		13.6	44.5	187.9	607.5
1996	1,236.8	705.3	531.5	39.1	1,071.1	1,071.1		195.4	1,014.8	364.5	3,921.5
1997	1,948.7	935.0	1,013.6	13.7	1,953.1	1,953.1		277.5	715.2	873.6	5,781.7
1998	1,716.1	635.8	1,080.3	26.3	2,203.2	2,203.2		236.8	199.4	873.3	5,255.0
1999	1,708.5	486.3	1,222.3	302.2	1,976.0	1,976.0		820.8	330.8	1,346.1	6,484.3
2000	1,102.3	329.9	772.4	391.7	1,676.8	1,676.8		816.4	769.3	1,240.5	5,996.9
2001	1,480.6	382.8	1,097.8	394.7	1,646.2	1,642.8	3.5	487.8	1,503.6	1,403.3	6,916.2
2002	1,230.4	220.9	1,009.5	318.5	2,331.6	2,331.6		920.7	766.8	1,269.9	6,837.8
2003	1,108.3	251.1	857.3	109.4	2,148.2	2,148.2		558.0	779.9	1,426.1	6,129.8
2004	1,359.5	316.5	1,043.0	58.9	2,381.6	2,381.6		367.1	1,078.3	1,648.6	6,893.9
2005	2,021.9	738.5	1,283.4	3.8	1,809.0	1,809.0		599.3	903.4	1,755.3	7,092.7
2006	1,921.9	514.4	1,407.5	34.0	2,940.5	2,940.5		1,017.3	1,418.6	1,067.2	8,399.3
2007	1,578.9	543.2	1,035.7	37.2	2,689.5	2,689.5		449.0	2,478.0	514.0	7,746.6
2008	1,478.4	648.0	830.4	108.6	3,806.3	3,806.3		1,346.8	3,624.3	39.3	10,403.6
2009	1,351.1	903.9	447.2	19.0	4,796.5	4,796.5		1,609.3	3,878.0	27.8	11,681.6
2010	1,341.8	801.8	539.9	426.1	5,505.3	5,505.3		1,404.5	3,234.0	45.7	11,957.3
2011	968.7	730.3	238.4	106.8	4,705.5	4,705.5		1,201.5	3,482.9	29.9	10,495.1
2012	1,569.6	1,468.2	101.4	31.5	5,371.3	5,371.3		752.5	3,854.2	18.4	11,597.5
2013	1,634.4	1,369.5	264.9	19.2	4,874.3	4,874.3		1,536.6	3,774.3	11.2	11,850.0

Source : Department of Energy Business (DOEB)
Compiled by : Energy Policy and Planning Office (EPPO)

Table 2.3.4-2Y
Export of Petroleum Products

Unit : Barrels/Day

Year	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
1989	70.6	67.2	3.4		93.0	93.0					163.1
1990	160.2	146.4	13.7		249.8	249.8					409.3
1991	287.7	275.7	12.0		299.8	299.8		5.1		3.4	595.5
1992	1,814.7	1,795.8	18.9		400.4	400.4		106.5		1,020.7	3,342.5
1993	5,241.9	5,195.4	46.5	5.1	932.2	932.2		124.0	336.0	1,502.6	8,142.2
1994	4,125.3	4,051.2	72.3	6.8	1,226.9	1,226.9		165.4	439.4	465.2	6,428.9
1995	4,721.5	4,407.9	313.6	5.1	1,504.3	1,504.3		234.3	766.8	3,237.9	10,468.9
1996	21,254.3	12,120.5	9,133.8	671.9	18,406.8	18,406.8		3,357.9	17,439.3	6,263.9	67,391.3
1997	33,580.1	16,111.9	17,466.4	236.0	33,655.9	33,655.9		4,781.8	12,324.3	15,053.9	99,631.5
1998	29,571.9	10,956.1	18,615.8	453.2	37,965.6	37,965.6		4,080.5	3,436.0	15,048.7	90,555.1
1999	29,440.9	8,379.9	21,062.7	5,207.5	34,050.5	34,050.5		14,144.0	5,700.3	23,196.0	111,739.2
2000	18,943.0	5,669.3	13,273.6	6,731.3	28,815.7	28,815.7		14,029.8	13,220.4	21,317.9	103,056.6
2001	25,513.7	6,596.4	18,917.3	6,801.4	28,367.4	28,308.8	60.3	8,405.8	25,910.1	24,181.7	119,180.4
2002	21,202.3	3,806.5	17,395.7	5,488.4	40,178.2	40,178.2		15,865.5	13,213.5	21,882.9	117,830.0
2003	19,098.2	4,326.9	14,773.0	1,885.1	37,017.9	37,017.9		9,615.4	13,439.2	24,574.6	105,630.5
2004	23,362.9	5,439.0	17,923.9	1,012.1	40,927.7	40,927.7		6,308.6	18,530.5	28,331.1	118,471.6
2005	34,841.5	12,725.8	22,115.6	65.4	31,172.8	31,172.8		10,327.1	15,567.4	30,247.4	122,222.5
2006	33,118.3	8,864.1	24,254.1	585.8	50,670.8	50,670.8		17,530.1	24,445.4	18,390.0	144,738.6
2007	27,207.7	9,360.4	17,847.2	641.0	46,345.6	46,345.6		7,737.1	42,701.0	8,857.2	133,490.1
2008	25,406.2	11,135.8	14,270.4	1,866.2	65,411.2	65,411.2		23,144.7	62,283.5	675.3	178,786.3
2009	23,282.2	15,576.0	7,706.1	327.4	82,653.6	82,653.6		27,731.5	66,825.9	479.0	201,298.1
2010	23,121.9	13,816.6	9,303.5	7,342.5	94,867.6	94,867.6		24,202.4	55,728.4	787.5	206,049.7
2011	16,692.7	12,584.5	4,108.1	1,840.3	81,085.4	81,085.4		20,704.3	60,017.5	515.2	180,852.4
2012	26,973.5	25,230.9	1,742.5	541.3	92,305.6	92,305.6		12,931.6	66,234.3	316.2	199,304.3
2013	28,164.0	23,599.3	4,564.7	330.8	83,994.2	83,994.2		26,478.7	65,038.9	192.9	204,200.9

Source : Department of Energy Business (DOEB)
Compiled by : Energy Policy and Planning Office (EPPO)

Table 2.4-1Y
Demand and Supply of Crude Oil and Oil Products

Unit : Barrels/Day

Year	Crude Oil Balance				Oil Products			Oil Products					Demand
	Production	Import	Export	Throughput	Production	Import	Supply	Consumption	Mogas	Diesel Oil	Others	Export	
1989	39,792	204,185		225,420	228,735	111,109	339,845	341,587	57,240	149,051	135,295	169	341,756
1990	43,238	210,001		240,803	250,755	158,052	408,808	411,876	63,533	171,080	177,262	415	412,291
1991	46,256	220,739		248,626	268,647	164,190	432,837	437,149	67,038	171,469	198,640	760	437,909
1992	52,846	277,501		305,631	343,165	161,172	504,338	485,489	74,496	177,929	233,063	10,240	495,730
1993	53,718	323,859		357,718	399,453	185,519	584,972	548,503	84,640	207,358	256,504	16,488	564,991
1994	57,167	372,885	683	414,020	449,449	180,554	630,004	605,282	96,347	228,993	279,940	11,831	617,113
1995	53,727	452,114	3,495	485,490	524,431	193,276	717,707	676,847	108,446	269,148	299,252	18,448	695,296
1996	62,057	633,170	8,212	659,005	692,378	157,980	850,358	749,315	118,886	306,349	324,078	77,036	826,351
1997	72,263	728,757	9,803	767,460	807,783	76,958	884,742	799,152	126,747	302,167	370,237	103,970	903,123
1998	75,760	679,728	10,281	721,808	761,043	40,115	801,159	727,514	123,525	263,391	340,597	93,930	821,445
1999	83,636	698,895	10,620	741,956	795,171	55,450	850,621	762,447	121,065	263,562	377,819	121,228	883,675
2000	110,157	673,133	36,885	749,629	822,770	93,515	916,285	741,781	116,198	257,322	368,260	122,707	864,489
2001	113,760	712,400	38,189	756,013	842,636	75,722	918,358	727,146	118,161	262,373	346,612	138,653	865,800
2002	129,291	728,532	51,411	827,688	855,821	68,800	924,622	758,288	126,242	277,037	355,007	135,555	893,844
2003	158,985	775,870	66,799	846,091	906,018	68,884	974,902	804,224	131,569	302,428	370,227	126,489	930,714
2004	153,719	869,924	58,400	925,850	930,528	78,228	1,008,757	857,237	131,648	337,236	388,352	140,161	997,399
2005	183,377	827,701	65,580	909,197	916,713	78,961	995,675	860,405	124,899	337,641	397,864	137,029	997,434
2006	204,199	829,300	65,441	925,497	939,220	71,241	1,010,462	847,874	124,331	316,570	406,972	171,896	1,019,770
2007	213,408	804,242	52,045	920,759	949,248	54,124	1,003,372	846,035	126,427	322,406	397,200	169,540	1,015,575
2008	228,828	811,560	45,863	925,432	970,761	38,980	1,009,742	806,635	122,368	303,194	381,073	210,711	1,017,346
2009	237,941	803,361	41,066	936,633	1,030,814	44,587	1,075,401	829,375	129,660	318,195	381,519	240,405	1,069,780
2010	241,801	816,201	29,956	961,763	1,068,081	84,122	1,152,204	882,964	127,806	318,449	436,709	241,321	1,124,286
2011	224,127	794,226	32,502	935,908	1,109,511	95,173	1,204,685	930,353	126,330	330,720	473,302	222,204	1,152,557
2012	238,616	860,211	41,036	976,745	1,168,213	113,491	1,281,705	988,039	132,409	353,402	502,227	259,094	1,247,134
2013	240,639	868,040	25,284	1,077,146	1,367,955	134,203	1,502,159	1,015,245	141,214	360,011	514,019	265,886	1,281,132

Source : Department of Energy Business (DOEB)
Compiled by : Energy Policy and Planning Office (EPPO)

Table 2.4-2Y
Demand and Supply of LPG, Propane and Butane

Unit : Thousand Tons

Description	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total Supply	**852**	**1,007**	**1,085**	**1,273**	**1,478**	**1,455**	**1,743**	**2,110**	**2,513**	**2,417**	**2,692**	**3,011**
- Production	477	727	981	1,272	1,434	1,369	1,702	2,031	2,511	2,415	2,692	3,011
GSP	287	520	778	965	1,043	915	978	1,070	1,170	1,186	1,232	1,401
Refinery	190	207	203	307	391	455	673	888	1,002	924	1,083	1,283
Others							52	73	340	305	377	327
- Import	375	280	103	2	44	85	41	79	2	2		
Total Demand	**849**	**927**	**996**	**1,229**	**1,351**	**1,439**	**1,639**	**2,031**	**2,368**	**2,372**	**2,663**	**2,954**
- Consumption	849	927	996	1,197	1,304	1,424	1,538	1,834	1,896	1,901	1,936	2,284
Cooking	666	717	717	787	864	953	1,056	1,171	1,225	1,130	1,206	1,348
Industry	95	108	125	156	176	206	240	268	281	272	318	319
Automobile	88	102	154	169	160	139	128	134	112	93	91	162
Feedstock				85	103	126	114	260	278	406	322	455
Own Used												
- Feedstock												
- Energy												
- Export				32	47	15	101	197	472	472	727	670
Balance (Supply-Demand)	**3**	**81**	**88**	**45**	**126**	**16**	**104**	**80**	**145**	**45**	**29**	**57**

Source : Department of Energy Business (DOEB)
Compiled by : Energy Policy and Planning Office (EPPO)
*Including own used as feedstock of IRPC and PTTGC



Table 2.4-2Y (Cont.)
Demand and Supply of LPG, Propane and Butane

Unit : Thousand Tons

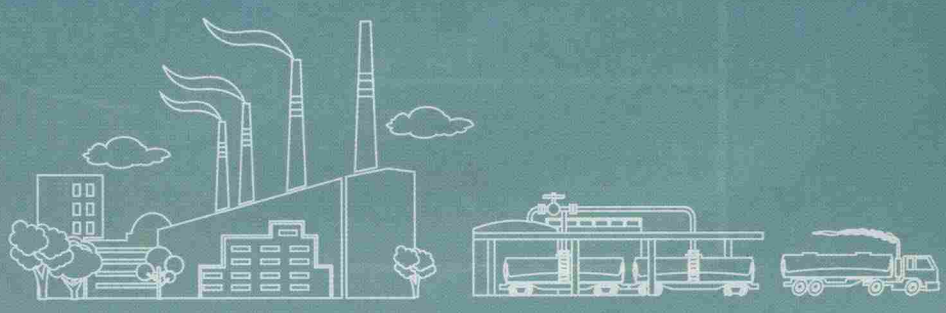
Description	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total Supply	**3,428**	**3,434**	**3,607**	**3,821**	**4,177**	**4,159**	**4,469**	**4,807**	**5,221**	**6,008**	**6,859**	**7,416**	**7,396**
- Production	3,428	3,434	3,607	3,818	4,177	4,159	4,469	4,355	4,467	4,416	5,422	5,686	5,447
GSP	1,785	1,850	1,918	1,960	2,397	2,357	2,667	2,664	2,695	2,676	3,428	3,716	3,524
Refinery	1,480	1,421	1,478	1,650	1,581	1,585	1,567	1,688	1,770	1,730	1,994	1,971	1,923
Others	164	163	211	208	199	218	236	3	2	10			
- Import				3				452	753	1,591	1,437	1,730	1,949
Total Demand	**3,339**	**3,310**	**3,505**	**3,662**	**4,047**	**4,094**	**4,393**	**4,810**	**5,223**	**6,012**	**6,906**	**7,396**	**7,530**
- Consumption	2,569	2,624	2,735	2,772	3,099	3,518	4,116	4,788	5,208	5,987	6,890	7,386	7,524
Cooking	1,430	1,468	1,502	1,513	1,604	1,721	1,884	2,124	2,231	2,435	2,656	3,047	2,409
Industry	335	399	435	450	459	521	611	665	593	778	718	614	601
Automobile	248	229	210	225	303	459	572	776	666	680	920	1,061	1,775
Feedstock	556	528	588	584	711	698	798	759	1,056	1,527	2,113	1,285	1,327
Own Used					22	119	251	466	662	567	483	1,380	1,412
- Feedstock					22	69	170	335	422	354	353	1,270	1,314
- Energy						49	81	130	240	213	131	110	98
- Export	770	686	770	890	948	576	278	21	15	25	16	10	6
Balance (Supply-Demand)	**89**	**124**	**102**	**159**	**130**	**65**	**76**	-2	-2	-4	-47	**20**	-134

Source : Department of Energy Business (DOEB)
Compiled by : Energy Policy and Planning Office (EPPO)
*Including own used as feedstock of IRPC and PTTGC



Chapter 3

Natural Gas

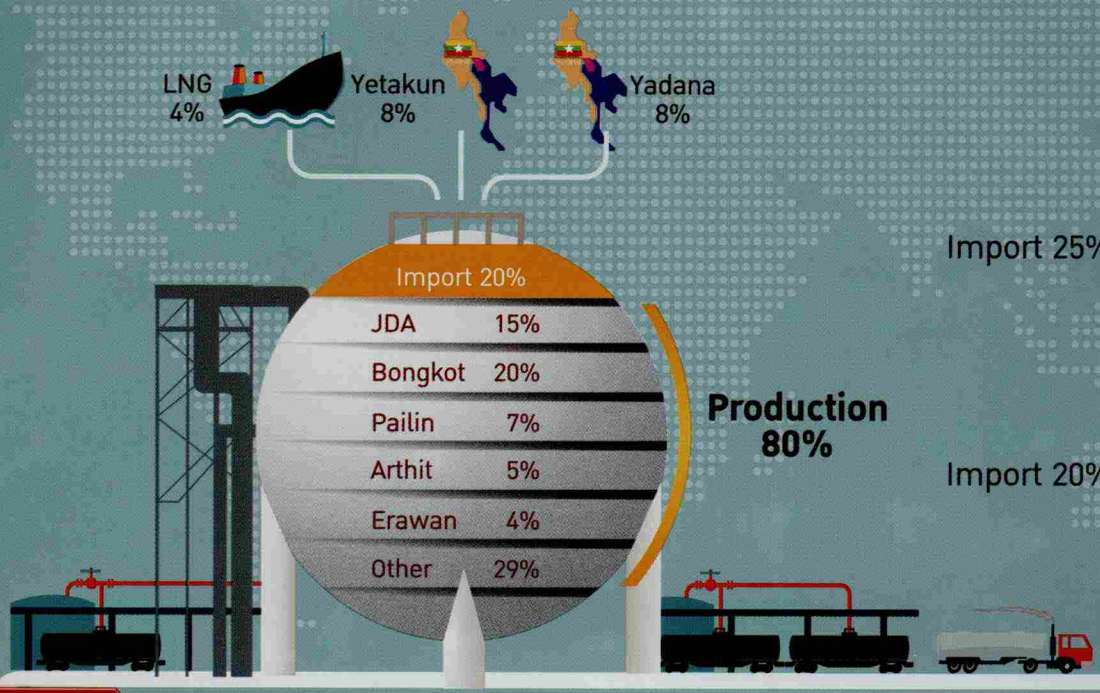


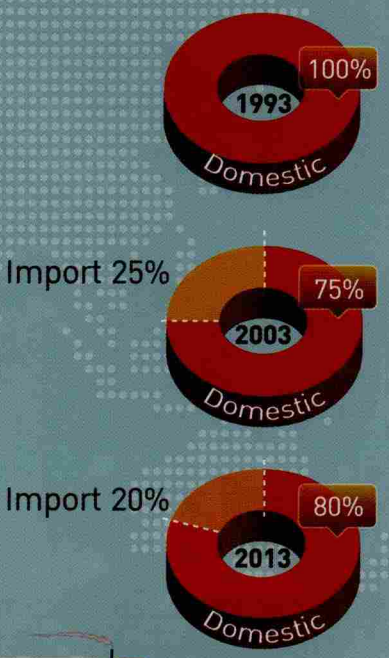


Natural Gas

Supply

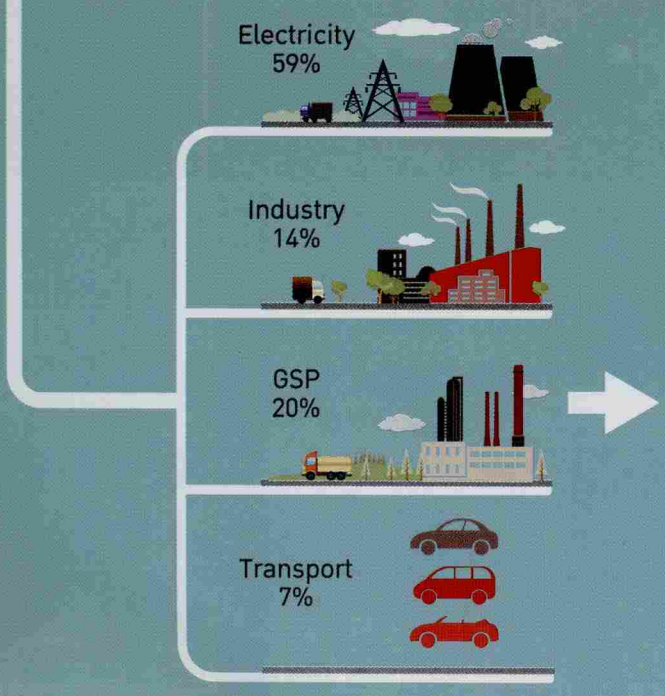
Production and Import of Natural Gas in 2013



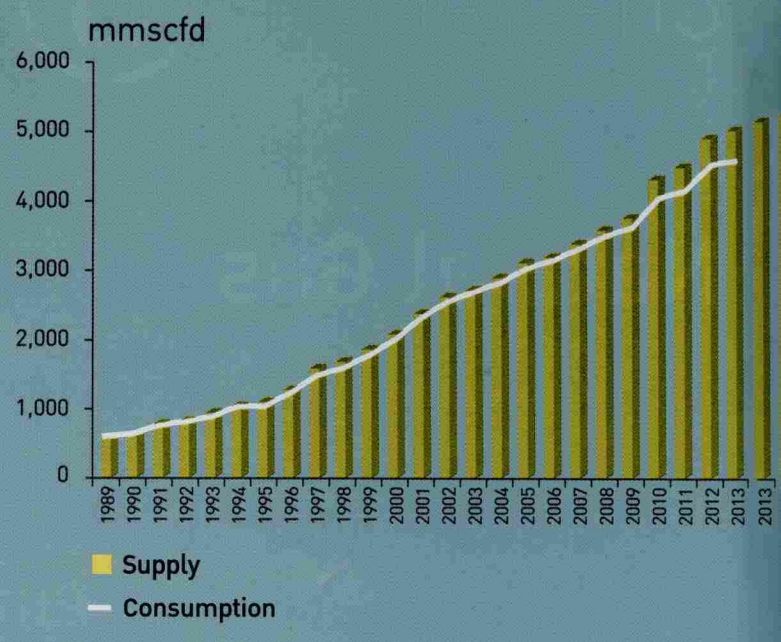


Demand

Share of Natural Gas Consumption by Sector in 2013



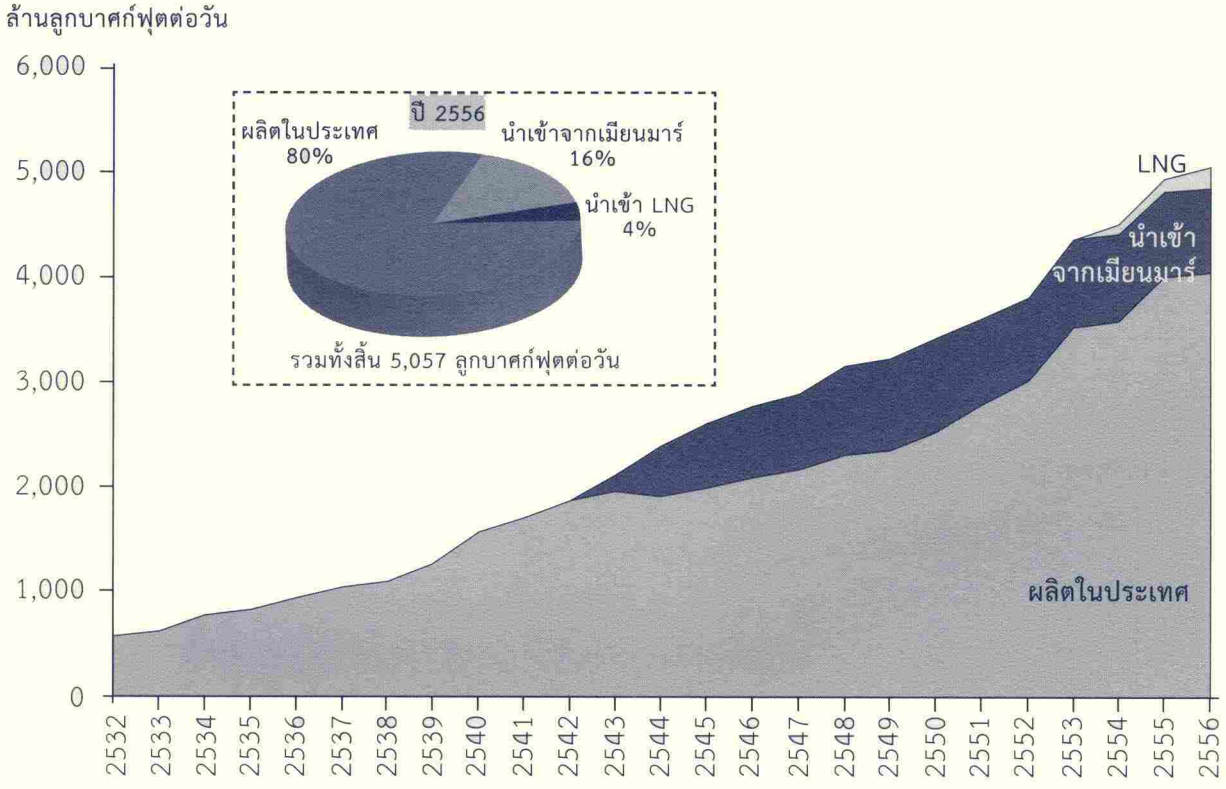
Natural Gas Supply and Consumption



บทที่ 3 ก๊าซธรรมชาติ

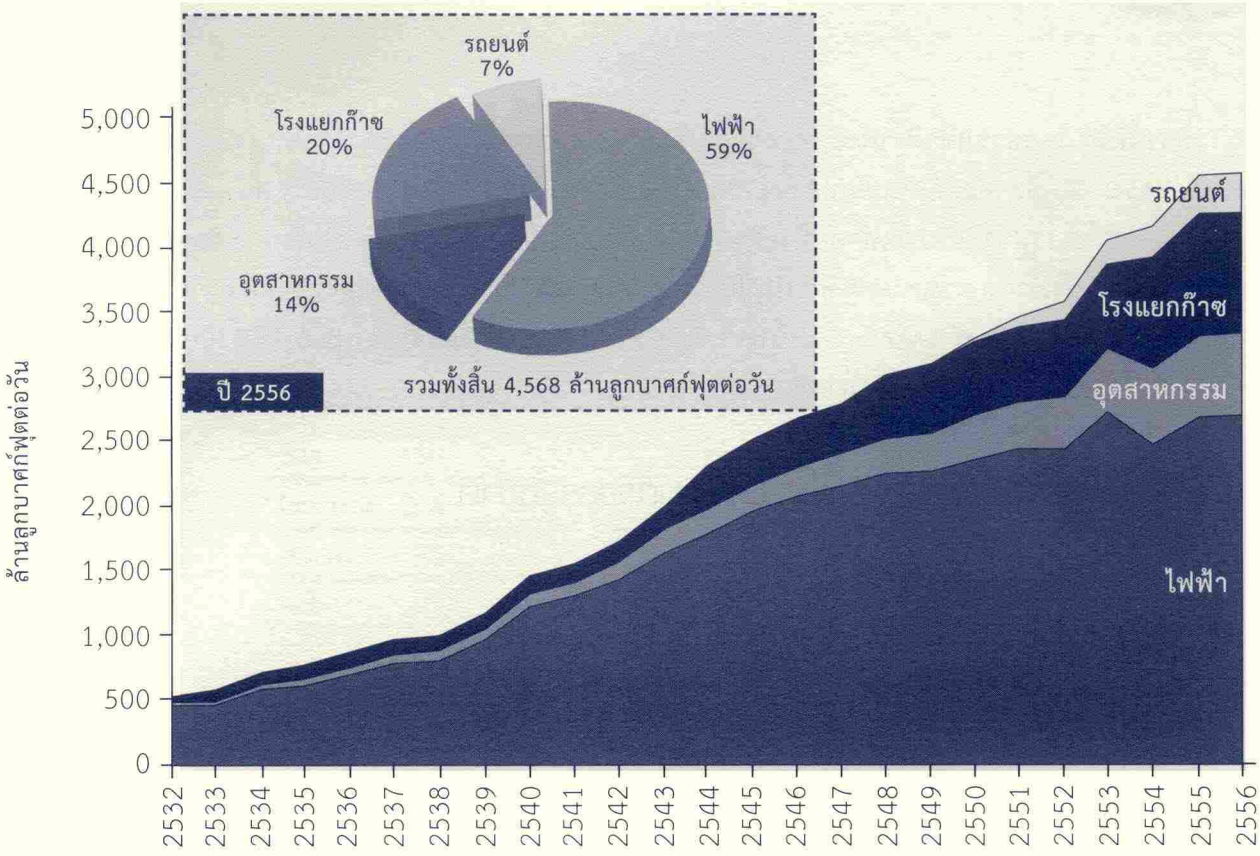
การจัดหาก๊าซธรรมชาติ ประเทศไทยเริ่มผลิตก๊าซธรรมชาติในปี 2524 จากแหล่งเอราวัณ แต่ในปัจจุบันมีแหล่งก๊าซธรรมชาติที่สำคัญเพิ่มขึ้นอีกหลายแหล่ง ได้แก่ แหล่งบงกช เจดีเอ อาทิตย์ และไพลิน เป็นต้น โดยในปี 2556 การผลิตก๊าซธรรมชาติในประเทศอยู่ที่ระดับ 4,044 ล้านลูกบาศก์ฟุตต่อวัน คิดเป็นสัดส่วนร้อยละ 80 ส่วนที่เหลือร้อยละ 20 เป็นการนำเข้าจากต่างประเทศ ซึ่งแบ่งเป็นการนำเข้าจากเมียนมาร์ 822 ล้านลูกบาศก์ฟุตต่อวัน และเป็นการนำเข้า LNG จำนวน 191 ล้านลูกบาศก์ฟุตต่อวัน รวมเป็นการจัดหาทั้งสิ้น 5,057 ล้านลูกบาศก์ฟุตต่อวัน ทั้งนี้ประเทศไทยเริ่มมีการนำเข้า LNG เป็นครั้งแรกในเดือนพฤษภาคม 2554

การจัดหาก๊าซธรรมชาติ

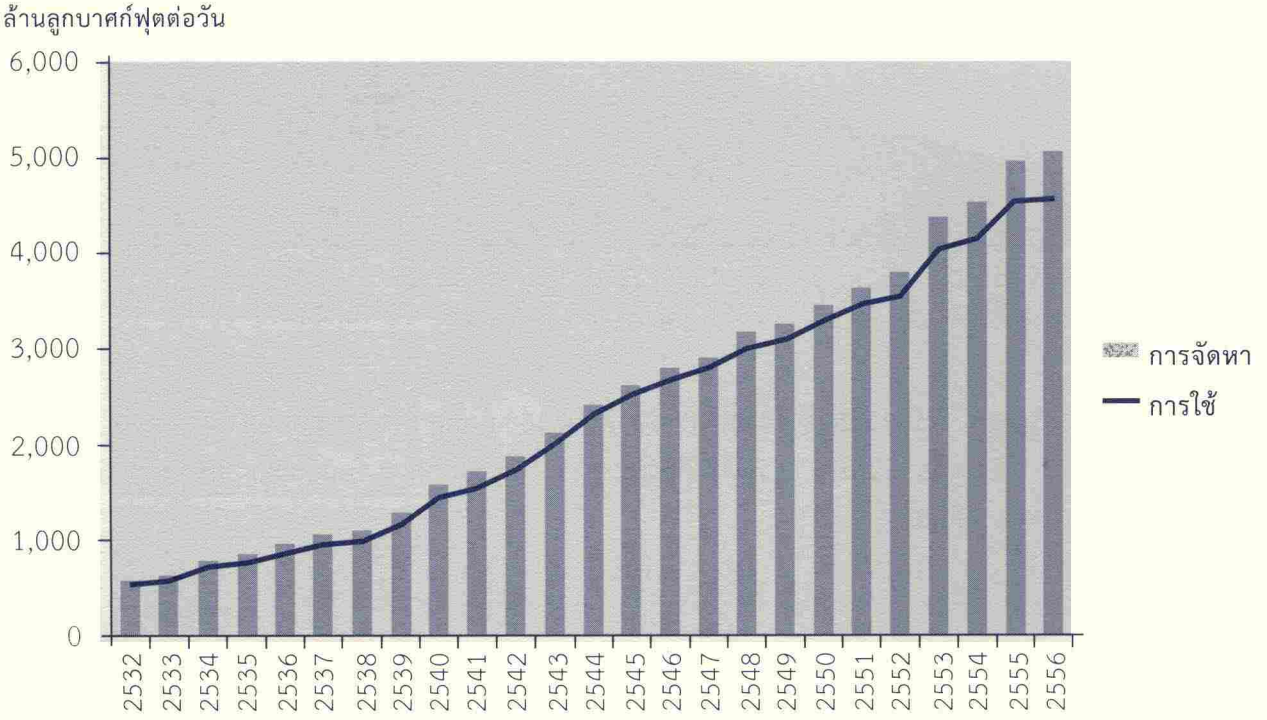


การใช้ก๊าซธรรมชาติ ในปี 2556 มีปริมาณการใช้ทั้งสิ้น 4,568 ล้านลูกบาศก์ฟุตต่อวัน ก๊าซธรรมชาติจะถูกนำไปใช้ในการผลิตไฟฟ้ามากที่สุดคือร้อยละ 59 ส่วนที่เหลือเป็นการใช้ในโรงแยกก๊าซ ร้อยละ 20 อุตสาหกรรมร้อยละ 14 และใช้ในการขนส่ง (CNG) ร้อยละ 7

การใช้ก๊าซธรรมชาติรายสาขา

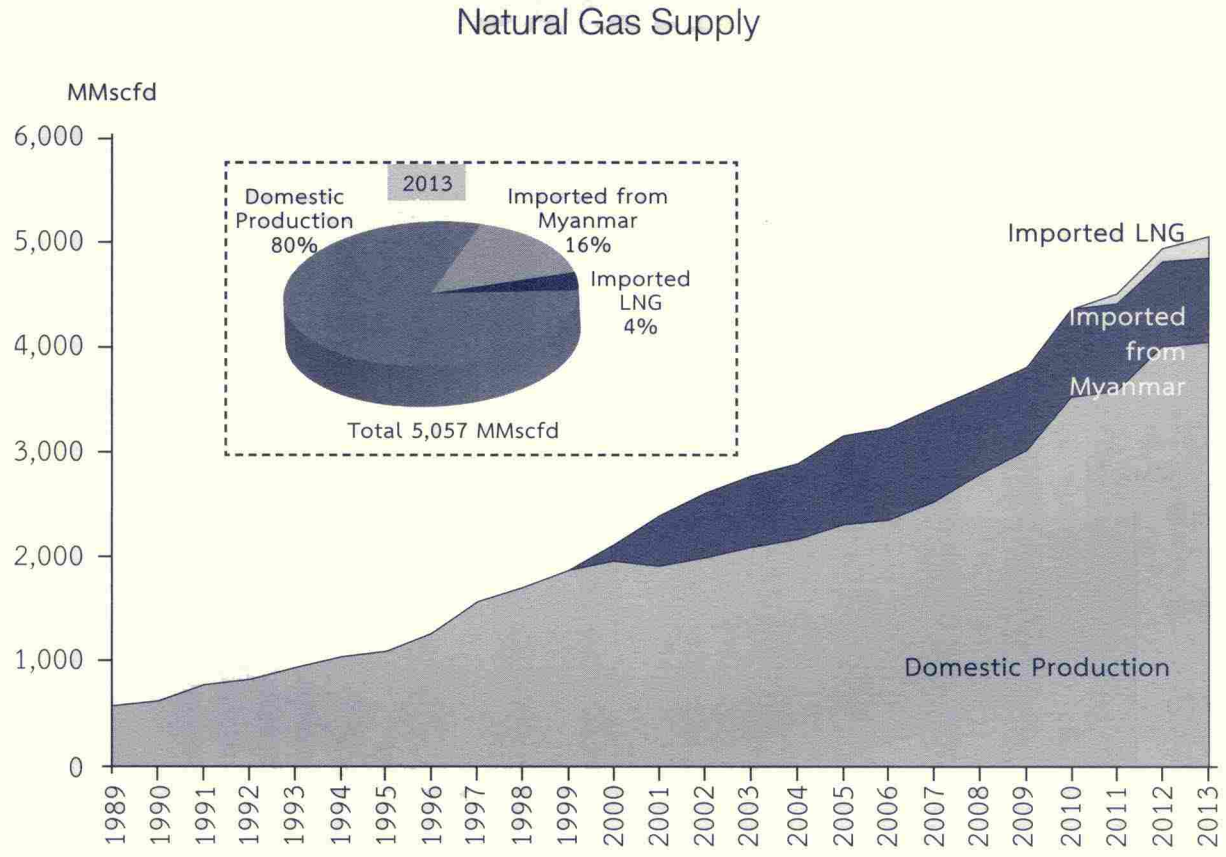


การจัดหาและการใช้ก๊าซธรรมชาติ



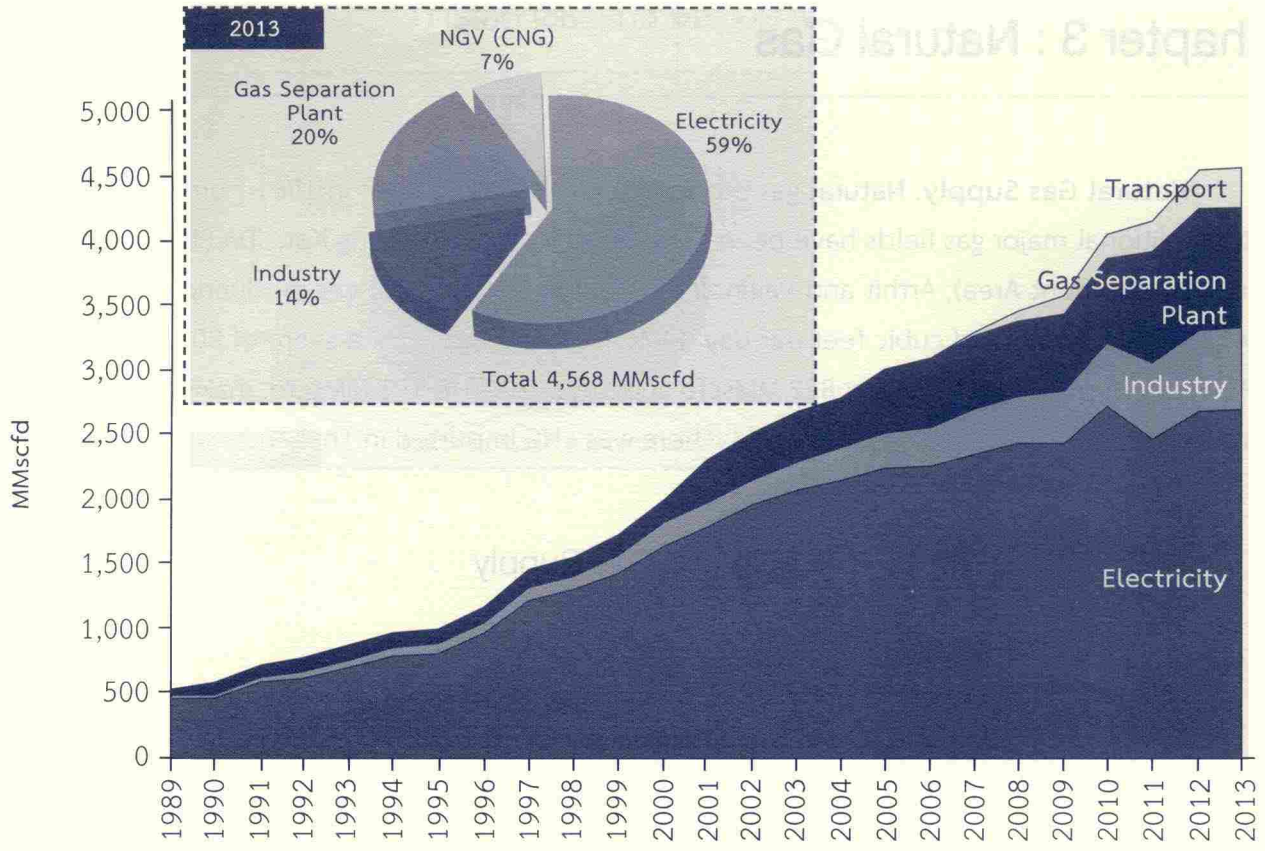
Chapter 3 : Natural Gas

Natural Gas Supply. Natural gas production in Thailand began in 1981 from Erawan field; to date, additional major gas fields have been discovered, comprising Bong Kot, JDA (Thailand-Malaysia Joint Development Area), Arthit and Pailin. In 2013, domestic natural gas production was at a level of 4,044 million standard cubic feet per day (MMscfd), accounting for a share of 80%; the remaining 20% was imported from Myanmar 822 MMscfd and imported LNG 191 MMscfd, making a total natural gas supply of the country at 5,057 MMscfd. There was LNG imported in Thailand starting in May 2011.



Natural Gas Consumption. The total volume of natural gas consumption in 2013 was 4,568 MMscfd. Natural gas was mainly used as fuel in power generation, holding a share of 59% of the total consumption in the year. The remainder was used in the following: gas separation plants, at a share of 20%; the industrial sector, 14%; and the transport (CNG), 7%.

Natural Gas Consumption by Sector



Natural Gas Supply and Consumption

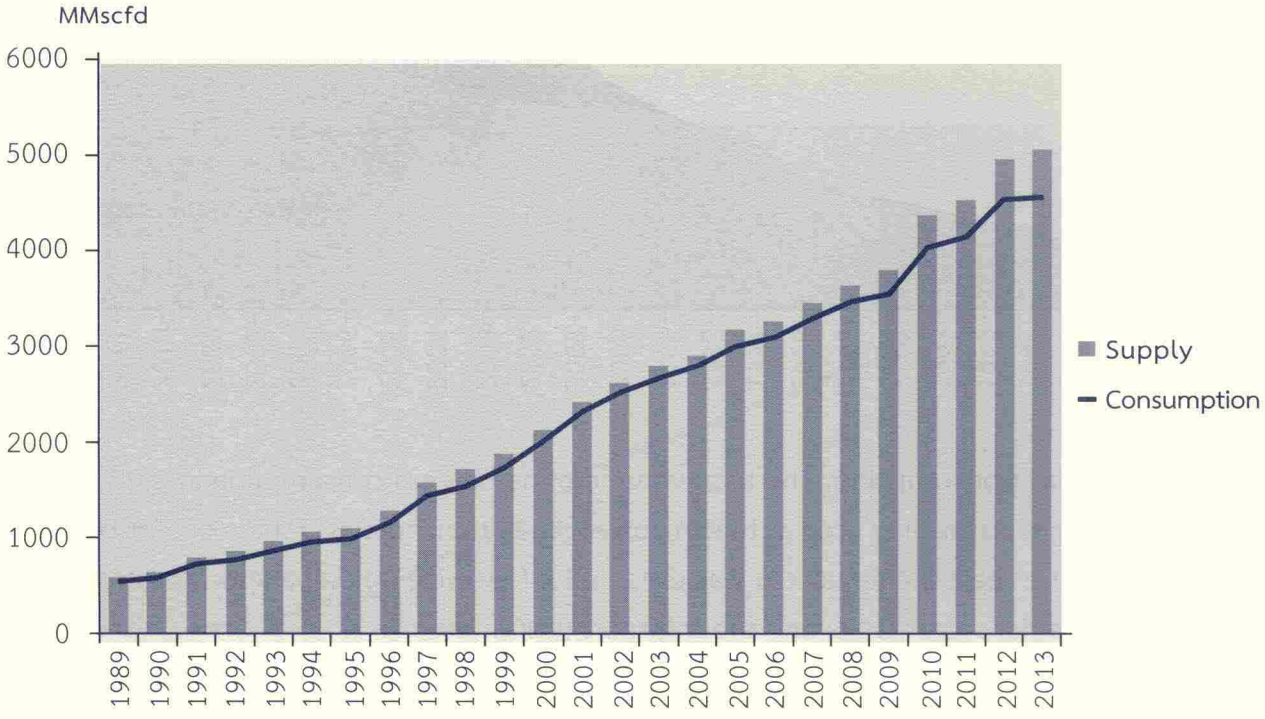


Table 3.1-1Y
Production and Import of Natural Gas

Unit : MMscfd

Year	Domestic Production															Import				Grand Total
	Sirikit	Benjamas	Namphong	Erawan	Pailin	Satun	Gomin	Phuhorm	Funan & Jakrawan	Bongkot	Arthit	Yala	JDA	Oths.	Total	Yadana	Yetakun	LNG	Total Import	
1989	32			221		196								129	579					579
1990	41			231		201								158	631					631
1991	43		51	284		212								192	782					782
1992	50		57	253		206			128					138	832					832
1993	56		56	290		197			162	70				110	939					939
1994	65		63	267		198			160	202				82	1,038					1,038
1995	68		64	285		195	2		152	237				95	1,099					1,099
1996	60		65	268		203	49		160	336				126	1,267					1,267
1997	61		79	294		219	50		209	344				307	1,564					1,564
1998	55		90	299		211	25		246	437				335	1,698	2			2	1,700
1999	56	27	93	306	61	171	16		253	578				299	1,860	2			2	1,861
2000	59	97	71	278	234	125	24		208	548				304	1,948	128	36		164	2,113
2001	57	118	60	266	212	118	9		199	584				275	1,900	377	119		496	2,396
2002	56	152	59	266	298	114	9		228	566		11		229	1,986	418	199		617	2,603
2003	55	169	50	281	406	96	45		189	516		30		241	2,077	410	275		686	2,763
2004	54	147	35	274	412	104	64		187	597		24		259	2,158	439	287		726	2,884
2005	60	157	33	277	435	118	47		221	605		41		297	2,292	431	426		857	3,149
2006	50	159	31	278	438	90	27	6	263	627		41		343	2,353	452	417		869	3,222
2007	46	172	26	278	457	108	13	93	309	629		65		319	2,515	473	433		906	3,421
2008	41	147	23	275	431	101	14	85	286	604	278	100	126	268	2,778	434	394		828	3,606
2009	54	86	20	244	417	64	24	81	177	540	418	110	441	315	2,990	409	394		803	3,794
2010	63	76	18	256	430	82	85	87	199	596	501	95	644	374	3,506	434	419		853	4,359
2011	43	86	16	239	411	111	95	84	179	606	407	56	758	487	3,577	426	404	98	928	4,505
2012	45	46	14	255	361	163	85	94	190	869	268	55	748	802	3,996	423	397	130	950	4,946
2013	54	41	13	197	363	143	59	88	226	1,008	252	47	735	818	4,044	419	403	191	1,013	5,057

Remark : Heat Value of NG from Myanmar = 1,000 BTU/SCF
Source : Department of Mineral Fuels (DMF)
Compiled by : Energy Policy and Planning Office (EPPO)

Table 3.2-1Y
Distribution of NGL

Year	(Million Litres)				(Barrel)				(Barrel/Day)			
	Export	Refinery	Solvent	Total	Export	Refinery	Solvent	Total	Export	Refinery	Solvent	Total
1989		75	4	79		470,285	25,025	495,310		1,288	68	1,357
1990	5	133	2	140	30,442	836,226	11,708	878,376	83	2,291	32	2,406
1991	85	113	12	211	537,469	712,688	74,725	1,324,883	1,472	1,952	204	3,629
1992	152	47	20	219	953,609	295,856	125,815	1,375,281	2,605	808	343	3,757
1993	140	73	31	244	879,449	461,695	195,308	1,536,452	2,409	1,264	535	4,209
1994	67	113	43	223	419,846	711,359	273,465	1,404,672	1,150	1,948	749	3,848
1995	96	94	37	227	602,360	588,716	234,949	1,426,026	1,650	1,612	643	3,906
1996	33	165	57	255	205,600	1,040,130	358,172	1,603,903	561	2,841	978	4,382
1997	153	28	154	335	961,815	175,920	968,882	2,106,618	2,635	481	2,654	5,771
1998	178	18	164	360	1,118,416	113,311	1,031,602	2,263,330	3,064	310	2,826	6,200
1999	199	27	171	396	1,249,394	169,719	1,073,063	2,492,177	3,423	464	2,939	6,827
2000	149	23	331	503	938,176	146,385	2,079,331	3,163,893	2,563	399	5,681	8,644
2001	106	55	395	556	669,375	343,469	2,482,794	3,495,640	1,833	941	6,802	9,577
2002	57		489	546	358,911		3,077,307	3,436,219	983		8,430	9,414
2003	49	107	486	642	310,746	675,638	3,054,569	4,040,954	851	1,851	8,368	11,071
2004	79	116	429	624	499,812	728,529	2,695,422	3,923,764	1,365	1,990	7,364	10,720
2005	176	6	543	724	1,106,817	34,611	3,415,103	4,556,531	3,032	94	9,356	12,483
2006	129	57	547	733	808,290	359,473	3,441,850	4,609,614	2,214	984	9,429	12,629
2007	133	6	650	789	834,411	38,387	4,090,011	4,962,810	2,286	105	11,205	13,596
2008	142		672	814	894,079		4,226,379	5,120,458	2,442		11,547	13,990
2009	114		676	790	717,208		4,253,688	4,970,897	1,964		11,653	13,618
2010	135		675	810	847,872		4,248,358	5,096,231	2,322		11,639	13,962
2011	203		777	979	1,275,883		4,884,661	6,160,545	3,495		13,382	16,878
2012	300		802	1,101	1,884,687		5,041,486	6,926,173	5,149		13,774	18,923
2013	322		767	1,089	2,022,555		4,826,783	6,849,339	5,541		13,224	18,765

Source : PTT
Compiled by : Energy Policy and Planning Office (EPPO)

Table 3.2-2Y
Consumption of Natural Gas by Sector

Unit : MMscfd

Year	Electricity				Industry	GSP	NGV	Grand Total
	EGAT	IPP	SPP	Total				
1989	463			463	10	50		523
1990	452			452	17	97		567
1991	580			580	24	98		702
1992	612			612	34	113		759
1993	693			693	41	128		862
1994	783			783	54	117		954
1995	801			801	73	114		988
1996	888		60	948	78	122		1,148
1997	1,119		83	1,202	96	146		1,444
1998	1,152		140	1,291	92	158		1,542
1999	1,153	2	267	1,423	123	167		1,713
2000	1,244	71	305	1,620	181	175		1,976
2001	1,070	360	349	1,779	177	340		2,296
2002	1,075	486	375	1,936	198	361		2,495
2003	991	662	401	2,054	217	385		2,657
2004	994	723	418	2,134	248	389	3	2,774
2005	1,011	802	428	2,242	258	491	6	2,997
2006	1,016	825	417	2,257	291	527	11	3,086
2007	1,054	847	445	2,346	347	572	24	3,288
2008	1,014	968	441	2,423	361	583	77	3,444
2009	1,101	905	429	2,435	387	599	143	3,564
2010	1,346	943	440	2,728	478	652	181	4,039
2011	1,148	866	462	2,476	569	867	231	4,143
2012	1,330	922	419	2,670	628	958	278	4,534
2013	1,229	873	593	2,695	635	930	307	4,568

Remark : Heat value of NG = 1,000 BTU/SCF

Compiled by : Energy Policy and Planning Office (EPPO)

Table 3.2-3Y
Consumption Share of Natural Gas by Sector

Year	MMscfd					Share (%)				
	Electricity	Industry	GSP	NGV	Total	Electricity	Industry	GSP	NGV	Total
1989	463	10	50		523	88.6	1.8	9.6		100.0
1990	452	17	97		567	79.8	3.1	17.1		100.0
1991	580	24	98		702	82.5	3.5	14.0		100.0
1992	612	34	113		759	80.6	4.4	14.9		100.0
1993	693	41	128		862	80.4	4.7	14.8		100.0
1994	783	54	117		954	82.1	5.6	12.3		100.0
1995	801	73	114		988	81.1	7.4	11.6		100.0
1996	948	78	122		1,148	82.5	6.8	10.7		100.0
1997	1,202	96	146		1,444	83.2	6.7	10.1		100.0
1998	1,291	92	158		1,542	83.8	6.0	10.3		100.0
1999	1,423	123	167		1,713	83.1	7.2	9.8		100.0
2000	1,620	181	175		1,976	82.0	9.2	8.9		100.0
2001	1,779	177	340		2,296	77.5	7.7	14.8		100.0
2002	1,936	198	361		2,495	77.6	8.0	14.4		100.0
2003	2,054	217	385		2,657	77.3	8.2	14.5		100.0
2004	2,134	248	389	3	2,774	76.9	8.9	14.0	0.1	100.0
2005	2,242	258	491	6	2,997	74.8	8.6	16.4	0.2	100.0
2006	2,257	291	527	11	3,086	73.2	9.4	17.1	0.4	100.0
2007	2,346	347	572	24	3,288	71.3	10.6	17.4	0.7	100.0
2008	2,423	361	583	77	3,444	70.4	10.5	16.9	2.2	100.0
2009	2,435	387	599	143	3,564	68.3	10.9	16.8	4.0	100.0
2010	2,728	478	652	181	4,039	67.6	11.8	16.1	4.5	100.0
2011	2,476	569	867	231	4,143	59.8	13.7	20.9	5.6	100.0
2012	2,670	628	958	278	4,534	58.9	13.8	21.1	6.1	100.0
2013	2,695	635	930	307	4,568	59.0	13.9	20.4	6.7	100.0

Remark : Heat value of NG = 1,000 BTU/SCF

Compiled by : Energy Policy and Planning Office (EPPO)

Table 3.2-4
Consumption of Compressed Natural Gas (CNG)

	Vehicle (Unit)			Consumption (MMscf)				Petroleum Equivalent (Million Liters)		
	Gasoline	Diesel	Total	Gasoline	Diesel	Total	MMscfd	Gasoline	Diesel	Total
2009	**133,777**	**28,246**	**162,023**	**25,338**	**26,750**	**52,088**	**143**	**797**	**721**	**1,518**
Jan	107,932	23,503	131,435	1,732	1,885	3,617	117	54	51	105
Feb	116,299	23,726	140,025	1,837	1,874	3,711	133	57	51	108
Mar	117,348	23,987	141,335	2,112	2,158	4,270	138	66	59	124
Apr	118,350	24,142	142,492	1,870	1,908	3,778	126	58	52	110
May	119,543	24,324	143,867	2,051	2,087	4,138	133	64	57	121
Jun	121,925	24,716	146,641	2,108	2,137	4,245	142	66	58	124
Jul	124,252	25,213	149,465	2,194	2,227	4,421	143	68	61	129
Aug	126,161	25,777	151,938	2,296	2,345	4,641	150	71	64	135
Sep	128,284	26,330	154,614	2,232	2,290	4,522	151	69	62	132
Oct	128,924	27,278	156,202	2,322	2,457	4,779	154	72	67	139
Nov	132,183	27,835	160,018	2,325	2,449	4,774	159	72	67	139
Dec	133,777	28,246	162,023	2,526	2,666	5,192	167	79	73	151
2010	**191,233**	**34,435**	**225,668**	**34,765**	**31,301**	**66,066**	**181**	**1,042**	**888**	**1,929**
Jan	136,780	28,687	165,467	2,334	2,447	4,781	154	73	67	139
Feb	140,052	29,022	169,074	2,357	2,442	4,799	171	73	67	140
Mar	143,944	29,533	173,477	2,693	2,763	5,456	176	84	75	159
Apr	147,431	29,921	177,352	2,457	2,493	4,950	165	76	68	144
May	151,313	30,384	181,697	2,583	2,594	5,177	167	80	71	151
Jun	156,849	30,892	187,741	2,736	2,694	5,430	181	85	73	159
Jul	161,866	31,486	193,352	2,813	2,736	5,549	179	88	75	162
Aug	166,981	32,135	199,116	2,859	2,752	5,611	181	89	75	164
Sep	172,763	32,754	205,517	2,926	2,774	5,700	191	91	76	167
Oct	178,055	33,313	211,368	3,091	2,892	5,983	190	96	79	175
Nov	185,113	33,877	218,990	3,196	2,924	6,120	204	99	80	179
Dec	191,233	34,435	225,668	3,426	3,084	6,510	210	107	84	191
2011	**260,520**	**40,061**	**300,581**	**47,590**	**36,591**	**84,181**	**231**	**1,443**	**1,030**	**2,473**
Jan	196,792	34,924	231,716	3,400	3,017	6,417	207	106	82	188
Feb	203,099	35,451	238,550	3,439	3,001	6,440	230	107	82	189
Mar	209,986	36,080	246,066	3,852	3,309	7,161	231	120	90	210
Apr	215,140	36,513	251,653	3,489	2,961	6,450	215	109	81	189
May	222,536	37,024	259,560	4,028	3,350	7,378	238	125	91	217
Jun	230,100	37,598	267,698	4,062	3,318	7,380	246	126	90	217
Jul	237,104	38,135	275,239	4,158	3,344	7,502	242	129	91	220
Aug	244,732	38,699	283,431	4,293	3,395	7,688	248	134	92	226
Sep	251,986	39,194	291,180	4,185	3,255	7,440	248	130	89	219
Oct	255,090	39,504	294,594	3,879	3,003	6,882	222	121	82	202
Nov	256,183	39,757	295,940	3,328	2,582	5,910	197	104	70	174
Dec	260,520	40,061	300,581	4,259	3,274	7,533	243	133	89	222

Table 3.2-4 (Cont.)
Consumption of Compressed Natural Gas (CNG)

	Vehicle (Unit)			Consumption (MMscf)				Petroleum Equivalent (Million Liters)		
	Gasoline	Diesel	Total	Gasoline	Diesel	Total	MMscfd	Gasoline	Diesel	Total
2012	331,943	42,914	374,857	61,877	39,998	101,875	278	1,853	1,153	3,006
Jan	264,854	40,395	305,249	4,696	3,581	8,277	267	146	98	244
Feb	269,686	40,692	310,378	4,562	3,442	8,004	276	142	94	236
Mar	273,566	41,052	314,618	4,941	3,708	8,649	279	154	101	255
Apr	276,843	41,400	318,243	4,463	3,337	7,800	260	139	91	230
May	281,582	41,610	323,192	4,956	3,662	8,618	278	154	100	254
Jun	286,852	41,781	328,633	4,808	3,502	8,310	277	150	95	245
Jul	293,637	41,996	335,633	4,898	3,503	8,401	271	152	95	248
Aug	300,430	42,191	342,621	5,154	3,619	8,773	283	160	99	259
Sep	310,263	42,389	352,652	5,062	3,458	8,520	284	158	94	252
Oct	317,956	42,573	360,529	5,292	3,543	8,835	285	165	96	261
Nov	325,054	42,762	367,816	5,284	3,476	8,760	292	164	95	259
Dec	331,943	42,914	374,857	5,423	3,505	8,928	288	169	95	264
2013	394,394	44,427	438,821	71,678	40,371	112,049	307	2,195	1,131	3,326
Jan	338,140	42,950	381,090	5,498	3,492	8,990	290	171	95	266
Feb	346,163	43,040	389,203	5,352	3,328	8,680	310	167	91	257
Mar	353,291	43,182	396,473	5,945	3,634	9,579	309	185	99	284
Apr	358,113	43,264	401,377	5,442	3,288	8,730	291	169	90	259
May	363,737	43,367	407,104	6,098	3,636	9,734	314	190	99	289
Jun	369,604	43,403	413,007	5,860	3,440	9,300	310	182	94	276
Jul	374,456	43,499	417,955	6,020	3,497	9,517	307	187	95	283
Aug	379,195	43,577	422,772	6,241	3,586	9,827	317	194	98	292
Sep	381,890	43,564	425,454	5,922	3,378	9,300	310	184	92	276
Oct	389,406	44,154	433,560	6,113	3,466	9,579	309	190	94	285
Nov	392,833	44,321	437,154	6,023	3,397	9,420	314	187	93	280
Dec	394,394	44,427	438,821	6,009	3,384	9,393	303	187	92	279



Chapter 4

Lignite/Coal

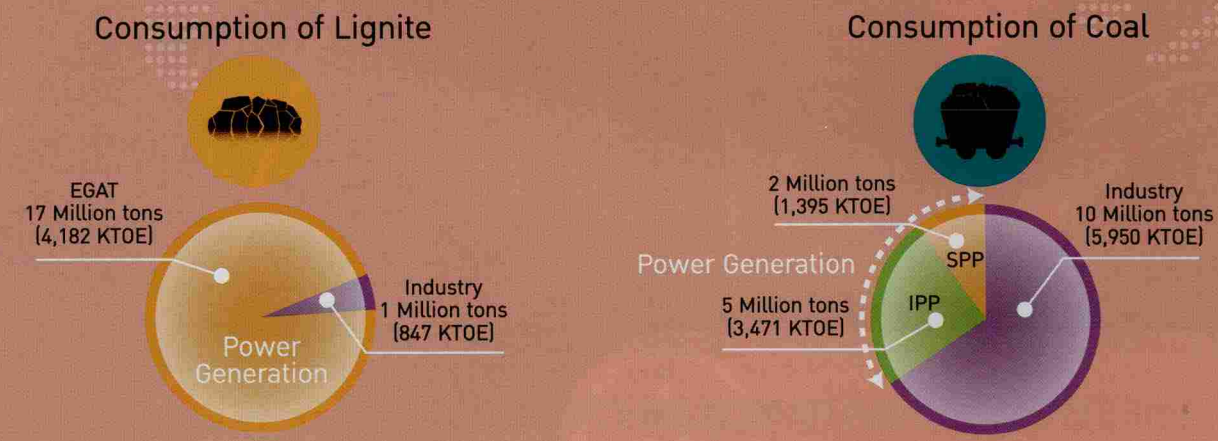


Lignite/Coal

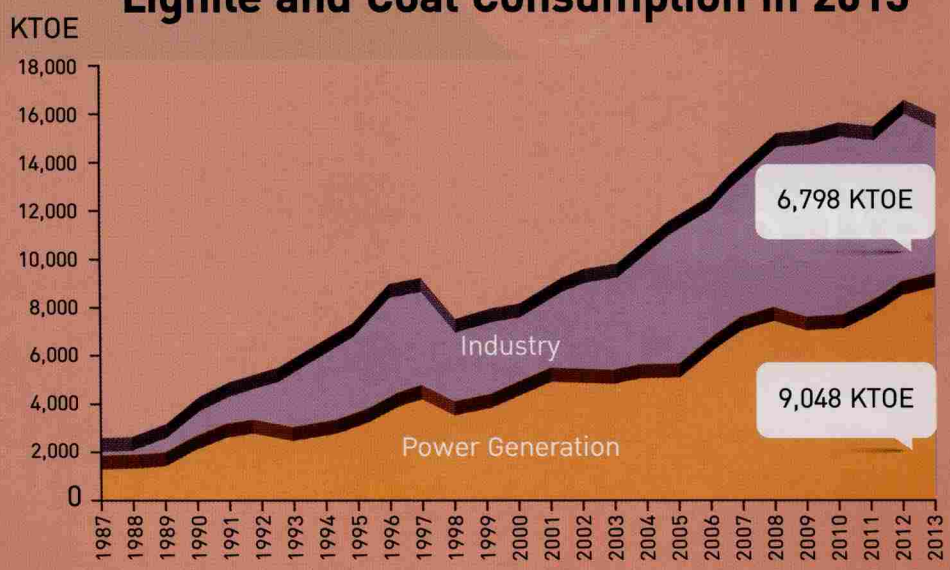
Supply of Lignite and Coal in 2013



Demand of Lignite and Coal in 2013



Lignite and Coal Consumption in 2013

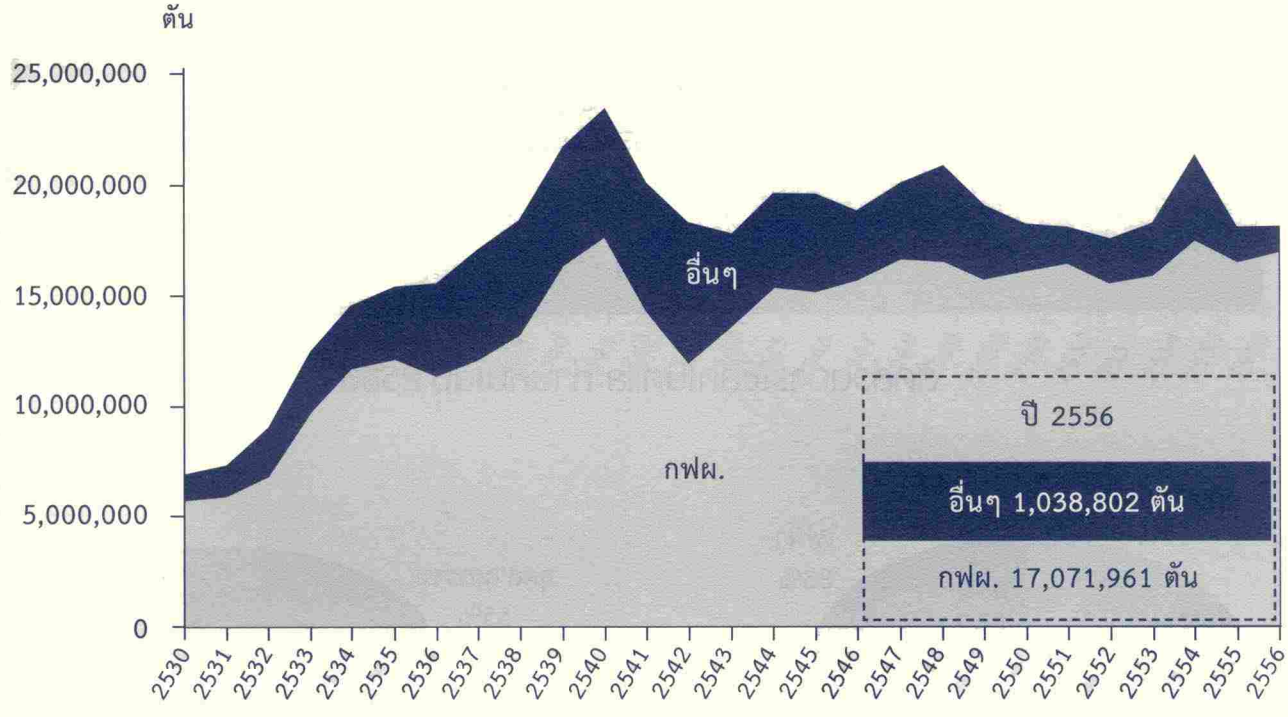


บทที่ 4 ลิกไนต์/ถ่านหิน

การผลิตลิกไนต์ในประเทศ ผลิตได้จาก 2 ผู้ผลิตหลัก คือ เหมืองของการไฟฟ้าฝ่ายผลิตแห่งประเทศไทย (กฟผ.) และเหมืองของบริษัทเอกชน โดยเหมืองของ กฟผ.ประกอบด้วยเหมืองแม่เมาะ จังหวัดลำปาง และเหมืองกระบี่ จังหวัดกระบี่ ซึ่งเหมืองกระบี่ได้หยุดการผลิตแล้วตั้งแต่ปี 2551 ทั้งนี้ลิกไนต์ที่ผลิตจากเหมืองแม่เมาะทั้งหมดจะถูกนำไปใช้ในการผลิตไฟฟ้าของโรงไฟฟ้าแม่เมาะ ส่วนลิกไนต์ที่ผลิตจากเหมืองของบริษัทเอกชน ปัจจุบันเริ่มชะลอตัวลงเนื่องจากแหล่งสัมปทานสำคัญๆ ภายในประเทศทยอยหมดลง โดยลิกไนต์ที่ผลิตจากเหมืองเอกชนส่วนใหญ่จะนำไปใช้ในภาคอุตสาหกรรม เช่น อุตสาหกรรมปูนซีเมนต์ และอุตสาหกรรมกระดาษ เป็นต้น

ในปี 2556 มีปริมาณการผลิตลิกไนต์ในประเทศรวมทั้งสิ้น 18,110,763 ตัน โดยร้อยละ 94 เป็นการผลิตจากเหมืองแม่เมาะของ กฟผ. ส่วนที่เหลือร้อยละ 6 เป็นการผลิตจากเหมืองของภาคเอกชน

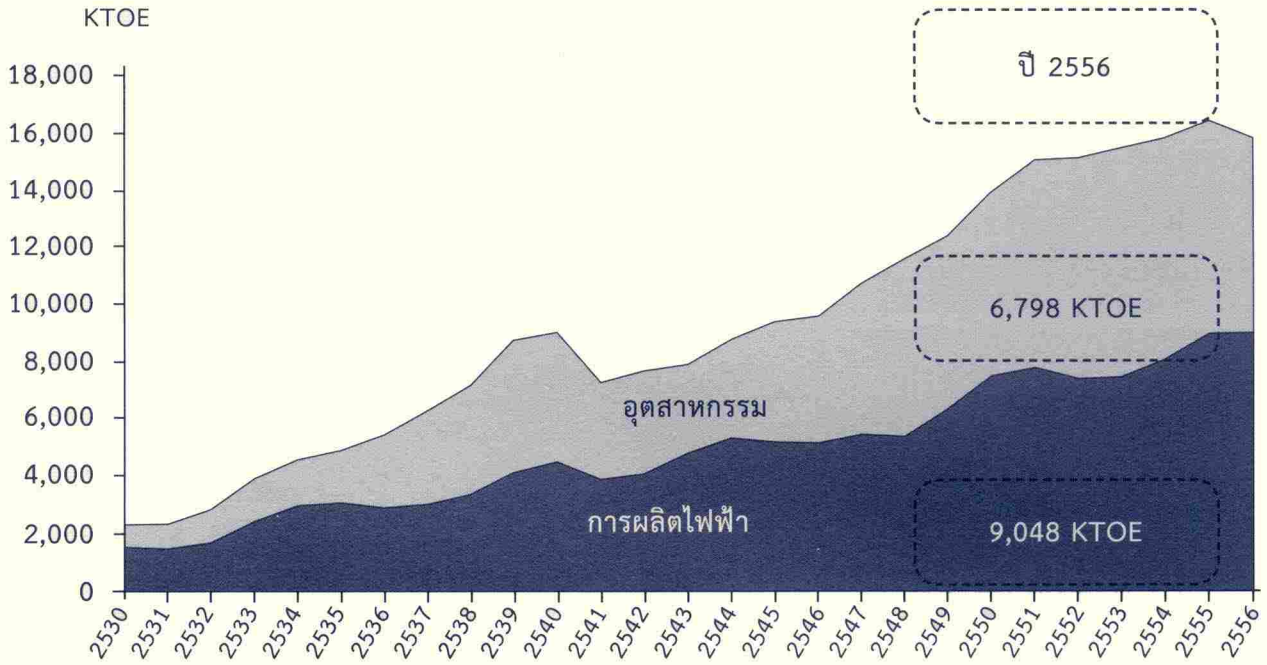
การผลิตลิกไนต์



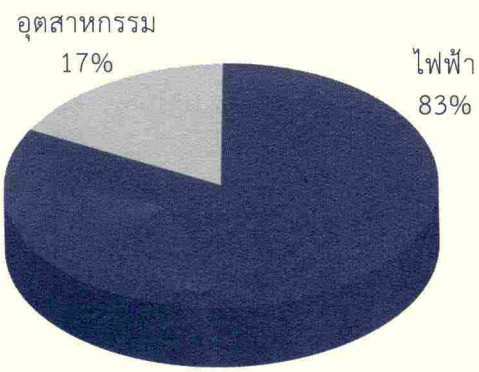
การใช้ลิกไนต์และถ่านหิน ในปี 2556 มีสัดส่วนการใช้ลิกไนต์/ถ่านหินเป็นเชื้อเพลิงในภาคการผลิตไฟฟ้าและภาคอุตสาหกรรม คิดเป็นสัดส่วนร้อยละ 57 และ 43 ตามลำดับ (คิดจากค่าความร้อน) โดยภาคอุตสาหกรรมใช้ในอุตสาหกรรมผลิตปูนซีเมนต์ในกระบวนการผลิตปูนเม็ด (Clinker) และใช้ในอุตสาหกรรมที่ใช้หม้อไอน้ำเป็นหลัก เช่น อุตสาหกรรมกระดาษ และอุตสาหกรรมอาหาร เป็นต้น

ในปี 2556 มีการใช้ลิกไนต์ในการผลิตไฟฟ้าคิดเป็นสัดส่วนร้อยละ 83 ที่เหลือใช้ในภาคอุตสาหกรรม คิดเป็นร้อยละ 17 ส่วนถ่านหินใช้เป็นเชื้อเพลิงในการผลิตไฟฟ้าของผู้ผลิตไฟฟ้าอิสระ (IPP) ร้อยละ 32 ผู้ผลิตไฟฟ้ารายเล็ก (SPP) ร้อยละ 13 และใช้เป็นเชื้อเพลิงในภาคอุตสาหกรรมร้อยละ 55

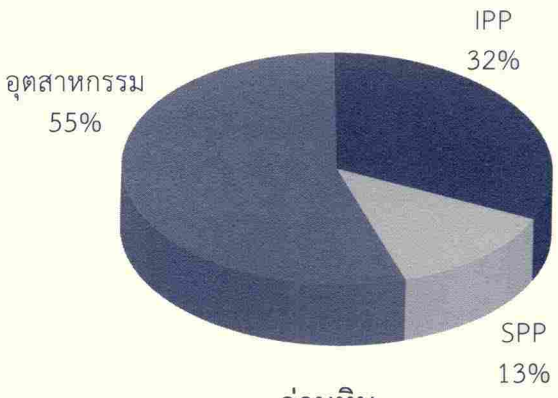
การใช้ลิกไนต์และถ่านหิน



สัดส่วนการใช้ลิกไนต์และถ่านหินในปี 2556



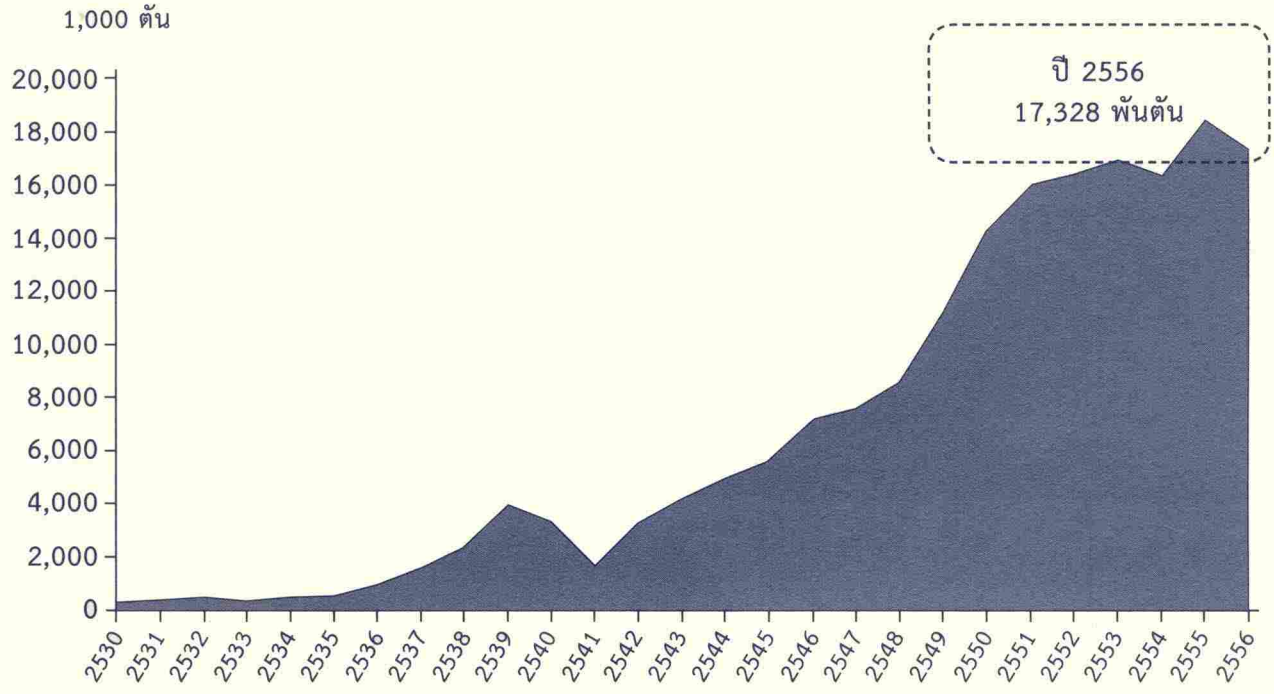
ลิกไนต์



ถ่านหิน

การนำเข้าถ่านหิน ปริมาณการนำเข้าถ่านหินมีแนวโน้มเพิ่มขึ้นอย่างต่อเนื่อง สาเหตุจากความต้องการใช้ถ่านหินที่เพิ่มขึ้นทำให้ปริมาณถ่านหินในประเทศมีไม่เพียงพอต่อความต้องการ ประกอบกับแหล่งสัมปทานลิกไนต์ภายในประเทศทยอยหมดลง รวมทั้งถ่านหินนำเข้ามีค่าความร้อนสูงและมีกำมะถันน้อยเมื่อเทียบกับถ่านหินที่ผลิตได้ภายในประเทศ และราคาถ่านหินถูกกว่าเมื่อเทียบกับพลังงานชนิดอื่น ทั้งนี้ ถ่านหินนำเข้าที่ใช้ในประเทศส่วนใหญ่เป็นถ่านหินประเภท Sub-Bituminous และ Bituminous มีเพียงเล็กน้อยที่เป็นถ่านหินประเภท Anthracite และ Briquettes โดยถ่านหินนำเข้า (Sub-Bituminous) จะมีค่าความร้อนตั้งแต่ 5,000 - 6,000 กิโลแคลอรี่/กิโลกรัม

การนำเข้าถ่านหิน

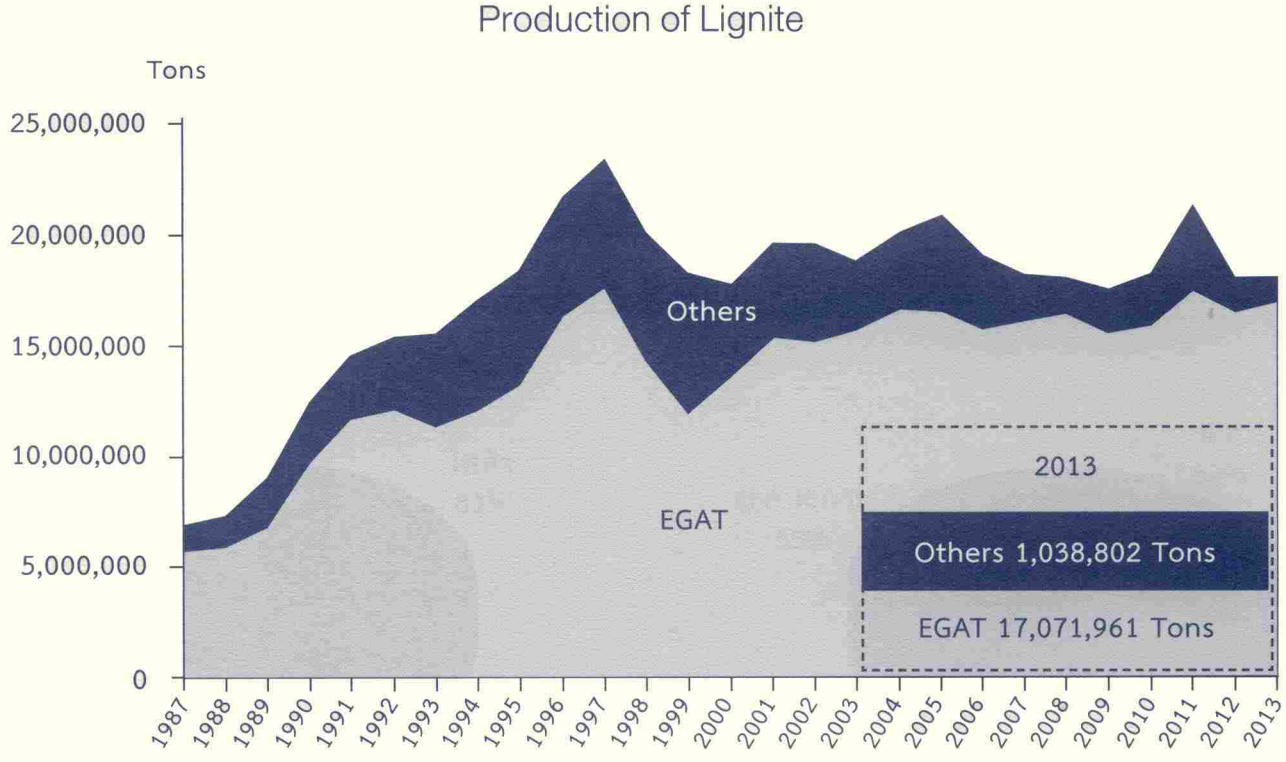


Chapter 4 : Lignite/Coal

Domestic Lignite Production. Domestic lignite production came from two major sources - one was from the mines belonging to the Electricity Generating Authority of Thailand (EGAT) and the other was from mines belonging to private producers. EGAT's sources comprised the production from Mae Moh mine in Lampang province (in northern Thailand) and Krabi mine in Krabi province (in the South of the country). Lignite produced from Mae Moh mine would be entirely used as fuel for power generation at Mae Moh Power Plant while that from Krabi mine would serve the demand in the industrial sector. However, the production at Krabi mine had diminished substantially in output and was eventually discontinued in 2008.

As for lignite production from the mines of private producers, the production volume gradually dropped off because major domestic lignite concessions expired one after another. Most of the lignite produced from private sector mines was used in such industries as cement, paper, food and textile.

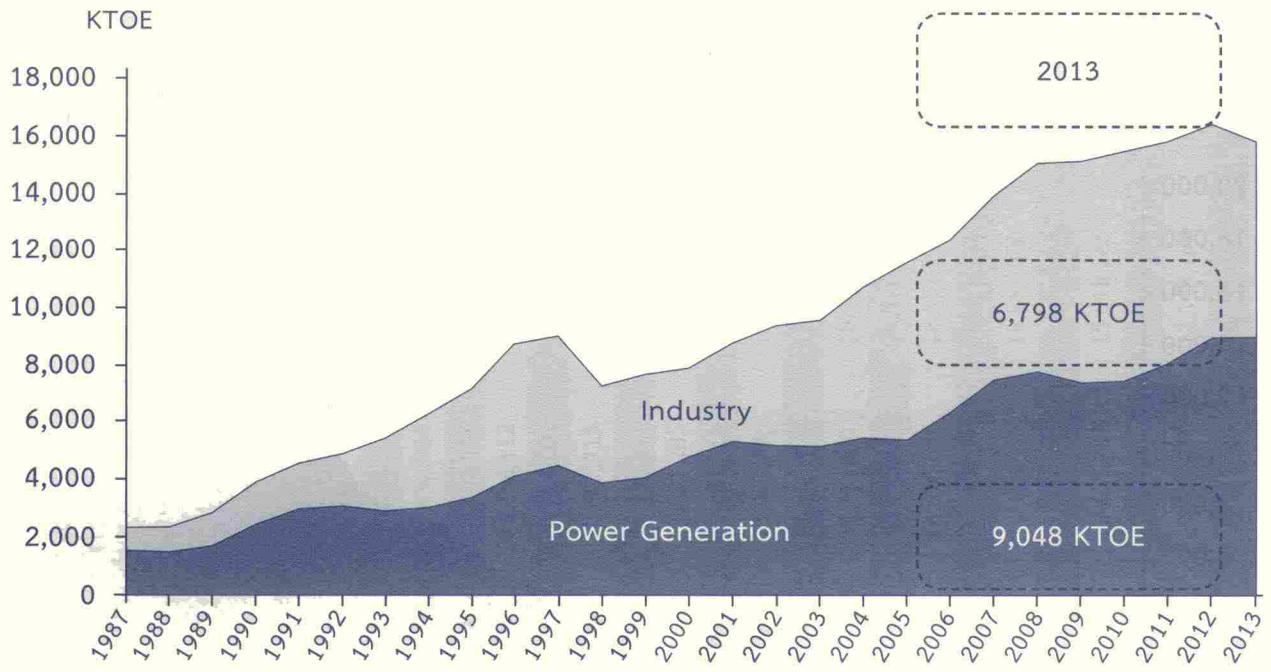
In 2013, lignite production in the country a total of 18,110,763 tons by 94% was from EGAT's Mae Moh mine. The remaining 6% was from the mines of private sector.



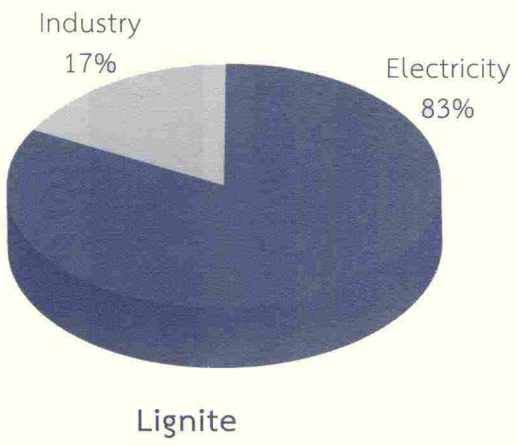
Lignite and Coal Consumption. In 2013, the shares of coal/lignite consumption as fuel in the power generation sector and the industrial sector (based on the calorific value) were 57% and 43% respectively. Coal demand in the industrial sector was growing, mainly by clinker production and industries using boilers.

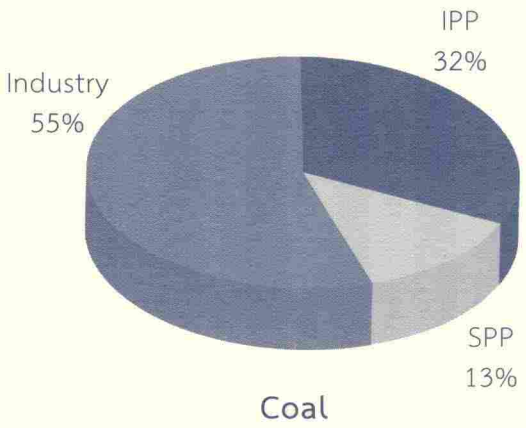
Lignite was mainly used for power generation, accounting for a share of 83%; the remaining 17% was used in the industrial sector. As for coal, 32% was used as fuel in power generation by Independent Power Producers (IPP), 13% by Small Power Producers (SPP), and 55% was used as fuel in the industrial sector.

Lignite & Coal Consumption



Share of Lignite & Coal Consumption 2013





Coal Import Most of imported coal used in Thailand is of sub-bituminous and bituminous categories; only a small amount is anthracite and briquette. The calorific or heating value of imported coal (sub-bituminous) will be in a range of 5,000 - 6,000 kilocalories per kilogram (kcal/kg). The amount of coal imports increased continuously because domestic lignite concessions came to expiry one after another and because the price of coal was cheaper when compared with other energy types.

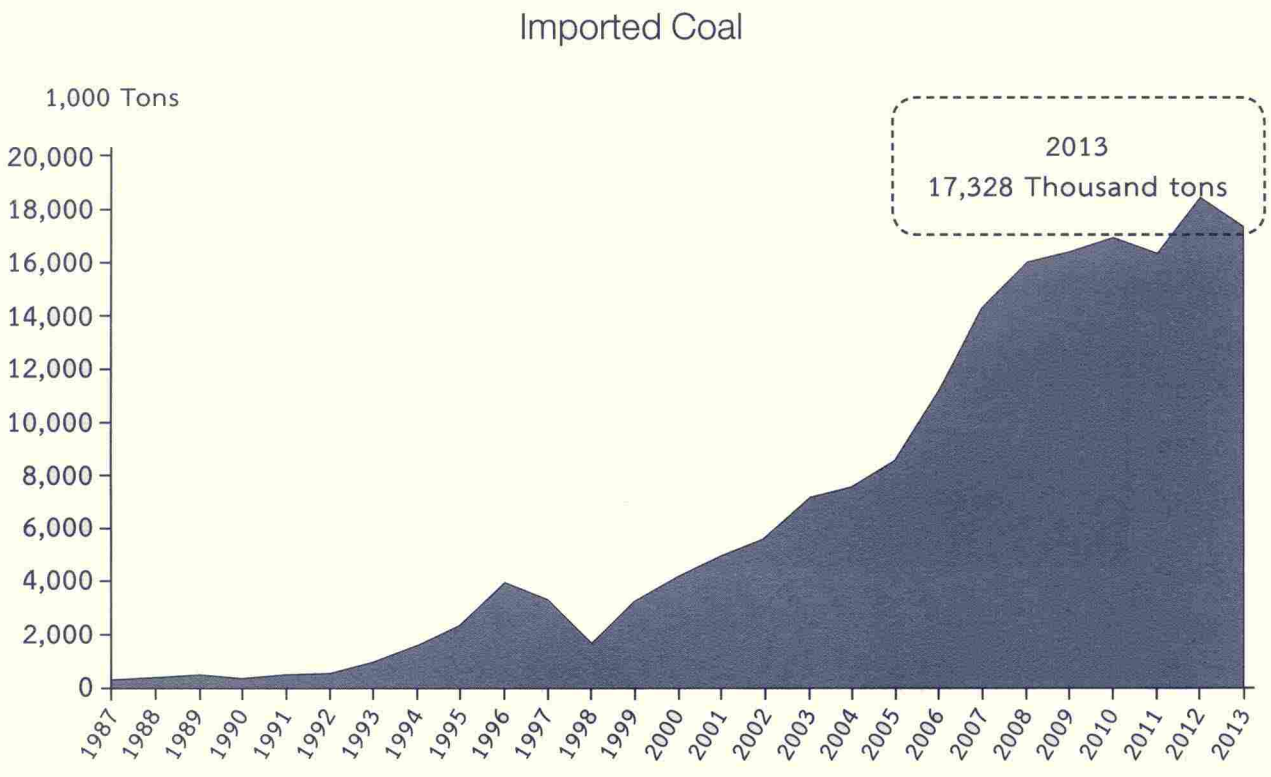


Table 4.1-1Y
Production and Consumption of Lignite

Unit : Ton

Year	EGAT				Total EGAT		Others		Nationwide	
	Mae-Moh		Krabi							
	Production	Consumption	Production	Consumption	Production	Consumption	Production	Consumption	Production	Consumption
1989	6,541,191	6,545,093	318,585	219,113	6,859,776	6,764,205	2,150,146	1,799,380	9,009,922	8,563,586
1990	9,652,991	9,619,614	156,262	255,710	9,809,254	9,875,324	2,629,219	2,600,686	12,438,473	12,476,010
1991	11,513,775	11,504,708	242,699	219,983	11,756,475	11,724,691	2,889,540	2,934,445	14,646,015	14,659,135
1992	11,844,352	12,129,274	253,950	241,265	12,098,302	12,370,539	3,290,259	3,193,113	15,388,561	15,563,652
1993	11,221,088	11,239,942	211,800	249,845	11,432,888	11,489,787	4,105,039	4,222,966	15,537,927	15,712,753
1994	11,906,553	11,908,173	225,065	247,711	12,131,618	12,155,884	4,963,253	4,897,708	17,094,871	17,053,592
1995	13,191,880	13,374,488	144,232	193,006	13,336,112	13,567,494	5,084,686	4,939,136	18,420,798	18,506,630
1996	16,381,301	16,405,340			16,381,301	16,405,340	5,309,093	4,688,467	21,690,394	21,093,807
1997	17,692,415	18,010,806			17,692,415	18,010,806	5,746,141	5,235,659	23,438,556	23,246,465
1998	14,419,327	15,388,095			14,419,327	15,388,095	5,576,868	5,029,499	19,996,195	20,417,594
1999	12,021,265	13,893,584			12,021,265	13,893,584	6,240,043	4,610,512	18,261,308	18,504,096
2000	13,621,615	14,120,569	30,000		13,651,615	14,120,569	4,134,132	3,722,528	17,785,747	17,843,097
2001	15,314,436	15,744,116	133,000		15,447,436	15,744,116	4,159,559	3,753,746	19,606,995	19,497,862
2002	14,994,739	15,035,329	187,000		15,181,739	15,035,329	4,420,245	4,503,816	19,601,984	19,539,145
2003	15,591,841	15,406,532	146,000		15,737,841	15,406,532	3,105,554	2,753,089	18,843,395	18,159,621
2004	16,561,572	16,536,694	95,868		16,657,440	16,536,694	3,402,404	4,006,701	20,059,844	20,543,395
2005	16,534,142	16,571,091	36,522		16,570,664	16,571,091	4,307,512	4,475,747	20,878,176	21,046,838
2006	15,763,798	15,815,374	56,000		15,819,798	15,815,374	3,250,810	3,036,746	19,070,608	18,852,120
2007	16,117,809	15,811,050	27,112		16,144,921	15,811,050	2,094,255	2,159,379	18,239,176	17,970,429
2008	16,420,847	16,407,465	23,248		16,444,095	16,407,465	1,651,290	2,124,087	18,095,385	18,531,552
2009	15,631,766	15,818,265			15,631,766	15,818,265	1,934,334	2,042,529	17,566,100	17,860,794
2010	15,987,263	16,004,196			15,987,263	16,004,196	2,270,799	2,017,685	18,258,062	18,021,881
2011	17,558,336	17,161,168			17,558,336	17,161,168	3,768,770	2,856,989	21,327,106	20,018,157
2012	16,590,461	16,754,281			16,590,461	16,754,281	1,475,968	1,611,596	18,066,429	18,365,877
2013	17,071,961	16,884,947			17,071,961	16,884,947	1,038,802	1,776,159	18,110,763	18,661,106

Source : Department of Primary Industries and Mines (DPIM), EGAT



Table 4.1-2Y
Consumption of Lignite and Coal Classified by Sector

Unit : 1,000 Tons

Year	Coal				Lignite			Coal and Lignite		
	IPP	SPP	Industry	Total	EGAT	Industry	Total	Electricity	Industry	Total
1989			455	455	6,764	1,799	8,564	6,764	2,254	9,019
1990			341	341	9,875	2,601	12,476	9,875	2,942	12,817
1991			470	470	11,856	2,804	14,659	11,856	3,273	15,129
1992			501	501	12,423	3,141	15,564	12,423	3,641	16,065
1993			936	936	11,490	4,223	15,713	11,490	5,159	16,649
1994			1,519	1,519	12,156	4,898	17,054	12,156	6,417	18,573
1995		12	2,335	2,347	13,567	4,939	18,507	13,579	7,275	20,854
1996		66	3,840	3,906	16,405	4,688	21,094	16,472	8,528	25,000
1997		92	3,197	3,289	18,011	5,236	23,246	18,103	8,432	26,535
1998		105	1,528	1,633	15,388	5,030	20,418	15,493	6,558	22,051
1999		1,073	2,205	3,278	13,894	4,611	18,504	14,966	6,816	21,782
2000		2,130	2,053	4,183	14,121	3,723	17,843	16,251	5,776	22,026
2001		2,342	2,603	4,945	15,744	3,754	19,498	18,086	6,357	24,443
2002		2,402	3,197	5,599	15,035	4,504	19,539	17,438	7,700	25,138
2003		2,225	4,885	7,110	15,407	2,753	18,160	17,632	7,638	25,270
2004		2,194	5,356	7,550	16,537	4,007	20,543	18,731	9,363	28,093
2005		2,073	6,495	8,568	16,571	4,476	21,047	18,644	10,971	29,615
2006	1,476	2,473	7,265	11,215	15,815	3,037	18,852	19,765	10,302	30,067
2007	3,697	2,051	8,665	14,414	15,811	2,159	17,970	21,559	10,825	32,384
2008	3,666	2,241	10,072	15,979	16,407	2,124	18,532	22,315	12,196	34,511
2009	3,645	1,965	10,778	16,388	15,818	2,043	17,861	21,428	12,821	34,248
2010	3,647	1,968	11,289	16,904	16,004	2,018	18,022	21,619	13,307	34,926
2011	3,855	2,280	10,196	16,331	17,161	2,857	20,018	23,296	13,053	36,349
2012	5,362	2,417	10,625	18,404	16,754	1,612	18,366	24,534	12,237	36,770
2013	5,561	2,234	9,533	17,328	16,885	1,776	18,661	24,680	11,309	35,989
Fuel Share (%)										
1989			5.1	5.1	75.0	20.0	95.0	75.0	25.0	100.0
1990			2.7	2.7	77.1	20.3	97.3	77.1	23.0	100.0
1991			3.1	3.1	78.4	18.5	96.9	78.4	21.6	100.0
1992			3.1	3.1	77.3	19.6	96.9	77.3	22.7	100.0
1993			5.6	5.6	69.0	25.4	94.4	69.0	31.0	100.0
1994			8.2	8.2	65.5	26.4	91.8	65.5	34.6	100.0
1995		0.1	11.2	11.3	65.1	23.7	88.7	65.1	34.9	100.0
1996		0.3	15.4	15.6	65.6	18.8	84.4	65.9	34.1	100.0
1997		0.4	12.1	12.4	67.9	19.7	87.6	68.2	31.8	100.0
1998		0.5	6.9	7.4	69.8	22.8	92.6	70.3	29.7	100.0
1999		4.9	10.1	15.1	63.8	21.2	85.0	68.7	31.3	100.0
2000		9.7	9.3	19.0	64.1	16.9	81.0	73.8	26.2	100.0
2001		9.6	10.7	20.2	64.4	15.4	79.8	74.0	26.0	100.0
2002		9.6	12.7	22.3	59.8	17.9	77.7	69.4	30.6	100.0
2003		8.8	19.3	28.1	61.0	10.9	71.9	69.8	30.2	100.0
2004		7.8	19.1	26.9	58.9	14.3	73.1	66.7	33.3	100.0
2005		7.0	21.9	28.9	56.0	15.1	71.1	63.0	37.0	100.0
2006	4.9	8.2	24.2	37.3	52.6	10.1	62.7	65.7	34.3	100.0
2007	11.4	6.3	26.8	44.5	48.8	6.7	55.5	66.6	33.4	100.0
2008	10.6	6.5	29.2	46.3	47.5	6.2	53.7	64.7	35.3	100.0
2009	10.6	5.7	31.5	47.9	46.2	6.0	52.2	62.6	37.4	100.0
2010	10.4	5.6	32.3	48.4	45.8	5.8	51.6	61.9	38.1	100.0
2011	10.6	6.3	28.1	44.9	47.2	7.9	55.1	64.1	35.9	100.0
2012	14.6	6.6	28.9	50.1	45.6	4.4	50.0	66.7	33.3	100.0
2013	15.5	6.2	26.5	48.2	46.9	4.9	51.9	68.6	31.4	100.0
Growth Rate (%)										
1990			-25.1	-25.1	46.0	44.5	45.7	46.0	30.5	42.1
1991			37.7	37.7	20.1	7.8	17.5	20.1	11.3	18.0
1992			6.7	6.7	4.8	12.0	6.2	4.8	11.3	6.2
1993			86.8	86.8	-7.5	34.5	1.0	-7.5	41.7	3.6
1994			62.4	62.4	5.8	16.0	8.5	5.8	24.4	11.6
1995			53.7	54.5	11.6	0.9	8.5	11.7	13.4	12.3
1996		466.9	64.4	66.4	20.9	-5.1	14.0	21.3	17.2	19.9
1997		38.9	-16.7	-15.8	9.8	11.7	10.2	9.9	-1.1	6.1
1998		13.9	-52.2	-50.4	-14.6	-3.9	-12.2	-14.4	-22.2	-16.9
1999		923.1	44.3	100.7	-9.7	-8.3	-9.4	-3.4	3.9	-1.2
2000		98.5	-6.9	27.6	1.6	-19.3	-3.6	8.6	-15.3	1.1
2001		10.0	26.8	18.2	11.5	0.8	9.3	11.3	10.1	11.0
2002		2.6	22.8	13.2	-4.5	20.0	0.2	-3.6	21.1	2.8
2003		-7.4	52.8	27.0	2.5	-38.9	-7.1	1.1	-0.8	0.5
2004		-1.4	9.6	6.2	7.3	45.5	13.1	6.2	22.6	11.2
2005		-5.5	21.3	13.5	0.2	11.7	2.5	-0.5	17.2	5.4
2006		19.3	11.9	30.9	-4.6	-32.2	-10.4	6.0	-6.1	1.5
2007	150.4	-17.1	19.3	28.5	0.0	-28.9	-4.7	9.1	5.1	7.7
2008	-0.8	9.3	16.2	10.9	3.8	-1.6	3.1	3.5	12.7	6.6
2009	-0.6	-12.3	7.0	2.6	-3.6	-3.8	-3.6	-4.0	5.1	-0.8
2010	0.1	0.2	4.7	3.2	1.2	-1.2	0.9	0.9	3.8	2.0
2011	5.7	15.8	-9.7	-3.4	7.2	41.6	11.1	7.8	-1.9	4.1
2012	39.1	6.0	4.2	12.7	-2.4	-43.6	-8.3	5.3	-6.3	1.2
2013	3.7	-7.6	-10.3	-5.9	0.8	10.2	1.6	0.6	-7.6	-2.1

Remarks : IPP : Independent Power Producers
SPP : Small Power Producers
EGAT : Electricity Generating Authority of Thailand

Table 4.1-3Y
Consumption of Lignite and Coal Classified by Sector

Unit : KTOE

Year	Coal				Lignite			Coal and Lignite		
	IPP	SPP	Industry	Total	EGAT	Industry	Total	Electricity	Industry	Total
1989			284	284	1,675	858	2,534	1,675	1,142	2,818
1990			213	213	2,446	1,241	3,687	2,446	1,453	3,899
1991			293	293	2,937	1,337	4,274	2,937	1,630	4,567
1992			313	313	3,077	1,498	4,575	3,077	1,811	4,888
1993			584	584	2,846	2,014	4,860	2,846	2,598	5,444
1994			948	948	3,011	2,336	5,347	3,011	3,284	6,296
1995		7	1,458	1,465	3,361	2,356	5,717	3,368	3,814	7,182
1996		41	2,397	2,438	4,064	2,236	6,300	4,105	4,633	8,738
1997		57	1,995	2,053	4,461	2,497	6,959	4,519	4,493	9,012
1998		65	954	1,019	3,812	2,399	6,211	3,877	3,353	7,230
1999		670	1,376	2,046	3,441	2,199	5,641	4,111	3,576	7,687
2000		1,330	1,282	2,611	3,498	1,776	5,273	4,827	3,057	7,884
2001		1,462	1,625	3,087	3,900	1,791	5,690	5,362	3,415	8,777
2002		1,499	1,995	3,495	3,724	2,148	5,873	5,224	4,144	9,367
2003		1,389	3,049	4,438	3,816	1,313	5,129	5,205	4,362	9,568
2004		1,370	3,343	4,713	4,096	1,911	6,007	5,466	5,254	10,720
2005		1,294	4,054	5,348	4,105	2,135	6,240	5,399	6,189	11,587
2006	922	1,544	4,535	7,000	3,917	1,449	5,366	6,383	5,983	12,366
2007	2,308	1,280	5,409	8,997	3,916	1,030	4,946	7,504	6,439	13,943
2008	2,288	1,399	6,287	9,974	4,064	1,013	5,077	7,751	7,300	15,051
2009	2,275	1,226	6,728	10,229	3,918	974	4,892	7,419	7,702	15,121
2010	2,276	1,229	7,047	10,551	3,964	962	4,927	7,469	8,009	15,478
2011	2,406	1,440	6,347	10,194	4,251	1,363	5,614	8,097	7,710	15,807
2012	3,347	1,509	6,632	11,488	4,150	769	4,919	9,006	7,401	16,407
2013	3,471	1,394	5,950	10,816	4,182	847	5,030	9,048	6,798	15,846
Fuel Share (%)										
1989			10.1	10.1	59.5	30.5	89.9	59.5	40.5	100.0
1990			5.5	5.5	62.7	31.8	94.5	62.7	37.3	100.0
1991			6.4	6.4	64.3	29.3	93.6	64.3	35.7	100.0
1992			6.4	6.4	63.0	30.7	93.6	63.0	37.0	100.0
1993			10.7	10.7	52.3	37.0	89.3	52.3	47.7	100.0
1994			15.1	15.1	47.8	37.1	84.9	47.8	52.2	100.0
1995		0.1	20.3	20.4	46.8	32.8	79.6	46.9	53.1	100.0
1996		0.5	27.4	27.9	46.5	25.6	72.1	47.0	53.0	100.0
1997		0.6	22.1	22.8	49.5	27.7	77.2	50.1	49.9	100.0
1998		0.9	13.2	14.1	52.7	33.2	85.9	53.6	46.4	100.0
1999		8.7	17.9	26.6	44.8	28.6	73.4	53.5	46.5	100.0
2000		16.9	16.3	33.1	44.4	22.5	66.9	61.2	38.8	100.0
2001		16.7	18.5	35.2	44.4	20.4	64.8	61.1	38.9	100.0
2002		16.0	21.3	37.3	39.8	22.9	62.7	55.8	44.2	100.0
2003		14.5	31.9	46.4	39.9	13.7	53.6	54.4	45.6	100.0
2004		12.8	31.2	44.0	38.2	17.8	56.0	51.0	49.0	100.0
2005		11.2	35.0	46.2	35.4	18.4	53.9	46.6	53.4	100.0
2006	7.5	12.5	36.7	56.6	31.7	11.7	43.4	51.6	48.4	100.0
2007	16.6	9.2	38.8	64.5	28.1	7.4	35.5	53.8	46.2	100.0
2008	15.2	9.3	41.8	66.3	27.0	6.7	33.7	51.5	48.5	100.0
2009	15.0	8.1	44.5	67.7	25.9	6.4	32.4	49.1	50.9	100.0
2010	14.7	7.9	45.5	68.2	25.6	6.2	31.8	48.3	51.7	100.0
2011	15.2	9.1	40.2	64.5	26.9	8.6	35.5	51.2	48.8	100.0
2012	20.4	9.2	40.4	70.0	25.3	4.7	30.0	54.9	45.1	100.0
2013	21.9	8.8	37.6	68.3	26.4	5.4	31.7	57.1	42.9	100.0
Growth Rate (%)										
1990			-25.1	-25.1	46.0	44.5	45.5	46.0	27.2	38.4
1991			37.7	37.7	20.1	7.8	15.9	20.1	12.2	17.1
1992			6.7	6.7	4.8	12.0	7.1	4.8	11.1	7.0
1993			86.8	86.8	-7.5	34.5	6.2	-7.5	43.5	11.4
1994			62.4	62.4	5.8	16.0	10.0	5.8	26.4	15.6
1995			53.7	54.5	11.6	0.9	6.9	11.9	16.1	14.1
1996		466.9	64.4	66.4	20.9	-5.1	10.2	21.9	21.5	21.7
1997		38.9	-16.7	-15.8	9.8	11.7	10.5	10.1	-3.0	3.1
1998		13.9	-52.2	-50.4	-14.6	-3.9	-10.8	-14.2	-25.4	-19.8
1999		923.1	44.3	100.7	-9.7	-8.3	-9.2	6.0	6.6	6.3
2000		98.5	-6.9	27.6	1.6	-19.3	-6.5	17.4	-14.5	2.6
2001		10.0	26.8	18.2	11.5	0.8	7.9	11.1	11.7	11.3
2002		2.6	22.8	13.2	-4.5	20.0	3.2	-2.6	21.3	6.7
2003		-7.4	52.8	27.0	2.5	-38.9	-12.7	-0.4	5.3	2.1
2004		-1.4	9.6	6.2	7.3	45.5	17.1	5.0	20.4	12.0
2005		-5.5	21.3	13.5	0.2	11.7	3.9	-1.2	17.8	8.1
2006		19.3	11.9	30.9	-4.6	-32.2	-14.0	18.2	-3.3	6.7
2007	150.4	-17.1	19.3	28.5	0.0	-28.9	-7.8	17.6	7.6	12.8
2008	-0.8	9.3	16.2	10.9	3.8	-1.6	2.7	3.3	13.4	8.0
2009	-0.6	-12.3	7.0	2.6	-3.6	-3.8	-3.6	-4.3	5.5	0.5
2010	0.1	0.2	4.7	3.2	1.2	-1.2	0.7	0.7	4.0	2.4
2011	5.7	17.2	-9.9	-3.4	7.2	41.6	13.9	8.4	-3.7	2.1
2012	39.1	6.0	4.2	12.7	-2.4	-43.6	-12.4	11.5	-4.2	3.8
2013	3.7	-7.6	-10.3	-5.9	0.8	10.2	2.3	0.5	-8.2	-3.4

Remarks : IPP : Independent Power Producers
SPP : Small Power Producers
EGAT : Electricity Generating Authority of Thailand

Table 4.2-1Y
Coal Import

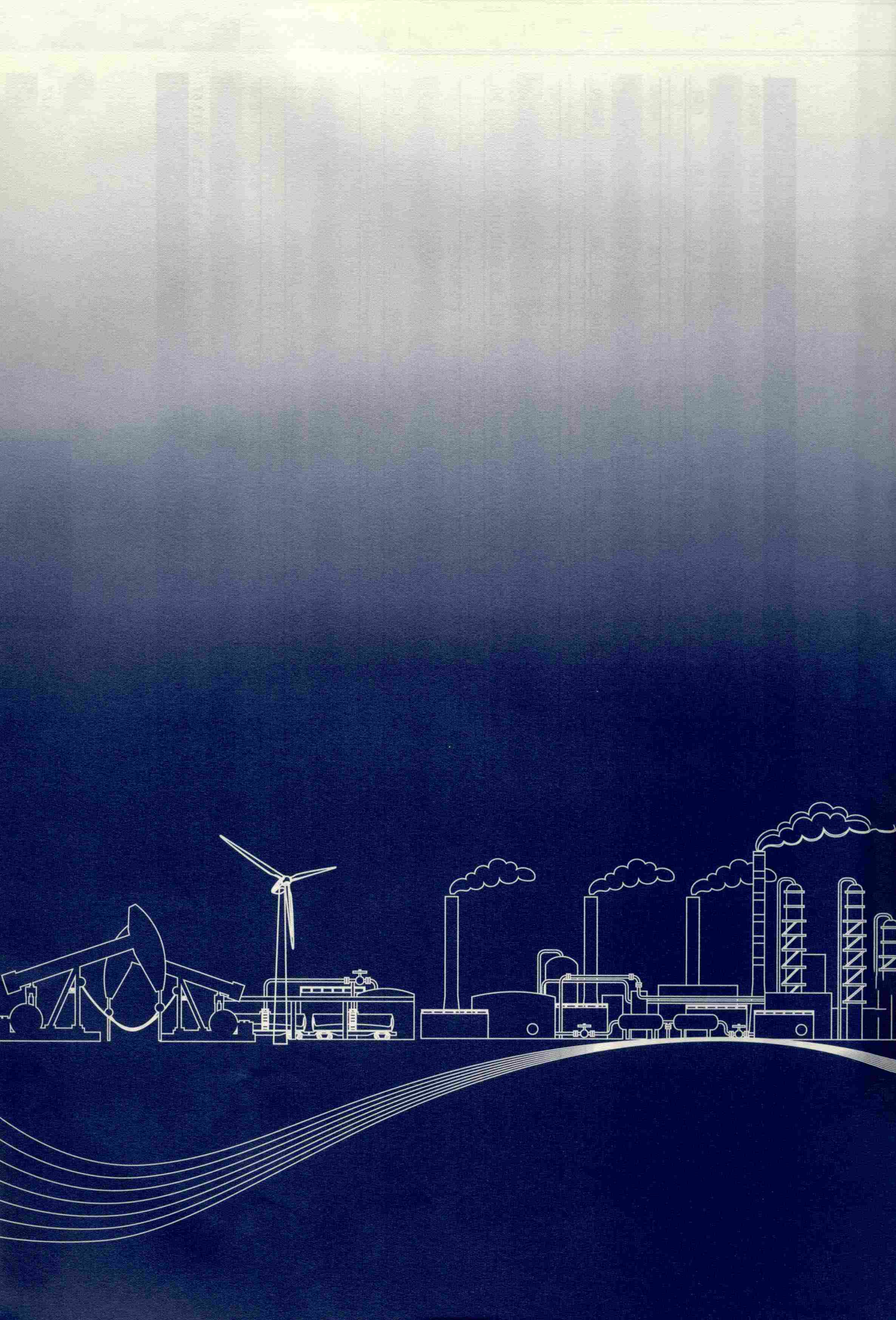
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Briquettes												
- Quantity (1,000 Tons)	0.05	0.03	0.06	0.20	3.06	0.05	0.04	0.02	0.01	0.03	0.00	
- Value (Million Bahts)	0.44	0.29	0.50	0.16	1.18	0.55	0.31	0.39	0.58	0.20	0.23	0.04
Anthracite												
- Quantity (1,000 Tons)	7.92	12.89	18.78	1.57	3.63	1.18	5.08	46.16	8.09	23.10	110.80	164.69
- Value (Million Bahts)	24.42	28.50	32.33	3.94	11.68	4.68	13.45	63.62	27.24	47.31	149.57	243.30
Coal Solid Fuels from Coal												
- Quantity (1,000 Tons)	362.49	236.72	366.14	438.70	867.57	1,408.15	2,244.85	3,733.61	3,191.91	1,521.42	3,079.53	3,933.74
- Value (Million Bahts)	526.84	330.46	377.03	424.75	805.85	1,345.23	1,833.53	3,485.59	3,427.83	1,629.55	3,507.49	4,472.65
Peat												
- Quantity (1,000 Tons)			0.01				0.25	0.74	1.27	1.07	1.21	1.67
- Value (Million Bahts)			0.06				1.53	5.98	6.28	6.76	7.51	8.82
Coke of Coal												
- Quantity (1,000 Tons)	84.57	91.25	84.43	60.39	61.50	109.84	96.95	125.30	87.48	87.38	86.34	83.10
- Value (Million Bahts)	312.30	286.52	308.75	220.39	200.71	368.59	325.56	429.56	350.98	384.35	344.98	342.88
Total												
- Quantity (1,000 Tons)	455.03	340.90	469.42	500.85	935.76	1,519.21	2,347.16	3,905.84	3,288.78	1,632.98	3,277.93	4,183.20
- Value (Million Bahts)	863.99	645.77	718.66	649.23	1,019.42	1,719.06	2,174.40	3,985.25	3,813.12	2,068.16	4,009.80	5,067.69

Source : The Customs Department
Compiled by : Energy Policy and Planning Office (EPPO)

Table 4.2-1Y (Cont.)
Coal Import

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Briquettes													
- Quantity (1,000 Tons)		0.00		0.02	0.02	0.03	50.13	0.01	0.00	0.00		0.10	
- Value (Million Bahts)	0.01	0.05	0.27	0.75	0.07	0.50	56.92	0.76	0.82	0.21	0.01	1.92	0.01
Anthracite													
- Quantity (1,000 Tons)	234.89	581.26	532.86	355.13	487.76	553.49	305.46	242.20	677.52	367.82	210.70	138.06	108.69
- Value (Million Bahts)	353.50	827.78	829.85	720.87	1,406.69	1,236.50	836.44	1,280.39	2,209.51	1,539.64	1,407.26	808.05	562.96
Coal Solid Fuels from Coal													
- Quantity (1,000 Tons)	4,651.04	4,944.07	6,509.00	7,124.40	8,006.40	10,550.96	13,777.60	15,679.32	15,587.41	16,319.89	16,002.60	18,221.60	17,166.39
- Value (Million Bahts)	6,810.36	6,485.58	8,106.07	10,520.27	13,166.66	17,014.32	24,769.55	34,089.44	33,448.03	34,834.61	39,179.19	45,160.57	38,531.90
Peat													
- Quantity (1,000 Tons)	2.23	2.85	3.82	4.03	3.16	4.13	214.29	4.88	6.36	7.77	9.64	8.59	13.95
- Value (Million Bahts)	13.35	18.74	28.45	31.80	25.67	29.39	3,329.67	45.04	52.75	64.69	81.71	84.15	103.06
Coke of Coal													
- Quantity (1,000 Tons)	57.06	70.65	64.75	66.39	70.96	45.48	66.32	52.59	117.54	208.73	108.16	36.02	39.09
- Value (Million Bahts)	312.16	540.16	405.16	1,001.56	822.98	487.50	663.81	1,040.38	1,224.22	2,921.98	1,667.53	647.62	515.73
Total													
- Quantity (1,000 Tons)	4,945.21	5,598.84	7,110.44	7,549.95	8,568.29	11,214.80	14,413.80	15,979.00	16,388.84	16,904.21	16,331.11	18,404.37	17,328.12
- Value (Million Bahts)	7,489.37	7,872.31	9,369.79	12,275.26	15,422.06	18,895.88	29,656.38	36,456.01	36,935.34	39,361.12	42,335.71	46,702.31	39,713.67

Source : The Customs Department
Compiled by : Energy Policy and Planning Office (EPPO)





Chapter 5

Electricity



Electricity



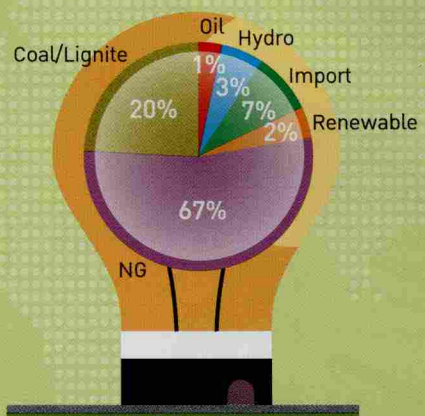
System Generating Capacity As of December 2013

EGAT	15,010	MW	(45%)
IPP	12,742	MW	(38%)
SPP	3,525	MW	(10%)
Import & Exchange	2,405	MW	(7%)



Total 33,681 MW

Share of Power Generation by Fuel Type in 2013



Total 177,398 GWh

Share of Electricity Consumption by Area in 2013

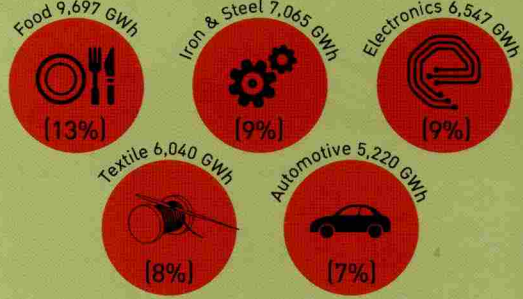
PEA	70%
MEA	29%
Direct Customer	1%

Total 164,341 GWh

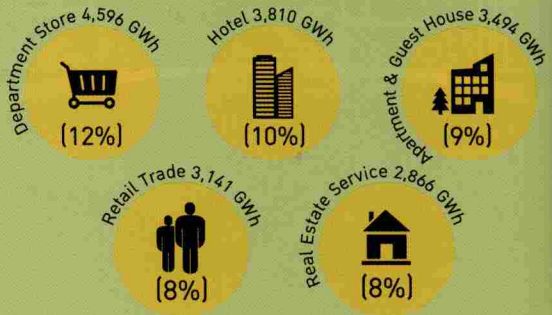
Electricity Consumption by Sector in 2013

				share
1.	Industrial	72,536	GWh	(44%)
2.	Residential	37,657	GWh	(23%)
3.	Commercial	30,413	GWh	(18%)
4.	Small General Service	18,374	GWh	(11%)
5.	Non-Profit	149	GWh	(0.1%)
6.	Agriculture	354	GWh	(0.2%)
7.	Free of Charge	2,379	GWh	(1%)
8.	Other	2,479	GWh	(2%)

Top 5 of Electricity Consumption in Industrial Cluster



Top 5 of Electricity Consumption in Commercial Cluster

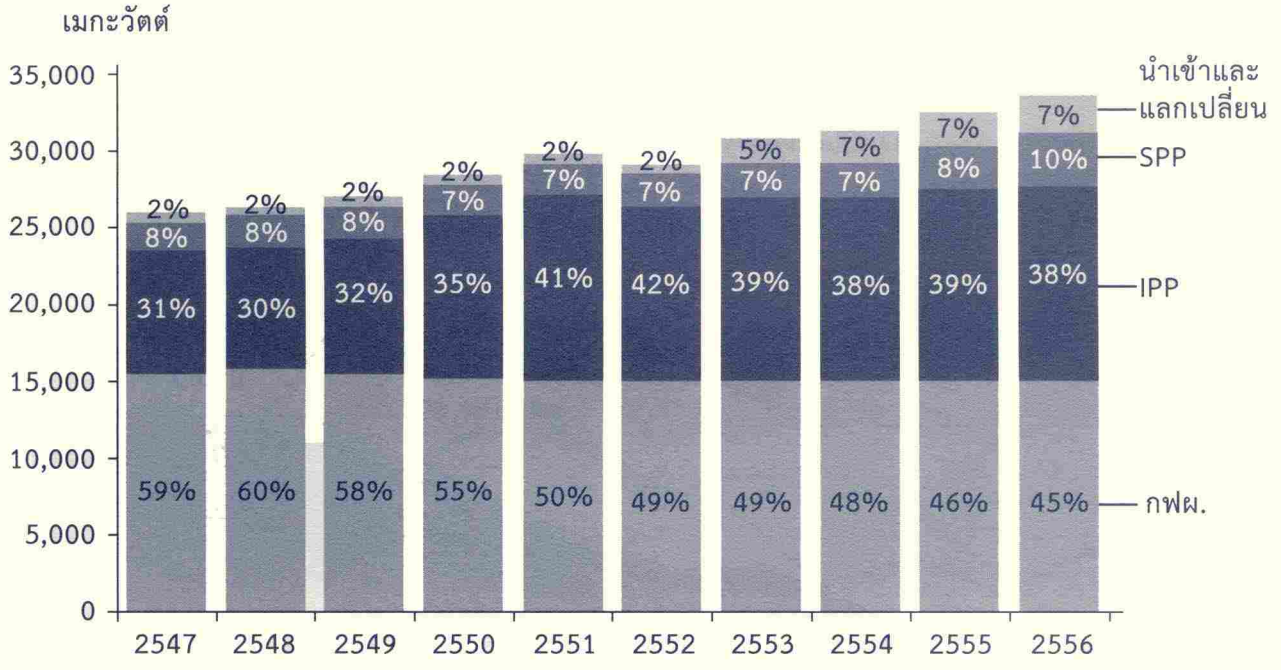


บทที่ 5 ไฟฟ้า

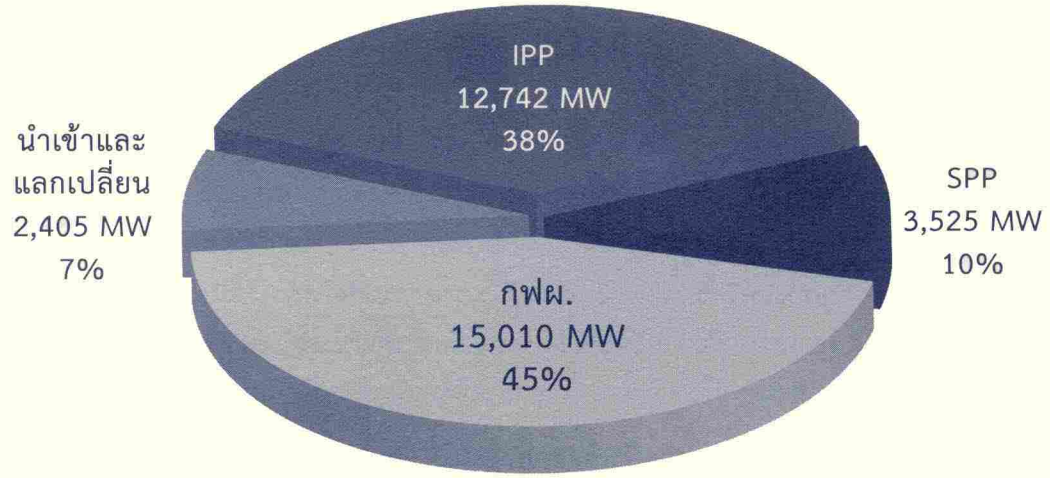
กำลังผลิตในระบบไฟฟ้า ในอดีตการผลิตไฟฟ้าของประเทศไทยมีการไฟฟ้าฝ่ายผลิตแห่งประเทศไทย (กฟผ.) เป็นผู้ผลิตไฟฟ้าเพียงรายเดียว ต่อมารัฐบาลมีนโยบายให้เอกชนเข้ามามีส่วนร่วมในการผลิตไฟฟ้า เพื่อให้มีการแข่งขันด้านการผลิต ในปี 2537 จึงมีผู้ผลิตไฟฟ้าเอกชนรายใหญ่ (Independent Power Producer: IPP) และผู้ผลิตไฟฟ้าเอกชนรายเล็ก (Small Power Producer: SPP) เข้ามามีบทบาทในภาคการผลิตไฟฟ้าทำให้เกิดการปรับปรุงประสิทธิภาพการผลิตและบริการ ในปัจจุบันได้ส่งเสริมให้มีการใช้พลังงานหมุนเวียนในการผลิตไฟฟ้า จึงมีผู้ผลิตไฟฟ้าขนาดเล็กมาก (Very Small Power Producer: VSPP) ที่ใช้พลังงานหมุนเวียนเป็นหลักเข้ามาในระบบ

ในช่วง 10 ปีที่ผ่านมา กำลังผลิตในระบบไฟฟ้ามีแนวโน้มเพิ่มขึ้น โดยส่วนใหญ่เป็นของ กฟผ. ทั้งนี้ การผลิตไฟฟ้าของ กฟผ. มีแนวโน้มลดลง ในขณะที่ IPP SPP และการนำเข้ามีแนวโน้มเพิ่มขึ้น โดยในปี 2556 มีกำลังผลิตในระบบไฟฟ้ารวมทั้งสิ้น 33,681 เมกะวัตต์ เป็นการผลิตไฟฟ้าของ กฟผ. ร้อยละ 45 IPP ร้อยละ 38 SPP ร้อยละ 10 และนำเข้าจาก สปป.ลาว และแลกเปลี่ยนกับมาเลเซีย ร้อยละ 7

กำลังผลิตในระบบไฟฟ้า



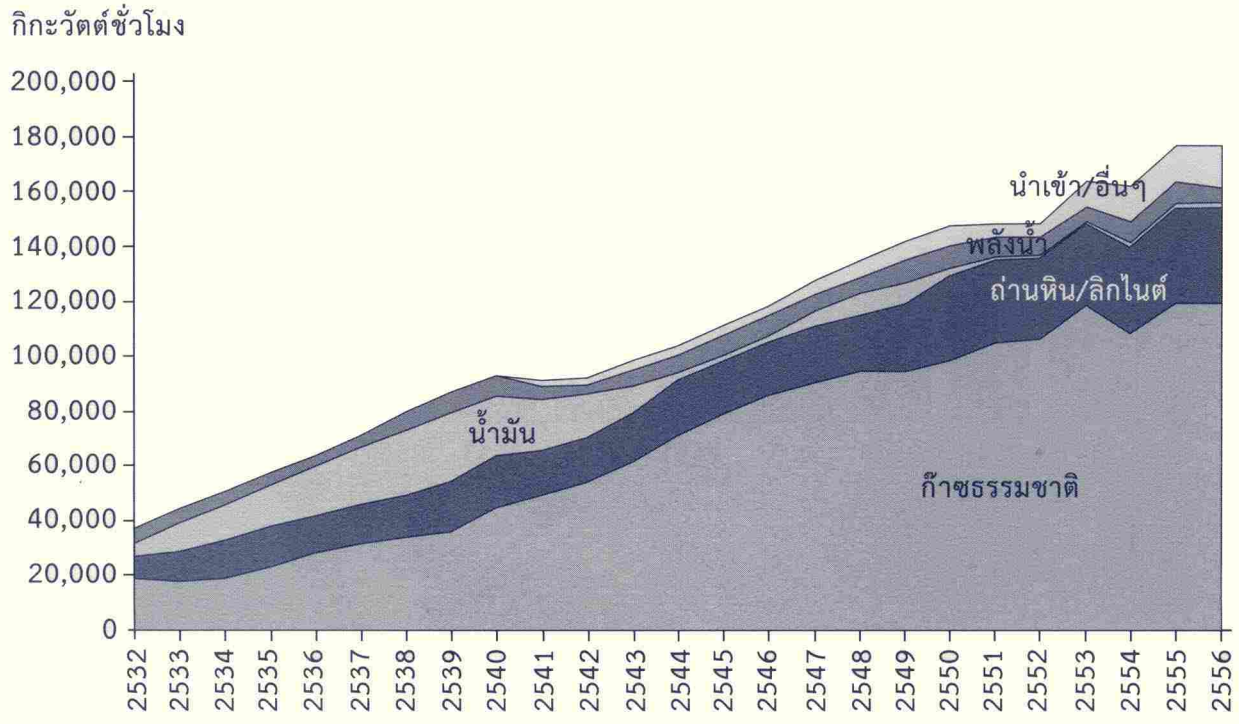
กำลังผลิตในระบบไฟฟ้า
ณ ธันวาคม 2556



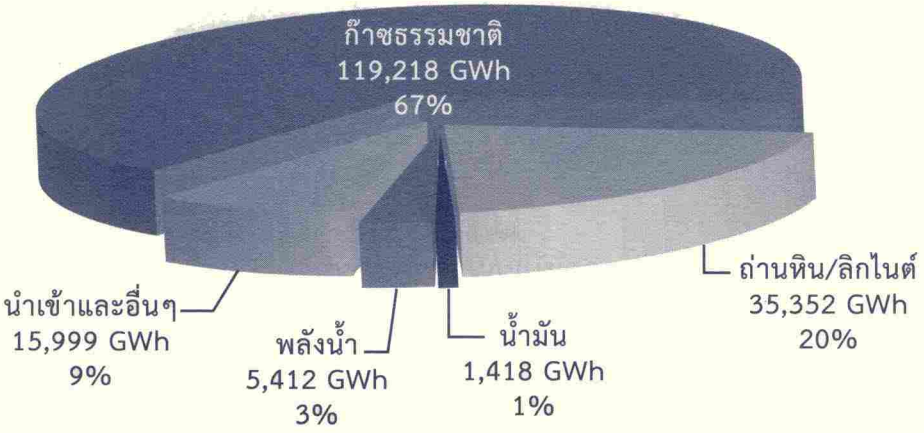
รวม 33,681 เมกะวัตต์

การผลิตพลังงานไฟฟ้า มีแนวโน้มเพิ่มขึ้น ยกเว้นปี 2541 ซึ่งเกิดวิกฤตเศรษฐกิจในไทย ส่วนปี 2552 เกิดวิกฤตเศรษฐกิจในสหรัฐอเมริกาซึ่งได้ส่งผลกระทบต่อเนื่องไปทั่วโลก และปี 2554 เกิดอุทกภัยในหลายพื้นที่ของประเทศ ทำให้ปริมาณการผลิตพลังงานไฟฟ้าของไทยในช่วงเวลาดังกล่าวลดลง ทั้งนี้ ในปี 2556 การผลิตพลังงานไฟฟ้าอยู่ที่ระดับ 177,398 กิกะวัตต์ชั่วโมง เพิ่มขึ้นร้อยละ 0.2 เมื่อเทียบกับปีก่อน เป็นการผลิตไฟฟ้าจากก๊าซธรรมชาติร้อยละ 67 ถ่านหิน/ลิกไนต์ร้อยละ 20 นำเข้า/แลกเปลี่ยนไฟฟ้าและอื่นๆ ร้อยละ 9 ไฟฟ้าพลังน้ำร้อยละ 3 และน้ำมันร้อยละ 1

การผลิตไฟฟ้าจากเชื้อเพลิงชนิดต่างๆ

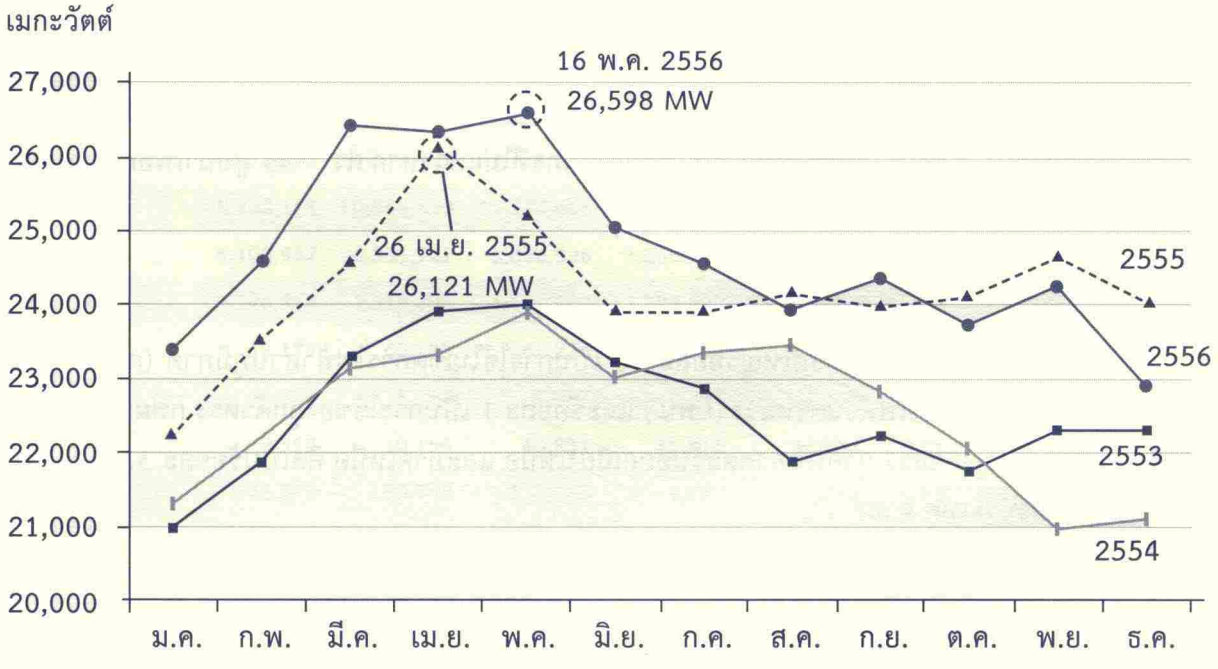


สัดส่วนการผลิตไฟฟ้าจากเชื้อเพลิงชนิดต่างๆ ปี 2556



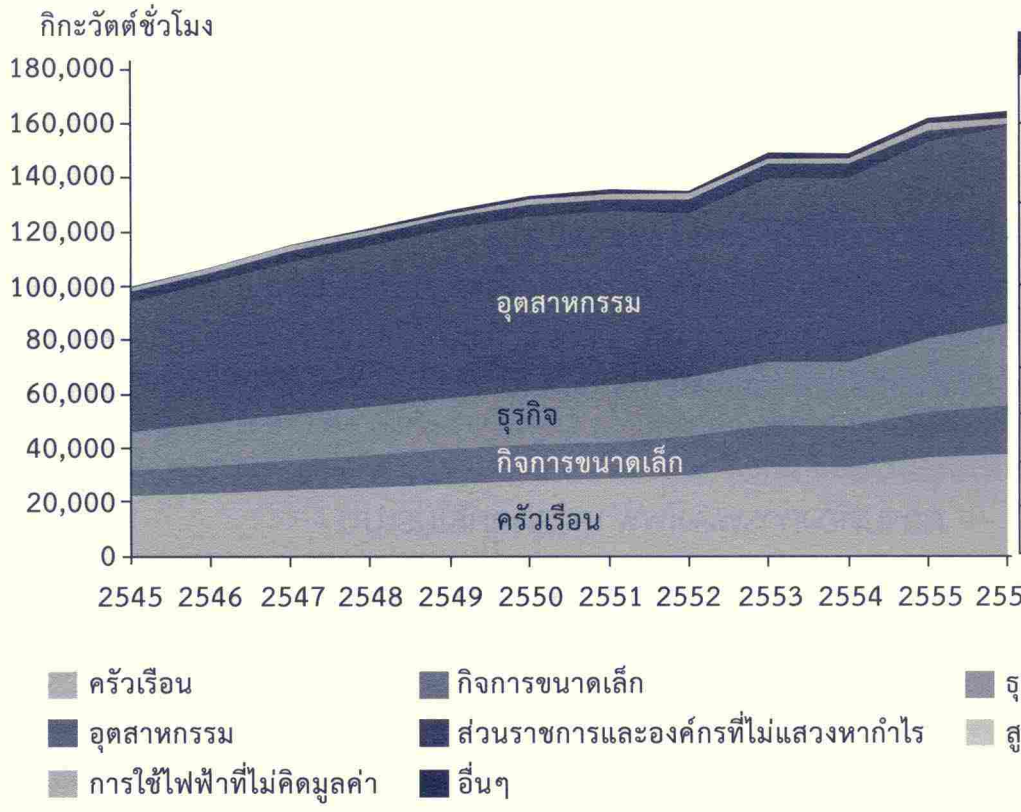
ความต้องการพลังไฟฟ้าสูงสุดสุทธิในระบบของ กฟผ. ในปี 2556 ความต้องการพลังไฟฟ้าสูงสุดสุทธิเกิดขึ้นเมื่อวันพฤหัสบดีที่ 16 พฤษภาคม เวลา 14.00 น. อยู่ที่ระดับ 26,598 เมกะวัตต์ สูงกว่าความต้องการพลังไฟฟ้าสูงสุดสุทธิของปี 2555 ซึ่งเกิดขึ้นเมื่อวันพฤหัสบดีที่ 26 เมษายน เวลา 14.30 น. ที่ระดับ 26,121 เมกะวัตต์ อยู่ 477 เมกะวัตต์ หรือคิดเป็นเพิ่มขึ้นร้อยละ 1.8 ส่วนค่าตัวประกอบการใช้ไฟฟ้าเฉลี่ย (Load Factor) ของปี 2556 อยู่ที่ร้อยละ 74.1

ความต้องการพลังไฟฟ้าสูงสุดสุทธิในระบบ



การใช้ไฟฟ้า ปริมาณการใช้ไฟฟ้ารายสาขาของไทยมีสัดส่วนใกล้เคียงกันกับในอดีตที่ผ่านมา โดยในปี 2556 การใช้ไฟฟ้ารวมทั้งประเทศอยู่ที่ระดับ 164,341 กิกะวัตต์ชั่วโมง เพิ่มขึ้นร้อยละ 1.6 เมื่อเทียบกับปีก่อน ตามการขยายตัวทางเศรษฐกิจของประเทศ โดยสาขาที่มีสัดส่วนการใช้ไฟฟ้าสูงที่สุด คือ ภาคอุตสาหกรรม คิดเป็นร้อยละ 44 ของการใช้ไฟฟ้าทั้งประเทศ รองลงมาคือการใช้ไฟฟ้าในภาคครัวเรือน ร้อยละ 23 ภาคธุรกิจ ร้อยละ 19 และกิจการขนาดเล็ก ร้อยละ 11

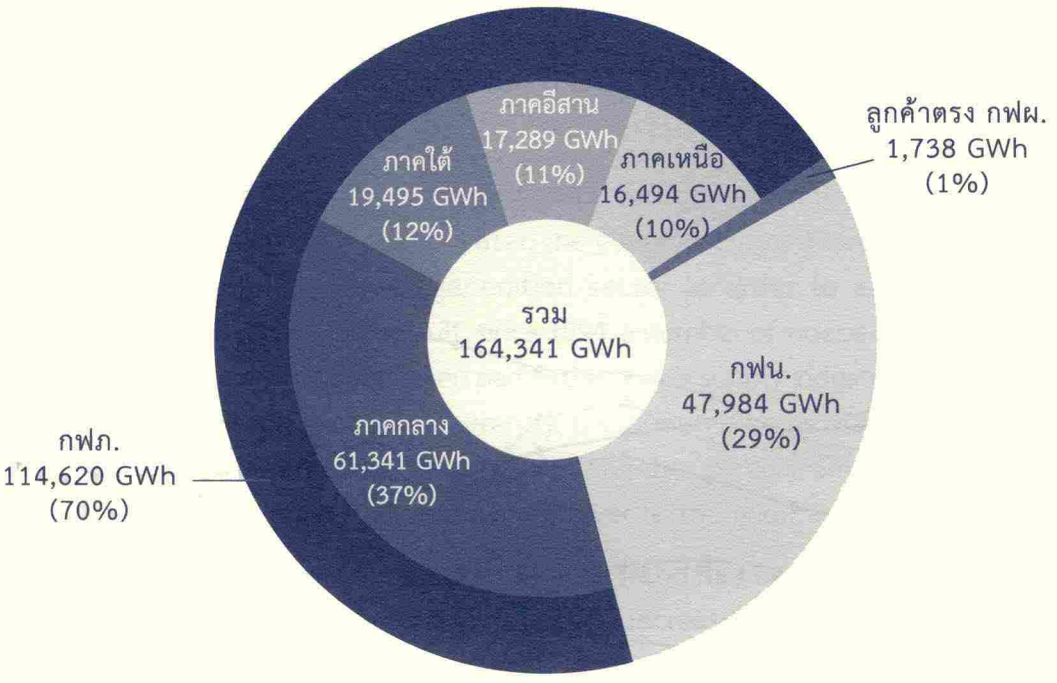
การใช้ไฟฟ้ารายสาขา



การใช้ไฟฟ้า ปี 2556	
อื่นๆ	1.5%
การใช้ไฟฟ้าที่ไม่คิดมูลค่า	1.4%
สูบน้ำเพื่อการเกษตร	0.2%
องค์กรที่ไม่แสวงหากำไร	0.1%
อุตสาหกรรม	44.1%
ธุรกิจ	18.5%
กิจการขนาดเล็ก	11.2%
ครัวเรือน	22.9%

การใช้ไฟฟ้าของไทยปี 2556 ส่วนใหญ่ร้อยละ 70 เป็นการใช้ในเขตการไฟฟ้าส่วนภูมิภาค (กฟภ.) รองลงมาร้อยละ 29 เป็นการใช้ในเขตการไฟฟ้านครหลวง (กฟน.) และร้อยละ 1 เป็นการใช้ของลูกค้าตรง กฟผ. ทั้งนี้ ภูมิภาคที่มีการใช้ไฟฟ้าสูงที่สุดคือ ภาคกลาง ภาคใต้ ภาคตะวันออกเฉียงเหนือ และภาคเหนือ คิดเป็นร้อยละ 37 12 11 และ 10 ของการใช้ไฟฟ้าทั้งประเทศ ตามลำดับ

การใช้ไฟฟ้ารายเขตพื้นที่ ปี 2556



จำนวนผู้ใช้ไฟฟ้าทั้งประเทศมีแนวโน้มเพิ่มขึ้นอย่างต่อเนื่อง โดยในปี 2556 มีผู้ใช้ไฟฟ้าประมาณ 20.5 ล้านราย (ตามมิเตอร์ไฟฟ้า) ซึ่งผู้ใช้ไฟฟ้าส่วนใหญ่เป็นประเภทบ้านอยู่อาศัย คิดเป็นร้อยละ 89 แบ่งเป็นบ้านที่ใช้ไฟฟ้าน้อยกว่า 150 หน่วย ร้อยละ 51 และบ้านที่ใช้ไฟฟ้ามากกว่า 150 หน่วย ร้อยละ 38

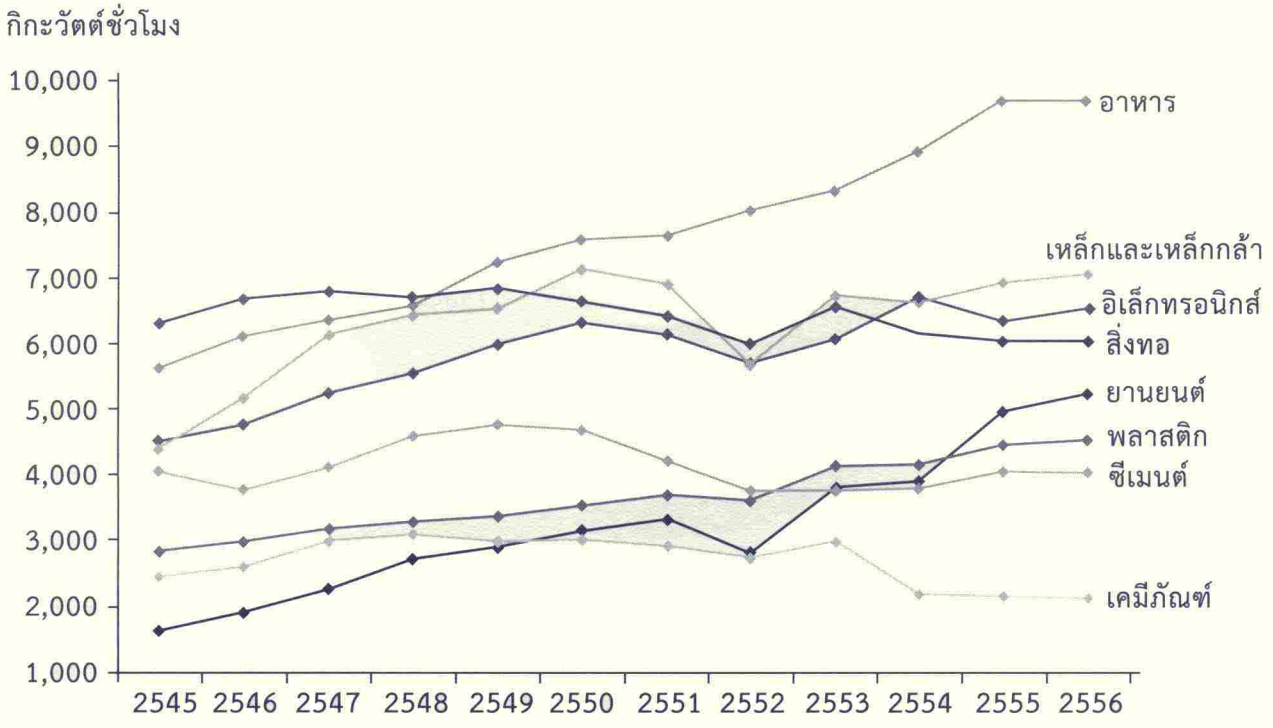
จำนวนผู้ใช้ไฟฟ้ารายอัตราค่าไฟฟ้า

	จำนวนผู้ใช้ไฟฟ้า					สัดส่วน (ร้อยละ)				
	2552	2553	2554	2555	2556	2552	2553	2554	2555	2556
บ้านอยู่อาศัย	16,071,093	16,618,752	17,111,294	17,666,752	18,223,755	89	89	89	89	89
< 150 หน่วย	9,962,161	10,066,810	10,254,466	10,400,534	10,420,158	55	54	54	53	51
> 150 หน่วย	6,108,932	6,551,942	6,856,828	7,266,218	7,803,597	34	35	36	37	38
กิจการขนาดเล็ก	1,546,414	1,579,006	1,604,854	1,784,592	1,843,594	9	8	8	9	9
กิจการขนาดกลาง	58,179	60,103	62,236	78,244	83,737	0.32	0.32	0.33	0.40	0.41
กิจการขนาดใหญ่	5,339	5,820	6,587	7,245	7,664	0.03	0.03	0.03	0.04	0.04
กิจการเฉพาะอย่าง	9,352	10,154	10,831	11,916	12,744	0.05	0.05	0.06	0.06	0.06
ส่วนราชการและองค์กรที่ไม่แสวงหากำไร	146,593	153,742	139,983	1,377	1,749	0.82	0.83	0.73	0.01	0.01
สูบน้ำเพื่อการเกษตร	3,492	3,521	3,752	4,208	4,796	0.02	0.02	0.02	0.02	0.02
ไฟฟ้าชั่วคราว	143,067	164,768	198,040	240,567	273,992	0.80	0.89	1.03	1.22	1.34
อื่นๆ*	76	81	78	76	87	0.0004	0.0004	0.0004	0.0004	0.0004
รวม	17,983,605	18,595,947	19,137,655	19,794,977	20,452,118	100	100	100	100	100

* ไฟฟ้าสำรอง, ไฟฟ้าที่งดจ่ายได้ และลูกค้าตรงของ กฟผ.

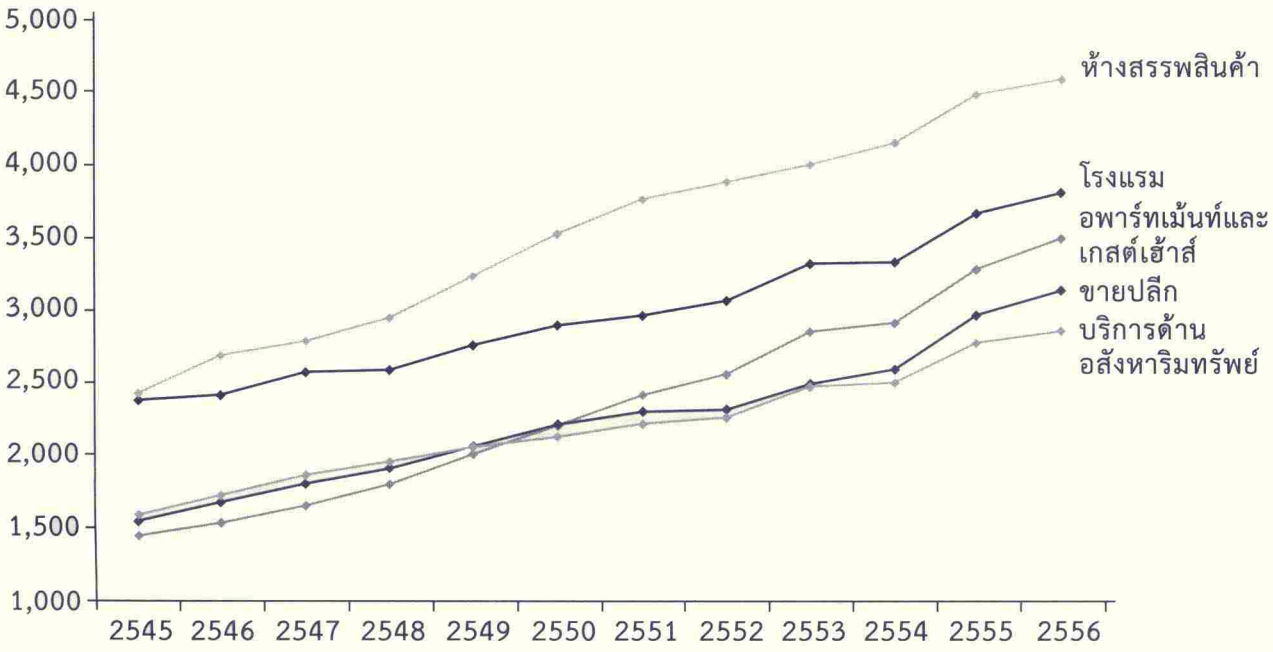
- *การใช้ไฟฟ้าในสาขาอุตสาหกรรมที่สำคัญ* การใช้ไฟฟ้าในสาขาอุตสาหกรรมส่วนใหญ่มีแนวโน้มเพิ่มขึ้นในช่วงปี 2545 ถึงปี 2550 หลังจากนั้นในช่วงปี 2551 ถึงปี 2552 มีแนวโน้มลดลง เนื่องจากภาวะเศรษฐกิจโลกที่ชะลอตัวลงประกอบกับภาวะความไม่มีเสถียรภาพทางการเมืองภายในประเทศไทย ต่อมาในปี 2553 ถึงปี 2556 การใช้ไฟฟ้าในสาขาอุตสาหกรรมส่วนใหญ่กลับมาเพิ่มสูงขึ้นอีกครั้ง โดยเฉพาะอย่างยิ่งอุตสาหกรรมอาหารและอุตสาหกรรมยานยนต์

การใช้ไฟฟ้าในสาขาอุตสาหกรรม



- *การใช้ไฟฟ้าในสาขาธุรกิจที่สำคัญ* การใช้ไฟฟ้าในสาขาธุรกิจส่วนใหญ่มีแนวโน้มเพิ่มขึ้นตั้งแต่ปี 2545 ถึงปี 2556 โดยในปี 2556 ธุรกิจที่มีการใช้ไฟฟ้าในสัดส่วนที่สูง ได้แก่ ห้างสรรพสินค้า โรงแรม อพาร์ทเม้นท์และเกสต์เฮ้าส์ ขายปลีก และบริการด้านอสังหาริมทรัพย์ ตามลำดับ

การใช้ไฟฟ้าในสาขาธุรกิจ

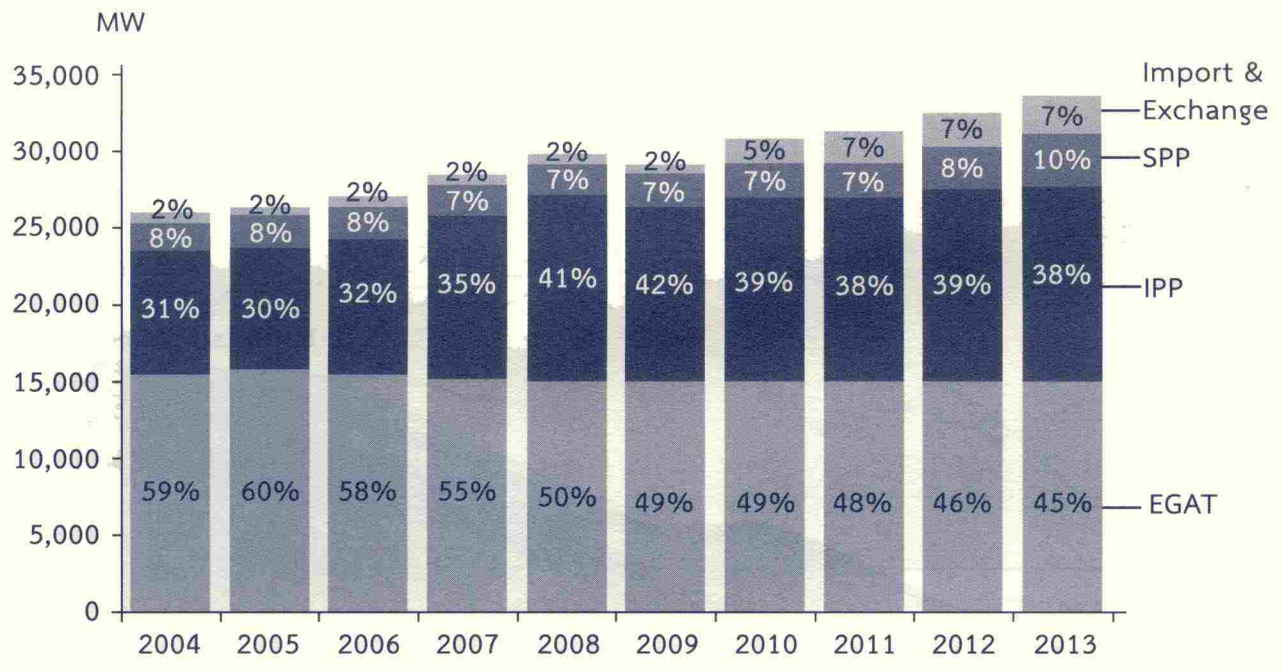


Chapter 5 : Electricity

System Generating Capacity. In the past, the Electricity Generating Authority of Thailand (EGAT) was the sole power producer in Thailand. Later, the government had formulated a policy promoting the private sector role in the power generation sector in order to encourage competitiveness in the power generation business. As a result, since 1994, a number of Independent Power Producers (IPP) and Small Power Producers (SPP) have taken part in the power supply industry, resulting in improvement in power generation and service quality. Currently, promotion is being made on the use of renewable energy in power generation, resulting in a growing number of Very Small Power Producers (VSPP), using renewable energy as main fuel, supplying power to the grid.

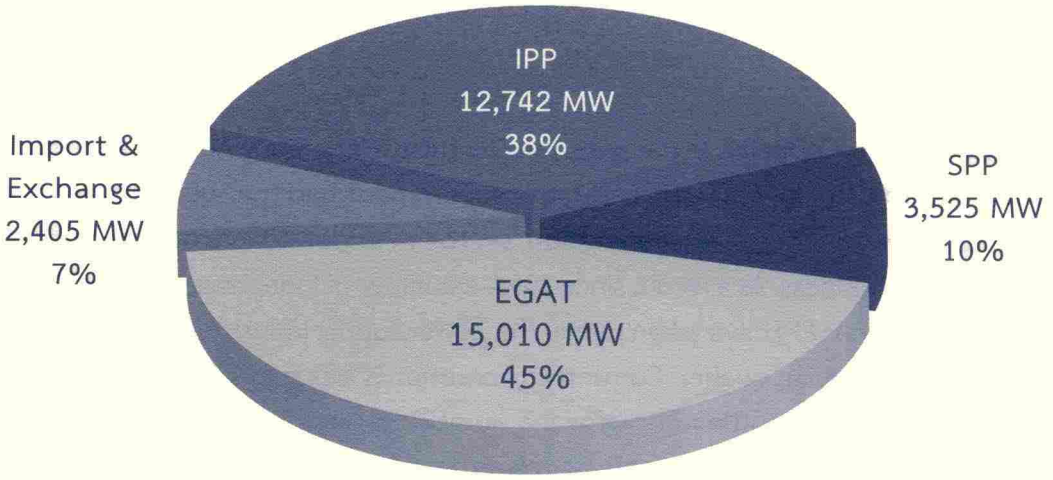
In last decade, the System Generating Capacity trend had been on the rise. EGAT was the main producer, in additional, generating capacity of EGAT decreased in proportion while an increase in IPP, SPP and imported electricity became larger. In 2013, the System Generating Capacity stood at 33,681 MW, divided into the generating capacity of EGAT, 45%; IPP, 38%; SPP, 10%; and imported electricity from Lao PDR and exchange with Malaysia, 7%.

System Generating Capacity



System Generating Capacity

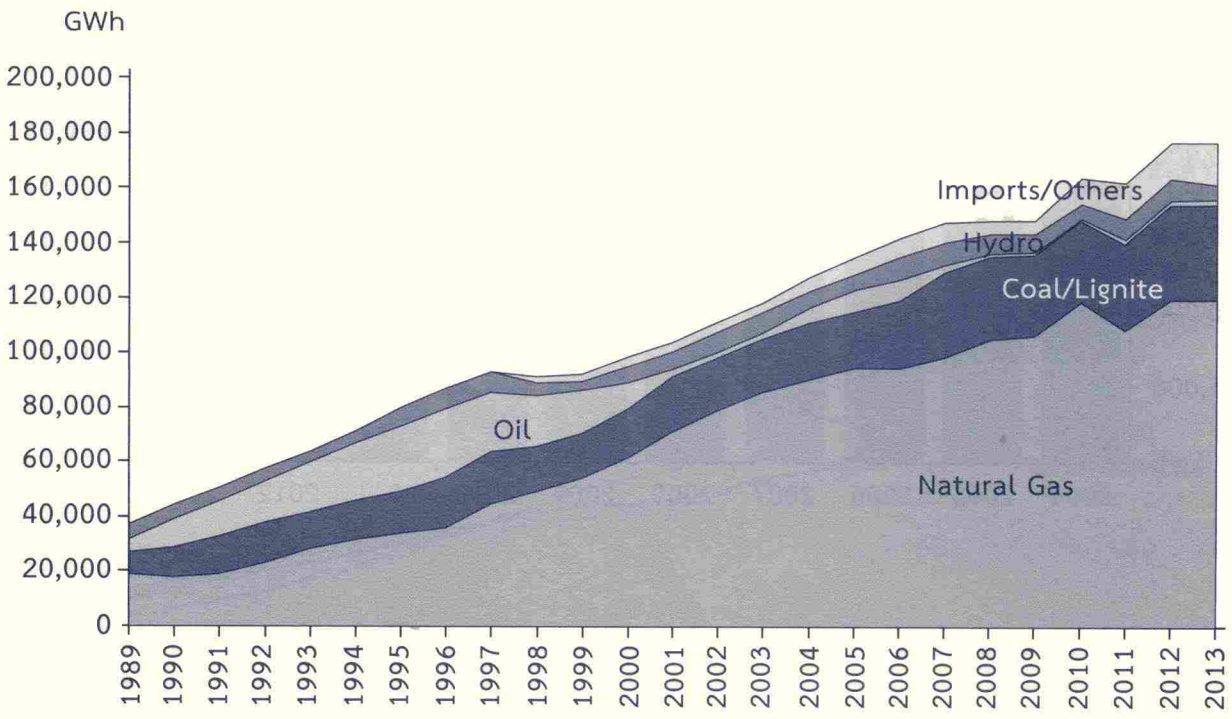
As of December 2013



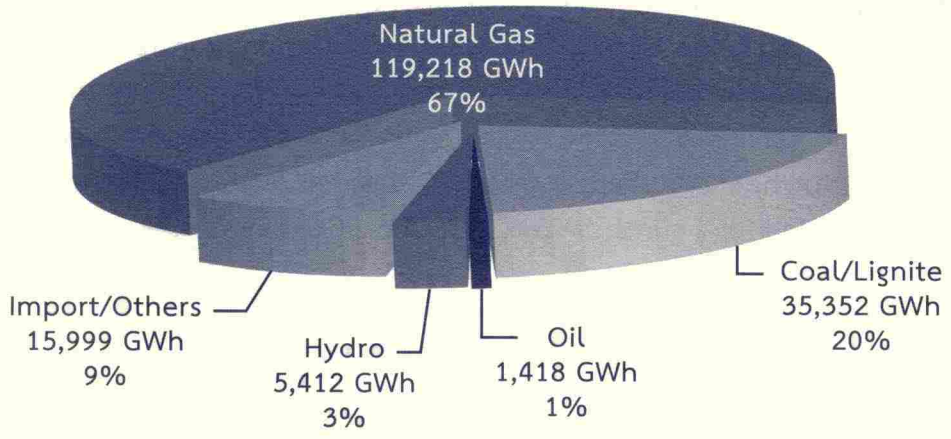
Total: 33,681 MW

Electricity Generation. The electricity generation trend in Thailand has been on the rise, excepted in 1998 due to the economic crisis in Thailand and the Hamburger Crisis in 2009, which affected to the many parts of the world. In additional later on 2011 the heavy flood in wide area hit Thailand. Then these caused the electricity generation to shrink during that period. In 2013, the generation was at a level of 177,398 gigawatt-hours (GWh), increased by 0.2%, compared with that in the previous year, with the use of the following fuels: natural gas, 67%; coal/lignite, 20%; electricity import/exchange and others, 9%; hydropower, 3% and oil, 1%.

Power Generation by Fuel Type

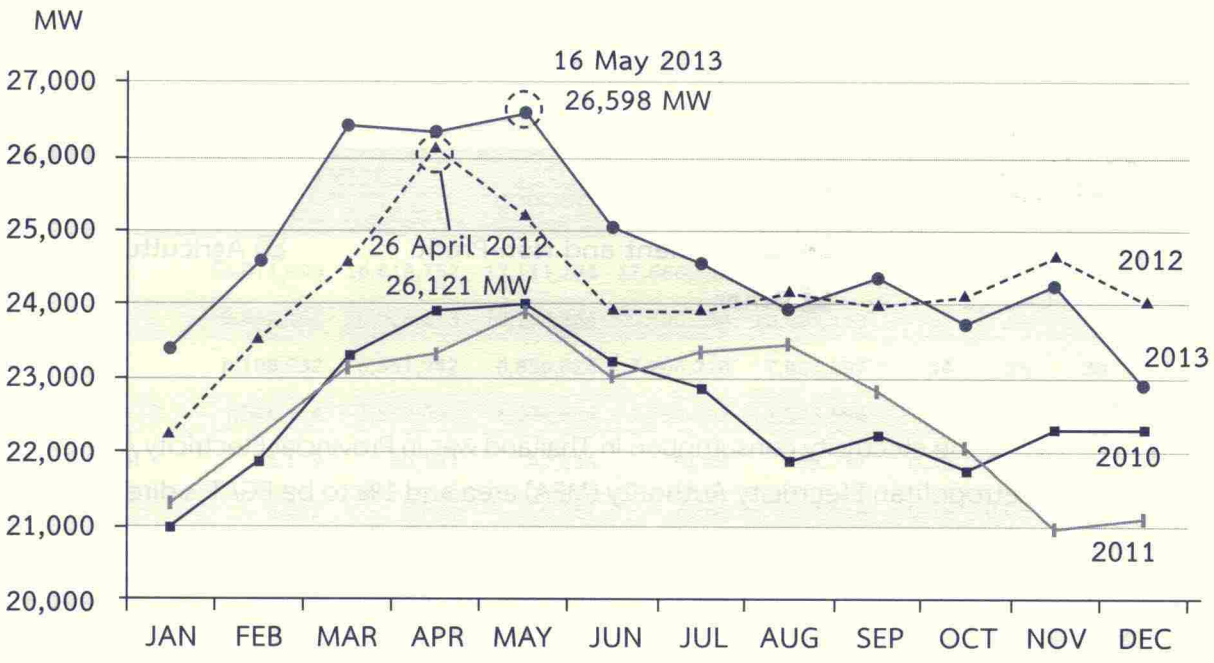


Share of Power Generation by Fuel Type in 2013



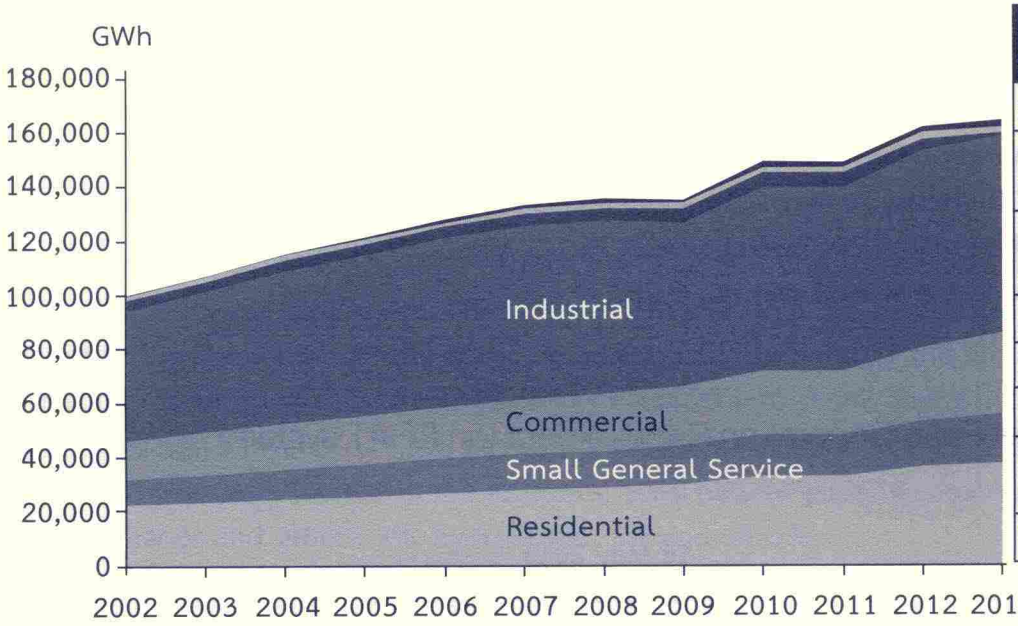
Net Peak Generation Requirement (on EGAT system). The net peak generation requirement in 2013 occurred on Thursday, 16 May 2013, at 14.00 hrs., reaching 26,598 MW, accounting for 477 MW or 1.8% higher than that in 2012 which was at 26,121 MW on Thursday, 26 April 2012, at 14.30 hrs. The average load factor in 2013 was at 74.1%.

Net Peak Generation Requirement (on EGAT system)



Electricity Consumption. The share of electricity consumption by sector in Thailand was similar to that in the past. In 2013, the total consumption of the country increased by 1.6%, compared with that in the previous year, reaching the amount of 164,341 GWh, due to the national economic growth. The economic sector accounting for the highest share of national electricity consumption was the industrial sector, holding a share of 44%; while the household, commercial and small general service sectors accounted for a share of 23%, 19% and 11% respectively.

Electricity Consumption by Sector

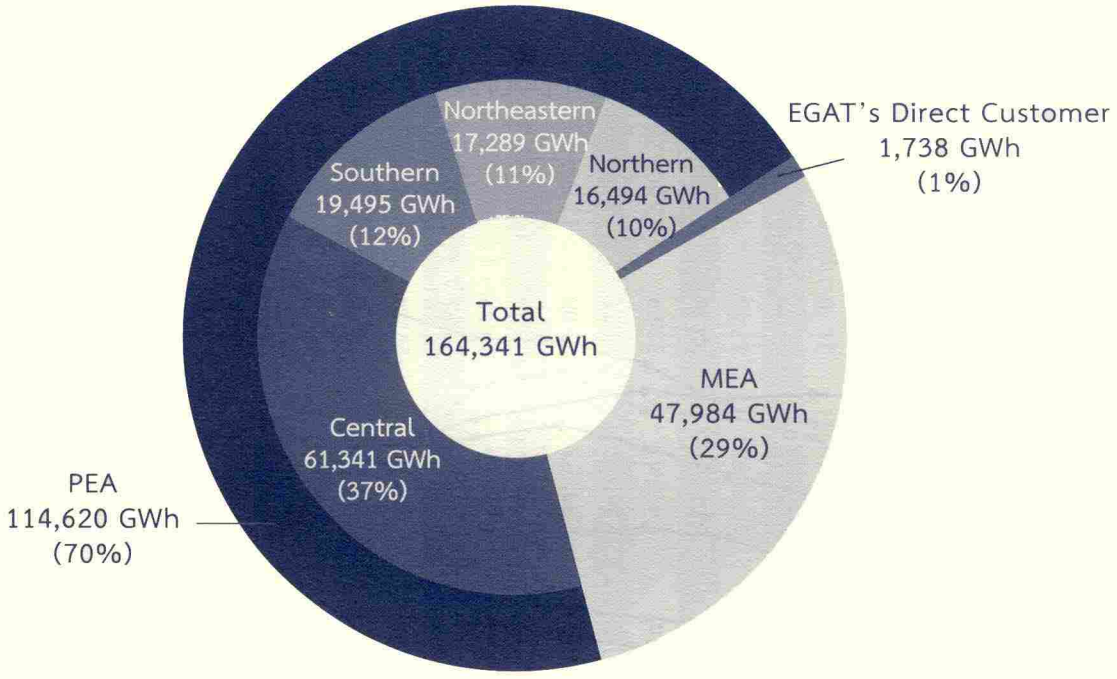


Electricity Consumption in 2013	
Other	1.5%
Free of Charge	1.4%
Agriculture Pumping	0.2%
Non-Profit	0.1%
Industrial	44.1%
Commercial	18.5%
Small General Service	11.2%
Residential	22.9%

Residential
Industrial
Free of Charge
Small General Service
Government and Non-Profit
Other
Commercial
Agriculture Pumping

In 2013, 70% of the electricity consumption in Thailand was in Provincial Electricity Authority (PEA) area, 29% was in Metropolitan Electricity Authority (MEA) area and 1% to be EGAT's direct customers. In additional, the share of electricity consumption in central region, southern region, northeastern region and northern region were 37%, 12%, 11% and 10% of national electricity consumption, respectively.

Electricity Consumption by Area in 2013



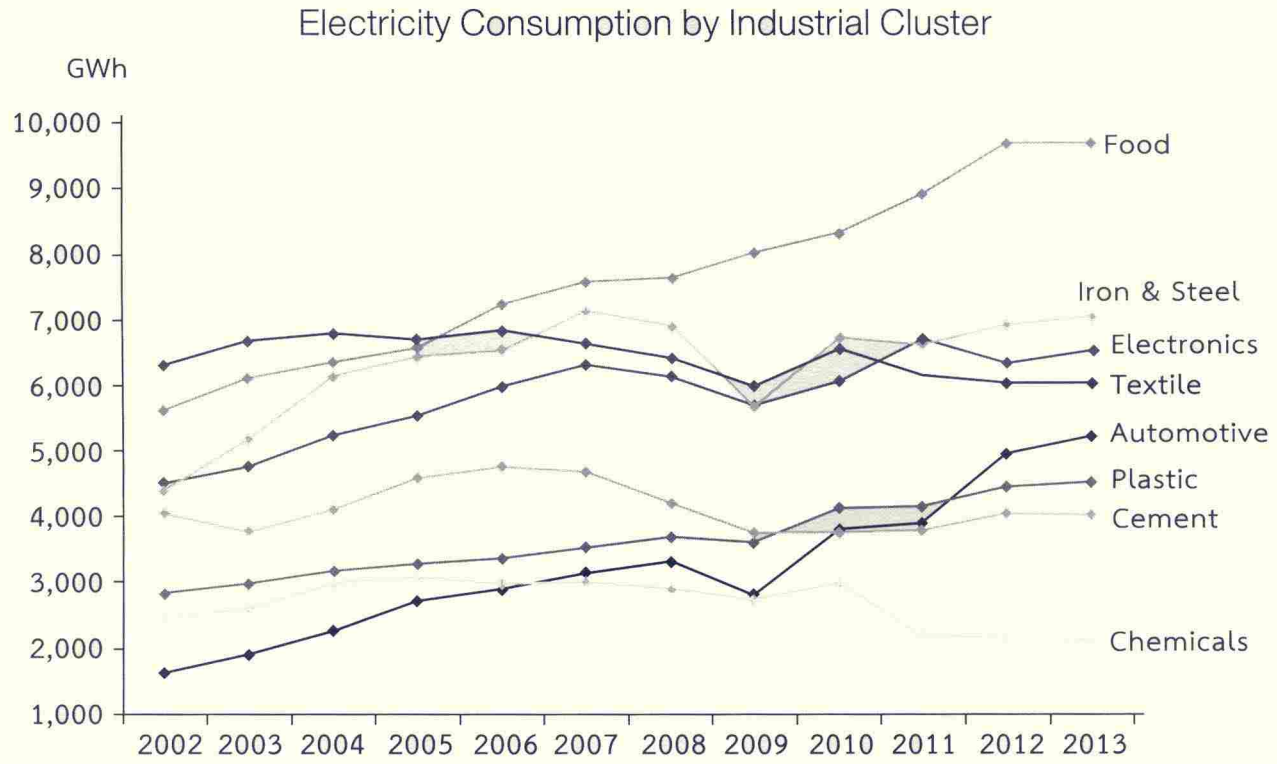
The number of electricity customers in Thailand has been on the rise trend. In 2013, there are 20.5 million customers (referred to number of watt-hour meter). The most of customer was in residential sector, holding a share of 89%, divided into the group of consumption not exceeding 150 kWh per month, 51%; and the consumption exceeding 150 kWh per month, 38%.

Number of Customers by Tariff

	Number of Customers					Share (%)				
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
Residential	16,071,093	16,618,752	17,111,294	17,666,752	18,223,755	89	89	89	89	89
< 150 kWh	9,962,161	10,066,810	10,254,466	10,400,534	10,420,158	55	54	54	53	51
> 150 kWh	6,108,932	6,551,942	6,856,828	7,266,218	7,803,597	34	35	36	37	38
Small General	1,546,414	1,579,006	1,604,854	1,784,592	1,843,594	9	8	8	9	9
Medium General	58,179	60,103	62,236	78,244	83,737	0.32	0.32	0.33	0.40	0.41
Large General	5,339	5,820	6,587	7,245	7,664	0.03	0.03	0.03	0.04	0.04
Specific Business	9,352	10,154	10,831	11,916	12,744	0.05	0.05	0.06	0.06	0.06
Government & Non-Profit	146,593	153,742	139,983	1,377	1,749	0.82	0.83	0.73	0.01	0.01
Agriculture Pumping	3,492	3,521	3,752	4,208	4,796	0.02	0.02	0.02	0.02	0.02
Temporary	143,067	164,768	198,040	240,567	273,992	0.80	0.89	1.03	1.22	1.34
Others*	76	81	78	76	87	0.0004	0.0004	0.0004	0.0004	0.0004
Total	17,983,605	18,595,947	19,137,655	19,794,977	20,452,118	100	100	100	100	100

* Stand by Rate, Interruptible Rate and EGAT's Direct Customer

- *Electricity Demand in Major Industrial Clusters.* During 2002-2007, electricity demand in most industrial clusters was continuously on the rise. However, during 2008-2009, the trend dropped off due to the global economic slowdown coupled with the domestic political instability. In 2010-2013, electricity demand in most industrial clusters rebound again, especially food and automotive industry.



- *Electricity Demand in Major Commercial Clusters.* Electricity demand in most commercial clusters continuously increased from 2002 to 2013. In 2013, the business & commerce that accounted for high electricity consumption were as follows: department stores, hotels, apartments & guest houses, retail trade and real estate services, respectively.

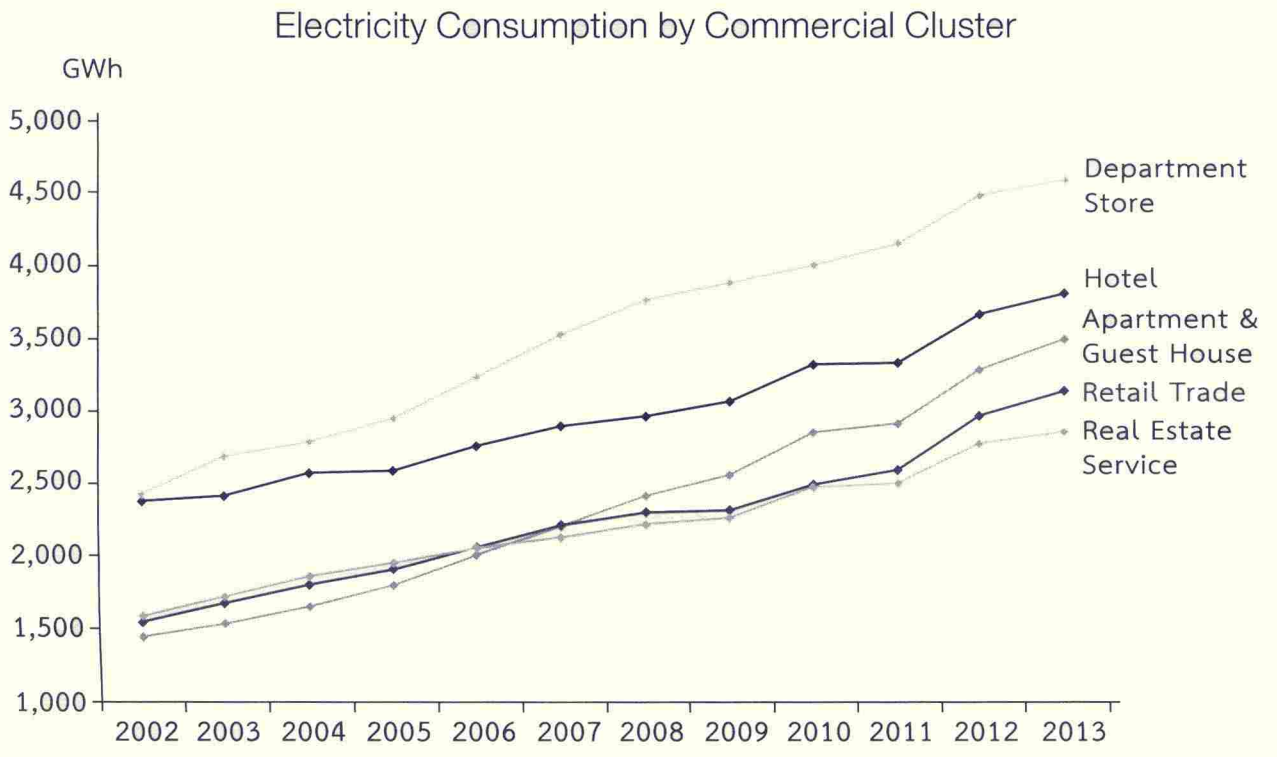


Table 5.1-1Y
Electricity Generation by Fuel Type

Unit : GWh

Year	Hydro	Fuel Oil	Lignite	Natural Gas	Diesel	Geo Thermal	Non Conventional	Imported	DEDP	SPP	IPP	Total
1989	5,512.21	4,738.83	7,869.57	19,194.75	16.45	0.00	0.00	643.15	21.57	0.00	0.00	37,996.53
1990	4,900.11	10,012.63	11,052.85	17,765.06	356.85	1.01	0.02	652.32	23.98	0.00	0.00	44,764.83
1991	4,505.35	12,636.39	13,785.22	19,051.19	112.57	1.00	0.02	593.11	28.65	0.00	0.00	50,713.50
1992	4,158.94	14,928.92	14,815.05	22,943.04	161.34	1.12	0.02	479.90	19.71	0.00	0.00	57,508.05
1993	3,612.50	17,494.52	13,503.75	27,953.16	743.97	1.14	0.03	644.52	28.26	0.00	0.00	63,981.85
1994	4,403.60	19,647.18	14,130.91	30,920.18	1,385.18	0.90	0.04	870.82	36.52	13.30	564.63	71,973.25
1995	6,593.01	21,711.89	15,152.25	25,377.38	2,261.18	1.05	0.04	699.12	26.00	261.65	8,352.74	80,436.33
1996	7,215.00	20,983.73	17,507.17	24,722.17	4,572.36	1.19	0.17	805.61	26.17	1,232.93	10,730.73	87,797.24
1997	7,082.00	19,266.11	18,924.58	28,613.71	2,440.68	1.28	0.22	745.63	27.19	2,150.90	14,154.62	93,406.91
1998	5,088.82	17,534.10	16,475.24	32,702.16	988.97	1.30	0.24	1,622.71	14.61	3,191.85	13,535.73	91,155.72
1999	3,409.67	15,429.25	15,418.91	32,851.18	457.33	1.49	0.24	2,255.66	34.49	8,353.15	14,259.57	92,470.95
2000	5,891.44	9,611.42	15,852.17	35,642.22	107.95	1.65	0.33	2,966.25	25.64	10,175.54	18,212.92	98,487.52
2001	6,174.35	2,419.96	17,722.36	34,786.99	248.06	1.50	0.45	2,881.71	31.08	11,644.29	27,958.14	103,868.90
2002	7,366.94	1,969.39	16,651.86	35,251.60	150.98	1.44	0.31	2,812.18	31.71	12,548.25	34,469.23	111,253.87
2003	7,207.76	2,434.28	16,856.16	31,694.40	75.30	1.61	0.24	2,473.41	32.29	13,303.23	44,332.77	118,411.44
2004	5,896.29	5,467.67	17,993.55	30,901.10	232.95	1.26	0.87	3,377.85	25.50	13,440.60	50,172.86	127,510.51
2005	5,671.18	7,640.00	18,334.50	33,064.85	176.85	1.45	0.81	4,371.89	17.40	13,546.61	51,972.65	134,798.20
2006	7,950.05	7,808.44	18,027.68	33,962.67	76.92	1.72	0.85	5,151.85	44.79	13,530.95	55,362.65	141,918.57
2007	7,961.36	2,966.57	18,497.68	36,501.69	28.24	1.84	0.80	4,488.36	21.70	14,439.45	62,118.21	147,025.89
2008	6,950.69	990.08	18,679.30	37,260.98	23.28	1.30	0.70	2,783.57	28.77	14,036.43	67,465.82	148,220.93
2009	6,965.74	448.23	17,922.09	41,761.02	45.07	1.41	1.86	2,451.41	24.04	13,896.54	64,840.71	148,358.11
2010	5,346.75	558.31	17,987.63	50,802.50	41.59	1.64	5.65	7,253.78	23.64	13,870.81	67,775.99	163,668.30
2011	7,934.92	1,294.89	18,835.63	45,863.42	35.98	1.82	6.22	10,774.41	33.69	14,936.20	62,625.97	162,343.14
2012	8,431.22	1,299.96	18,802.01	52,568.77	62.76	0.87	2.87	10,527.43	0.00	15,134.22	70,143.04	176,973.14
2013	5,412.08	1,238.45	19,097.98	50,202.11	179.14	1.25	4.37	12,571.79	0.00	22,602.71	66,088.61	177,398.48

Source : EGAT

Remarks : 1. Power Generation from NG and Diesel Oil not Including REGCO's generation since Dec, 1994

2. DEDP has been counted into SPP since Nov, 2011

Table 5.1-2Y
Power Generation Classified by Fuel Type

Unit : GWh

Year	Natural Gas	Coal & Lignite			Oil			Hydro Electricity	Imported	Others	Total
		Lignite	Coal	Total	Fuel Oil	Diesel	Total				
1989	19,194.75	7,869.57	0.00	7,869.57	4,738.83	16.45	4,755.28	5,512.21	643.15	21.57	37,996.53
1990	17,765.06	11,052.85	0.00	11,052.85	10,012.63	356.85	10,369.48	4,900.11	652.32	25.00	44,764.83
1991	19,051.19	13,785.22	0.00	13,785.22	12,636.39	112.57	12,748.96	4,505.35	593.11	29.66	50,713.50
1992	22,943.04	14,815.05	0.00	14,815.05	14,928.92	161.34	15,090.26	4,158.94	479.90	20.86	57,508.05
1993	27,953.16	13,503.75	0.00	13,503.75	17,494.52	743.97	18,238.49	3,612.50	644.52	29.42	63,981.85
1994	31,484.80	14,130.91	0.00	14,130.91	19,647.18	1,385.18	21,032.36	4,403.60	870.82	50.77	71,973.25
1995	33,863.29	15,152.25	12.86	15,165.11	21,711.89	2,261.18	23,973.07	6,593.01	699.12	142.77	80,436.33
1996	36,433.34	17,507.17	72.87	17,580.04	20,983.73	4,572.36	25,556.09	7,215.00	805.61	207.10	87,797.24
1997	44,573.66	18,924.58	101.21	19,025.79	19,266.11	2,440.68	21,706.79	7,082.00	745.63	273.46	93,406.91
1998	49,021.15	16,475.24	115.23	16,590.47	17,534.10	988.97	18,523.07	5,088.82	1,622.71	309.54	91,155.72
1999	53,839.40	15,418.91	1,214.28	16,633.19	15,429.25	457.33	15,886.58	3,409.67	2,255.66	447.43	92,470.95
2000	61,186.22	15,852.17	2,345.20	18,197.37	9,611.42	107.95	9,719.37	5,891.44	2,966.25	526.87	98,487.52
2001	71,228.81	17,722.36	2,573.70	20,296.06	2,419.96	248.06	2,668.02	6,174.35	2,881.71	621.07	103,868.90
2002	78,910.24	16,651.86	2,639.66	19,291.52	1,969.39	150.98	2,120.37	7,366.94	2,812.18	752.40	111,253.87
2003	85,687.77	16,856.16	2,445.18	19,301.34	2,434.28	75.30	2,509.58	7,207.76	2,473.41	1,231.43	118,411.44
2004	90,289.10	17,993.55	2,410.86	20,404.41	5,467.67	232.95	5,700.62	5,896.29	3,377.85	1,841.84	127,510.51
2005	94,467.70	18,334.50	2,279.83	20,614.33	7,640.00	176.85	7,816.85	5,671.18	4,371.89	1,856.19	134,798.20
2006	94,438.58	18,027.68	6,440.74	24,468.42	7,808.44	76.92	7,885.36	7,950.05	5,151.85	2,024.52	141,918.57
2007	98,243.53	18,497.68	12,383.40	30,881.08	2,966.57	28.24	2,994.81	7,961.36	4,488.36	2,456.79	147,025.89
2008	104,458.01	18,679.30	12,158.35	30,837.65	990.08	23.28	1,013.37	6,950.69	2,783.57	2,177.66	148,220.93
2009	106,343.39	17,922.09	11,885.98	29,808.07	448.23	45.07	493.30	6,965.74	2,451.41	2,296.31	148,358.11
2010	118,438.21	17,987.63	11,776.42	29,764.05	558.31	41.59	599.90	5,346.75	7,253.78	2,265.76	163,668.30
2011	108,261.39	18,835.63	12,876.11	31,711.74	1,294.89	35.98	1,330.87	7,934.92	10,774.41	2,329.81	162,343.14
2012	119,368.49	18,802.01	15,780.61	34,582.62	1,299.96	62.76	1,362.72	8,431.22	10,527.43	2,700.74	176,973.14
2013	119,217.89	19,097.98	16,254.26	35,352.24	1,238.45	179.14	1,417.58	5,412.08	12,571.79	3,426.96	177,398.48

Source : EGAT

Table 5.1-3Y
Peak Generation Requirement, Energy Generation Requirement and Load Factor

Year	Peak Generation Requirement		Gross Energy Generation Requirement (GWh)	Load Factor[3/] (%)
	Net Peak[1/](MW)	Gross Peak[2/](MW)		
1989	-	6,337	38,006	68.5
1990	-	7,221	44,765	70.8
1991	-	8,045	50,713	72.0
1992	-	8,904	57,509	73.5
1993	-	9,839	63,982	74.2
1994	-	11,064	71,973	74.3
1995	-	12,268	80,436	74.8
1996	-	13,311	87,797	75.1
1997	-	14,506	93,407	73.5
1998	-	14,180	91,156	73.4
1999	-	13,712	91,414	76.1
2000	-	14,918	98,487	75.2
2001	-	16,126	103,856	73.5
2002	-	16,681	111,256	76.1
2003	-	18,121	117,290	73.9
2004	-	19,326	127,511	75.1
2005	-	20,538	134,798	74.9
2006	-	21,064	141,919	76.9
2007	-	22,586	147,026	74.3
2008	-	22,568	148,264	74.8
2009	22,045	22,596	148,372	75.0
2010	24,010	24,630	163,660	75.9
2011	23,900	24,518	162,343	75.6
2012	26,121	26,774	176,973	75.2
2013	26,598	27,285	177,059	74.1

Source : EGAT

Remarks : 1/ Net Peak Generation Requirement on EGAT system excluding station service

2/ Gross Peak Generation Requirement estimated by EPPO since 2009
(estimated from Net Peak Generation Requirement and EGAT station service)

3/ Load Factor estimated from Gross Peak Generation Requirement and Gross Energy Generation Requirement

Table 5.1-4Y
EGAT Purchased from SPP

Unit : GWh

Year	Natural Gas (NG)	Coal	Oil	Renewable Energy	Total
1994	0.00	0.00	0.00	13.30	13.30
1995	133.14	12.86	0.00	115.65	261.65
1996	980.44	72.90	0.00	179.59	1,232.93
1997	1,805.35	101.22	14.82	230.00	2,151.38
1998	2,783.25	115.24	38.42	254.95	3,191.85
1999	6,728.62	1,214.29	43.29	367.92	8,354.11
2000	7,331.08	2,345.17	32.13	467.17	10,175.54
2001	8,483.65	2,573.67	36.55	551.50	11,645.37
2002	9,189.42	2,639.65	37.36	681.59	12,548.01
2003	9,660.66	2,445.22	37.25	1,160.10	13,303.23
2004	9,215.09	2,410.93	162.18	1,652.11	13,440.30
2005	9,430.12	2,279.80	91.04	1,745.56	13,546.53
2006	9,168.70	2,385.14	28.35	1,948.76	13,530.95
2007	9,779.30	2,227.71	22.08	2,410.37	14,439.45
2008	9,873.57	2,015.89	26.72	2,120.25	14,036.43
2009	9,759.71	1,867.85	30.58	2,238.41	13,896.54
2010	9,895.45	1,740.59	19.06	2,215.71	13,870.81
2011	10,576.45	2,071.59	20.69	2,267.47	14,936.20
2012	10,362.38	2,074.86	29.97	2,667.02	15,134.22
2013	17,236.67	1,944.71	28.08	3,393.25	22,602.71

Source : EGAT

Compiled by : Energy Policy and Planning Office (EPPO)

Table 5.1-5Y
EGAT Purchased from IPP

Unit : GWh

Year	Natural Gas (NG)	Coal	Total
1994	564.62	0.00	564.62
1995	8,352.74	0.00	8,352.74
1996	10,730.73	0.00	10,730.73
1997	14,154.62	0.00	14,154.62
1998	13,535.73	0.00	13,535.73
1999	14,259.57	0.00	14,259.57
2000	18,212.92	0.00	18,212.92
2001	27,958.14	0.00	27,958.14
2002	34,469.23	0.00	34,469.23
2003	44,332.77	0.00	44,332.77
2004	50,172.86	0.00	50,172.86
2005	51,972.65	0.00	51,972.65
2006	51,307.09	4,055.57	55,362.65
2007	51,962.48	10,155.73	62,118.21
2008	57,323.37	10,142.45	67,465.82
2009	54,822.58	10,018.13	64,840.71
2010	57,740.20	10,035.79	67,775.99
2011	51,821.45	10,804.51	62,625.97
2012	56,437.30	13,705.74	70,143.04
2013	51,779.12	14,309.51	66,088.62

Source : EGAT

Compiled by : Energy Policy and Planning Office (EPPO)

Table 5.2-1Y
Electricity Consumption in MEA Service Areas (Classified by Tariff)

Unit : GWh

Year	Residential			Small General Service	Medium General Service	Large General Service	Specific Business	Government and Non-Profit	Agriculture Pumping	Temporary	Stand By Rate	Interruptible Rate	Free of Charge	Total
	< 150 kWh	> 150 kWh	Total											
2002	431	7,196	7,627	5,023	8,026	12,114	1,596	1,214	0	0	0	0	181	35,781
2003	405	7,594	7,999	5,282	7,820	13,363	1,608	1,177	0	0	0	0	182	37,431
2004	413	7,922	8,335	5,566	8,051	14,121	1,659	1,200	0	0	0	0	188	39,119
2005	407	8,230	8,637	5,772	8,045	14,606	1,694	1,152	0	0	0	0	194	40,100
2006	411	8,668	9,079	6,039	8,061	15,190	1,730	1,175	0	0	0	0	208	41,482
2007	396	8,834	9,230	6,150	7,959	15,484	1,774	1,215	0	0	0	0	223	42,035
2008	400	8,982	9,381	6,253	7,913	15,394	1,809	1,251	0	0	0	0	234	42,236
2009	426	9,353	9,779	6,380	7,619	14,605	1,790	1,288	0	0	0	0	272	41,733
2010	416	10,300	10,716	6,859	7,686	16,326	1,803	1,358	0	0	0	0	313	45,060
2011	422	9,702	10,125	6,644	7,495	16,469	1,780	1,293	0	42	0	0	347	44,195
2012	434	10,965	11,399	7,210	8,133	17,808	1,984	1,049	0	302	0	0	359	48,244
2013	390	11,031	11,420	7,387	8,639	17,680	2,002	95	0	396	0	0	366	47,984

Source : MEA

Remark : Since October 2012, electricity consumption of Government sector has been counted into Small/Medium/Large General Service due to a restructuring of electricity-tariff category

Table 5.2-2Y
Electricity Consumption in PEA Service Areas (Classified by Tariff)

Unit : GWh

Year	Residential			Small General Service	Medium General Service	Large General Service	Specific Business	Government and Non-Profit	Agriculture Pumping	Temporary	Stand By Rate	Interruptible Rate	Free of Charge	Total
	< 150 kWh	> 150 kWh	Total											
2002	6,430	7,907	14,336	4,728	11,046	25,840	1,575	2,421	192	397	10	1,159	778	62,482
2003	6,634	8,697	15,331	5,061	12,187	27,778	1,620	2,524	228	433	22	1,679	902	67,765
2004	6,898	9,306	16,204	5,467	12,056	32,376	1,801	2,614	251	495	42	1,818	996	74,120
2005	7,095	9,750	16,845	6,122	12,816	34,826	1,848	2,697	249	553	65	2,094	1,070	79,184
2006	7,285	10,483	17,768	6,519	14,146	36,629	2,076	2,804	240	610	153	2,111	1,328	84,383
2007	7,348	11,360	18,708	7,057	14,667	38,834	2,255	3,015	268	649	38	2,068	1,400	88,957
2008	7,405	11,905	19,310	7,477	14,793	39,604	2,425	3,141	281	689	93	1,789	1,544	91,146
2009	7,917	12,561	20,477	7,963	14,665	38,359	2,589	3,388	318	671	93	1,626	1,571	91,720
2010	8,120	14,381	22,501	8,727	16,061	44,000	2,947	3,691	335	762	82	1,642	1,721	102,470
2011	8,179	14,496	22,675	8,802	15,622	44,631	3,020	3,595	297	799	69	1,618	1,821	102,947
2012	8,339	16,710	25,048	9,803	16,757	48,595	3,420	2,750	377	870	586	1,679	1,833	111,718
2013	8,159	18,078	26,237	10,988	18,580	50,166	3,585	54	354	951	52	1,641	2,013	114,619

Source : PEA

Remark : Since October 2012, electricity consumption of Government sector has been counted into Small/Medium/Large General Service due to a restructuring of electricity-tariff category



Table 5.2-3Y
Electricity Consumption for the Whole Country (Classified by Tariff)

Unit : GWh

Year	Residential			Small General Service	Medium General Service	Large General Service	Specific Business	Government and Non-Profit	Agriculture Pumping	Temporary	Stand By Rate	Interruptible Rate	Free of Charge	Total MEA+PEA	Direct Customer	Grand Total
	< 150 kWh	> 150 kWh	Total													
2002	6,861	15,102	21,963	9,751	19,072	37,954	3,171	3,635	192	397	10	1,159	959	98,263	1,828	100,091
2003	7,039	16,291	23,330	10,343	20,007	41,141	3,228	3,701	228	433	22	1,679	1,084	105,196	1,792	106,987
2004	7,311	17,227	24,538	11,033	20,107	46,497	3,459	3,814	251	495	42	1,818	1,184	113,240	1,862	115,101
2005	7,502	17,980	25,482	11,894	20,861	49,431	3,542	3,848	249	553	65	2,094	1,264	119,284	1,957	121,240
2006	7,696	19,151	26,847	12,558	22,207	51,818	3,805	3,979	240	610	153	2,111	1,536	125,865	2,014	127,879
2007	7,744	20,194	27,938	13,207	22,626	54,318	4,028	4,230	268	649	38	2,068	1,623	130,993	2,120	133,113
2008	7,804	20,887	28,691	13,730	22,707	54,998	4,234	4,392	281	689	93	1,789	1,777	133,382	2,139	135,520
2009	8,343	21,913	30,257	14,342	22,285	52,964	4,379	4,677	318	671	93	1,626	1,843	133,454	1,727	135,181
2010	8,536	24,680	33,216	15,586	23,747	60,326	4,750	5,049	335	762	82	1,642	2,034	147,530	1,771	149,301
2011	8,601	24,198	32,799	15,446	23,116	61,100	4,799	4,888	297	841	69	1,618	2,168	147,142	1,713	148,855
2012	8,773	27,674	36,447	17,013	24,890	66,403	5,404	3,799	377	1,172	586	1,679	2,191	159,962	1,817	161,779
2013	8,549	29,108	37,657	18,374	27,219	67,846	5,587	149	354	1,346	52	1,641	2,379	162,604	1,738	164,341

Source : MEA, PEA and EGAT

Remark : Since October 2012, electricity consumption of Government sector has been counted into Small/Medium/Large General Service due to a restructuring of electricity-tariff category

Table 5.2-4Y
Electricity Consumption in MEA Service Areas (Classified by Sector)

Unit : GWh

Year	Residential	Small General Service	Business	Industrial	Government and Non-Profit	Agriculture	Other	Total	Free of Charge	Grand Total
2002	7,627	5,023	8,745	12,762	1,214	0	230	35,600	181	35,781
2003	7,999	5,282	9,259	13,299	1,177	0	234	37,249	182	37,431
2004	8,335	5,566	9,804	13,791	1,200	0	235	38,931	188	39,119
2005	8,637	5,772	10,171	13,915	1,152	0	258	39,906	194	40,100
2006	9,079	6,039	10,584	13,969	1,175	0	427	41,274	208	41,482
2007	9,230	6,150	10,767	13,863	1,215	0	586	41,813	223	42,035
2008	9,381	6,253	11,020	13,546	1,251	0	550	42,002	234	42,236
2009	9,779	6,380	10,951	12,369	1,288	0	694	41,461	272	41,733
2010	10,716	6,859	11,489	13,779	1,358	0	547	44,747	313	45,060
2011	10,125	6,644	11,684	13,575	1,293	0	527	43,848	347	44,195
2012	11,399	7,210	12,910	14,309	1,049	0	1,007	47,885	359	48,244
2013	11,420	7,387	13,762	13,843	95	0	1,111	47,618	366	47,984

Source : MEA

Remark : Since October 2012, electricity consumption of Government sector has been counted into Small/Medium/Large General Service due to a restructuring of electricity-tariff category

Table 5.2-5Y
Electricity Consumption in PEA Service Areas (Classified by Sector)

Unit : GWh

Year	Residential	Small General Service	Business	Industrial	Government and Non-Profit	Agriculture	Other	Total	Free of Charge	Grand Total
2002	14,336	4,728	5,487	34,137	2,421	192	402	61,704	778	62,482
2003	15,331	5,061	5,933	37,330	2,524	228	457	66,863	902	67,765
2004	16,204	5,467	6,588	41,374	2,614	251	626	73,124	996	74,120
2005	16,845	6,122	7,032	44,376	2,697	249	793	78,114	1,070	79,184
2006	17,768	6,519	7,911	47,051	2,804	240	761	83,055	1,328	84,383
2007	18,708	7,057	8,620	49,172	3,015	268	717	87,557	1,400	88,957
2008	19,310	7,477	9,434	49,060	3,141	281	899	89,602	1,544	91,146
2009	20,477	7,963	9,979	47,201	3,388	318	823	90,149	1,571	91,720
2010	22,501	8,727	11,148	52,848	3,691	335	1,500	100,749	1,721	102,470
2011	22,675	8,802	11,615	53,015	3,595	297	1,128	101,126	1,821	102,947
2012	25,048	9,803	13,781	56,607	2,750	377	1,520	109,885	1,833	111,718
2013	26,237	10,988	16,254	57,352	54	354	1,368	112,607	2,013	114,619

Source : PEA

Remark : Since October 2012, electricity consumption of Government sector has been counted into Small/Medium/Large General Service due to a restructuring of electricity-tariff category

Table 5.2-6Y
Electricity Consumption for the Whole Country (Classified by Sector)

Unit : GWh

Year	Residential	Small General Service	Business	Industrial	Government and Non-Profit	Agriculture	Other	Total	Free of Charge	Grand Total
2002	21,963	9,751	14,702	48,256	3,635	192	632	99,132	959	100,091
2003	23,330	10,343	15,767	51,845	3,701	228	690	105,903	1,084	106,987
2004	24,538	11,033	16,976	56,443	3,814	251	862	113,917	1,184	115,101
2005	25,482	11,894	17,781	59,669	3,848	249	1,052	119,976	1,264	121,240
2006	26,847	12,558	19,097	62,432	3,979	240	1,189	126,343	1,536	127,879
2007	27,938	13,207	19,991	64,553	4,230	268	1,304	131,490	1,623	133,113
2008	28,691	13,730	21,052	64,148	4,392	281	1,449	133,743	1,777	135,520
2009	30,257	14,342	21,347	60,880	4,677	318	1,517	133,338	1,843	135,181
2010	33,216	15,586	22,996	68,039	5,049	335	2,046	147,267	2,034	149,301
2011	32,799	15,446	23,660	67,942	4,888	297	1,655	146,687	2,168	148,855
2012	36,447	17,013	27,088	72,336	3,799	377	2,527	159,588	2,191	161,779
2013	37,657	18,374	30,413	72,536	149	354	2,479	161,962	2,379	164,341

Source : MEA, PEA and EGAT

Remark : Since October 2012, electricity consumption of Government sector has been counted into Small/Medium/Large General Service due to a restructuring of electricity-tariff category





Table 5.3-1Y
EGAT Fuel Consumption in Power Generation

Year	Fuel Oil (M.Litres)	Diesel Oil (M.Litres)	Natural Gas (MMSCFD)	Lignite (Tons)
1989	1,195	17	484	6,764,206
1990	2,532	163	473	9,875,324
1991	3,164	62	606	11,724,691
1992	3,719	71	640	12,370,539
1993	4,322	288	725	11,490,328
1994	4,789	474	820	12,155,884
1995	5,258	756	838	13,567,494
1996	5,068	1,320	929	16,405,340
1997	4,665	729	1,170	18,010,806
1998	4,253	306	1,205	15,388,095
1999	3,762	135	1,206	13,893,584
2000	2,364	29	1,301	14,120,569
2001	647	75	1,504	15,744,116
2002	499	41	1,632	15,035,329
2003	605	23	1,624	15,406,532
2004	1,296	55	1,671	16,536,694
2005	1,851	49	1,740	16,571,091
2006	1,895	21	1,766	15,815,374
2007	780	8	1,715	15,811,050
2008	249	8	1,558	16,407,465
2009	111	13	1,541	15,818,265
2010	140	12	1,879	16,004,196
2011	314	11	1,591	17,161,168
2012	319	19	1,789	16,754,281
2013	317	60	1,692	16,884,947

Source : EGAT

Remark : From December 1994 onwards, Diesel Oil does not Include Regco Use



Chapter 6

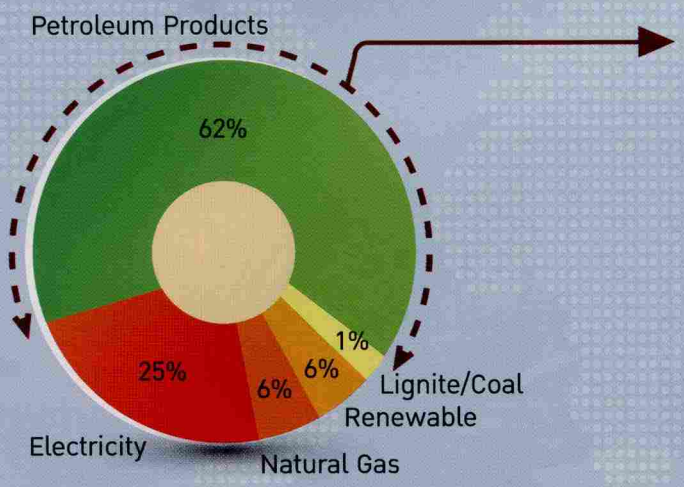
Energy Value



Energy Value



Share of Expenditure on Final Energy Consumption 2013

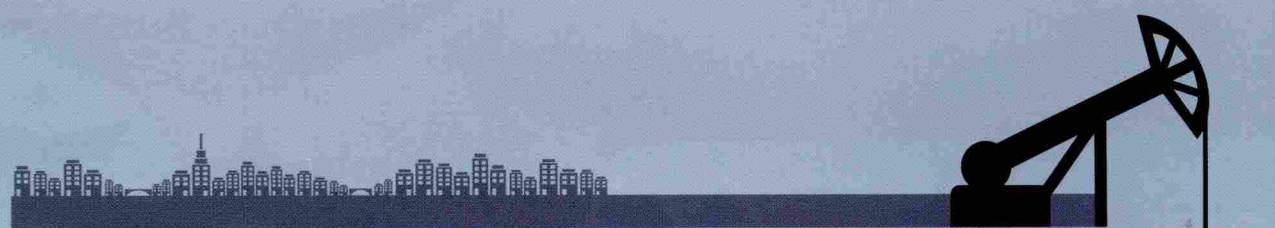


2,129
Billion Bahts

Expenditure on Petroleum Products Consumption

Diesel	47%
Gasoline	23%
JP	15%
LPG	11%
Fuel Oil	4%
Kerosene	0.03%

1,326
Billion Bahts



Type	Value of Energy Import	Year 2000	Year 2013	Value of Energy Export	Year 2000	Year 2013
Crude Oil	OIL	84%	76%	OIL	-	8%
Petroleum Products		11%	10%		-	91%
Natural Gas		2%	8%		-	-
Coal		2%	3%		-	-
LNG		-	2%		-	-
Electricity		1%	1%		100%	1%
	Total (Billion Bahts)	342	1,416	Total (Billion Bahts)	0.3	376

บทที่ 6

มูลค่าพลังงาน

มูลค่าการใช้พลังงาน ของไทยมีแนวโน้มเพิ่มขึ้นต่อเนื่องทุกปี โดยในปี 2556 มูลค่าการใช้พลังงานอยู่ที่ระดับ 2,129 พันล้านบาท เพิ่มขึ้นจากปีก่อนร้อยละ 1.0 โดยมูลค่าการใช้น้ำมันสำเร็จรูปมีสัดส่วนมากที่สุดคิดเป็นร้อยละ 62 ของมูลค่าการใช้พลังงานทั้งหมด อยู่ที่ระดับ 1,326 พันล้านบาท เพิ่มขึ้นร้อยละ 1.1 จากปีก่อน รองลงมาเป็นมูลค่าการใช้ไฟฟ้าคิดเป็นสัดส่วนร้อยละ 25 อยู่ที่ระดับ 538 พันล้านบาท เพิ่มขึ้นร้อยละ 2.5 มูลค่าการใช้ก๊าซธรรมชาติและพลังงานทดแทนคิดเป็นสัดส่วนร้อยละ 6 เท่ากัน โดยมูลค่าการใช้ก๊าซธรรมชาติอยู่ที่ระดับ 121 พันล้านบาท ลดลงร้อยละ 1.2 ในขณะที่มูลค่าการใช้พลังงานทดแทนอยู่ที่ระดับ 119 พันล้านบาท เพิ่มขึ้นร้อยละ 0.2 และมูลค่าการใช้ลิกไนต์/ถ่านหินคิดเป็นสัดส่วนร้อยละ 1 อยู่ที่ระดับ 26 พันล้านบาท ลดลงร้อยละ 17.4

มูลค่าการนำเข้าพลังงาน ในปี 2556 มีมูลค่าการนำเข้าทั้งหมด 1,416 พันล้านบาท ลดลงจากปีก่อนร้อยละ 2.1 โดยมูลค่าการนำเข้าน้ำมันดิบมีสัดส่วนมากที่สุดคิดเป็นร้อยละ 76 ของมูลค่าการนำเข้าทั้งหมด อยู่ที่ระดับ 1,072 พันล้านบาท ลดลงร้อยละ 4.2 รองลงมาเป็นน้ำมันสำเร็จรูปคิดเป็นสัดส่วนร้อยละ 10 อยู่ที่ระดับ 139 พันล้านบาท เพิ่มขึ้นร้อยละ 11.5 ก๊าซธรรมชาติคิดเป็นสัดส่วนร้อยละ 8 อยู่ที่ระดับ 112 พันล้านบาท ลดลงร้อยละ 3.8 มูลค่าการนำเข้าถ่านหินคิดเป็นสัดส่วนร้อยละ 3 อยู่ที่ระดับ 40 พันล้านบาท ลดลงร้อยละ 15.0 ไฟฟ้านำเข้ามีมูลค่า 19 พันล้านบาท คิดเป็นสัดส่วนร้อยละ 1 เพิ่มขึ้นร้อยละ 20.1 และ LNG มีมูลค่าการนำเข้า 34 พันล้านบาท คิดเป็นสัดส่วนร้อยละ 2 เพิ่มขึ้นร้อยละ 45.0

ประเทศไทยมีสัดส่วนมูลค่าการนำเข้าพลังงานต่อมูลค่าการใช้พลังงานทั้งหมดเพิ่มขึ้นต่อเนื่องทุกปี ในปี 2556 สัดส่วนการนำเข้าต่อการใช้อยู่ที่ระดับร้อยละ 66 ต่ำกว่าปีที่ผ่านมาซึ่งอยู่ที่ระดับร้อยละ 69

มูลค่าการใช้ และการนำเข้าพลังงาน



มูลค่าการใช้น้ำมันสำเร็จรูป ในปี 2556 มีมูลค่าการใช้อยู่ที่ระดับ 1,326 พันล้านบาท เพิ่มขึ้นจากปีก่อนร้อยละ 1.1 โดยมูลค่าการใช้น้ำมันดีเซลมีสัดส่วนมากที่สุดคิดเป็นร้อยละ 47 ของมูลค่าการใช้น้ำมันสำเร็จรูปทั้งหมด ลดลงเล็กน้อยร้อยละ 0.2 รองลงมาเป็นน้ำมันเบนซินมีมูลค่าการใช้คิดเป็นสัดส่วนร้อยละ 23 เพิ่มขึ้นร้อยละ 2.0 น้ำมันเครื่องบินมีมูลค่าการใช้คิดเป็นสัดส่วนร้อยละ 15 เพิ่มขึ้นร้อยละ 7.7 ก๊าซ LPG มีมูลค่าการใช้คิดเป็นสัดส่วนร้อยละ 11 เพิ่มขึ้นร้อยละ 4.0 และน้ำมันเตามีมูลค่าการใช้คิดเป็นสัดส่วนร้อยละ 4 ลดลงร้อยละ 16.5

มูลค่าการส่งออกพลังงาน ในปี 2556 มีมูลค่าการส่งออกอยู่ที่ระดับ 376 พันล้านบาท ลดลงจากปีก่อนร้อยละ 6.3 โดยมูลค่าการส่งออกน้ำมันสำเร็จรูปมีสัดส่วนการส่งออกมากที่สุดคิดเป็นร้อยละ 91 ของมูลค่าการส่งออกทั้งหมด ลดลงเล็กน้อยร้อยละ 0.6 รองลงมาเป็นน้ำมันดิบมีสัดส่วนการส่งออกคิดเป็นร้อยละ 8 ของมูลค่าการส่งออกทั้งหมด ลดลงร้อยละ 43.5 และไฟฟ้ามีสัดส่วนการส่งออกน้อยที่สุดคิดเป็นร้อยละ 1 ของมูลค่าการส่งออกทั้งหมด ลดลงร้อยละ 15.3

Chapter 6 : Energy Value

Nominal Value of Energy Consumption. Thailand's value of energy consumption had been increasing each year. In 2013, the nominal terms of energy consumption in Thailand totaled 2,129 billion Baht (approx. US$ 57.7 billion, at a rate of 31 THB/US$), an increase of 1.0% from that in the previous year. Petroleum product consumption was worth 1,326 billion Baht, an increase of 1.1% compared with the previous year, accounting for the largest share of 62% of the total energy consumption value. Next to it was the electricity consumption of which the nominal value was 538 billion Baht, an increase by 2.5%, accounting for a share of 25%. Natural gas and Renewable/alternative energy the same share of 6%. Natural gas consumption was worth 121 billion, a decrease of 1.2% and Renewable/alternative consumption was worth 119 billion Baht, an increase of 0.2%. Both accounted for Lignite/coal consumption was worth 26 billion Bath, a decrease of 17.4%, holding a share of 1%.

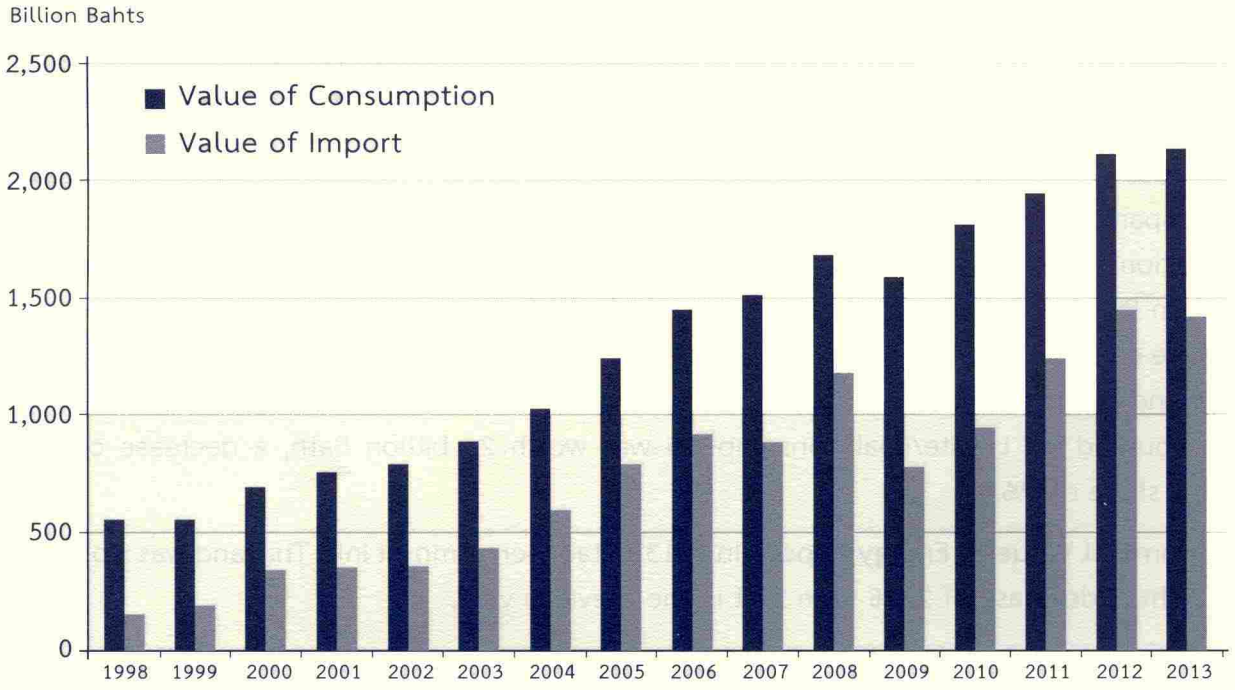
Nominal Value of Energy Import. In 2013, total energy import into Thailand was worth 1,416 billion Baht, a decrease of 2.1% from that in the previous year.

The value of imported crude oil, which constituted the largest share (76%) of the total import value, was 1,072 billion Baht, accounting for a decrease of 4.2%. Next to it was that of Petroleum product import holding a share of 10%, worth 139 billion Baht, accounting for an increase of 11.5%. Natural gas import holding a share of 8%, worth 112 billion Baht, accounting for a decrease of 3.8%. Coal import which was worth 40 billion Baht, a decrease of 15%, holding a share of 3%. Then imported electricity was worth 19 billion Baht, a considerable increase of 20.1%, but still holding a meager share of 1 %, and finally LNG import was worth 34 billion Baht, accounting for an increase of 45.0%. share of 2 %.

In Thailand, the ratio of energy import value to total energy consumption value increases each year. In 2013 the ratio was 66%, decreasing 69% from the previous year.



Nominal Value of Energy Consumption & Import



Nominal Value of Petroleum Product Consumption. In 2013, the worth of petroleum product consumption was 1,326 billion Baht, increasing by 1.1% from that in 2012. The worth of diesel consumption decreased by 0.2%, accounting for the largest share (47%) of the total petroleum product consumption value. Next to it was gasoline, holding a share of 23% of the total consumption value, an increase of 2.0%. Jet petroleum had a share of 15%, an increasing by 7.7%, LPG holding a share of 11%, increasing by 4.0%; and fuel oil, holding a share of 4%, decreasing by 16.5%.

Nominal Value of Energy Export. In 2013, the nominal value of energy export stood at 376 billion Baht, decreasing by 6.3% from that in the previous year. Petroleum product export accounted for the largest share, i.e. 91%, of the total energy export value, accounting for a decrease of 0.6%. Next to it was crude oil, worth 8% of the total energy export value, a decreasing of 43.5%; and then electricity, holding only 1% of the total energy export value, decreasing of 15.3%.

Table 6.1-1Y
Expenditure on Final Energy Consumption
Unit: Million Bahts

Energy Type	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Petroleum Products	109,861	132,004	161,577	171,865	188,741	199,027	232,997	280,397	318,671	306,762	309,746	407,912
Electricity	52,743	62,452	73,201	87,354	98,239	111,531	136,231	153,410	162,115	175,418	167,864	199,059
Natural Gas	328	567	827	1,200	1,519	2,067	3,059	3,398	4,685	4,622	5,942	10,283
Lignite/Coal	856	2,093	2,529	2,841	3,595	4,835	5,821	7,511	7,819	5,870	6,202	5,667
Renewable*		41,165	41,125	60,461	65,323	72,738	76,815	85,536	87,341	63,635	65,235	66,958
Total	163,788	238,281	279,260	323,722	357,417	390,198	454,922	530,253	580,630	556,307	554,989	689,879

Table 6.1-1Y (Cont.)
Expenditure on Final Energy Consumption
Unit: Million Bahts

Energy Type	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Petroleum Products	430,516	451,554	515,313	605,407	774,404	916,291	956,733	1,092,114	960,067	1,106,668	1,220,582	1,311,027	1,325,898
Electricity	232,655	247,528	267,559	302,830	330,086	387,213	392,669	397,924	431,165	474,671	471,604	524,392	537,695
Natural Gas	11,396	13,413	16,404	16,361	22,275	28,880	35,110	53,867	49,272	68,724	97,666	122,509	121,005
Lignite/Coal	7,569	8,767	10,033	13,349	18,438	18,024	23,128	28,673	28,611	29,738	31,273	31,607	26,096
Renewable*	70,255	69,932	75,122	86,235	95,541	97,142	102,103	103,991	115,268	129,370	119,673	118,276	118,529
Total	752,390	791,195	884,432	1,024,182	1,240,743	1,447,550	1,509,743	1,676,568	1,584,383	1,809,170	1,940,797	2,107,811	2,129,223

* Estimate

Source : PTT, EGAT, DOEB, DEDE

Compiled by : Energy Policy and Planning Office (EPPO)



Table 6.1-2Y
Expenditure on Petroleum Products Consumption
Unit: Million Bahts

Energy Type	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Gasoline	28,069	32,340	38,062	39,703	44,377	47,775	57,017	64,344	76,622	83,661	84,184	102,308
-Regular	15,175	16,379	19,159	19,215	19,260	18,247	19,572	19,161	19,841	24,571	26,873	49,214
-Premium	12,894	15,961	18,902	20,489	25,118	29,527	37,445	45,183	56,781	59,090	57,311	53,094
Kerosene	730	838	987	1,004	960	969	878	985	951	647	613	739
Diesel	52,631	65,596	79,712	80,493	92,436	94,884	112,987	142,109	158,139	137,998	139,458	192,492
J.P.	12,927	15,610	21,923	24,334	25,896	26,707	28,681	33,993	39,547	38,846	39,100	52,845
Fuel Oil	7,146	8,491	10,138	14,381	12,161	14,739	18,085	20,733	23,515	23,646	26,931	36,980
LPG	8,359	9,129	10,756	11,950	12,910	13,953	15,350	18,233	19,897	21,964	19,460	22,547
Total	109,861	132,004	161,577	171,865	188,741	199,027	232,997	280,397	318,671	306,762	309,746	407,912

Table 6.1-2Y (Cont.)
Expenditure on Petroleum Products Consumption
Unit: Million Bahts

Energy Type	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Gasoline	102,318	107,765	122,450	141,585	166,787	193,415	204,467	220,348	214,832	249,036	271,490	298,487	304,451
-Regular	55,815	62,104	71,232	84,390	100,458	121,885	132,532	138,594	124,046	154,621	184,308	210,016	121,836
-Premium	46,503	45,662	51,218	57,195	66,329	71,531	71,935	81,754	90,786	94,415	87,182	88,471	182,615
Kerosene	903	963	604	454	520	562	526	593	657	572	496	484	390
Diesel	203,176	210,375	245,980	285,424	386,712	468,950	478,902	542,811	438,079	522,176	565,081	625,259	624,213
J.P.	59,339	58,802	62,995	82,786	105,301	128,856	142,742	175,118	164,897	176,736	193,917	183,075	197,243
Fuel Oil	36,194	39,625	45,350	52,239	65,574	68,524	63,754	69,647	52,101	54,500	57,057	60,069	50,131
LPG	28,586	34,024	37,933	42,920	49,510	55,984	66,343	83,598	89,501	103,648	132,542	143,653	149,470
Total	430,516	451,554	515,313	605,407	774,404	916,291	956,733	1,092,114	960,067	1,106,668	1,220,582	1,311,027	1,325,898

Remark : Final Energy Consumption
Source : Department of Energy Business
Compiled by : Energy Policy and Planning Office (EPPO)

Table 6.1-3Y
Value of Energy Import
Unit: Million Bahts

Energy Type	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Crude Oil	32,593	42,792	39,855	48,644	51,024	55,363	72,122	121,937	166,545	137,100	169,633	285,862
Petroleum Products	23,120	39,064	39,039	33,458	37,254	32,839	37,203	37,101	20,772	10,538	15,122	39,028
Natural Gas												7,839
Coal	864	646	719	649	1,019	1,719	2,174	3,985	3,813	2,068	4,010	5,068
Electricity									710	2,494	3,431	4,671
LNG												
Total	56,577	82,502	79,613	82,751	89,298	89,920	111,499	163,023	191,840	152,200	192,196	342,468

Table 6.1-3Y(Cont.)
Value of Energy Import
Unit: Million Bahts

Energy Type	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Crude Oil	284,373	286,953	346,057	486,627	644,933	753,783	715,789	1,002,667	623,024	751,467	977,374	1,119,338	1,072,221
Petroleum Products	30,668	27,854	33,168	44,677	59,825	62,381	50,251	41,063	29,116	66,835	94,279	124,171	138,501
Natural Gas	30,559	35,073	42,635	46,053	62,827	77,843	78,901	90,506	84,208	84,481	93,493	116,325	111,911
Coal	7,489	7,872	9,370	12,275	15,422	18,896	29,656	36,456	36,935	39,361	42,336	46,702	39,714
Electricity	4,701	4,474	4,159	5,659	7,114	8,294	7,414	4,540	3,623	8,157	13,860	15,440	18,546
LNG											15,993	24,023	34,827
Total	357,790	362,226	435,389	595,291	790,122	921,197	882,012	1,175,232	776,906	950,300	1,237,336	1,445,999	1,415,720

Source : PTT, EGAT, DOEB, DEDE
Compiled by : Energy Policy and Planning Office (EPPO)



Table 6.1-4Y
Value of Energy Export
Unit : Million Bahts

Energy Type	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Crude Oil										14,449	18,075
Petroleum Products											
Electricity	71	82	100	142	163	188	292	334	329	407	451
Total	71	82	100	142	163	188	292	334	329	14,855	18,526

Table 6.1-4Y (Cont.)
Value of Energy Export
Unit : Million Bahts

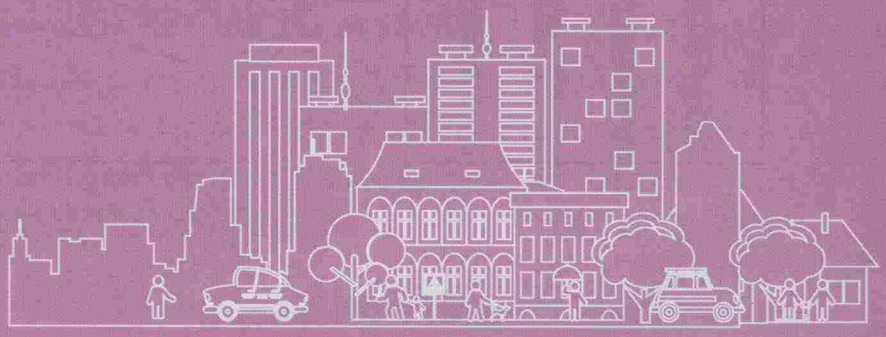
Energy Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Crude Oil	29,356	33,883	52,858	56,835	45,812	56,575	27,410	26,107	38,926	51,531	29,115
Petroleum Products		86,459	111,534	160,926	159,077	260,384	205,286	231,864	278,257	344,384	342,208
Electricity	500	647	1,328	1,730	2,145	2,801	4,068	4,087	4,140	5,223	4,424
Total	29,856	120,989	165,721	219,491	207,034	319,760	236,764	262,058	321,322	401,138	375,747

Source : PTT, EGAT, DOEB, DEDE
Compiled by : Energy Policy and Planning Office (EPPO)



Chapter 7

Energy and Economics

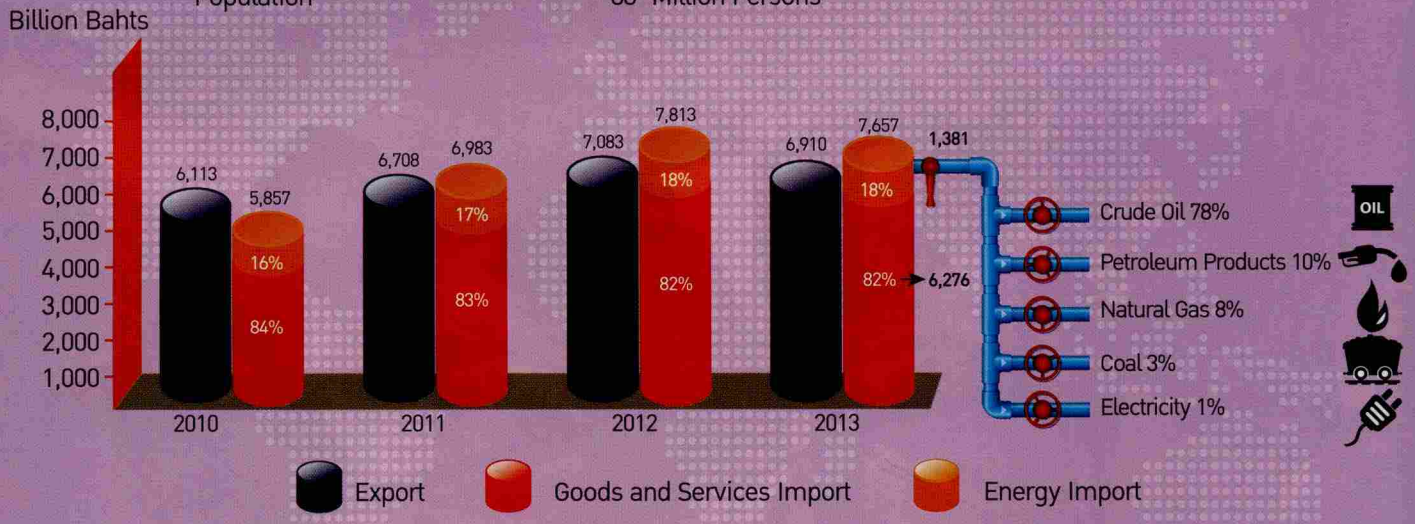


Energy and Economics

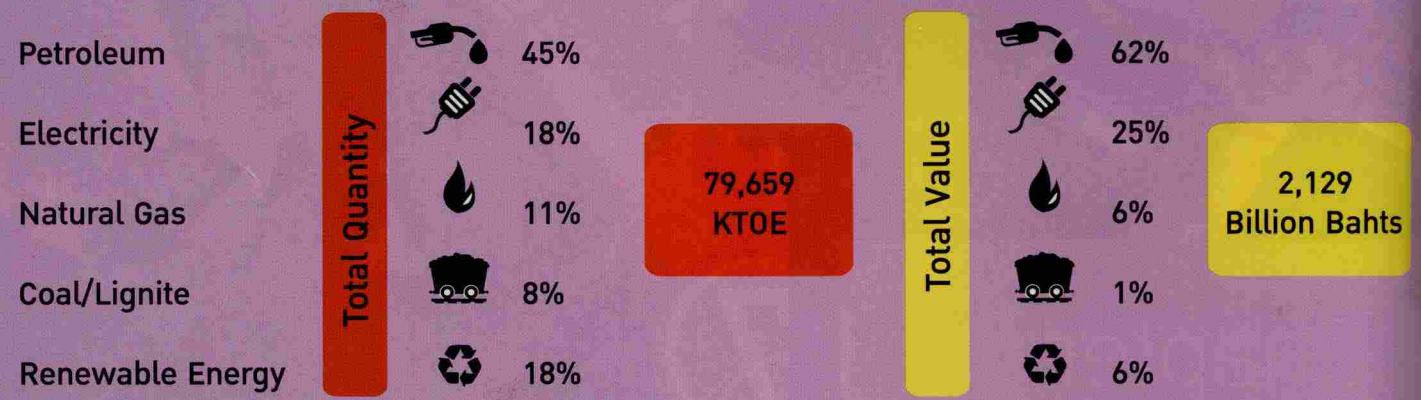


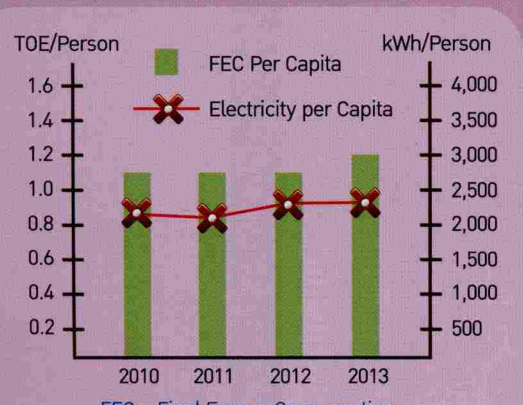
2013

GDP at Current Price	11,899	Billion Bahts
GDP at 1988 Price	5,040	Billion Bahts
Population	68	Million Persons

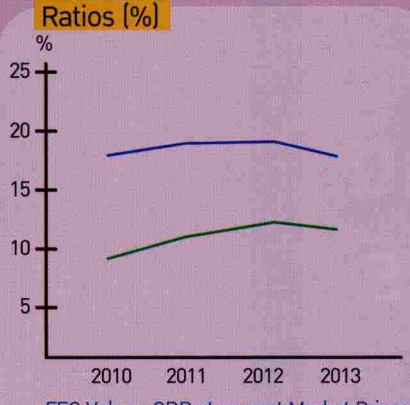


Quantity and Value of Final Energy Consumption 2013

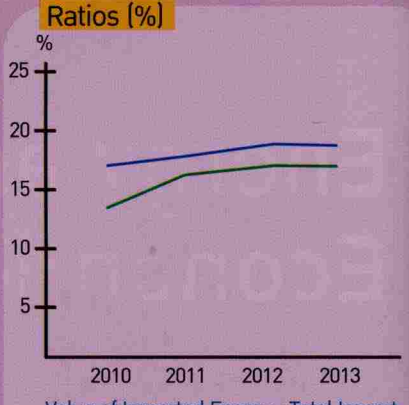




FEC = Final Energy Consumption



FEC Value : GDP at current Market Prices
Value of Imported Energy : GDP at current Market Prices



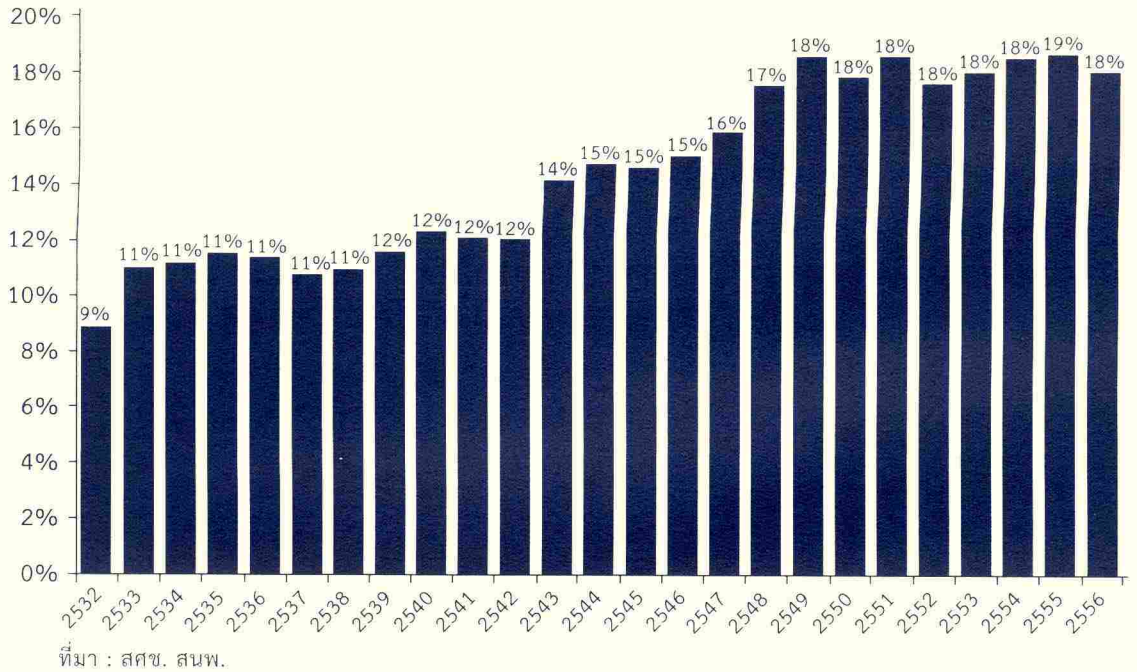
Value of Imported Energy : Total Import
Value of Imported Petroleum : Total Import
(Petroleum = Crude + Petroleum Product)

บทที่ 7 พลังงานกับเศรษฐกิจ

อัตราการเจริญเติบโตทางเศรษฐกิจของไทย (GDP) ปี 2556 ขยายตัวอยู่ที่ร้อยละ 2.9 เนื่องจากการใช้จ่ายภาคครัวเรือน การลงทุน และการส่งออกปรับตัวลดลง โดยการใช้จ่ายภาคครัวเรือนในหมวดสินค้ารถยนต์นั่งลดลงจากฐานการใช้จ่ายที่สูงมากที่ผู้บริโภคเร่งใช้สิทธิก่อนการสิ้นสุดมาตรการรถยนต์คันแรกในวันที่ 31 ธันวาคม 2555 และการใช้จ่ายในหมวดอื่นๆ ชะลอตัว การลงทุนภาคเอกชนลดลงเนื่องจากการลงทุนในหมวดเครื่องมือเครื่องจักรและการก่อสร้างลดลง และมูลค่าการส่งออกหดตัวตามอุปสงค์และราคาสินค้าในตลาดโลกที่ยังอยู่ในภาวะซบเซา

มูลค่าการใช้พลังงานต่อ GDP ณ ราคาตลาด คือ การเปรียบเทียบสัดส่วนมูลค่าการใช้พลังงานต่อรายได้ประชาชาติ ซึ่งมีแนวโน้มเพิ่มขึ้น โดยในปี 2556 ประเทศไทยมีมูลค่าการใช้พลังงานต่อ GDP อยู่ที่ร้อยละ 17.9 ในขณะที่ปี 2532 มีสัดส่วนอยู่ที่ร้อยละ 8.8 เท่านั้น

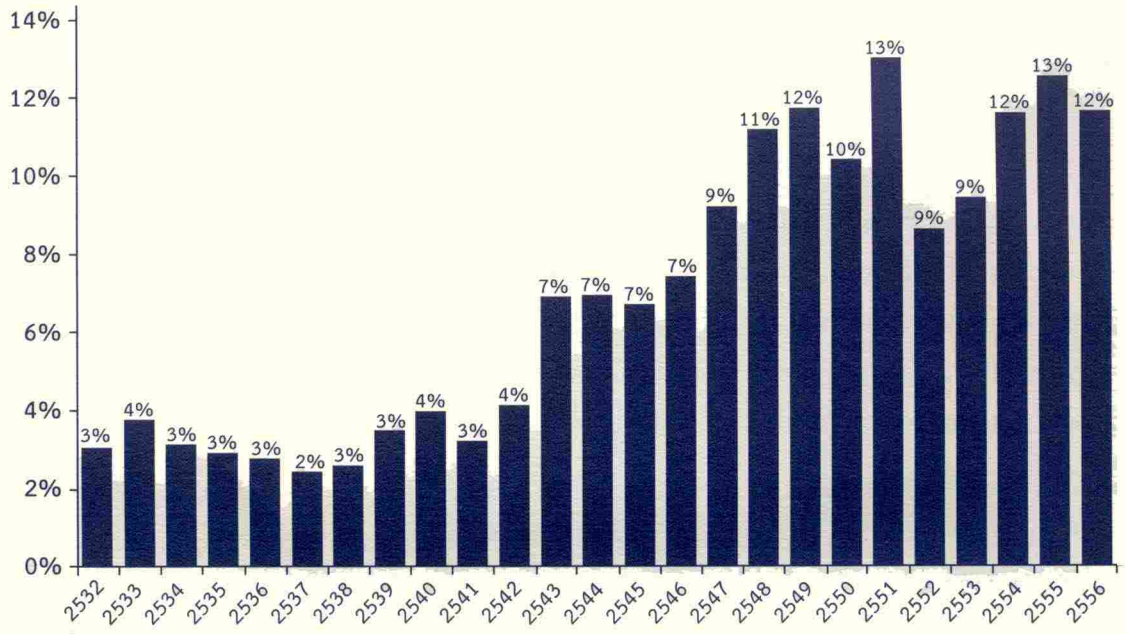
สัดส่วนมูลค่าการใช้พลังงานต่อผลิตภัณฑ์มวลรวมประชาชาติ (ณ ราคาตลาด)



ที่มา : สศช. สนพ.

มูลค่าการนำเข้าพลังงานต่อ GDP ณ ราคาตลาด คือ การเปรียบเทียบสัดส่วนมูลค่าการนำเข้าพลังงานต่อรายได้ประชาชาติ โดยในช่วงปี 2530-2540 ซึ่งเป็นช่วงก่อนเกิดวิกฤตเศรษฐกิจ ประเทศไทยใช้จ่ายเงินในการนำเข้าพลังงานเฉลี่ยอยู่ที่ร้อยละ 3.0 ของ GDP เนื่องจากราคาพลังงานอยู่ในระดับต่ำ แต่ในช่วงหลังเกิดวิกฤตเศรษฐกิจราคาน้ำมันดิบปรับตัวสูงขึ้นมาก จึงมีผลทำให้ประเทศไทยต้องสูญเสียเงินตราต่างประเทศเพิ่มขึ้น โดยในปี 2551 ราคาน้ำมันดิบอยู่ในระดับสูง ประเทศไทยจึงต้องใช้จ่ายเงินในการนำเข้าพลังงานสูงถึงร้อยละ 12.9 ของ GDP และปัจจุบันปี 2556 ประเทศไทยใช้จ่ายเงินในการนำเข้าพลังงานอยู่ที่ร้อยละ 11.6 ของ GDP

สัดส่วนมูลค่าการนำเข้าพลังงานต่อผลิตภัณฑ์มวลรวมประชาชาติ (ณ ราคาตลาด)

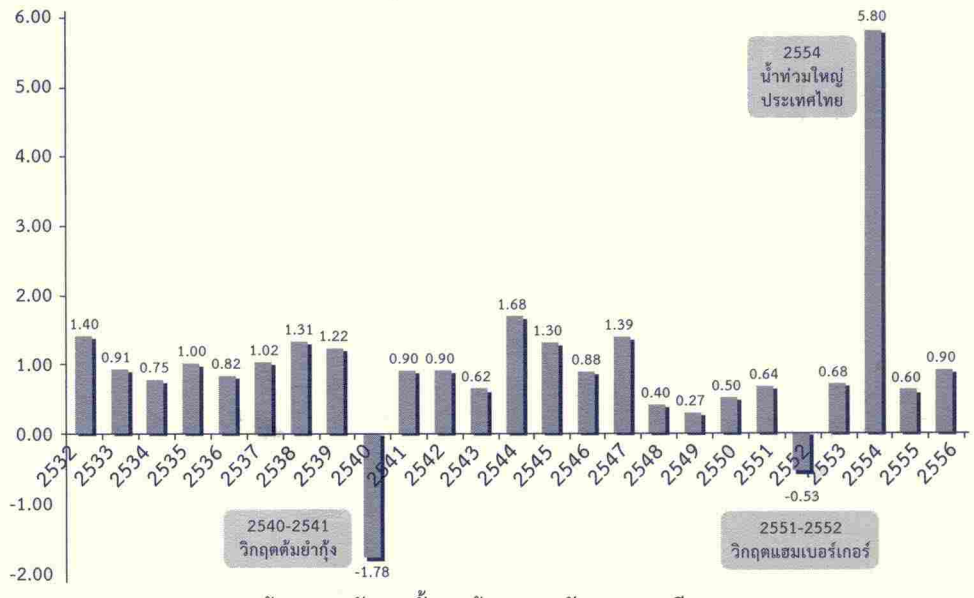


ที่มา : สศช. สนพ.

Energy Elasticity (EE) หรือความยืดหยุ่นการใช้พลังงาน คืออัตราการเปลี่ยนแปลงการใช้พลังงานต่ออัตราการเปลี่ยนแปลง GDP ซึ่งเป็นดัชนีชี้วัดประสิทธิภาพการใช้พลังงาน

ในช่วง 20 ปีที่ผ่านมา คือปี 2537-2556 ค่า EE ของไทยอยู่ที่ระดับ 0.92 หมายถึง GDP เปลี่ยนแปลงเพิ่มขึ้นร้อยละ 1.00 จะทำให้การใช้พลังงานของไทยเปลี่ยนแปลงเพิ่มขึ้นร้อยละ 0.92 โดยในช่วง 10 ปีแรก คือปี 2537-2546 การใช้พลังงานยังไม่มีประสิทธิภาพมากนัก ค่า EE อยู่ที่ระดับ 1.20 แต่ในช่วงหลังประเทศไทยมีการปรับปรุงประสิทธิภาพการใช้พลังงานมากขึ้น เช่น ส่งเสริมการใช้เครื่องใช้ไฟฟ้าที่ติดฉลากประสิทธิภาพเบอร์ 5 ปรับปรุงเครื่องจักรในโรงงานอุตสาหกรรม และมาตรการประหยัดพลังงาน ทำให้ในช่วง 10 ปีหลัง คือปี 2547-2556 ค่า EE อยู่ที่ระดับ 0.69

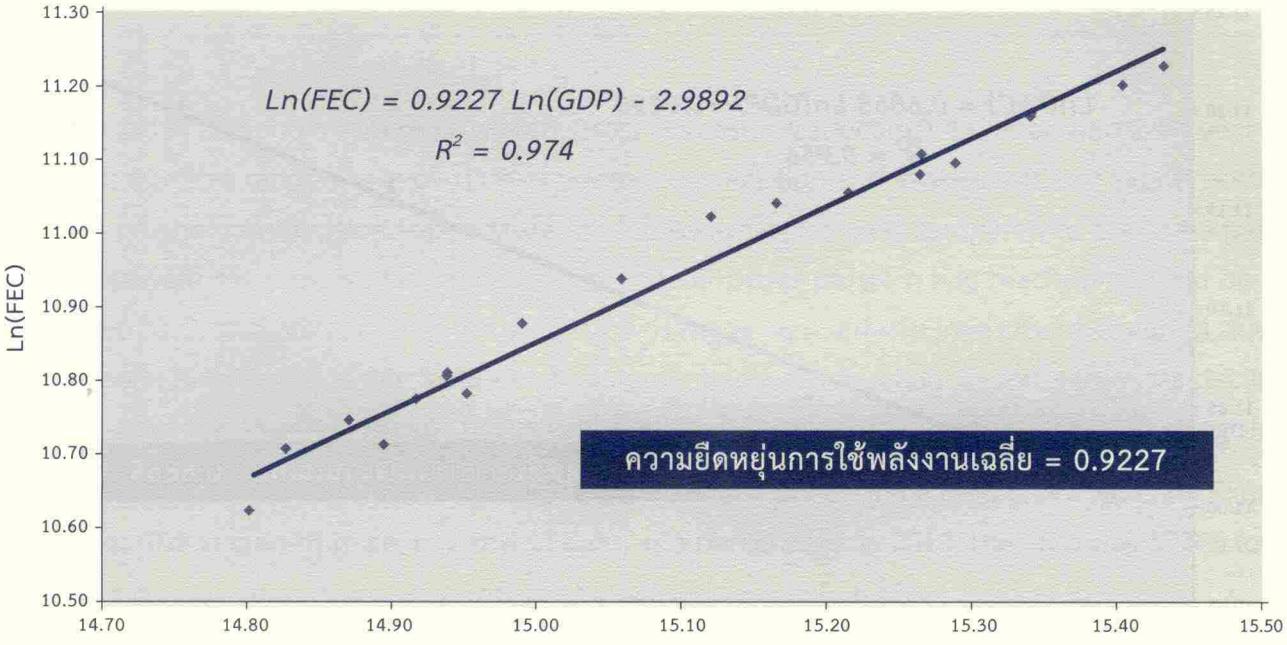
ความยืดหยุ่นการใช้พลังงาน (รายปี)



หมายเหตุ : ความต้องการพลังงานขั้นสุดท้ายรวมพลังงานหมุนเวียน

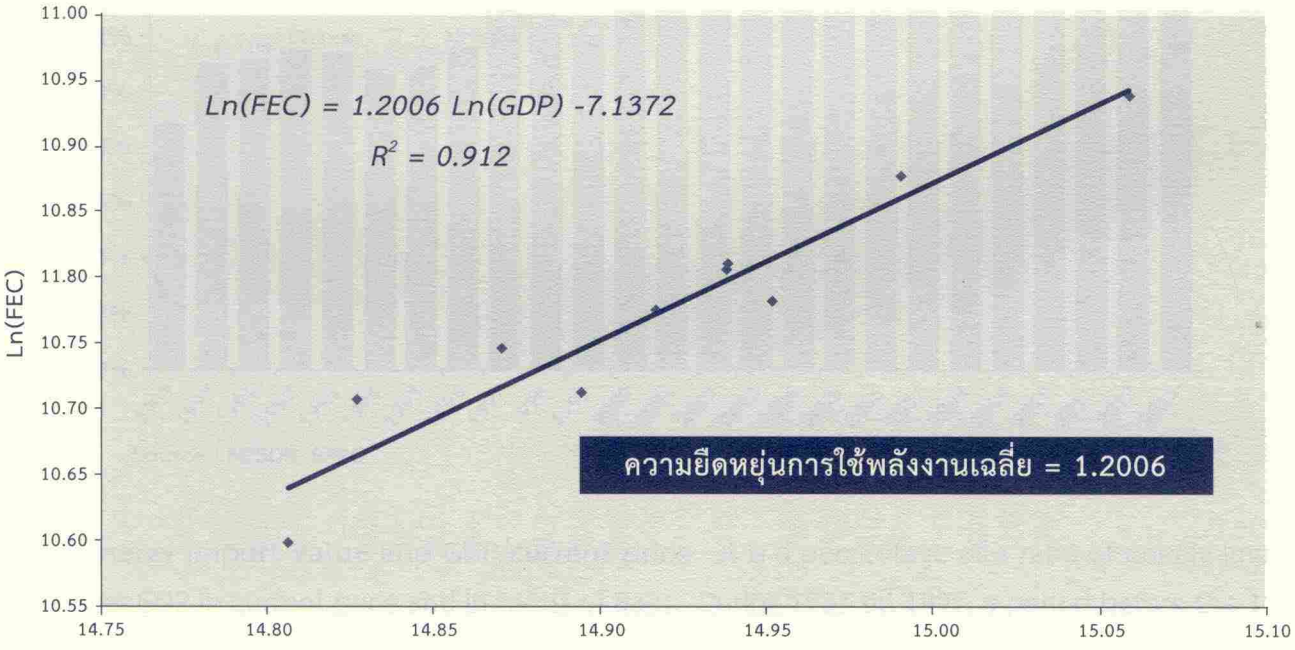
ที่มา : สศช. พพ.

ความยืดหยุ่นการใช้พลังงาน (2537-2556)



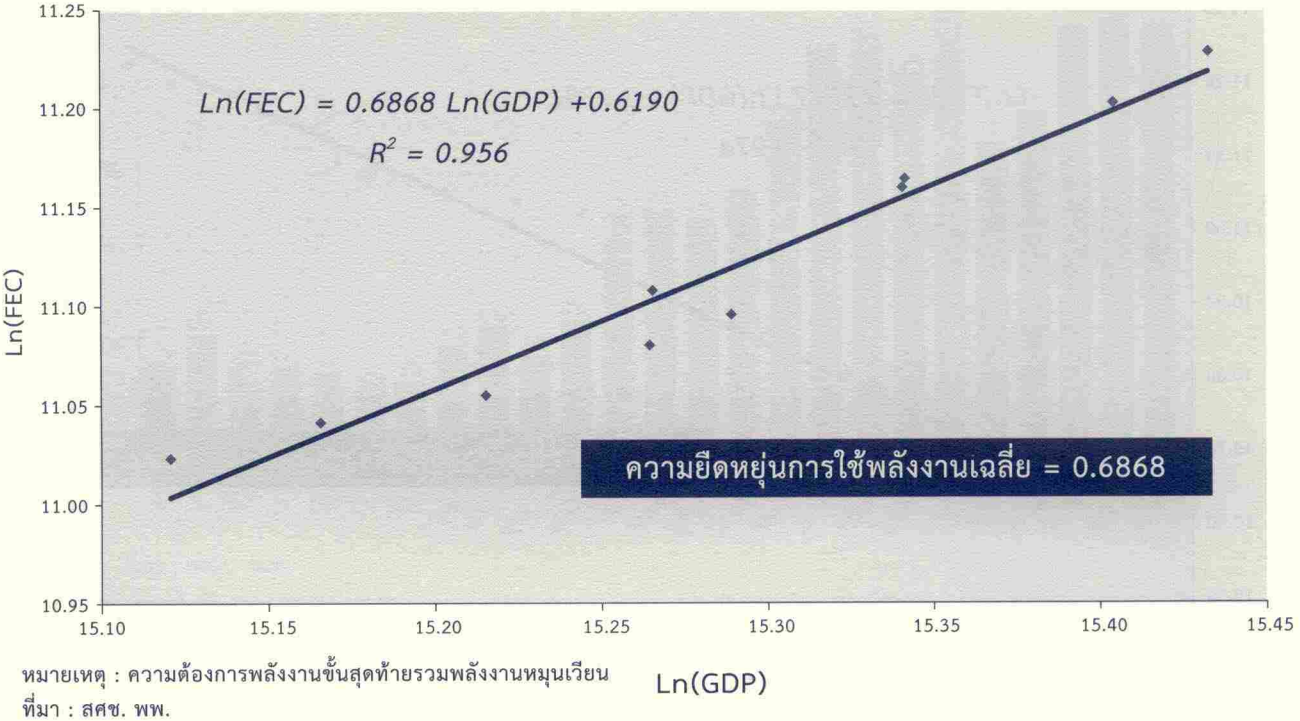
หมายเหตุ : ความต้องการพลังงานขั้นสุดท้ายรวมพลังงานหมุนเวียน
ที่มา : สศช. พพ.

ความยืดหยุ่นการใช้พลังงาน (2537-2546)



หมายเหตุ : ความต้องการพลังงานขั้นสุดท้ายรวมพลังงานหมุนเวียน
ที่มา : สศช. พพ.

ความยืดหยุ่นการใช้พลังงาน (2547-2556)



หมายเหตุ : ความต้องการพลังงานขั้นสุดท้ายรวมพลังงานหมุนเวียน

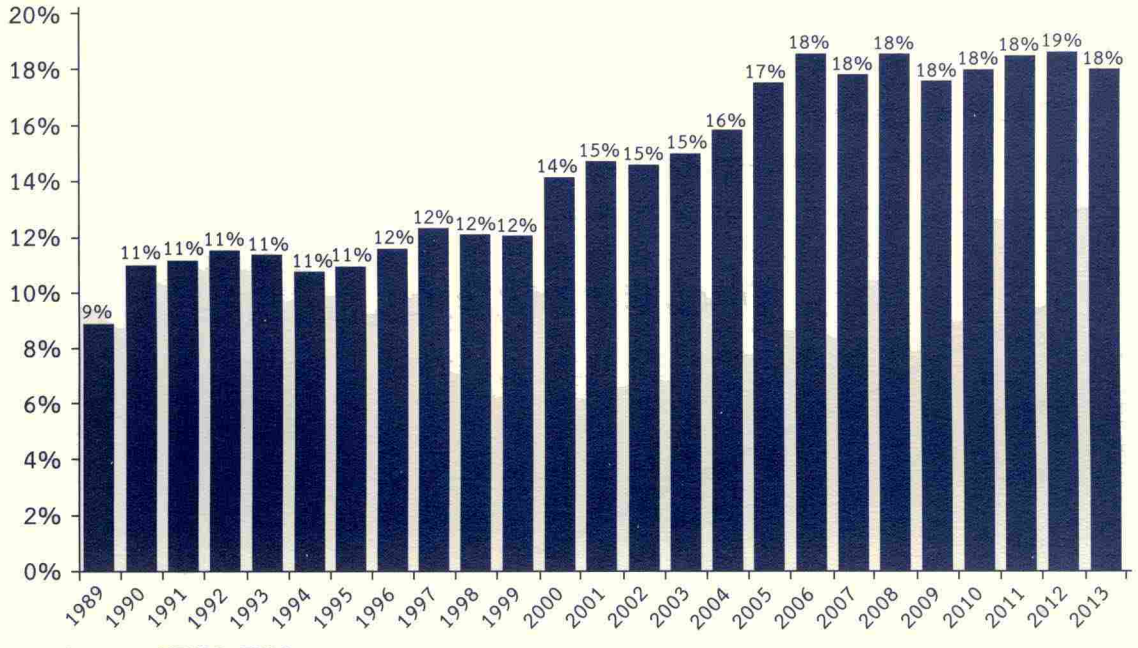
ที่มา : สศช. พพ.

Chapter 7 : Energy and Economics

In 2013, Thailand's economic growth, Gross Domestic Product (GDP), was around 2.9% year-on-year basis due to a moderate expansion in private consumption and investment, but export decline. Not only private consumption expenditure on domestic car declined compared to the same period of previous year since excise tax car rebate for first-car-buyer program had reached the end on 31st December 2012, and also other goods were slowdown as well. Private investment declined due to a decrease in investment in machinery and equipment and construction. Export value was declined resulting from the slump in export prices while demand in the global market remained sluggish.

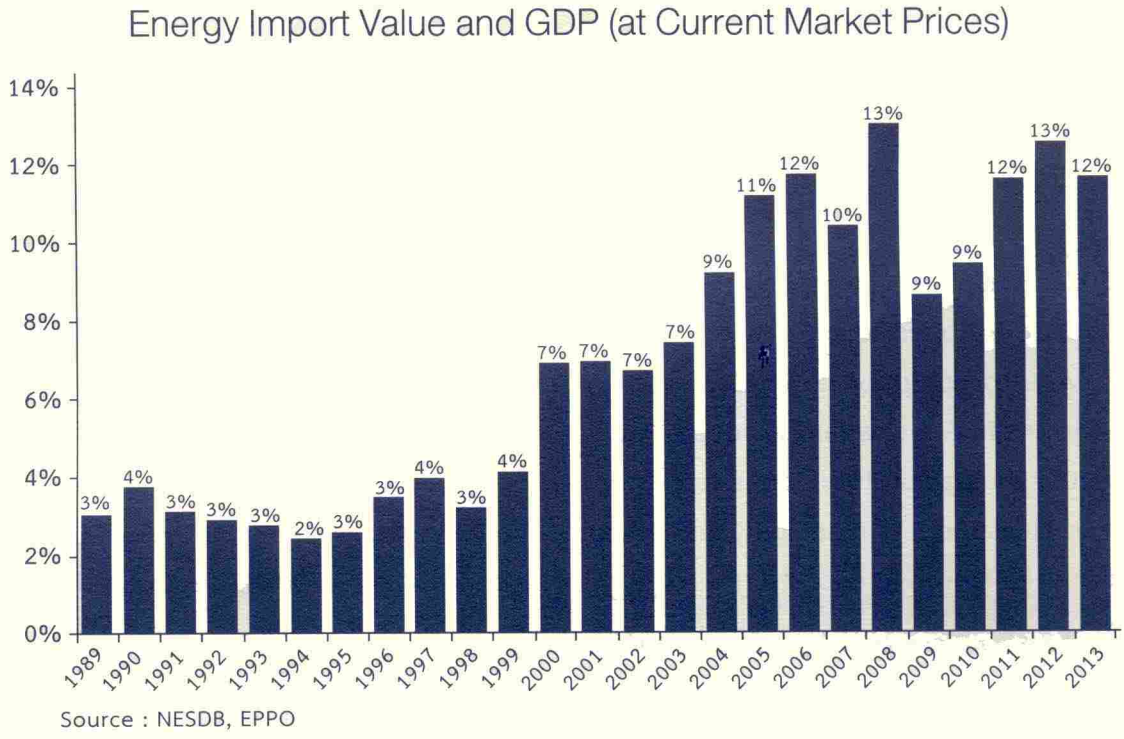
Final Energy Consumption Value and GDP current price - It is a ratio of energy-consumption value over GDP in current price, in terms of Baht, as a percentage. In 2013, the ratio was 17.9% lower than the previous year. However compared to 1989, it was only 8.8%

Final Energy Consumption Value and GDP (at Current Market Prices)



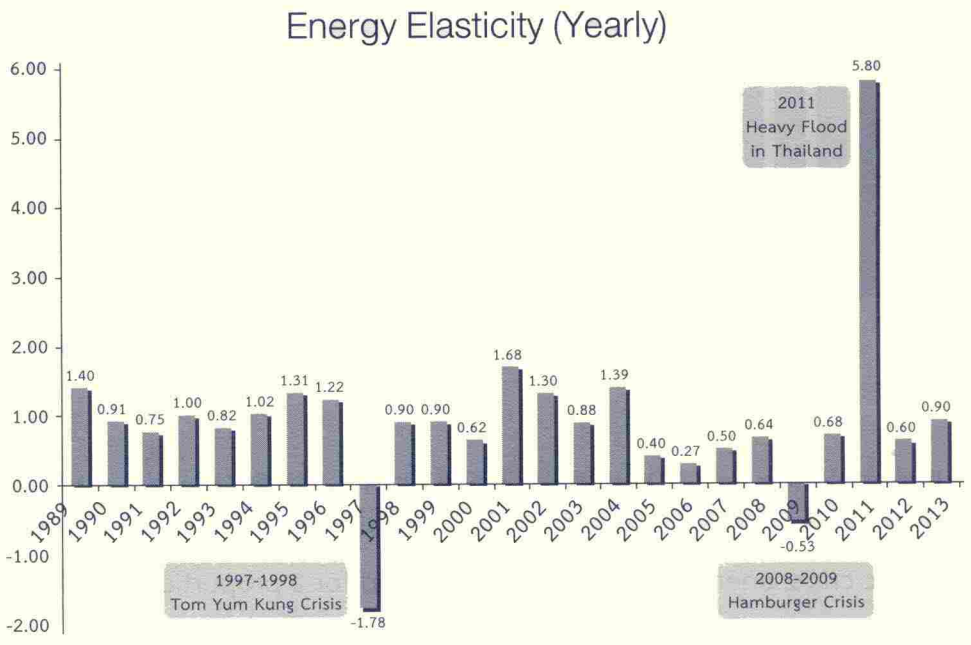
Source : NESDB, EPPO

Energy Import Value and GDP current price - It is a percentage of a ratio of energy import value over GDP in current price and in terms of Baht. During 1987 till 1997, a period before the 1998 Thailand's economic crisis, energy import value accounted for a proportion of GDP only 3.0%. After that since oil price soared up high, Thailand had a high value of energy imports. In 2008, crude oil price was the highest in record, and it became a year that had the highest energy import value to GDP around 12.9%. In 2013, this ratio was 11.6%.



Source : NESDB, EPPO

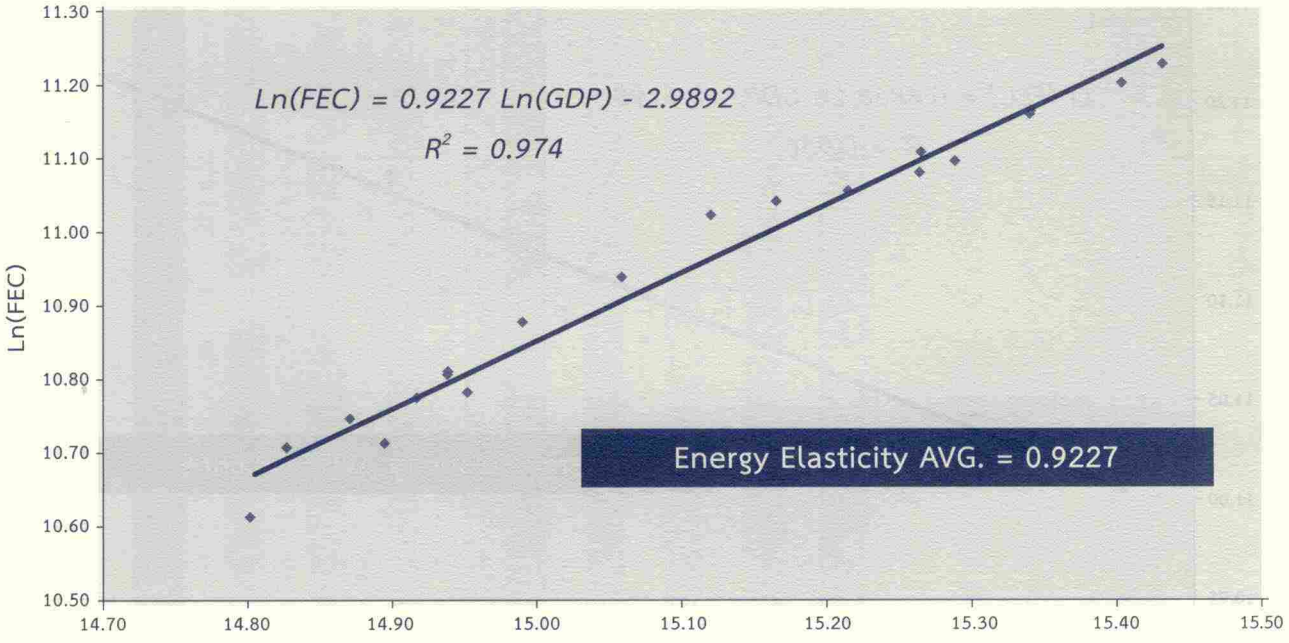
Energy Elasticity (EE) - Income elasticity for energy here was defined as a percent change in energy consumption (final energy consumption) to a percent change in real terms of GDP. In a last two decades, during 1994-2013, EE was around 0.92. It was inelasticity, less than 1.00. However the EE during 1994-2003 was greater than 1.00 to be at 1.20. In a contrast, EE in a period of 2004-2013 was much less than 1.00 to be around 0.69. It probably showed that Thailand might have an energy efficiency improvement during a period of 20 years.



Remark : Final Energy Demand Including Renewable Energy

Source : NESD, DEDE

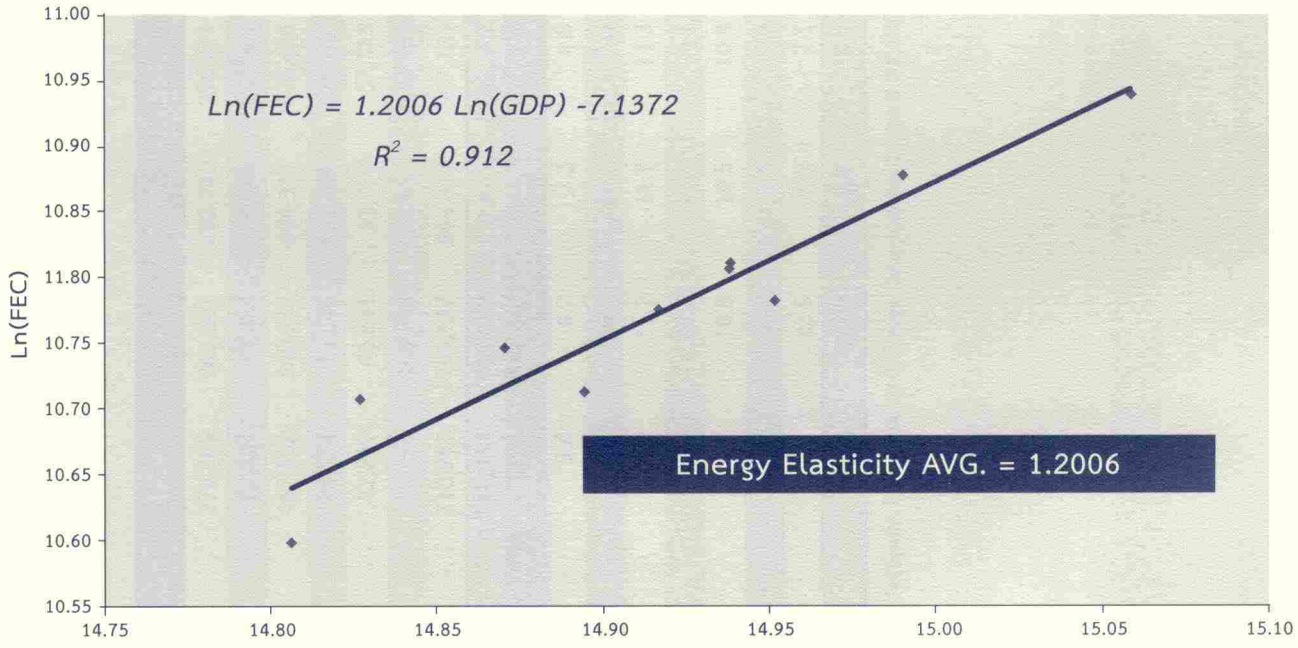
Energy Elasticity (1994-2013)



Remark : Final Energy Demand Included Renewable Energy

Source : NESD, DEDE

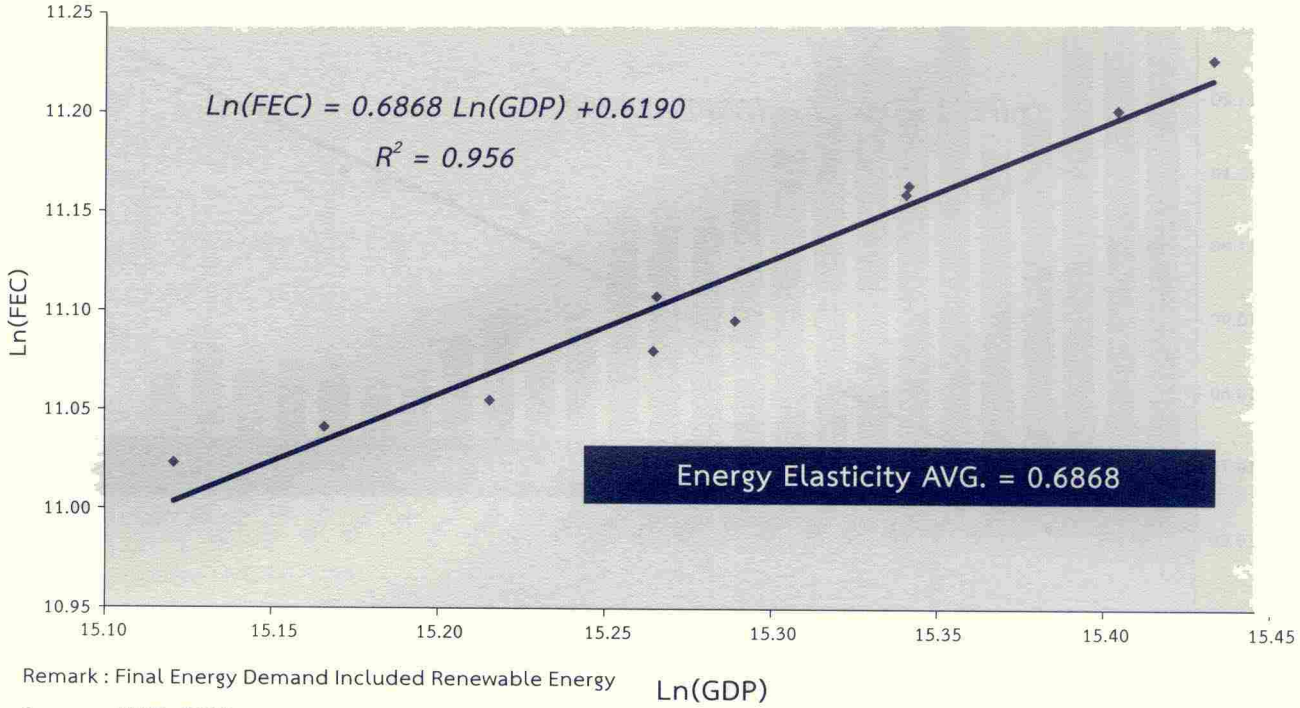
Energy Elasticity (1994-2003)



Remark : Final Energy Demand Included Renewable Energy

Source : NESD, DEDE

Energy Elasticity (2004-2013)



Remark : Final Energy Demand Included Renewable Energy

Source : NESD, DEDE

Table 7.1-1
GDP at constant 1988 Prices

Unit : Million Bahts

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Agriculture	276,569	263,607	282,740	296,277	255,106	265,893	276,590	288,840	286,833	282,606	289,178	309,948	320,016
Mining	28,227	31,053	36,085	37,959	40,770	43,841	44,748	52,892	59,973	56,244	60,865	64,235	64,622
Manufacturing	467,632	540,932	604,337	672,636	781,865	856,547	958,374	1,021,419	1,036,152	923,602	1,033,431	1,096,168	1,111,457
Construction	95,554	116,606	132,494	138,700	150,710	172,036	183,600	196,540	146,138	90,235	84,060	76,323	76,471
Electricity	42,259	46,841	51,750	57,115	62,413	69,335	79,054	81,962	86,705	86,117	88,823	97,570	103,937
Transportation	128,754	146,796	157,644	172,764	191,420	213,273	239,223	267,255	279,945	254,462	270,147	290,388	310,058
Res. and Com.	710,957	799,537	846,812	907,121	988,624	1,072,048	1,160,147	1,206,430	1,176,869	1,056,418	1,045,476	1,073,769	1,087,040
Total	**1,749,952**	**1,945,372**	**2,111,862**	**2,282,572**	**2,470,908**	**2,692,973**	**2,941,736**	**3,115,338**	**3,072,615**	**2,749,684**	**2,871,980**	**3,008,401**	**3,073,601**
Growth Rate (%)													
Agriculture	9.6	-4.7	7.3	4.8	-13.9	4.2	4.0	4.4	-0.7	-1.5	2.3	7.2	3.2
Mining	6.1	10.0	16.2	5.2	7.4	7.5	2.1	18.2	13.4	-6.2	8.2	5.5	0.6
Manufacturing	16.0	15.7	11.7	11.3	16.2	9.6	11.9	6.6	1.4	-10.9	11.9	6.1	1.4
Construction	28.3	22.0	13.6	4.7	8.7	14.2	6.7	7.0	-25.6	-38.3	-6.8	-9.2	0.2
Electricity	19.7	10.8	10.5	10.4	9.3	11.1	14.0	3.7	5.8	-0.7	3.1	9.8	6.5
Transportation	10.4	14.0	7.4	9.6	10.8	11.4	12.2	11.7	4.7	-9.1	6.2	7.5	6.8
Res. and Com.	9.1	12.5	5.9	7.1	9.0	8.4	8.2	4.0	-2.5	-10.2	-1.0	2.7	1.2
Total	**12.2**	**11.2**	**8.6**	**8.1**	**8.3**	**9.0**	**9.2**	**5.9**	**-1.4**	**-10.5**	**4.4**	**4.8**	**2.2**

Source : Office of the National Economic and Social Development Board (NESDB)

Table 7.1-1 (Cont.)
GDP at constant 1988 Prices

Unit : Million Bahts

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Agriculture	322,179	363,033	354,431	347,892	365,428	369,772	385,225	390,362	381,401	396,951	412,175	417,797
Mining	71,741	76,616	80,837	88,081	91,585	95,088	95,280	96,105	101,141	99,031	107,135	109,535
Manufacturing	1,190,807	1,318,279	1,426,338	1,499,882	1,588,105	1,686,372	1,751,411	1,645,015	1,873,170	1,793,358	1,917,142	1,919,061
Construction	80,615	82,837	88,790	93,809	98,086	100,511	95,190	95,551	102,090	96,875	104,469	105,504
Electricity	110,137	115,195	122,525	129,004	135,114	141,975	147,603	148,880	163,848	164,448	180,358	181,931
Transportation	331,168	340,644	366,290	383,925	407,682	432,037	429,933	413,666	430,338	441,898	477,587	515,968
Res. and Com.	1,130,395	1,171,562	1,248,978	1,315,426	1,368,504	1,433,271	1,460,191	1,473,560	1,544,124	1,607,094	1,699,323	1,789,998
Total	**3,237,042**	**3,468,166**	**3,688,189**	**3,858,019**	**4,054,504**	**4,259,026**	**4,364,833**	**4,263,139**	**4,596,112**	**4,599,655**	**4,898,189**	**5,039,794**
Growth Rate (%)												
Agriculture	0.7	12.7	-2.4	-1.8	5.0	1.2	4.2	1.3	-2.3	4.1	3.8	1.4
Mining	11.0	6.8	5.5	9.0	4.0	3.8	0.2	0.9	5.2	-2.1	8.2	2.2
Manufacturing	7.1	10.7	8.2	5.2	5.9	6.2	3.9	-6.1	13.9	-4.3	6.9	0.1
Construction	5.4	2.8	7.2	5.7	4.6	2.5	-5.3	0.4	6.8	-5.1	7.8	1.0
Electricity	6.0	4.6	6.4	5.3	4.7	5.1	4.0	0.9	10.1	0.4	9.7	0.9
Transportation	6.8	2.9	7.5	4.8	6.2	6.0	-0.5	-3.8	4.0	2.7	8.1	8.0
Res. and Com.	4.0	3.6	6.6	5.3	4.0	4.7	1.9	0.9	4.8	4.1	5.7	5.3
Total	**5.3**	**7.1**	**6.3**	**4.6**	**5.1**	**5.0**	**2.5**	**-2.3**	**7.8**	**0.1**	**6.5**	**2.9**

Source : Office of the National Economic and Social Development Board (NESDB)

Table 7.1-2
Population

Unit : Persons

Year	Population	Growth (%)
1989	55,214,000	1.6
1990	55,839,000	1.1
1991	56,574,000	1.3
1992	57,294,000	1.3
1993	58,010,000	1.2
1994	58,713,000	1.2
1995	59,401,000	1.2
1996	60,003,000	1.0
1997	60,602,000	1.0
1998	61,201,000	1.0
1999	61,806,000	1.0
2000	62,236,000	0.7
2001	62,836,000	1.0
2002	63,419,000	0.9
2003	63,982,000	0.9
2004	64,531,000	0.9
2005	65,099,000	0.9
2006	65,574,000	0.7
2007	66,041,000	0.7
2008	66,482,000	0.7
2009	66,903,000	0.6
2010	67,313,000	0.6
2011	67,597,000	0.4
2012	67,912,000	0.5
2013	68,251,000	0.5

Source : Office of The National Economic and Social Development Board (NESDB)

Table 7.1-3
Industrial Index

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Jan	96.5	102.1	103.6	125.0	139.0	152.4	158.8	168.4	190.7	142.0	185.0	197.4	174.9	210.5
Feb	95.5	99.6	102.6	119.5	139.4	143.8	162.1	164.3	188.1	141.0	188.4	190.3	191.0	201.2
Mar	104.8	110.9	116.1	136.1	146.1	169.0	179.7	182.3	202.8	157.4	217.6	212.1	213.4	229.0
Apr	87.4	90.3	105.0	119.2	128.5	143.1	149.4	152.6	171.6	142.4	182.8	166.7	180.1	180.1
May	98.4	104.9	116.9	125.8	141.3	157.8	171.6	174.3	192.5	158.6	193.1	180.7	214.1	208.4
Jun	101.0	105.0	114.7	127.8	143.6	163.8	166.7	173.8	191.6	169.1	202.5	210.5	208.3	204.9
Jul	97.0	102.2	116.5	129.5	141.0	158.2	164.1	174.8	193.9	169.0	196.6	200.2	207.3	196.7
Aug	100.2	103.9	121.2	124.8	140.1	162.7	172.3	182.0	186.6	172.9	191.0	209.2	204.0	193.1
Sep	104.0	103.5	120.3	135.0	147.0	165.3	173.2	186.2	189.5	188.7	204.4	218.9	205.8	194.6
Oct	104.0	108.3	124.8	137.9	154.3	163.6	171.5	188.8	187.0	186.6	199.1	131.2	211.0	190.8
Nov	107.1	105.5	124.3	132.3	154.7	163.8	168.6	189.1	170.9	184.4	198.2	105.3	221.8	190.7
Dec	104.1	101.7	116.4	142.2	157.0	159.9	166.0	187.1	149.0	195.2	195.1	150.6	200.9	183.4
Total	**100.0**	**103.2**	**115.2**	**129.6**	**144.3**	**158.6**	**167.0**	**177.0**	**184.5**	**167.3**	**196.2**	**181.1**	**202.7**	**198.6**

Source : The Office of Industrial Economics (OIE)

Table 7.1-4
Industrial Capacity Utilization Ratios

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Jan	58.3	58.5	56.5	64.3	66.0	68.7	68.4	66.4	70.1	54.1	63.0	66.0	61.3	66.7
Feb	57.9	59.1	58.8	63.4	67.1	66.7	69.9	66.5	68.2	54.3	64.3	64.2	64.7	65.3
Mar	57.9	58.6	59.8	65.0	63.6	67.0	69.3	66.1	67.3	54.5	65.7	64.6	65.3	67.3
Apr	57.2	56.3	62.1	64.8	65.2	67.8	69.3	66.5	67.0	56.1	65.6	61.6	66.3	65.3
May	58.1	58.4	62.8	62.9	65.7	67.3	69.1	66.8	66.8	56.5	65.5	61.3	67.6	65.0
Jun	58.9	58.9	62.0	64.8	65.9	67.6	67.6	66.7	65.6	57.0	66.0	65.9	65.8	64.7
Jul	58.4	58.2	62.3	63.0	65.4	67.9	66.9	66.9	65.5	57.9	65.5	66.0	67.6	63.6
Aug	58.8	58.7	65.0	62.7	65.0	68.4	68.5	67.2	64.0	59.7	66.0	68.0	66.0	63.6
Sep	60.1	58.7	63.7	65.2	65.2	67.1	67.1	67.8	61.8	61.5	65.9	67.2	66.1	63.8
Oct	59.7	59.3	63.1	65.3	68.0	67.5	67.1	67.0	61.1	62.7	66.2	48.6	66.6	62.6
Nov	60.7	58.3	64.9	64.3	68.2	67.2	66.2	68.5	58.1	63.5	65.6	44.0	67.9	63.1
Dec	61.1	58.4	62.3	68.3	68.6	67.0	66.1	69.1	55.4	64.0	65.7	56.4	65.8	61.6
Total	**59.0**	**58.4**	**61.9**	**64.5**	**66.2**	**67.5**	**68.0**	**67.1**	**64.2**	**58.5**	**65.4**	**61.1**	**65.9**	**64.4**

Source : The Office of Industrial Economics (OIE)

Table 7.1-5
Sale of Vehicles

Year	Sale of Vehicles (Unit)				Growth Rate (%)			
	Passenger	Commercial	Motorcycle	Total	Passenger	Commercial	Motorcycle	Total
1989	47,705	160,436	588,278	796,419	21.6	48.9	18.9	24.1
1990	65,813	238,297	732,848	1,036,958	38.0	48.5	24.6	30.2
1991	66,778	202,052	649,727	918,557	1.5	-15.2	-11.3	-11.4
1992	121,453	241,583	868,157	1,231,193	81.9	19.6	33.6	34.0
1993	172,452	282,548	1,115,946	1,570,946	42.0	17.0	28.5	27.6
1994	154,500	331,345	1,333,041	1,818,886	-10.4	17.3	19.5	15.8
1995	158,701	409,915	1,503,872	2,072,488	2.7	23.7	12.8	13.9
1996	173,606	415,262	1,242,551	1,831,419	9.4	1.3	-17.4	-11.6
1997	132,070	231,198	927,365	1,290,633	-23.9	-44.3	-25.4	-29.5
1998	46,399	97,844	490,829	635,072	-64.9	-57.7	-47.1	-50.8
1999	66,851	151,508	593,676	812,035	44.1	54.9	21.0	27.9
2000	83,127	179,126	796,292	1,058,545	24.4	18.2	34.1	30.4
2001	104,559	192,577	926,460	1,223,596	25.8	7.5	16.4	15.6
2002	126,330	283,073	1,317,000	1,726,403	20.8	47.0	42.2	41.1
2003	179,418	354,037	1,687,000	2,220,455	42.0	25.1	28.1	28.6
2004	209,114	416,764	1,951,000	2,576,878	16.6	17.7	15.7	16.1
2005	185,761	517,677	2,053,000	2,756,438	-11.2	24.2	5.2	7.0
2006	191,405	490,603	1,921,000	2,603,008	3.0	-5.2	-6.4	-5.6
2007	169,559	461,692	1,558,000	2,189,251	-11.4	-5.9	-18.9	-15.9
2008	225,751	388,333	1,749,000	2,363,084	33.1	-15.9	12.3	7.9
2009	235,169	313,703	1,519,000	2,067,872	4.2	-19.2	-13.2	-12.5
2010	340,129	390,904	1,870,000	2,601,033	44.6	24.6	23.1	25.8
2011	341,800	362,156	1,859,000	2,562,956	0.5	-7.4	-0.6	-1.5
2012	658,460	691,399	2,300,000	3,649,859	92.6	90.9	23.7	42.4
2013	650,791	637,497	2,087,000	3,375,288	-1.2	-7.8	-9.3	-7.5

Source : Bank of Thailand (BOT) and The Office of Industrial Economics (OIE)
Compiled by : Energy Policy and Planning Office (EPPO)

Table 7.1-6
GDP, Energy, Import and Export of Goods

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
GDP at Current Prices (Billion Bahts)	1,857.0	2,183.5	2,506.6	2,830.9	3,165.2	3,629.3	4,186.2	4,611.0	4,732.6	4,626.4	4,637.1	4,922.7	5,133.5
GDP at 1988 Prices (Billion Bahts)	1,750.0	1,945.4	2,111.9	2,282.6	2,470.9	2,693.0	2,941.7	3,115.3	3,072.6	2,749.7	2,872.0	3,008.4	3,073.6
Export (Billion Bahts)	516.3	589.8	725.6	824.6	935.9	1,137.6	1,406.3	1,412.1	1,806.7	2,248.3	2,215.2	2,773.8	2,884.7
Import (Billion Bahts)	662.7	844.4	958.8	1,033.2	1,166.6	1,369.0	1,763.6	1,832.8	1,924.3	1,774.1	1,907.4	2,494.1	2,752.3
Goods and Services	606.9	762.8	880.3	951.6	1,079.3	1,281.9	1,655.2	1,673.6	1,737.3	1,625.4	1,717.5	2,153.9	2,396.4
Energy	55.8	81.7	78.6	81.7	87.3	87.2	108.4	159.2	187.0	148.7	189.9	340.2	355.9
Crude	32.6	42.8	39.9	48.6	51.0	55.4	72.1	121.9	166.5	137.1	169.6	285.9	284.4
Petroleum Products	22.3	38.2	38.0	32.4	35.2	30.1	34.1	33.3	15.9	7.0	12.8	36.8	28.8
Natural Gas												7.8	30.6
Coal	0.9	0.6	0.7	0.6	1.0	1.7	2.2	4.0	3.8	2.1	4.0	5.1	7.5
Electricity									0.7	2.5	3.4	4.7	4.7
Net Trade (Exports - Imports) (Billion Bahts)	-146.4	-254.6	-233.2	-208.6	-230.7	-231.4	-357.3	-420.7	-117.6	474.3	307.8	279.7	132.4
Final Energy Consumption (Billion Bahts)	163.8	238.3	279.3	323.7	357.4	390.2	454.9	530.3	580.6	556.3	555.0	689.9	752.4
Petroleum	109.9	132.0	161.6	171.9	188.7	199.0	233.0	280.4	318.7	306.8	309.7	407.9	430.5
Electricity	52.7	62.5	73.2	87.4	98.2	111.5	136.2	153.4	162.1	175.4	167.9	199.1	232.7
Natural Gas	0.3	0.6	0.8	1.2	1.5	2.1	3.1	3.4	4.7	4.6	5.9	10.3	11.4
Coal/Lignite	0.9	2.1	2.5	2.8	3.6	4.8	5.8	7.5	7.8	5.9	6.2	5.7	7.6
Renewable Energy		41.2	41.1	60.5	65.3	72.7	76.8	85.5	87.3	63.6	65.2	67.0	70.3
Final Energy Consumption (KTOE)	27,872.0	30,666.0	32,556.0	35,328.0	36,988.3	40,354.6	44,887.5	48,746.9	50,111.0	45,455.0	47,155.0	47,882.0	49,008.0
Petroleum	15,026.0	16,742.0	17,471.0	19,053.0	21,128.0	23,337.0	26,134.0	28,381.0	28,983.0	26,215.0	26,845.0	26,716.0	27,290.0
Electricity	2,791.0	3,253.0	3,767.0	4,200.0	4,702.0	5,324.0	6,010.0	6,670.0	7,090.0	7,024.0	7,131.0	7,691.0	8,169.0
Natural Gas	109.0	259.0	338.0	446.0	507.0	599.0	803.0	853.0	1,047.0	978.0	1,282.0	1,818.0	1,690.0
Coal/Lignite	1,142.0	1,454.0	1,630.0	1,811.0	2,598.0	3,284.0	3,814.0	4,633.0	4,492.0	3,353.0	3,575.0	3,058.0	3,416.0
Renewable Energy	8,804.0	8,958.0	9,350.0	9,818.0	8,053.3	7,810.6	8,126.5	8,209.9	8,499.0	7,885.0	8,322.0	8,599.0	8,443.0

Analysis

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Growth Rate (%)													
GDP (Constant Prices)	12.2	11.2	8.6	8.1	8.3	9.0	9.2	5.9	-1.4	-10.5	4.4	4.8	2.2
Final Energy Consumption (KTOE) : FEC	17.4	10.0	6.2	8.5	4.7	9.1	11.2	8.6	2.8	-9.3	3.7	1.5	2.4
FEC : GDP (TOE : M.Bahts)	15.9	15.8	15.4	15.5	15.0	15.0	15.3	15.6	16.3	16.5	16.4	15.9	15.9
Ratios (%)													
FEC Value : GDP at current Market Prices	8.8	10.9	11.1	11.4	11.3	10.8	10.9	11.5	12.3	12.0	12.0	14.0	14.7
Value of Imported Energy : GDP at current Market Prices	3.0	3.7	3.1	2.9	2.8	2.4	2.6	3.5	4.0	3.2	4.1	6.9	6.9
Value of Imported Energy : Total Import	8.4	9.7	8.2	7.9	7.5	6.4	6.1	8.7	9.7	8.4	10.0	13.6	12.9
Value of Imported Petroleum : Total Import	8.3	9.6	8.1	7.8	7.4	6.2	6.0	8.5	9.5	8.1	9.6	13.3	12.5

Source : NESDB, BOT, EPPO, DEDE

GDP, Energy, Import and Export of Goods

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
GDP at Current Prices (Billion Bahts)	5,450.6	5,917.4	6,489.5	7,092.9	7,844.9	8,525.2	9,080.5	9,041.6	10,104.8	10,540.1	11,375.3	11,898.7
GDP at 1988 Prices (Billion Bahts)	3,237.0	3,468.2	3,688.2	3,858.0	4,054.5	4,259.0	4,364.8	4,263.1	4,596.1	4,599.7	4,898.2	5,039.8
Export (Billion Bahts)	2,923.9	3,325.6	3,873.7	4,438.7	4,937.4	5,302.1	5,851.4	5,194.6	6,113.3	6,708.0	7,082.5	6,909.7
Import (Billion Bahts)	2,774.8	3,138.8	3,801.1	4,754.0	4,942.9	4,870.2	5,962.5	4,602.0	5,856.6	6,982.7	7,813.1	7,657.3
Goods and Services	2,412.6	2,703.4	3,205.8	3,963.9	4,021.7	3,988.2	4,787.3	3,825.1	4,906.3	5,761.4	6,391.1	6,276.5
Energy	362.2	435.4	595.3	790.1	921.2	882.0	1,175.2	776.9	950.3	1,221.3	1,422.0	1,380.9
Crude	287.0	346.1	486.6	644.9	753.8	715.8	1,002.7	623.0	751.5	977.4	1,119.3	1,072.2
Petroleum Products	27.9	33.2	44.7	59.8	62.4	50.3	41.1	29.1	66.8	94.3	124.2	138.5
Natural Gas	35.1	42.6	46.1	62.8	77.8	78.9	90.5	84.2	84.5	93.5	116.3	111.9
Coal	7.9	9.4	12.3	15.4	18.9	29.7	36.5	36.9	39.4	42.3	46.7	39.7
Electricity	4.5	4.2	5.7	7.1	8.3	7.4	4.5	3.6	8.2	13.9	15.4	18.5
Net Trade (Exports - Imports) (Billion Bahts)	149.1	186.9	72.6	-315.3	-5.6	431.9	-111.1	592.6	256.7	-274.7	-730.6	-747.6
Final Energy Consumption (Billion Bahts)	791.2	884.4	1,024.2	1,240.7	1,447.5	1,509.7	1,676.6	1,584.4	1,809.2	1,940.8	2,107.8	2,129.2
Petroleum	451.6	515.3	605.4	774.4	916.3	956.7	1,092.1	960.1	1,106.7	1,220.6	1,311.0	1,325.9
Electricity	247.5	267.6	302.8	330.1	387.2	392.7	397.9	431.2	474.7	471.6	524.4	537.7
Natural Gas	13.4	16.4	16.4	22.3	28.9	35.1	53.9	49.3	68.7	97.7	122.5	121.0
Coal/Lignite	8.8	10.0	13.3	18.4	18.0	23.1	28.7	28.6	29.7	31.3	31.6	26.1
Renewable Energy	69.9	75.1	86.2	95.5	97.1	102.1	104.0	115.3	129.4	119.7	118.3	118.5
Final Energy Consumption (KTOE)	52,754.0	56,073.0	61,456.0	62,802.0	62,648.0	65,479.0	66,937.0	68,838.0	72,723.0	74,508.0	77,993.0	79,659.0
Petroleum	28,898.0	30,533.0	33,093.0	32,621.0	31,823.0	32,534.0	31,471.0	31,959.0	32,419.0	33,326.0	35,174.0	36,034.0
Electricity	8,798.0	9,394.0	10,166.0	10,717.0	11,199.0	11,701.0	11,928.0	11,869.0	13,112.0	13,065.0	13,998.0	14,189.0
Natural Gas	1,872.0	2,033.0	2,427.0	2,451.0	2,649.0	3,320.0	3,993.0	4,853.0	5,764.0	7,252.0	8,444.0	8,661.0
Coal/Lignite	4,143.0	4,362.0	5,254.0	6,189.0	5,984.0	6,439.0	7,300.0	7,702.0	8,009.0	7,727.0	7,401.0	6,797.0
Renewable Energy	9,043.0	9,751.0	10,516.0	10,824.0	10,993.0	11,485.0	12,245.0	12,455.0	13,419.0	13,138.0	12,976.0	13,978.0

Analysis

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Growth Rate (%)												
GDP (Constant Prices)	5.3	7.1	6.3	4.6	5.1	5.0	2.5	-2.3	7.8	0.1	6.5	2.9
Final Energy Consumption (KTOE) : FEC	7.6	6.3	9.6	2.2	-0.2	4.5	2.2	2.8	5.6	2.5	4.7	2.1
FEC : GDP (TOE : M.Bahts)	16.3	16.2	16.7	16.3	15.5	15.4	15.3	16.1	15.8	16.2	15.9	15.8
Ratios (%)												
FEC Value : GDP at current Market Prices	14.5	14.9	15.8	17.5	18.5	17.7	18.5	17.5	17.9	18.4	18.5	17.9
Value of Imported Energy : GDP at current Market Prices	6.6	7.4	9.2	11.1	11.7	10.3	12.9	8.6	9.4	11.6	12.5	11.6
Value of Imported Energy : Total Import	13.1	13.9	15.7	16.6	18.6	18.1	19.7	16.9	16.2	17.5	18.2	18.0
Value of Imported Petroleum : Total Import	12.6	13.4	15.2	16.1	18.1	17.3	19.0	16.0	15.4	16.7	17.4	17.3

Source : NESDB, BOT, EPPO, DEDE

Table 7.2-1
Final Energy Consumption per Capita

	1989	1990	1991	1992	1993	1994	1995	1996
GDP at Current Prices (Billion Bahts)	1,857.0	2,183.5	2,506.6	2,830.9	3,165.2	3,629.3	4,186.2	4,611.0
GDP at 1988 Prices (Billion Bahts)	1,750.0	1,945.4	2,111.9	2,282.6	2,470.9	2,693.0	2,941.7	3,115.3
Population (Million Persons)	55.2	55.8	56.6	57.3	58.0	58.7	59.4	60.0
Electricity Consumption (GWh)	32,749.1	38,174.0	44,203.7	49,289.8	55,183.6	62,496.3	70,793.5	76,998.5
Export (Billion Bahts)	516.3	589.8	725.6	824.6	935.9	1,137.6	1,406.3	1,412.1
Import (Billion Bahts)	662.7	844.4	958.8	1,033.2	1,166.6	1,369.0	1,763.6	1,832.8
Goods and Services	606.9	762.8	880.3	951.6	1,079.3	1,281.9	1,655.2	1,673.6
Energy	55.8	81.7	78.6	81.7	87.3	87.2	108.4	159.2
Crude	32.6	42.8	39.9	48.6	51.0	55.4	72.1	121.9
Petroleum Products	22.3	38.2	38.0	32.4	35.2	30.1	34.1	33.3
Natural Gas								
Coal	0.9	0.6	0.7	0.6	1.0	1.7	2.2	4.0
Electricity								
Final Energy Consumption (Billion Bahts)	163.8	238.3	279.3	323.7	357.4	390.2	454.9	530.3
Petroleum	109.9	132.0	161.6	171.9	188.7	199.0	233.0	280.4
Electricity	52.7	62.5	73.2	87.4	98.2	111.5	136.2	153.4
Natural Gas	0.3	0.6	0.8	1.2	1.5	2.1	3.1	3.4
Coal/Lignite	0.9	2.1	2.5	2.8	3.6	4.8	5.8	7.5
Renewable Energy		41.2	41.1	60.5	65.3	72.7	76.8	85.5
Final Energy Consumption (KTOE)	27,872.0	30,666.0	32,556.0	35,328.0	36,988.3	40,354.6	44,887.5	48,746.9
Petroleum	15,026.0	16,742.0	17,471.0	19,053.0	21,128.0	23,337.0	26,134.0	28,381.0
Electricity	2,791.0	3,253.0	3,767.0	4,200.0	4,702.0	5,324.0	6,010.0	6,670.0
Natural Gas	109.0	259.0	338.0	446.0	507.0	599.0	803.0	853.0
Coal/Lignite	1,142.0	1,454.0	1,630.0	1,811.0	2,598.0	3,284.0	3,814.0	4,633.0
Renewable Energy	8,804.0	8,958.0	9,350.0	9,818.0	8,053.3	7,810.6	8,126.5	8,209.9

Analysis

	1989	1990	1991	1992	1993	1994	1995	1996
Growth Rate (%)								
GDP (Constant Prices)	12.2	11.2	8.6	8.1	8.3	9.0	9.2	5.9
Final Energy Consumption (KTOE) : FEC	17.4	10.0	6.2	8.5	4.7	9.1	11.2	8.6
FEC : GDP (TOE : M.Bahts)	15.9	15.8	15.4	15.5	15.0	15.0	15.3	15.6
Ratios (%)								
FEC per Capita (TOE/Person)	0.50	0.55	0.58	0.62	0.64	0.69	0.76	0.81
Electricity per Capita (kWh/Person)	593.1	683.6	781.3	860.3	951.3	1,064.4	1,191.8	1,283.2
FEC Value : GDP at current Market Prices	8.8	10.9	11.1	11.4	11.3	10.8	10.9	11.5
Value of Imported Energy : GDP at current Market Prices	3.0	3.7	3.1	2.9	2.8	2.4	2.6	3.5
Value of Imported Energy : Total Import	8.4	9.7	8.2	7.9	7.5	6.4	6.1	8.7
Value of Imported Petroleum : Total Import	8.3	9.6	8.1	7.8	7.4	6.2	6.0	8.5

Source : NESDB, BOT, EPPO, DEDE

Table 7.2-1 (Cont.)
Final Energy Consumption per Capita

	1997	1998	1999	2000	2001	2002	2003	2004
GDP at Current Prices (Billion Bahts)	4,732.6	4,626.4	4,637.1	4,922.7	5,133.5	5,450.6	5,917.4	6,489.5
GDP at 1988 Prices (Billion Bahts)	3,072.6	2,749.7	2,872.0	3,008.4	3,073.6	3,237.0	3,468.2	3,688.2
Population (Million Persons)	60.6	61.2	61.8	62.2	62.8	63.4	64.0	64.5
Electricity Consumption (GWh)	81,878.5	79,762.0	80,820.7	87,597.2	92,853.2	100,071.0	106,781.1	115,152.5
Export (Billion Bahts)	1,806.7	2,248.3	2,215.2	2,773.8	2,884.7	2,923.9	3,325.6	3,873.7
Import (Billion Bahts)	1,924.3	1,774.1	1,907.4	2,494.1	2,752.3	2,774.8	3,138.8	3,801.1
Goods and Services	1,737.3	1,625.4	1,717.5	2,153.9	2,396.4	2,412.6	2,703.4	3,205.8
Energy	187.0	148.7	189.9	340.2	355.9	362.2	435.4	595.3
Crude	166.5	137.1	169.6	285.9	284.4	287.0	346.1	486.6
Petroleum Products	15.9	7.0	12.8	36.8	28.8	27.9	33.2	44.7
Natural Gas				7.8	30.6	35.1	42.6	46.1
Coal	3.8	2.1	4.0	5.1	7.5	7.9	9.4	12.3
Electricity	0.7	2.5	3.4	4.7	4.7	4.5	4.2	5.7
Final Energy Consumption (Billion Bahts)	580.6	556.3	555.0	689.9	752.4	791.2	884.4	1,024.2
Petroleum	318.7	306.8	309.7	407.9	430.5	451.6	515.3	605.4
Electricity	162.1	175.4	167.9	199.1	232.7	247.5	267.6	302.8
Natural Gas	4.7	4.6	5.9	10.3	11.4	13.4	16.4	16.4
Coal/Lignite	7.8	5.9	6.2	5.7	7.6	8.8	10.0	13.3
Renewable Energy	87.3	63.6	65.2	67.0	70.3	69.9	75.1	86.2
Final Energy Consumption (KTOE)	50,111.0	45,455.0	47,155.0	47,882.0	49,008.0	52,754.0	56,073.0	61,456.0
Petroleum	28,983.0	26,215.0	26,845.0	26,716.0	27,290.0	28,898.0	30,533.0	33,093.0
Electricity	7,090.0	7,024.0	7,131.0	7,691.0	8,169.0	8,798.0	9,394.0	10,166.0
Natural Gas	1,047.0	978.0	1,282.0	1,818.0	1,690.0	1,872.0	2,033.0	2,427.0
Coal/Lignite	4,492.0	3,353.0	3,575.0	3,058.0	3,416.0	4,143.0	4,362.0	5,254.0
Renewable Energy	8,499.0	7,885.0	8,322.0	8,599.0	8,443.0	9,043.0	9,751.0	10,516.0

Analysis

	1997	1998	1999	2000	2001	2002	2003	2004
Growth Rate (%)								
GDP (Constant Prices)	-1.4	-10.5	4.4	4.8	2.2	5.3	7.1	6.3
Final Energy Consumption (KTOE) : FEC	2.8	-9.3	3.7	1.5	2.4	7.6	6.3	9.6
FEC : GDP (TOE : M.Bahts)	16.3	16.5	16.4	15.9	15.9	16.3	16.2	16.7
Ratios (%)								
FEC per Capita (TOE/Person)	0.83	0.74	0.76	0.77	0.78	0.83	0.88	0.95
Electricity per Capita (kWh/Person)	1,351.1	1,303.3	1,307.7	1,407.5	1,477.7	1,577.9	1,668.9	1,784.5
FEC Value : GDP at current Market Prices	12.3	12.0	12.0	14.0	14.7	14.5	14.9	15.8
Value of Imported Energy : GDP at current Market Prices	4.0	3.2	4.1	6.9	6.9	6.6	7.4	9.2
Value of Imported Energy : Total Import	9.7	8.4	10.0	13.6	12.9	13.1	13.9	15.7
Value of Imported Petroleum : Total Import	9.5	8.1	9.6	12.9	11.4	11.3	12.1	14.0

Source : NESDB, BOT, EPPO, DEDE

Table 7.2-1 (Cont.)
Final Energy Consumption per Capita

	2005	2006	2007	2008	2009	2010	2011	2012	2013
GDP at Current Prices (Billion Bahts)	7,092.9	7,844.9	8,525.2	9,080.5	9,041.6	10,104.8	10,540.1	11,375.3	11,898.7
GDP at 1988 Prices (Billion Bahts)	3,858.0	4,054.5	4,259.0	4,364.8	4,263.1	4,596.1	4,599.7	4,898.2	5,039.8
Population (Million Persons)	65.1	65.6	66.0	66.5	66.9	67.3	67.6	67.9	68.3
Electricity Consumption (GWh)	121,252.8	127,876.3	133,100.2	135,520.3	135,180.7	149,302.1	148,858.1	161,778.8	164,339.2
Export (Billion Bahts)	4,438.7	4,937.4	5,302.1	5,851.4	5,194.6	6,113.3	6,708.0	7,082.5	6,909.7
Import (Billion Bahts)	4,754.0	4,942.9	4,870.2	5,962.5	4,602.0	5,856.6	6,982.7	7,813.1	7,657.3
Goods and Services	3,963.9	4,021.7	3,988.2	4,787.3	3,825.1	4,906.3	5,761.4	6,391.1	6,276.5
Energy	790.1	921.2	882.0	1,175.2	776.9	950.3	1,221.3	1,422.0	1,380.9
Crude	644.9	753.8	715.8	1,002.7	623.0	751.5	977.4	1,119.3	1,072.2
Petroleum Products	59.8	62.4	50.3	41.1	29.1	66.8	94.3	124.2	138.5
Natural Gas	62.8	77.8	78.9	90.5	84.2	84.5	93.5	116.3	111.9
Coal	15.4	18.9	29.7	36.5	36.9	39.4	42.3	46.7	39.7
Electricity	7.1	8.3	7.4	4.5	3.6	8.2	13.9	15.4	18.5
Final Energy Consumption (Billion Bahts)	1,240.7	1,447.5	1,509.7	1,676.6	1,584.4	1,809.2	1,940.8	2,107.8	2,129.2
Petroleum	774.4	916.3	956.7	1,092.1	960.1	1,106.7	1,220.6	1,311.0	1,325.9
Electricity	330.1	387.2	392.7	397.9	431.2	474.7	471.6	524.4	537.7
Natural Gas	22.3	28.9	35.1	53.9	49.3	68.7	97.7	122.5	121.0
Coal/Lignite	18.4	18.0	23.1	28.7	28.6	29.7	31.3	31.6	26.1
Renewable Energy	95.5	97.1	102.1	104.0	115.3	129.4	119.7	118.3	118.5
Final Energy Consumption (KTOE)	62,802.0	62,648.0	65,479.0	66,937.0	68,838.0	72,723.0	74,508.0	77,993.0	79,659.0
Petroleum	32,621.0	31,823.0	32,534.0	31,471.0	31,959.0	32,419.0	33,326.0	35,174.0	36,034.0
Electricity	10,717.0	11,199.0	11,701.0	11,928.0	11,869.0	13,112.0	13,065.0	13,998.0	14,189.0
Natural Gas	2,451.0	2,649.0	3,320.0	3,993.0	4,853.0	5,764.0	7,252.0	8,444.0	8,661.0
Coal/Lignite	6,189.0	5,984.0	6,439.0	7,300.0	7,702.0	8,009.0	7,727.0	7,401.0	6,797.0
Renewable Energy	10,824.0	10,993.0	11,485.0	12,245.0	12,455.0	13,419.0	13,138.0	12,976.0	13,978.0

Analysis

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Growth Rate (%)									
GDP (Constant Prices)	4.6	5.1	5.0	2.5	-2.3	7.8	0.1	6.5	2.9
Final Energy Consumption (KTOE) : FEC	2.2	-0.2	4.5	2.2	2.8	5.6	2.5	4.7	2.1
FEC : GDP (TOE : M.Bahts)	16.3	15.5	15.4	15.3	16.1	15.8	16.2	15.9	15.8
Ratios (%)									
FEC per Capita (TOE/Person)	0.96	0.96	0.99	1.01	1.0	1.1	1.1	1.1	1.2
Electricity per Capita (kWh/Person)	1,862.6	1,950.1	2,015.4	2,038.5	2,020.5	2,218.0	2,202.1	2,382.2	2,407.9
FEC Value : GDP at current Market Prices	17.5	18.5	17.7	18.5	17.5	17.9	18.4	18.5	17.9
Value of Imported Energy : GDP at current Market Prices	11.1	11.7	10.3	12.9	8.6	9.4	11.6	12.5	11.6
Value of Imported Energy : Total Import	16.6	18.6	18.1	19.7	16.9	16.2	17.5	18.2	18.0
Value of Imported Petroleum : Total Import	14.8	16.5	15.7	17.5	14.2	14.0	15.3	15.9	15.8

Source : NESDB, BOT, EPPO, DEDE

Table 7.2-2
Electricity Consumption per Capita

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
GDP at Current Prices (Billion Bahts)	1,857.0	2,183.5	2,506.6	2,830.9	3,165.2	3,629.3	4,186.2	4,611.0	4,732.6	4,626.4	4,637.1	4,922.7	5,133.5
GDP at 1988 Prices (Billion Bahts)	1,750.0	1,945.4	2,111.9	2,282.6	2,470.9	2,693.0	2,941.7	3,115.3	3,072.6	2,749.7	2,872.0	3,008.4	3,073.6
Population (Million Persons)	55.2	55.8	56.6	57.3	58.0	58.7	59.4	60.0	60.6	61.2	61.8	62.2	62.8
Electricity Consumption (GWh)	32,749.1	38,174.0	44,203.7	49,289.8	55,183.6	62,496.3	70,793.5	76,998.5	81,878.5	79,762.0	80,820.7	87,597.2	92,853.2
Export (Billion Bahts)	516.3	589.8	725.6	824.6	935.9	1,137.6	1,406.3	1,412.1	1,806.7	2,248.3	2,215.2	2,773.8	2,884.7
Import (Billion Bahts)	662.7	844.4	958.8	1,033.2	1,166.6	1,369.0	1,763.6	1,832.8	1,924.3	1,774.1	1,907.4	2,494.1	2,752.3
Import of Energy (Billion Bahts)	55.8	81.7	78.6	81.7	87.3	87.2	108.4	159.2	187.0	148.7	189.9	340.2	355.9
Final Energy Consumption (Billion Bahts)	163.8	238.3	279.3	323.7	357.4	390.2	454.9	530.3	580.6	556.3	555.0	689.9	752.4
Final Energy Consumption (KTOE)	27,872.0	30,666.0	32,556.0	35,328.0	36,988.3	40,354.6	44,887.5	48,746.9	50,111.0	45,455.0	47,155.0	47,882.0	49,008.0

Analysis

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Growth Rate (%)													
GDP (Constant Prices)	12.2	11.2	8.6	8.1	8.3	9.0	9.2	5.9	-1.4	-10.5	4.4	4.8	2.2
Final Energy Consumption (KTOE) : FEC	17.4	10.0	6.2	8.5	4.7	9.1	11.2	8.6	2.8	-9.3	3.7	1.5	2.4
FEC : GDP (TOE : M.Bahts)	15.9	15.8	15.4	15.5	15.0	15.0	15.3	15.6	16.3	16.5	16.4	15.9	15.9
Ratios (%)													
FEC per Capita (TOE/Person)	0.5	0.5	0.6	0.6	0.6	0.7	0.8	0.8	0.8	0.7	0.8	0.8	0.8
Electricity per Capita (kWh/Person)	593.1	683.6	781.3	860.3	951.3	1,064.4	1,191.8	1,283.2	1,351.1	1,303	1,308	1,407	1,478
FEC Value : GDP at current Market Prices	8.8	10.9	11.1	11.4	11.3	10.8	10.9	11.5	12.3	12.0	12.0	14.0	14.7
Value of Imported Energy : GDP at current Market Prices	3.0	3.7	3.1	2.9	2.8	2.4	2.6	3.5	4.0	3.2	4.1	6.9	6.9
Value of Imported Energy : Total Import	8.4	9.7	8.2	7.9	7.5	6.4	6.1	8.7	9.7	8.4	10.0	13.6	12.9
Value of Imported Petroleum : Total Import	8.3	9.6	8.1	7.8	7.4	6.2	6.0	8.5	9.5	8.1	9.6	12.9	11.4

Source : NESDB, BOT, EPPO, DEDE

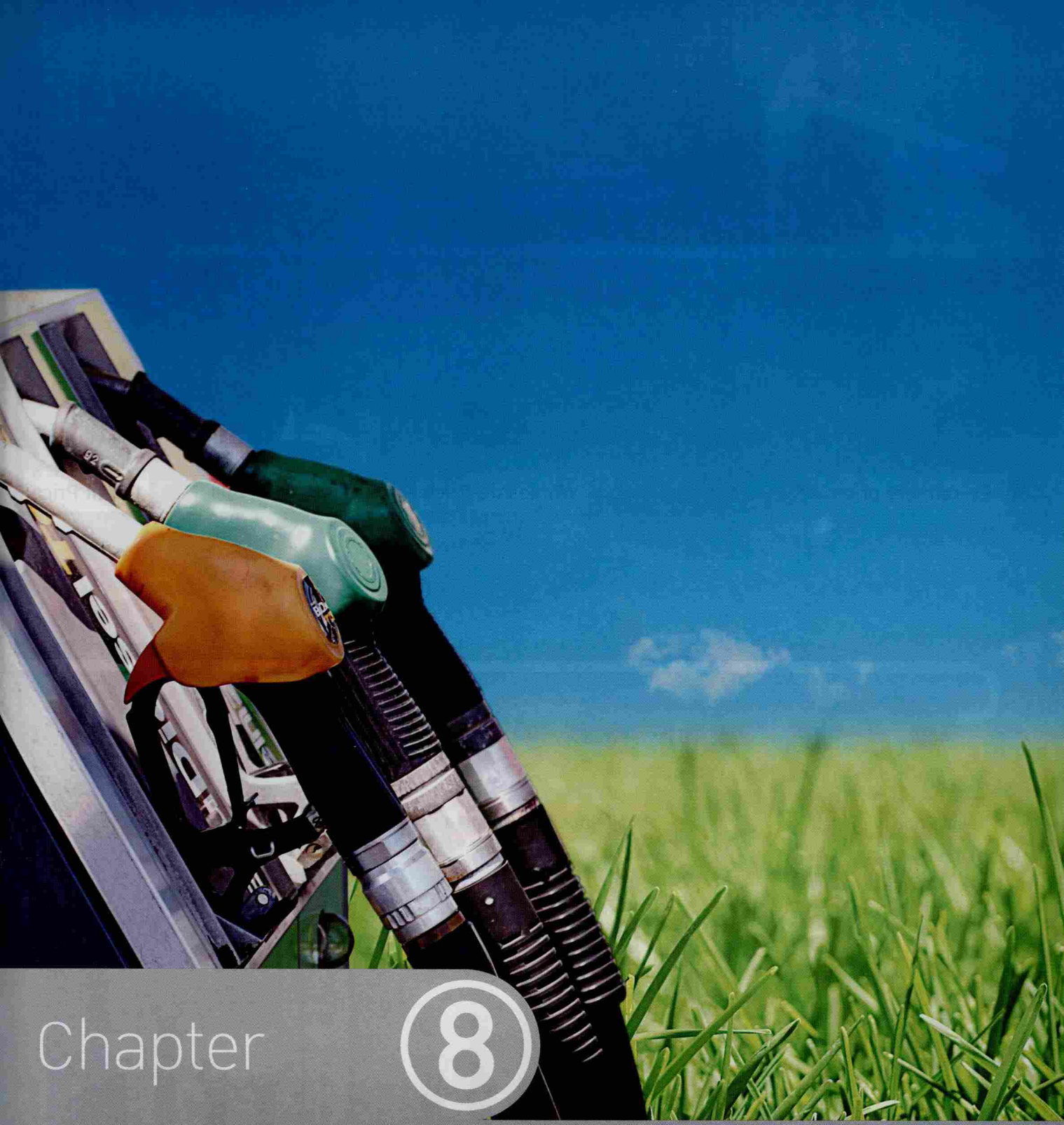
Table 7.2-2 (Cont.)
Electricity Consumption per Capita

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
GDP at Current Prices (Billion Bahts)	5,450.6	5,917.4	6,489.5	7,092.9	7,844.9	8,525.2	9,080.5	9,041.6	10,104.8	10,540.1	11,375.3	11,898.7
GDP at 1988 Prices (Billion Bahts)	3,237.0	3,468.2	3,688.2	3,858.0	4,054.5	4,259.0	4,364.8	4,263.1	4,596.1	4,599.7	4,898.2	5,039.8
Population (Million Persons)	63.4	64.0	64.5	65.1	65.6	66.0	66.5	66.9	67.3	67.6	67.9	68.3
Electricity Consumption (GWh)	100,071.0	106,781.1	115,152.5	121,252.8	127,876.3	133,100.2	135,520.3	135,180.7	149,302.1	148,858.1	161,778.8	164,339.2
Export (Billion Bahts)	2,923.9	3,325.6	3,873.7	4,438.7	4,937.4	5,302.1	5,851.4	5,194.6	6,113.3	6,708.0	7,082.5	6,909.7
Import (Billion Bahts)	2,774.8	3,138.8	3,801.1	4,754.0	4,942.9	4,870.2	5,962.5	4,602.0	5,856.6	6,982.7	7,813.1	7,657.3
Import of Energy (Billion Bahts)	362.2	435.4	595.3	790.1	921.2	882.0	1,175.2	776.9	950.3	1,221.3	1,422.0	1,380.9
Final Energy Consumption (Billion Bahts)	791.2	884.4	1,024.2	1,240.7	1,447.5	1,509.7	1,676.6	1,584.4	1,809.2	1,940.8	2,107.8	2,129.2
Final Energy Consumption (KTOE)	52,754.0	56,073.0	61,456.0	62,802.0	62,648.0	65,479.0	66,937.0	68,838.0	72,723.0	74,508.0	77,993.0	79,659.0

Analysis

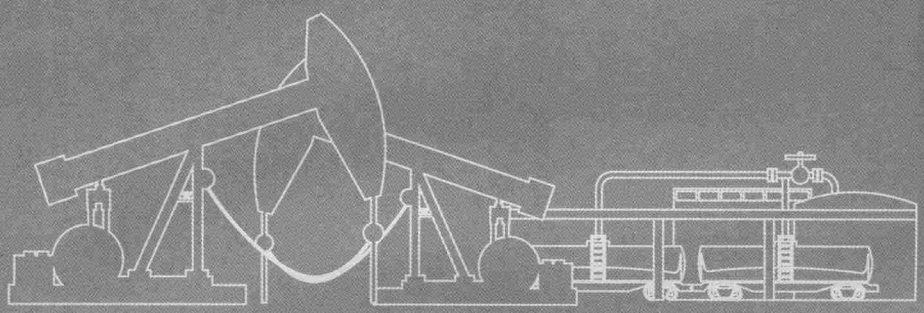
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Growth Rate (%)												
GDP (Constant Prices)	5.3	7.1	6.3	4.6	5.1	5.0	2.5	-2.3	7.8	0.1	6.5	2.9
Final Energy Consumption (KTOE) : FEC	7.6	6.3	9.6	2.2	-0.2	4.5	2.2	2.8	5.6	2.5	4.7	2.1
FEC : GDP (TOE : M.Bahts)	16.3	16.2	16.7	16.3	15.5	15.4	15.3	16.1	15.8	16.2	15.9	15.8
Ratios (%)												
FEC per Capita (TOE/Person)	0.8	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.2
Electricity per Capita (kWh/Person)	1,578	1,669	1,784	1,863	1,950	2,015	2,038	2,021	2,218	2,202	2,382	2,408
FEC Value : GDP at current Market Prices	14.5	14.9	15.8	17.5	18.5	17.7	18.5	17.5	17.9	18.4	18.5	17.9
Value of Imported Energy : GDP at current Market Prices	6.6	7.4	9.2	11.1	11.7	10.3	12.9	8.6	9.4	11.6	12.5	11.6
Value of Imported Energy : Total Import	13.1	13.9	15.7	16.6	18.6	18.1	19.7	16.9	16.2	17.5	18.2	18.0
Value of Imported Petroleum : Total Import	11.3	12.1	14.0	14.8	16.5	15.7	17.5	14.2	14.0	15.3	15.9	15.8

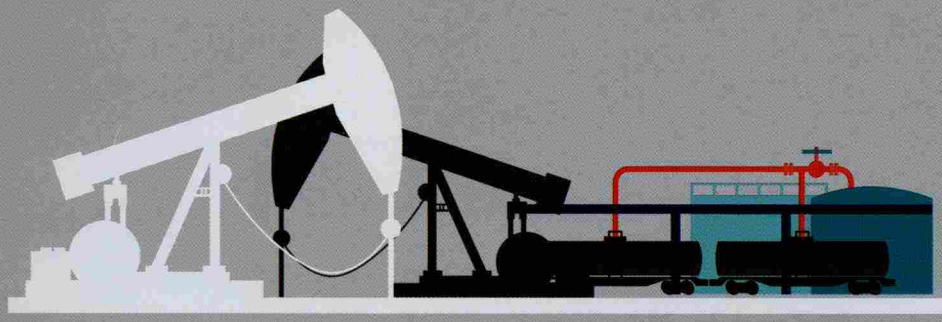
Source : NESDB, BOT, EPPO, DEDE



Chapter 8

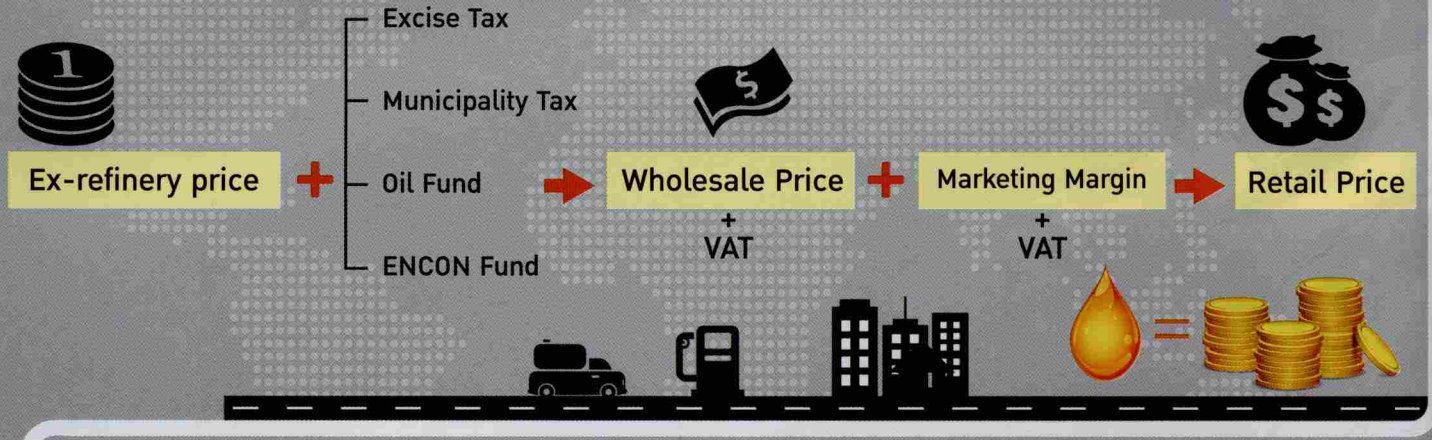
Petroleum Prices





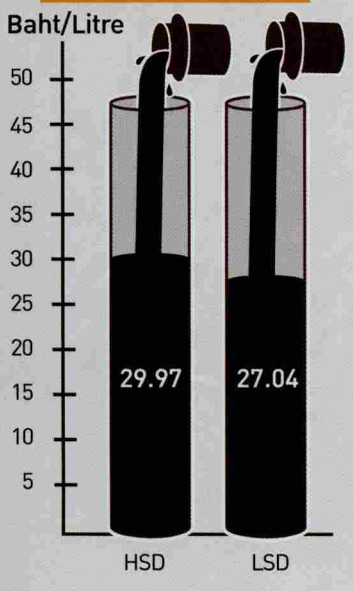
Petroleum Prices

Oil Price Structures in Thailand 2013

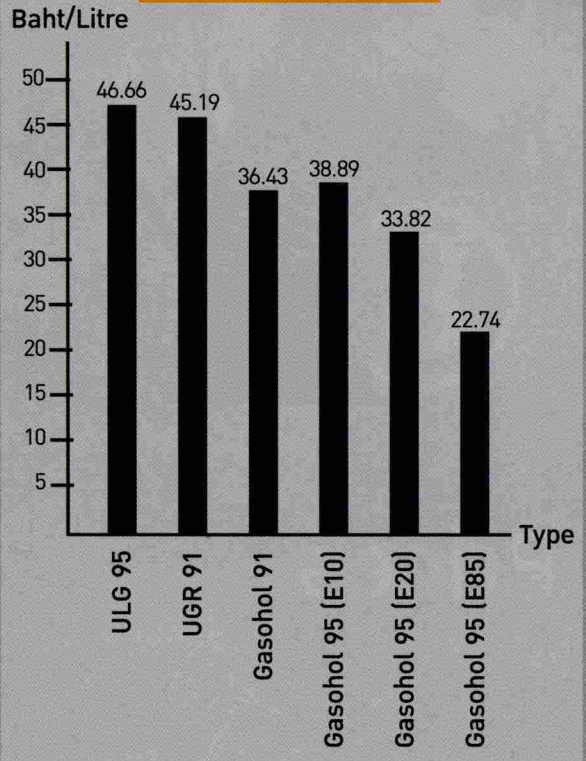


Retail Price in Thailand 2013

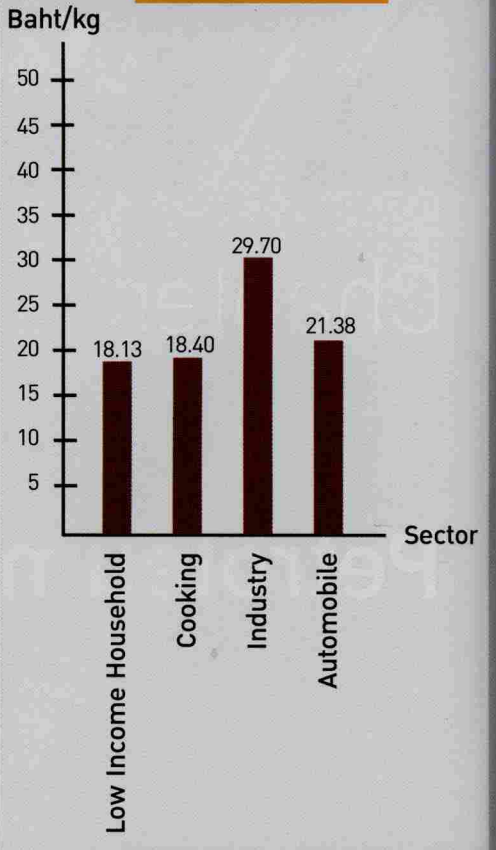
Retail Price of Diesel



Retail Price of Gasoline



Retail Price of LPG



บทที่ 8

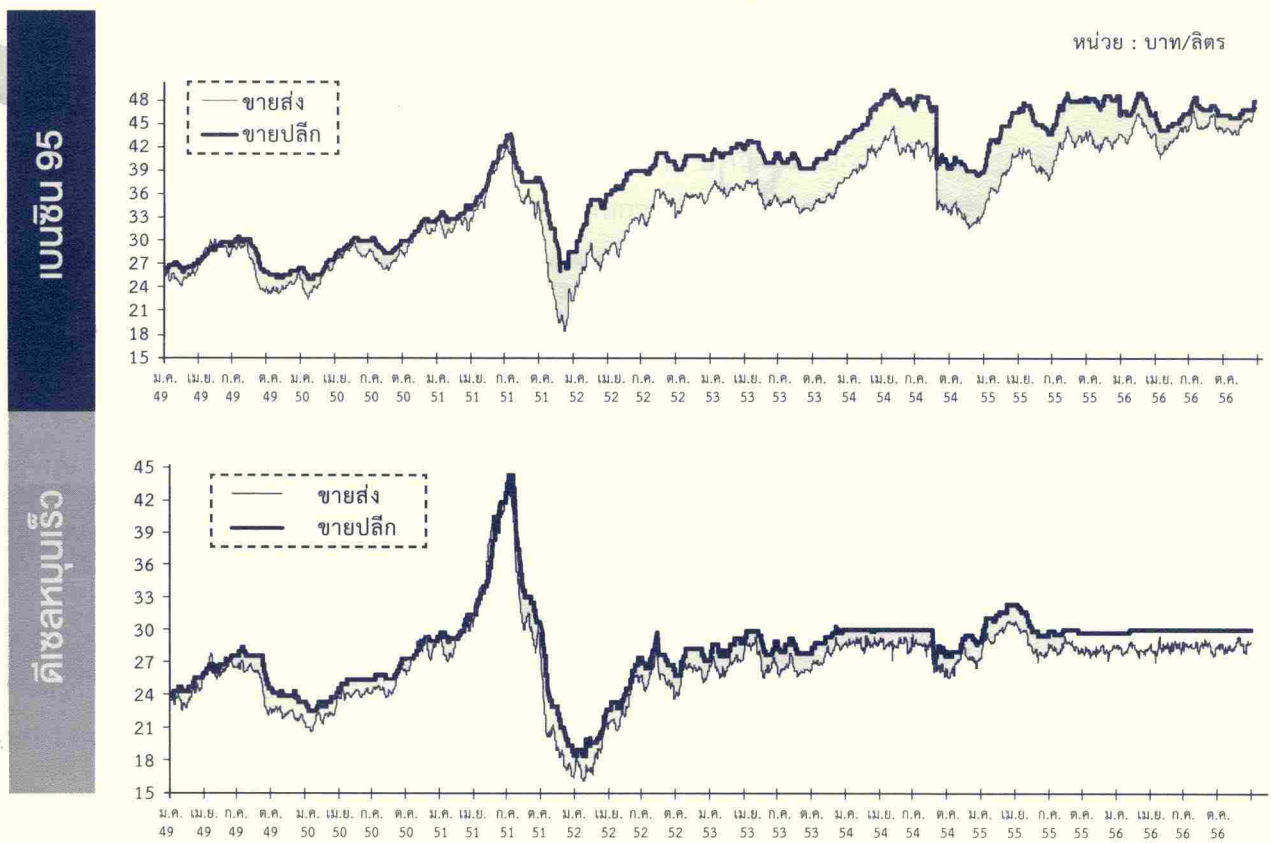
ราคาน้ำมันปิโตรเลียม

โครงสร้างราคาน้ำมันของไทย ราคาน้ำมันของไทยประกอบด้วย ราคาหน้าโรงกลั่น ราคาขายส่ง และราคาขายปลีก ในส่วนของราคาขายส่ง ประกอบด้วย ราคาหน้าโรงกลั่น รวมภาษีสรรพสามิต ภาษีเทศบาล เงินนำส่งเข้ากองทุนน้ำมันเชื้อเพลิง เงินนำส่งเข้ากองทุนเพื่อส่งเสริมการอนุรักษ์พลังงาน และภาษีมูลค่าเพิ่ม ส่วนราคาขายปลีก ประกอบด้วย ราคาขายส่ง รวมค่าการตลาด และภาษีมูลค่าเพิ่ม

การกำหนดราคาน้ำมันสำเร็จรูปของโรงกลั่นไทย การกำหนดราคาขายส่งน้ำมันสำเร็จรูป (Wholesale) ใช้หลักการเสมอภาคกับการนำเข้า (Import Parity Basis) และใช้ตลาดสิงคโปร์เป็นตลาดอ้างอิงการกำหนดราคาน้ำมันสำเร็จรูป เนื่องจากตลาดสิงคโปร์เป็นตลาดส่งออกที่ใหญ่ที่สุดในภูมิภาคเอเชียซึ่งอยู่ใกล้ไทยมากที่สุด จึงทำให้ต้นทุนการนำเข้าของไทยอยู่ในระดับต่ำสุด และมีปริมาณการซื้อขายในระดับสูงทำให้ยากต่อการปั่นราคา ส่งผลให้ราคามีความผันผวนน้อยกว่าตลาดอื่น ตลอดจนมีการเปลี่ยนแปลงราคาที่สอดคล้องกับตลาดอื่นทั่วโลก

ในการกำหนดราคา หากโรงกลั่นกำหนดราคาสูงกว่าราคานำเข้าจากสิงคโปร์ ผู้ค้าจะนำเข้าน้ำมันแทนการซื้อจากโรงกลั่นในประเทศ แต่หากกำหนดราคาต่ำกว่าราคานำเข้าจะทำให้โรงกลั่นได้รับผลตอบแทนต่ำกว่าที่ควร และจะไม่เกิดแรงจูงใจในการลงทุนธุรกิจการกลั่นในประเทศ นอกจากนี้จะทำให้โรงกลั่นมีความต้องการส่งออกมากกว่าขายในประเทศ

ราคาขายปลีกและขายส่งน้ำมันสำเร็จรูปในกรุงเทพมหานคร

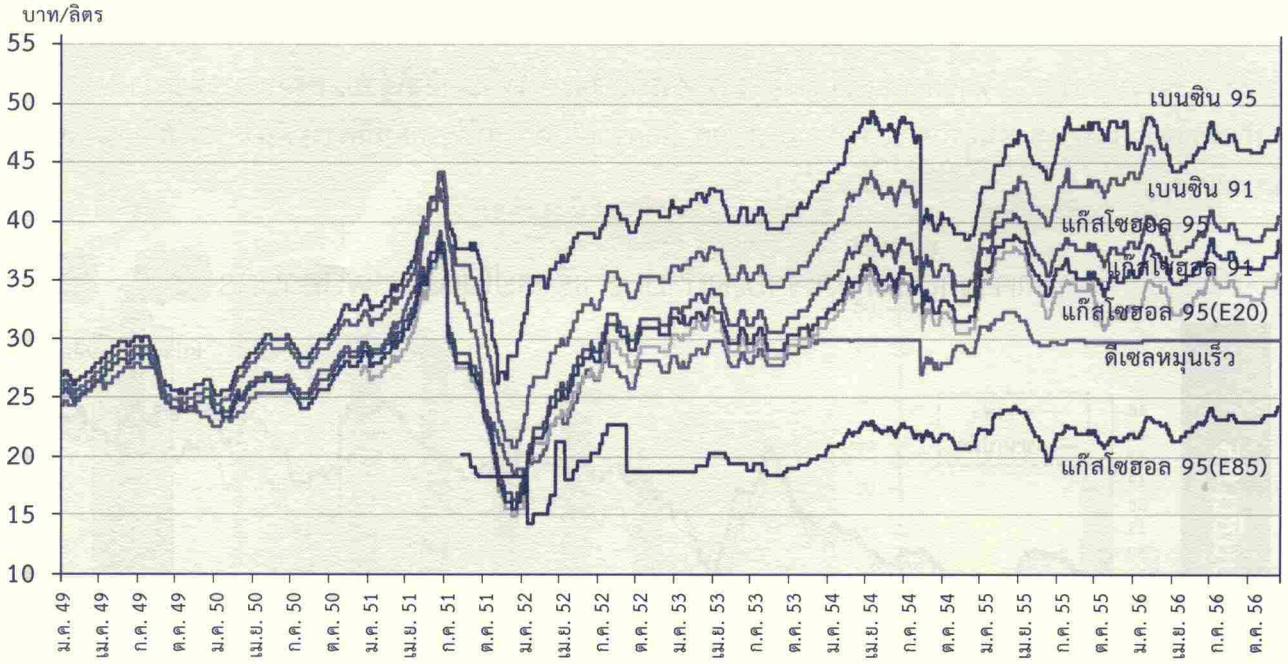


การเปลี่ยนแปลงราคาขายปลีกน้ำมันสำเร็จรูปของไทย ขึ้นลงตามการประกาศราคาหน้าโรงกลั่น โดยการกำหนดราคาน้ำมันของโรงกลั่นขึ้นอยู่กับการเปลี่ยนแปลงของราคาน้ำมันสำเร็จรูปในตลาดสิงคโปร์และอัตราแลกเปลี่ยน (หรือค่าเงินบาท) ซึ่งเป็นต้นทุนในการนำเข้าน้ำมันเชื้อเพลิง

ในช่วงก่อนยกเลิกการควบคุมราคาขายปลีก รัฐบาลได้ใช้ระบบกองทุนน้ำมันเชื้อเพลิงในการรักษาระดับราคาขายส่งที่ออกจากโรงกลั่นและราคานำเข้าให้อยู่ในระดับคงที่ ส่งผลให้ราคาขายปลีกไม่เปลี่ยนแปลง หลังจากมีการยกเลิกการควบคุมราคา ราคาขายส่งได้มีการเปลี่ยนแปลงตามราคาหน้าโรงกลั่น โดยโรงกลั่นเป็นผู้กำหนดราคาซึ่งส่งผลให้ราคาขายปลีกมีการเปลี่ยนแปลงตามในที่สุด

น้ำมันสำเร็จรูปที่ขายปลีกอยู่ในสถานีบริการของประเทศไทย มีอยู่ 2 ชนิด หลักๆ ได้แก่ เบนซินและดีเซล รัฐบาลไทยได้สนับสนุนให้มีการใช้พลังงานทดแทน โดยลดการจัดเก็บเงินเข้ากองทุนน้ำมันเชื้อเพลิง ในกลุ่มน้ำมันแก๊สโซฮอลและไบโอดีเซลเพื่อเป็นการจูงใจให้ประชาชนหันมาใช้พลังงานทดแทนมากขึ้น มีผลให้เกิดส่วนต่างราคาขายปลีกเบนซินและแก๊สโซฮอลแต่ละประเภท รวมถึงดีเซลหมุนเร็วและไบโอดีเซล

ราคาขายปลีกน้ำมันสำเร็จรูปในกรุงเทพมหานคร

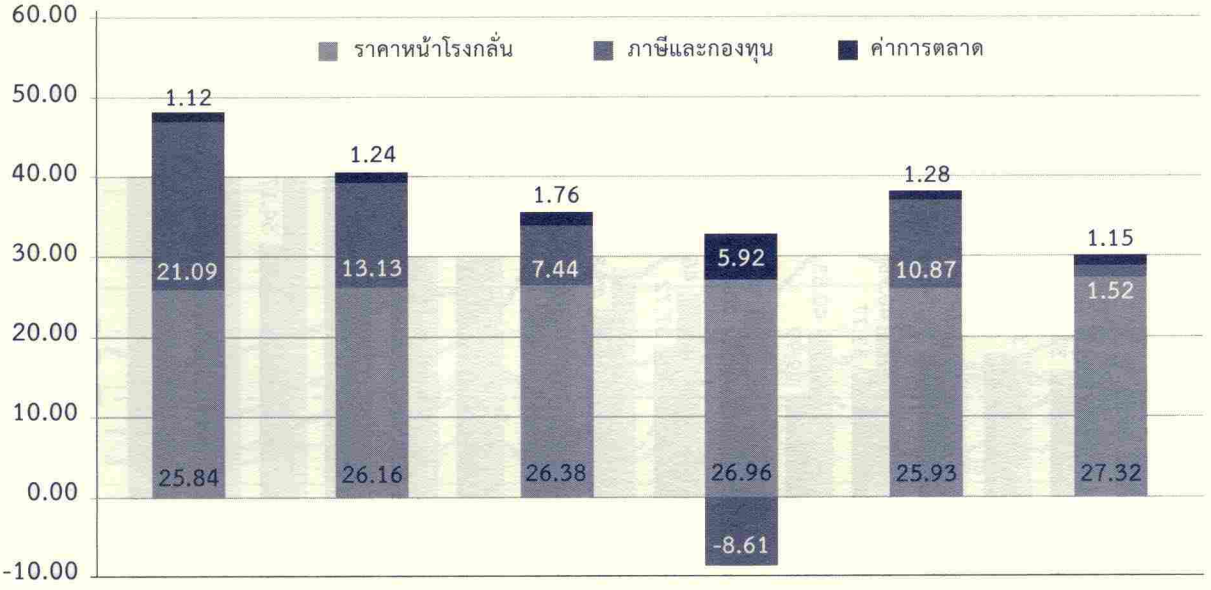


ราคาขายปลีกเฉลี่ยของน้ำมันสำเร็จรูปในกรุงเทพมหานคร ปี 2556

หน่วย: บาท/ลิตร

ชนิด	เบนซิน	แก๊สโซฮอล (E10)	แก๊สโซฮอล (E20)	แก๊สโซฮอล (E85)	ดีเซลหมุนเร็ว
ออกเทน 95	46.66	38.89	33.82	22.74	29.97
ออกเทน 91	45.19	36.43	-	-	

โครงสร้างราคาขายปลีกน้ำมันเชื้อเพลิง (ณ วันที่ 25 ธันวาคม 2556)



ราคา	เบนซิน 95	แก๊สโซฮอล 95 (E10)	แก๊สโซฮอล 95 (E20)	แก๊สโซฮอล 95 (E85)	แก๊สโซฮอล 91 (E10)	ดีเซลหมุนเร็ว
(บาท/ลิตร)	48.05	40.53	35.58	24.28	38.08	29.99

การเปลี่ยนแปลงราคาขายปลีก LPG ในปี 2556 รัฐบาลได้ประกาศปรับราคาก๊าซ LPG ในภาคครัวเรือน ภาคอุตสาหกรรม และขนส่ง เพื่อให้สะท้อนต้นทุนที่แท้จริง ดังนี้

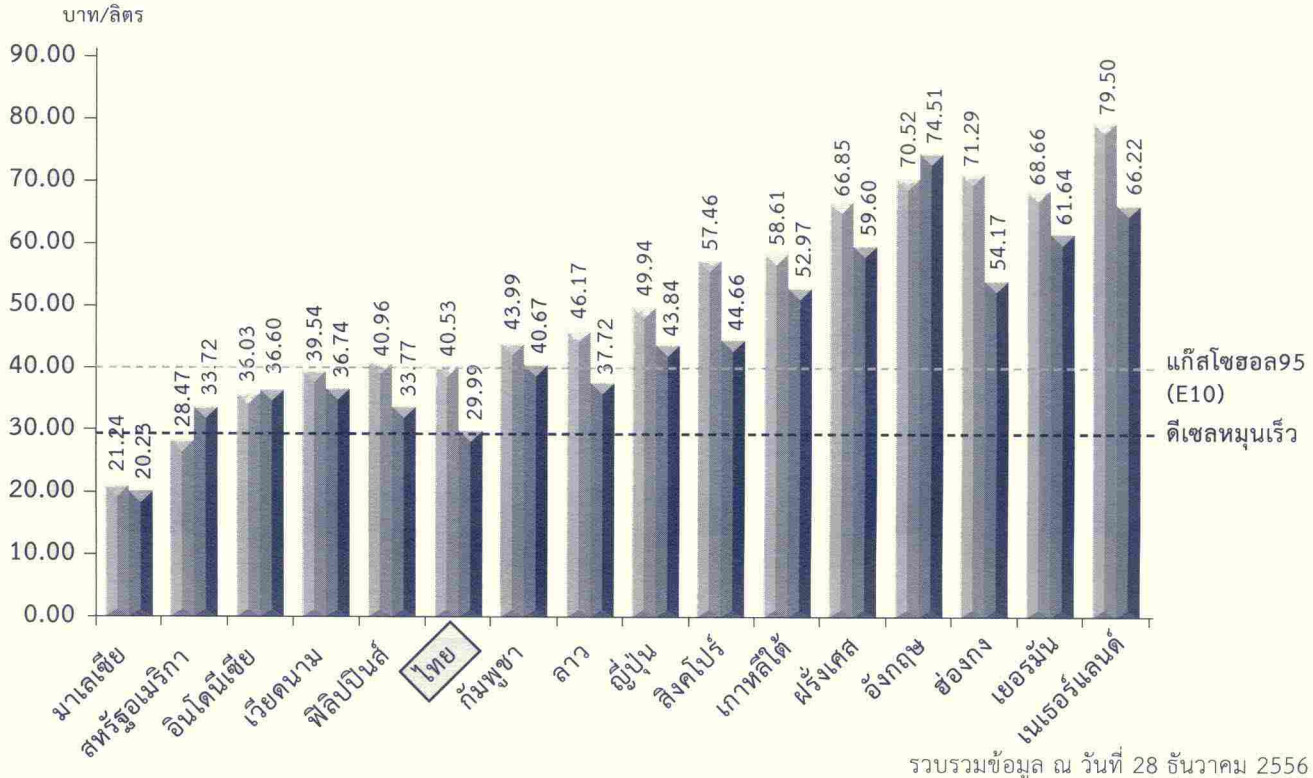
1. **ภาคครัวเรือน** ขยายระยะเวลาการตรึงราคาขายปลีกก๊าซ LPG ที่ระดับ 18.13 บาทต่อกิโลกรัมจนถึง 31 สิงหาคม 2556 ก่อนจะมีการปรับขึ้นราคาเดือนละ 0.50 บาทต่อกิโลกรัมของภาคครัวเรือน แต่ยังคงตรึงราคา LPG สำหรับผู้มีรายได้น้อยไว้ที่ 18.13 บาทต่อกิโลกรัม

2. **ภาคอุตสาหกรรม** ในวันที่ 14 พฤษภาคม 2555 คณะกรรมการบริหารนโยบายพลังงาน (กบง.) มีมติเห็นชอบกำหนดราคาขายปลีกของก๊าซ LPG ภาคอุตสาหกรรมให้เป็นไปตามต้นทุนโรงกลั่นน้ำมัน แต่ไม่เกิน 30.13 บาทต่อกิโลกรัม ส่งผลให้ราคาขายปลีกของ LPG ภาคอุตสาหกรรมมีการปรับเปลี่ยนทุกเดือน

3. **ภาคขนส่ง** ราคาขายปลีกอยู่ที่ 21.38 บาทต่อกิโลกรัม ซึ่งไม่มีการปรับเปลี่ยนราคาในช่วงปี 2556

ราคาขายปลีกน้ำมันเบนซินและดีเซลของต่างประเทศ ราคาขายปลีกน้ำมันสำเร็จรูปในแต่ละประเทศจะแตกต่างกัน ขึ้นอยู่กับโครงสร้างและนโยบายการชดเชยราคาน้ำมันของประเทศนั้นๆ ทั้งนี้ เมื่อเปรียบเทียบราคาขายปลีกน้ำมันเบนซินของประเทศไทยกับประเทศในภูมิภาคอาเซียน จะพบว่าราคาขายปลีกน้ำมันแก๊สโซฮอลออกเทน 95 (E10) ของประเทศไทยสูงกว่าประเทศอินโดนีเซีย เวียดนาม และฟิลิปปินส์ แต่ที่จริงแล้วการที่จะบอกว่าน้ำมันราคาถูกหรือแพง ควรเปรียบเทียบกับความสามารถในการซื้อน้ำมันหรือรายได้ของคนภายในประเทศ โดยเปรียบเทียบราคาน้ำมันกับรายได้มวลรวมประชาชาติต่อบุคคล (GNI per Capita) ซึ่งจะพบว่าสัดส่วนราคาน้ำมันเบนซินต่อ GNI per Capita ของประเทศไทยอยู่ที่ร้อยละ 0.025 ต่ำกว่าของประเทศอินโดนีเซีย เวียดนาม และฟิลิปปินส์ หมายความว่าราคาน้ำมันในประเทศไทยถูกกว่าประเทศดังกล่าว

เปรียบเทียบราคาขายปลีกน้ำมันเชื้อเพลิง



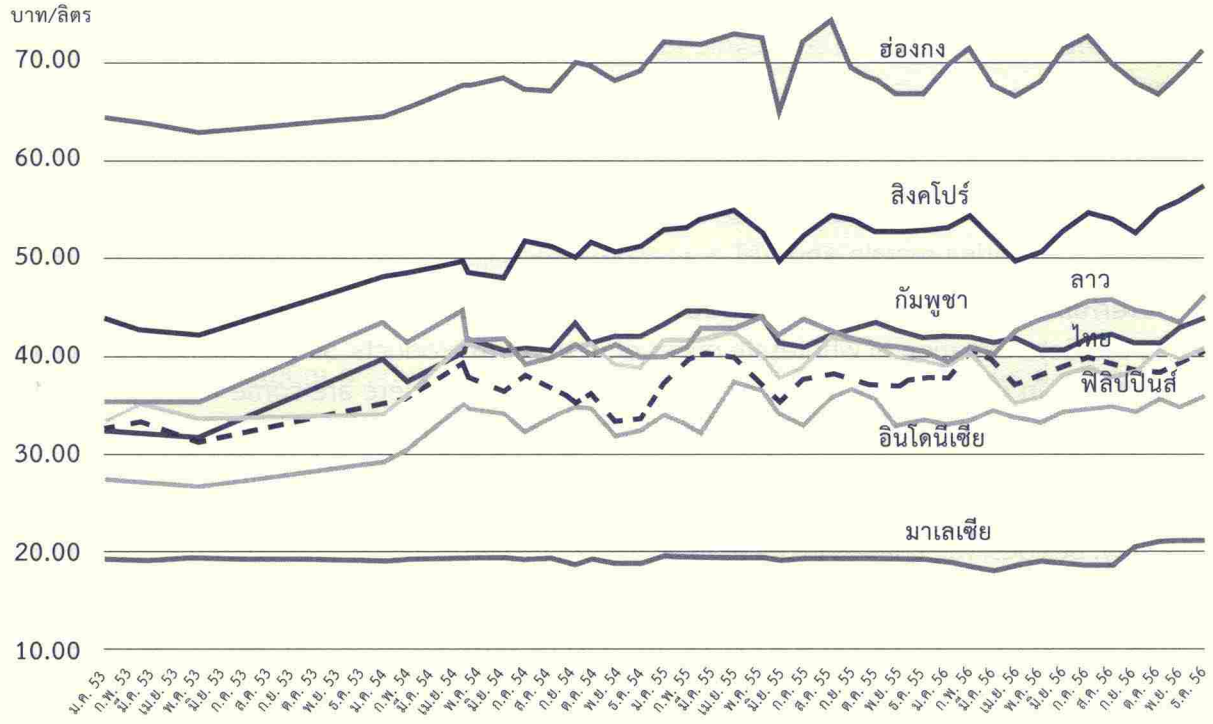
รวบรวมข้อมูล ณ วันที่ 28 ธันวาคม 2556
อัตราแลกเปลี่ยนธนาคารแห่งประเทศไทย ณ วันที่ 27 ธันวาคม 2556

เปรียบเทียบราคาน้ำมันกับรายได้ต่อบุคคลของแต่ละประเทศ

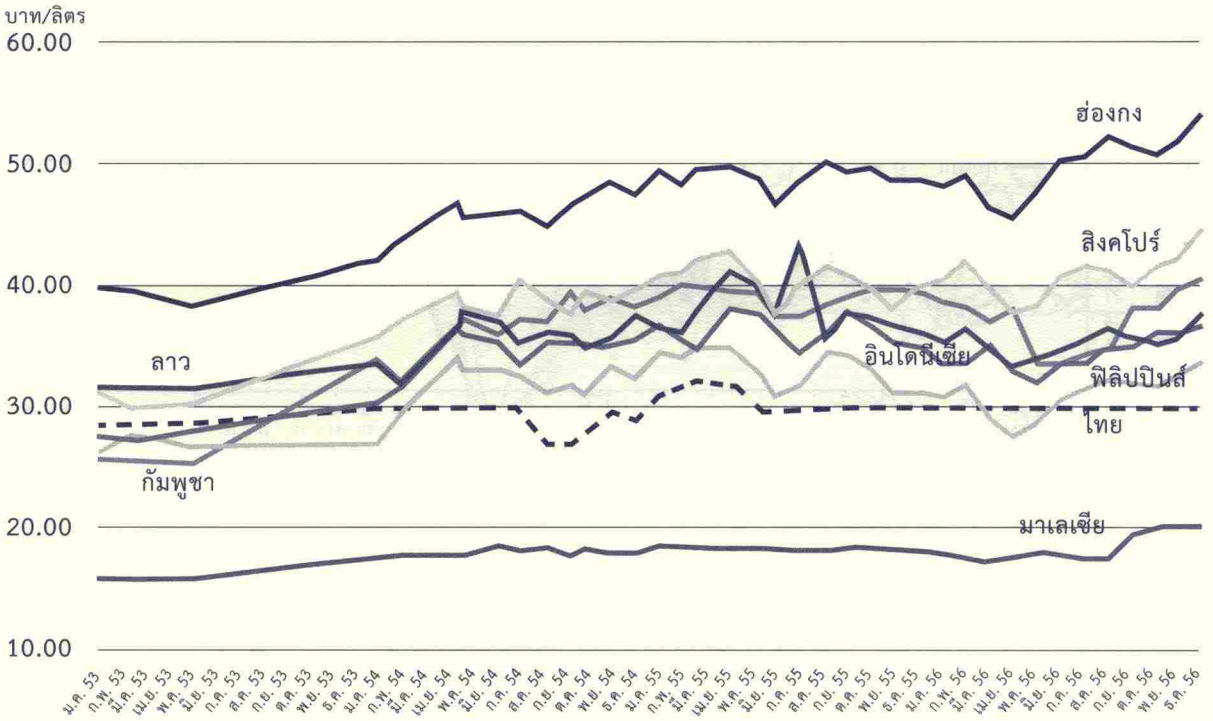
Countries classifications[1]	GNI per capita, 2012[2] (Baht)	Gasoline Price[3] (Baht/Litre)	Diesel Price[3] (Baht/Litre)	Gasoline Price per GNI per capita (%)	Diesel Price per GNI per capita (%)
Low Income Economics					
Cambodia	27,355	43.99	40.67	0.161	0.149
Lower-Middle-Income Economics					
Lao PDR	39,167	46.17	37.72	0.118	0.096
Vietnam	43,519	39.54	36.74	0.091	0.084
Philippines	76,779	40.96	33.77	0.053	0.044
Indonesia	106,310	36.03	36.60	0.034	0.034
Upper-Middle-Income-Economics					
Thailand	161,952	40.53	29.99	0.025	0.019
Malaysia	304,631	21.24	20.23	0.007	0.007
High-Income-Economics					
Korea, Rep.	704,692	58.61	52.97	0.008	0.008
Italy	1,051,910	80.04	75.78	0.008	0.007
U.K.	1,188,994	70.52	74.51	0.006	0.006
Hong Kong	1,136,460	71.29	54.17	0.006	0.005
Germany	1,368,042	68.66	61.64	0.005	0.005
France	1,297,790	66.85	59.60	0.005	0.005
Belgium	1,398,505	72.06	66.71	0.005	0.005
Netherlands	1,499,842	79.50	66.22	0.005	0.004
Singapore	1,467,513	57.46	44.66	0.004	0.003
Japan	1,488,029	49.94	43.84	0.003	0.003
U.S.A.	1,557,970	28.47	33.72	0.002	0.002

Reference : 1.-2. The World Bank
3. Compiled by EPPO

ราคาขายปลีกน้ำมันเบนซินในภูมิภาค



ราคาขายปลีกน้ำมันดีเซลในภูมิภาค



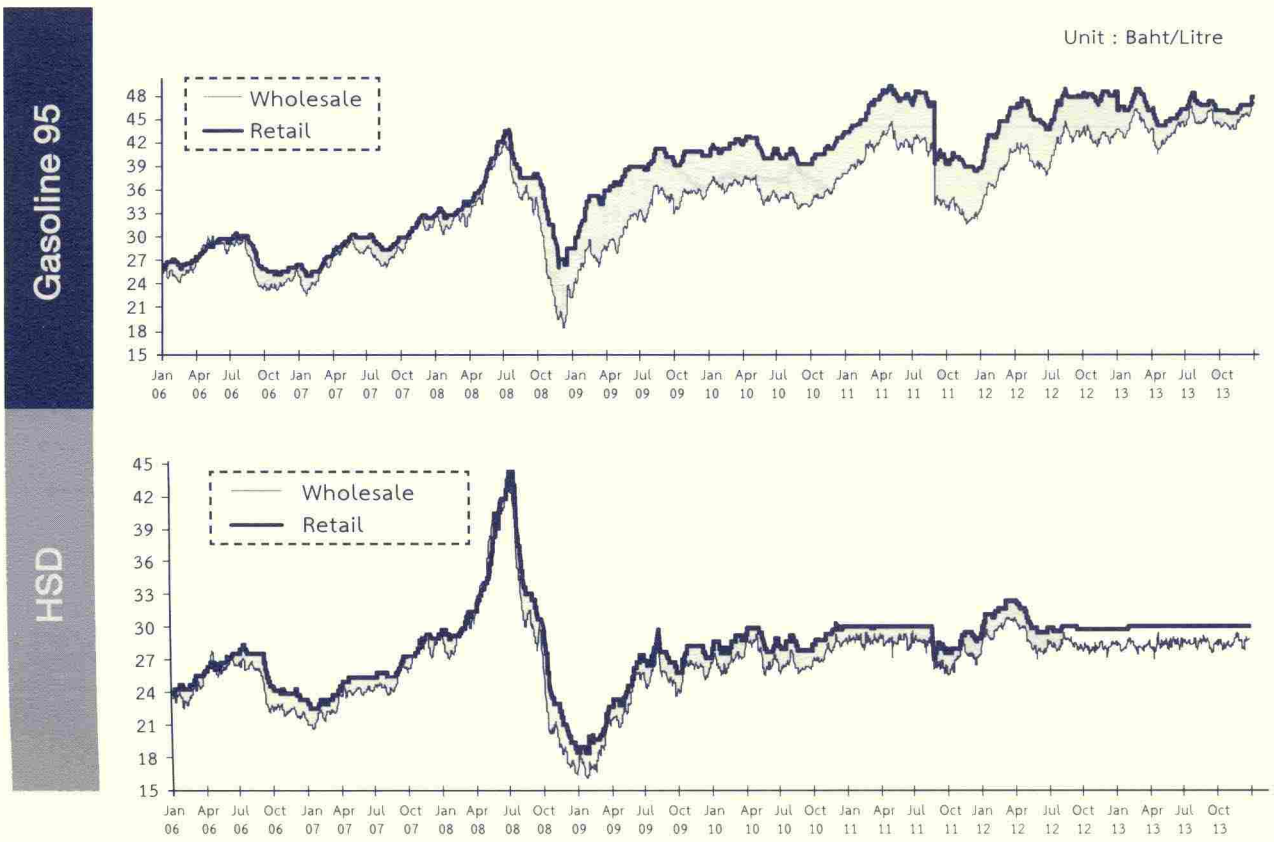
Chapter 8 : Petroleum Prices

Oil Price Structures in Thailand. Oil prices in Thailand can be mainly divided into ex-refinery price, wholesale price and retail price. The wholesale price comprises the ex-refinery price plus the excise tax, municipality tax, contribution to the Oil Fund, contribution to the Energy Conservation Promotion Fund (ENCON Fund), and value added tax (VAT). The retail price comprises the wholesale price plus the marketing margin and VAT.

Determination of Petroleum Product Prices by Thai Refineries. The import parity basis is applied to the determination of wholesale prices of petroleum products. Singapore market price is used as the reference in determining prices of petroleum products. There are some reasons on this. The price is influenced by the larger export market in the Asian region, such as Singapore, which is also near to Thailand, and hence the low cost of imported oil of transportation to Thailand. Moreover, the trading volume in the maket is in a size that makes it less fluctuates in oil prices than others, or more price stability. Besides, the change in prices in Singapore market is in line with other markets worldwide.

For the optimal-price mechanism, if the sale prices by refineries are higher than import prices from Singapore, oil traders would import oil instead of buying it from domestic refineries. On the contrary, if the prices were lower than import prices, the rate of return for domestic refineries will be lower than what it should be, making investment in oil refining business in Thailand unattractive. Besides, the refineries would then wish to export their products rather than selling them within the country.

Retail and Wholesale Prices of Petroleum Products in Bangkok

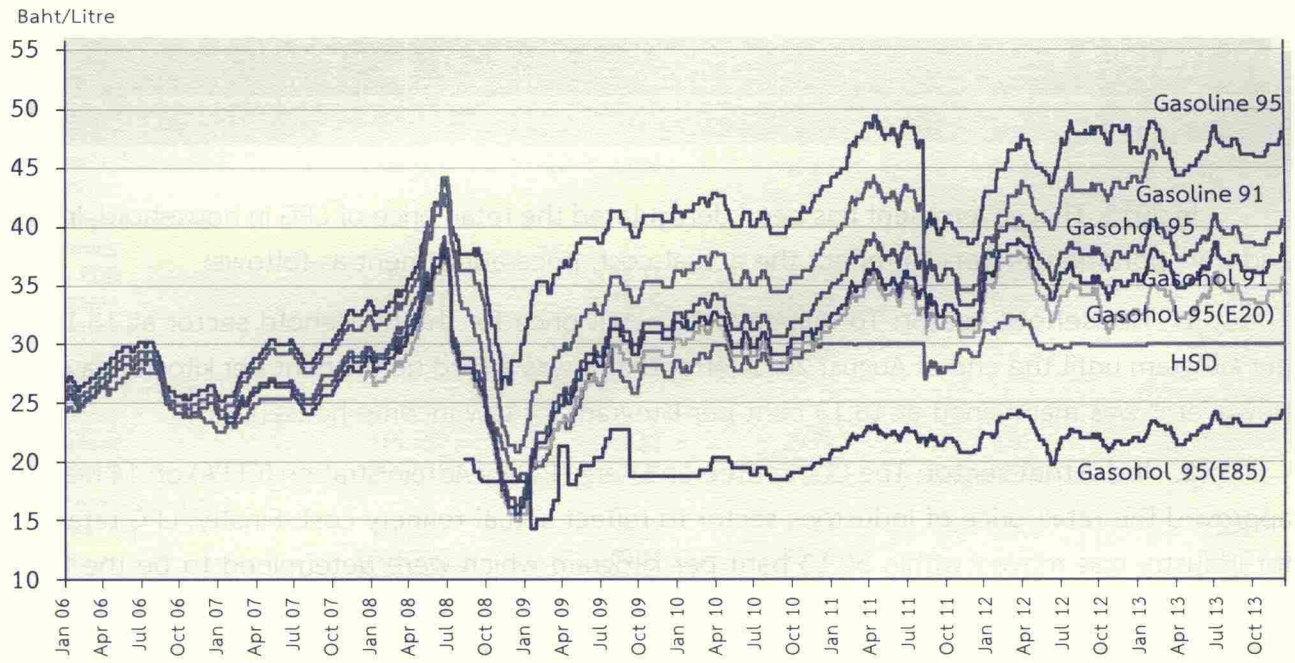


Adjustment of Retail Oil Prices in Thailand. Retail oil prices will increase or decrease in line with the ex-refinery price announcement. The determination of ex-refinery prices will, in turn, depend on the change in petroleum product prices in Singapore market and the rate of exchange (or the value of Thai Baht), which constitute the cost of petroleum product import.

Prior to the deregulation of retail oil prices, the government used the Oil Fund mechanism to stabilize the levels of wholesale prices (ex-refinery) and imported oil prices, and thus the retail prices remain unchanged. After the oil price deregulation, the wholesale prices will change in line with the ex-refinery prices set by the refineries, resulting in fluctuations in retail oil prices accordingly.

Two main petroleum products being retailed at service stations in Thailand are gasoline and diesel. As the Thai government has encouraged the use of alternative energy by reducing the rates of contribution to the Oil Fund imposed on gasohol and biodiesel to induce greater use of alternative energy by the general public, there is significant difference between the retail price of each type of gasoline (with Octane 95/91) and that of its alternate gasohol, and so is the retail price difference between high speed diesel and biodiesel.

Retail Prices of Petroleum Products in Bangkok

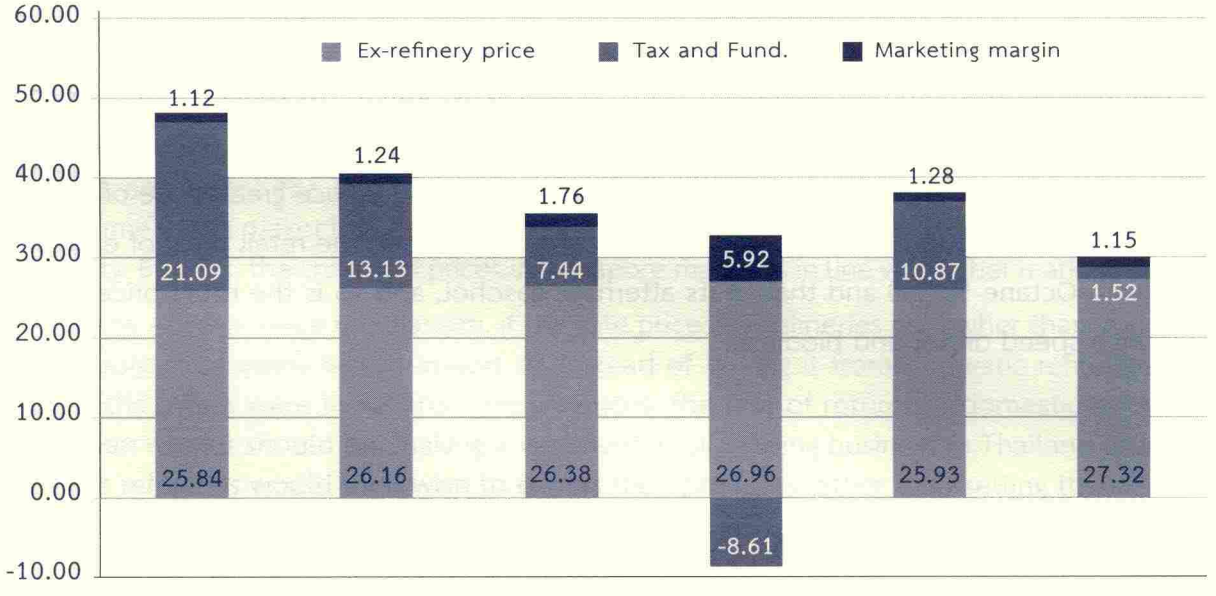


In 2013, the average retail price of each oil product in Bangkok was as follows:

Unit: Baht/litre

Product Type	Gasoline	Gasohol (E10)	Gasohol (E20)	Gasohol (E85)	Diesel
Octane 95	46.66	38.89	33.82	22.74	29.97
Octane 91	45.19	36.43	-	-	

Oil Price Structures in Thailand (As of 25 December 2013)



Price	ULG 95 RON	Gasohol 95 (E10)	Gasohol 95 (E20)	Gasohol 95 (E85)	Gasohol 91 (E10)	Diesel
(Baht/Litre)	48.05	40.53	35.58	24.28	38.08	29.99

In 2013, Thai government has been deregulated the retail price of LPG in household, industry and transportation sectors to reflect the actual cost, price adjustment as follows:

1. **Household sector:** To maintain the retail price for the household sector at 18.13 baht per kilogram until the end of August 2013. After that it was added up 0.5 baht per kilogram a month. However it was maintained at 18.13 baht per kilogram for low income household.

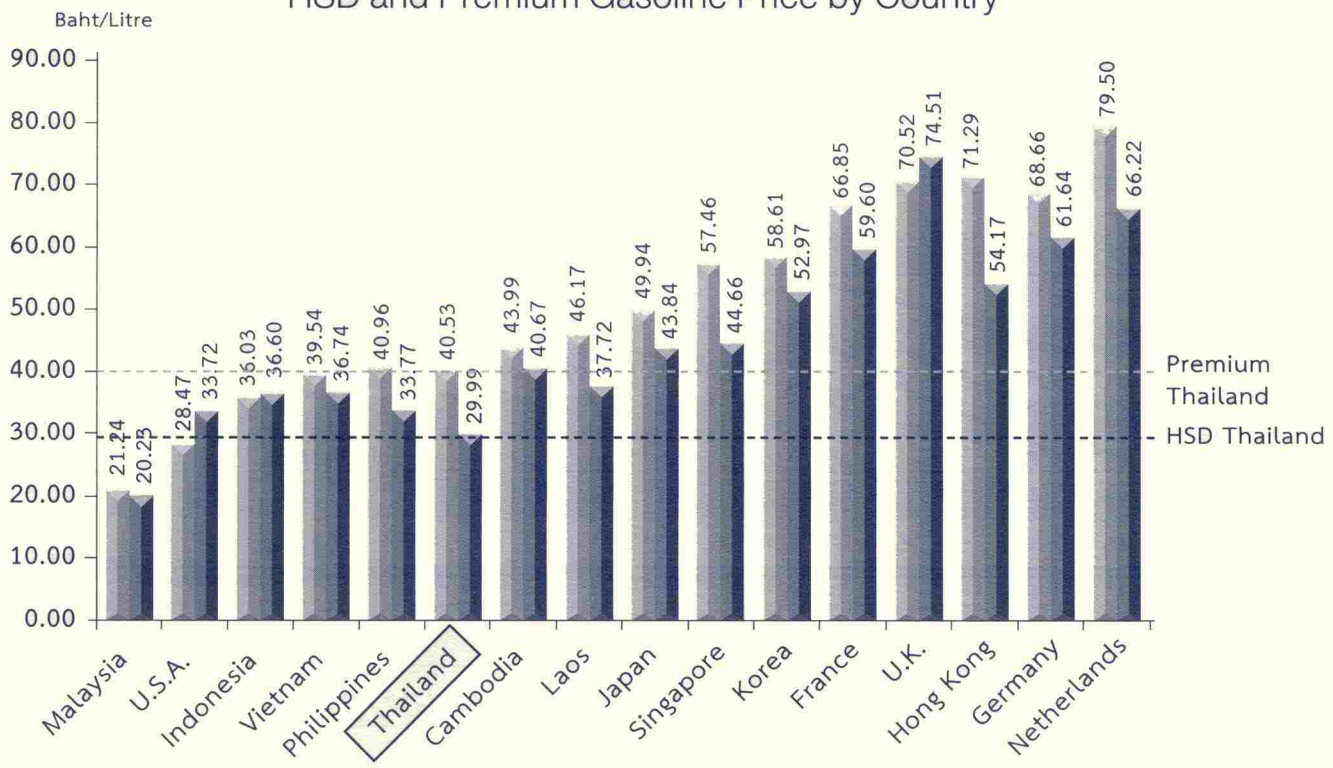
2. **Industrial sector:** The Committee on Energy Policy Administration (CEPA) on 14 May 2012 approved the retail price of Industries sector to reflect actual refinery cost. Finally, LPG retail price for industry was moved within 30.13 baht per kilogram which were determined to be the highest boundary.

3. **Transportation sector:** it was maintained at 21.38 baht per kilogram throughout the year.

Upcountry Retail Price of gasoline and diesel Oil price in other countries were different by Oil price structure and subsidies in each country. When we compared Thailand oil price with Asian region price, it was found Octane 95(E10) price was higher than Indonesia Vietnam and Philippines.

In fact, it was cheaper or higher that should compare with ability to buy or Gross National Income per capita (GNI per Capita). After comparing, ratio of Gasoline price was 0.025 that showed Thailand oil price was cheaper than Indonesia Vietnam and Philippines.

HSD and Premium Gasoline Price by Country



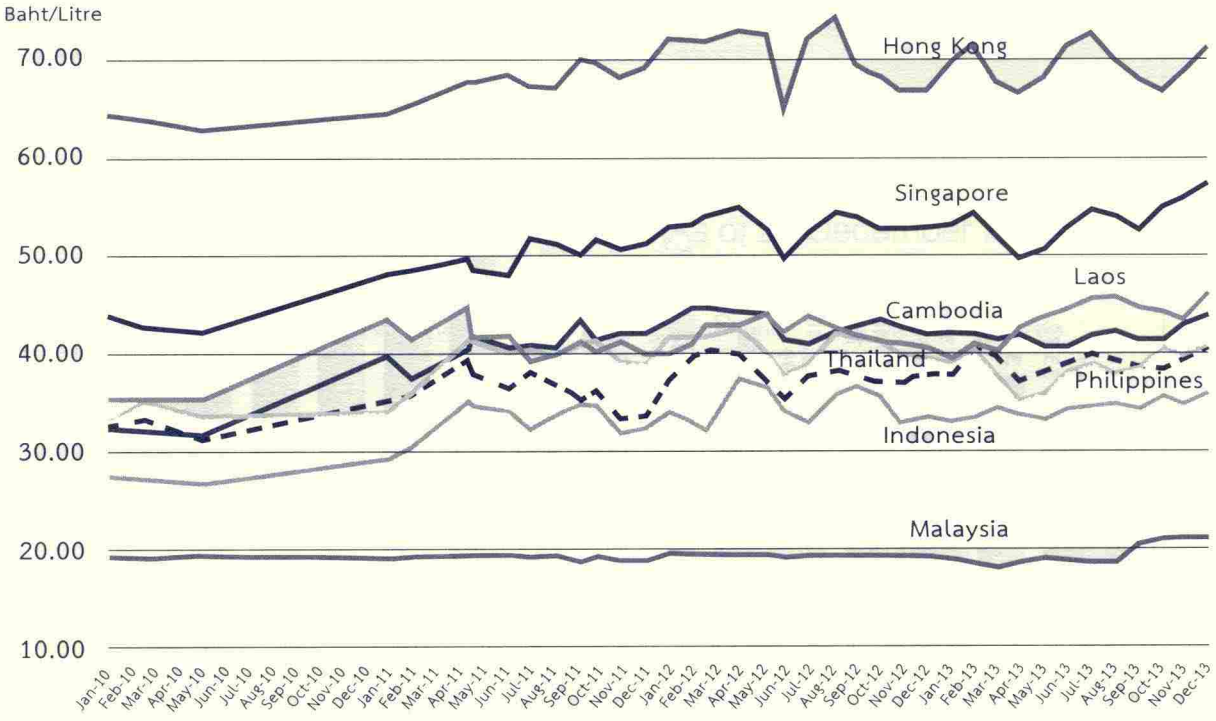
Price as of 28 December 2013
Foreign Exchange Rates as of 27 December 2013 from Bank of Thailand

Diesel and Premium Gasoline Price per GNI per Capita

Countries classifications[1]	GNI per capita, 2012[2] (Baht)	Gasoline Price[3] (Baht/Litre)	Diesel Price[3] (Baht/Litre)	Gasoline Price per GNI per capita (%)	Diesel Price per GNI per capita (%)
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Cambodia	27,355	43.99	40.67	0.161	0.149
Lower-Middle-Income Economics					
Lao PDR	39,167	46.17	37.72	0.118	0.096
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Philippines	76,779	40.96	33.77	0.053	0.044
Indonesia	106,310	36.03	36.60	0.034	0.034
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Italy	1,051,910	80.04	75.78	0.008	0.007
U.K.	1,188,994	70.52	74.51	0.006	0.006
Hong Kong	1,136,460	71.29	54.17	0.006	0.005
Germany	1,368,042	68.66	61.64	0.005	0.005
France	1,297,790	66.85	59.60	0.005	0.005
Belgium	1,398,505	72.06	66.71	0.005	0.005
Netherlands	1,499,842	79.50	66.22	0.005	0.004
Singapore	1,467,513	57.46	44.66	0.004	0.003
Japan	1,488,029	49.94	43.84	0.003	0.003
U.S.A.	1,557,970	28.47	33.72	0.002	0.002

Reference : 1.-2. The World Bank
3. Compiled by EPPO

Premium Gasoline Price by Country



High Speed Diesel Price by Country

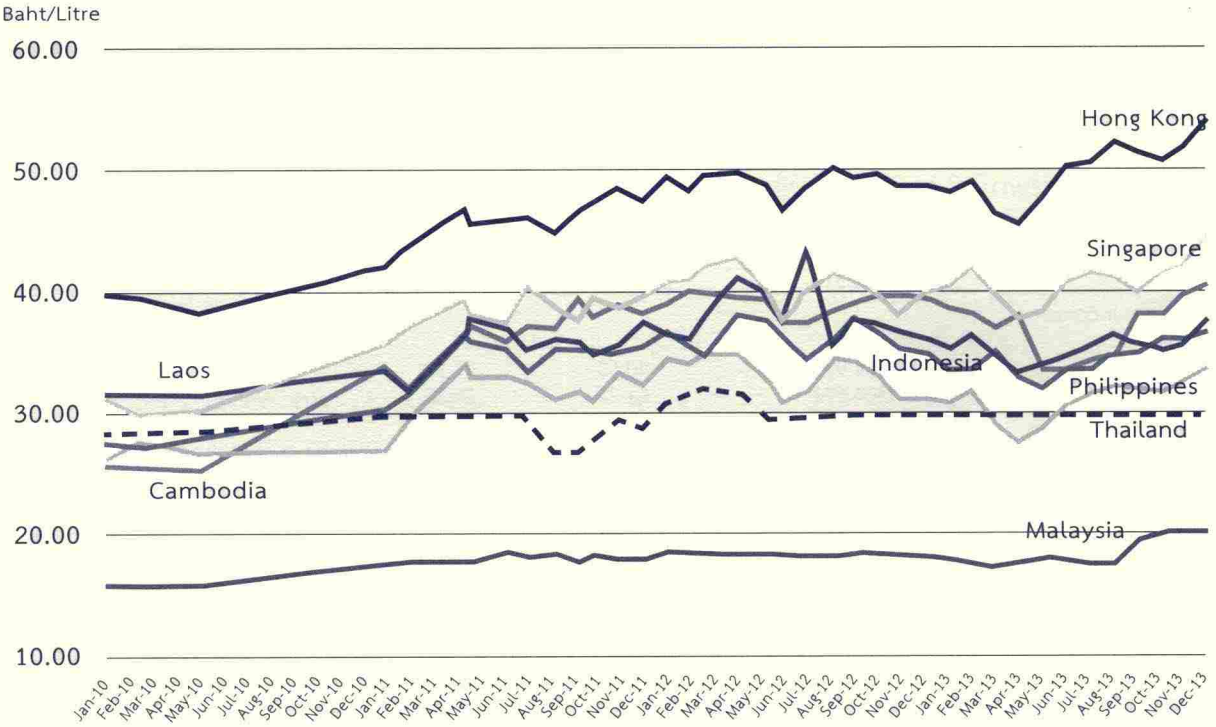


Table 8.1-1
Rates of Exchange in Bangkok

Unit : Baht

Year/ Month	Pound Sterling		U.S.Dollar		Singapore Dollar		Japanese Yen		EURO	
	Buying	Selling	Buying	Selling	Buying	Selling	Buying	Selling	Buying	Selling
2009	**53.12**	**54.00**	**34.10**	**34.47**	**23.33**	**23.82**	**0.36**	**0.54**	**47.32**	**48.10**
JAN	49.83	50.69	34.68	35.05	23.14	23.61	0.38	0.39	45.80	46.57
FEB	50.31	51.17	35.09	35.46	22.99	23.45	0.38	0.39	44.73	45.47
MAR	50.32	51.17	35.55	35.92	23.12	23.58	0.36	0.37	46.25	47.00
APR	51.47	52.33	35.22	35.59	23.29	23.76	0.36	0.36	46.23	46.98
MAY	52.95	53.83	34.35	34.72	23.40	23.89	0.36	2.33	46.84	47.60
JUN	55.31	56.23	33.90	34.28	23.23	23.72	0.35	0.36	47.42	48.20
JUL	55.20	56.10	33.81	34.19	23.21	23.70	0.36	0.36	47.52	48.29
AUG	55.76	56.67	33.78	34.16	23.31	23.81	0.35	0.36	48.08	48.87
SEP	54.68	55.58	33.59	33.97	23.47	23.97	0.37	0.37	48.77	49.56
OCT	53.46	54.36	33.17	33.55	23.60	24.11	0.37	0.37	49.01	49.81
NOV	54.74	55.64	33.04	33.42	23.67	24.18	0.37	0.38	49.18	49.99
DEC	53.39	54.28	32.99	33.37	23.50	24.01	0.37	0.37	48.04	48.83
2010	**48.52**	**49.38**	**31.49**	**31.87**	**22.97**	**23.48**	**0.36**	**0.37**	**41.68**	**42.43**
JAN	52.90	53.79	32.80	33.16	23.37	23.87	0.36	0.37	47.07	47.86
FEB	51.36	52.24	32.91	33.29	23.18	23.68	0.36	0.37	44.93	45.70
MAR	48.42	49.28	32.27	32.65	22.93	23.44	0.35	0.36	43.69	44.45
APR	48.95	49.81	32.05	32.42	23.07	23.58	0.34	0.35	42.83	43.58
MAY	46.95	47.82	32.15	32.54	22.95	23.46	0.35	0.36	40.20	40.94
JUN	47.38	48.23	32.23	32.61	22.93	23.41	0.35	0.36	39.25	39.97
JUL	48.88	49.73	32.09	32.47	23.17	23.68	0.36	0.37	40.88	41.62
AUG	49.24	50.10	31.51	31.89	23.13	23.65	0.37	0.38	40.58	41.31
SEP	47.48	48.34	30.60	30.98	22.78	23.31	0.36	0.37	39.81	40.55
OCT	46.99	47.86	29.73	30.11	22.67	23.20	0.36	0.37	41.16	41.91
NOV	47.23	48.09	29.65	30.02	22.73	23.26	0.36	0.37	40.46	41.20
DEC	46.45	47.30	29.88	30.26	22.72	23.26	0.36	0.36	39.32	40.05
2011	**48.37**	**49.24**	**30.25**	**30.63**	**23.94**	**24.50**	**0.38**	**0.39**	**41.97**	**42.73**
JAN	47.72	48.58	30.34	30.72	23.44	23.98	0.37	0.37	40.41	41.13
FEB	49.02	49.89	30.48	30.86	23.75	24.29	0.37	0.38	41.53	42.28
MAR	48.57	49.45	30.13	30.51	23.63	24.18	0.37	0.38	42.06	42.82
APR	48.67	49.55	29.81	30.20	23.80	24.37	0.36	0.37	42.98	43.75
MAY	48.89	49.77	30.01	30.38	24.13	24.69	0.37	0.38	42.85	43.62
JUN	49.00	49.87	30.27	30.65	24.39	24.96	0.37	0.38	43.45	44.22
JUL	48.02	48.89	29.84	30.22	24.40	24.97	0.37	0.38	42.53	43.30
AUG	48.39	49.27	29.64	30.02	24.39	24.97	0.38	0.39	42.41	43.17
SEP	47.53	48.38	30.18	30.56	24.03	24.59	0.39	0.40	41.47	42.20
OCT	48.07	48.94	30.65	31.03	23.86	24.40	0.40	0.41	41.84	42.58
NOV	48.42	49.29	30.72	31.09	23.71	24.25	0.39	0.40	41.56	42.29
DEC	48.15	49.01	30.97	31.35	23.78	24.32	0.40	0.40	40.60	41.34

Table 8.1-1 (Cont.)
Rates of Exchange in Bangkok

Unit : Baht

Year/ Month	Pound Sterling		U.S.Dollar		Singapore Dollar		Japanese Yen		EURO	
	Buying	Selling	Buying	Selling	Buying	Selling	Buying	Selling	Buying	Selling
2012	**48.76**	**49.62**	**30.84**	**31.22**	**24.56**	**25.12**	**0.38**	**0.39**	**39.59**	**40.31**
JAN	48.46	49.31	31.34	31.71	24.38	24.93	0.41	0.41	40.29	41.02
FEB	48.04	48.90	30.49	30.87	24.20	24.75	0.39	0.40	40.20	40.89
MAR	48.08	48.94	30.45	30.83	24.08	24.63	0.37	0.38	40.14	40.87
APR	49.02	49.90	30.65	31.03	24.38	24.94	0.37	0.38	40.87	41.61
MAY	49.35	50.22	31.10	31.48	24.50	25.05	0.39	0.40	39.65	40.37
JUN	48.73	49.60	31.42	31.79	24.46	25.01	0.39	0.40	39.30	40.02
JUL	48.85	49.71	31.41	31.79	24.77	25.33	0.40	0.40	38.53	39.24
AUG	48.89	49.75	31.19	31.57	24.85	25.42	0.39	0.40	38.58	39.28
SEP	49.41	50.27	30.76	31.14	24.84	25.41	0.39	0.40	39.44	40.15
OCT	48.85	49.69	30.46	30.84	24.75	25.31	0.38	0.39	39.36	40.08
NOV	48.53	49.38	30.47	30.85	24.78	25.34	0.37	0.38	38.99	39.70
DEC	48.93	49.79	30.40	30.78	24.76	25.34	0.36	0.37	39.78	40.49
2013	**47.59**	**48.42**	**30.49**	**30.86**	**24.24**	**24.79**	**0.31**	**0.32**	**40.43**	**41.14**
JAN	47.53	48.37	29.83	30.21	24.16	24.72	0.33	0.34	39.53	40.23
FEB	45.78	46.61	29.58	29.96	23.76	24.32	0.32	0.32	39.81	40.53
MAR	44.04	44.85	29.28	29.66	23.37	23.92	0.31	0.31	37.85	38.55
APR	43.92	44.72	28.81	29.18	23.15	23.69	0.29	0.30	37.38	38.06
MAY	45.03	45.83	29.54	29.92	23.54	24.08	0.29	0.30	38.22	38.91
JUN	47.26	48.08	30.59	30.97	24.15	24.69	0.31	0.32	40.26	40.97
JUL	46.76	47.57	30.89	31.26	24.23	24.77	0.31	0.32	40.30	41.01
AUG	48.51	49.34	31.38	31.76	24.52	25.06	0.32	0.33	41.69	42.41
SEP	49.74	50.58	31.47	31.85	24.79	25.33	0.32	0.32	41.89	42.60
OCT	49.72	50.56	30.98	31.35	24.77	25.32	0.32	0.32	42.12	42.84
NOV	50.40	51.25	31.39	31.77	25.04	25.60	0.31	0.32	42.25	42.97
DEC	52.40	53.25	32.11	32.48	25.37	25.93	0.31	0.32	43.84	44.57

Table 8.1-2Y
Ex-Refinery Prices of Petroleum Products in Thailand

Unit : Baht/Litre

Year	Ex-Refinery Prices														
	ULG 95	UGR 91	Gasohol 95			Gasohol 91	Kerosene	HSD 0.035%S	HSD B5	LSD	FO 1500 (2%S)	LPG (Baht/kg)			
			(E10)	(E20)	(E85)							Low Income Household	Cooking	Industry	Automobile
1996	4.33	3.79					4.79	4.70		4.32	2.83		5.95	5.95	
1997	5.40	4.99					5.27	5.29		4.58	3.36		7.36	7.36	
1998	5.12	4.48					4.60	4.53		4.12	3.14		6.15	6.15	
1999	5.44	4.87					5.35	4.97		4.53	3.87		7.83	7.83	
2000	8.64	8.07					8.91	8.63		8.20	6.39		11.96	11.96	
2001	8.12	7.50					8.05	8.15		7.65	5.96		11.29	11.29	
2002	7.98	7.44					7.68	7.84		7.41	6.35		9.90	9.90	
2003	9.44	8.90					8.67	8.90		8.73	7.05		11.36	11.36	
2004	12.35	11.81					12.06	12.16		11.82	7.62		12.32	12.32	
2005	16.26	15.75					17.31	16.95		16.56	10.06		12.73	12.73	
2006	17.84	17.39	18.68				19.51	18.92	17.32	18.45	12.67		11.96	11.96	
2007	18.36	17.94	18.53			18.57	19.23	19.06	20.27	18.63	13.17		11.19	11.19	
2008	21.73	21.31	21.62	21.42		21.43	25.68	25.60	25.86	25.00	16.91		10.99	10.99	
2009	15.66	15.03	16.29	16.82	19.61	15.92	15.40	15.62	15.98	15.02	12.85		11.08	11.08	
2010	18.11	17.64	18.82	19.44	22.60	18.57	18.33	18.69	19.01	17.98	14.94		10.69	10.69	
2011	23.34	22.92	23.61	23.80	24.17	23.40	24.47	24.82	25.23	23.95	19.50		10.16	9.25	
2012	25.03	24.57	24.79	24.46	21.48	24.56	25.27	26.01		24.84	20.66		10.44	10.44	10.44
2013	23.91	20.70	24.24	24.48	25.19	24.02	24.17	24.81		23.77	18.80	10.54	10.40	10.40	10.40

Table 8.1-3Y
Oil Fund Levied on Petroleum Products in Thailand

Unit : Baht/Litre

Year	Oil Fund (Ex-Refinery)															
	ULG 95	UGR 91	Gasohol 95			Gasohol 91	Kerosene	HSD 0.05%S	HSD 0.035%S	HSD B5	LSD	FO 1500	LPG (Baht/kg)			
			(E10)	(E20)	(E85)								Low Income Household	Cooking	Industry	Automobile
1996	0.11	0.11					0.03	0.16			0.12	0.03		-0.64		
1997	0.08	0.08					0.06	0.07			0.04	0.03		-1.89		
1998	0.16	0.16					0.10	0.15			0.13	0.06		0.40		
1999	0.09	0.09					0.10	0.10			0.08	0.06		-2.94		
2000	0.34	0.22					0.10	0.11			0.11	0.06		-7.31		
2001	0.50	0.30					0.10	0.50			0.50	0.06		-5.55		
2002	0.50	0.30	0.27			0.27	0.10	0.50			0.50	0.06		-2.45		
2003	0.49	0.30	0.27			0.27	0.10	0.44			0.50	0.06		-3.05		
2004	-0.34	-0.59	0.24			0.27	0.10		-2.24		-2.27	0.06		-2.55		
2005	1.28	1.03	0.13			0.16	0.10		-0.92		-1.02	0.06		-2.54		
2006	2.70	2.50	0.84			0.84	0.10		1.47	0.41	1.47	0.06		-1.93		
2007	3.67	3.37	0.85			0.62	0.10		1.39	0.60	1.39	0.06		-1.02		
2008	3.78	3.31	0.77	-0.21		0.28	0.10		0.40	-0.68	0.31	0.06		0.30		
2009	6.94	5.31	1.78	-0.80	-7.88	1.17	0.10		0.78	-0.95	1.20	0.06		0.22		
2010	7.50	6.65	2.74	-0.41	-10.93	1.43	0.10		0.66	-0.65	1.20	0.06		0.61		
2011	4.90	4.38	1.87	-1.80	-13.50	-0.40	0.10	0.10	-0.60	-3.01	1.20	0.06		1.14		
2012	5.23	4.73	2.03	-1.30	-12.40	0.16	0.10	0.10	0.69		1.20	0.06		0.89	10.55	3.34
2013	9.57	6.42	3.41	-1.08	-11.43	1.27	0.10	0.10	1.49		1.20	0.06	0.76	1.47	11.92	4.11

Table 8.1-4
Wholesale Prices of Petroleum Products at Refinery in Thailand

Unit : Baht/Litre

Products	1. Gasoline					2. Kerosene	3. Diesel			4. Fuel Oil				5. LPG (Baht/kg) (exclude vat)
	ULG95	UGR 91	Gasohol 95 (E10)	Gasohol 95 (E20)	Gasohol 91		HSD	HSD B5	LSD	600 (2%S)	1500 (2%S)	2000	2500	
2009														
-JAN														
WT.AVG	25.31	21.68	16.26	14.05	15.46	17.83	16.81	14.62	17.21	10.96	10.30	9.68	9.82	13.69
TRADER COST	25.29	21.66	16.26	14.05	15.46	17.83	16.82	14.62	17.21	10.96	10.25	9.68	9.82	13.69
-FEB														
WT.AVG	28.33	24.53	19.82	17.39	19.09	16.49	16.66	13.50	15.37	10.94	10.49	10.13	10.23	13.69
TRADER COST	28.33	24.53	19.82	17.39	19.09	16.49	16.67	13.50	15.37	10.94	10.47	10.13	10.23	13.69
-MAR														
WT.AVG	27.70	25.40	21.83	19.23	21.01	16.70	19.51	16.17	16.12	10.75	10.21	9.79	9.91	13.69
TRADER COST	27.70	25.38	21.83	19.23	21.01	16.70	19.50	16.17	16.12	10.75	10.17	9.79	9.91	13.69
-APR														
WT.AVG	29.08	27.37	23.53	20.54	22.72	18.01	20.93	17.48	17.57	12.20	11.71	11.27	11.35	13.69
TRADER COST	29.08	27.35	23.53	20.54	22.72	18.01	20.94	17.48	17.57	12.20	11.66	11.27	11.35	13.69
-MAY														
WT.AVG	30.61	28.81	24.93	21.77	24.16	18.70	22.09	19.16	18.40	13.82	13.41	12.97	13.05	13.69
TRADER COST	30.60	28.79	24.93	21.77	24.16	18.70	22.08	19.16	18.40	13.82	13.35	12.97	13.05	13.69
-JUN														
WT.AVG	32.88	31.14	27.25	24.23	26.45	21.20	25.04	20.64	21.15	15.80	15.32	15.00	14.95	13.69
TRADER COST	32.87	31.13	27.25	24.23	26.45	21.20	25.03	20.64	21.15	15.80	15.26	15.00	14.95	13.69
-JUL														
WT.AVG	33.37	31.38	27.37	24.23	26.43	20.41	24.79	20.06	20.53	15.86	15.44	15.08	15.16	13.69
TRADER COST	33.37	31.38	27.37	24.23	26.43	20.41	24.80	20.06	20.53	15.86	15.39	15.08	15.16	13.69
-AUG														
WT.AVG	36.00	33.95	30.05	26.47	28.96	21.81	26.27	23.07	22.83	17.13	16.64	16.28	16.34	13.69
TRADER COST	35.99	33.95	30.05	26.47	28.96	21.81	26.27	23.07	22.83	17.13	16.58	16.28	16.34	13.69
-SEP														
WT.AVG	34.50	32.53	30.04	25.31	27.59	20.90	24.55	22.97	21.94	16.67	16.23	15.99	16.01	13.69
TRADER COST	34.51	32.54	30.04	25.31	27.59	20.90	24.55	22.97	21.94	16.67	16.18	15.99	16.01	13.69
-OCT														
WT.AVG	34.68	32.62	28.85	25.41	27.76	21.74	25.30	24.22	22.55	17.04	16.60	16.19	16.26	13.69
TRADER COST	34.67	32.60	28.85	25.41	27.76	21.74	25.29	24.22	22.55	17.04	16.53	16.19	16.26	13.69
-NOV														
WT.AVG	35.57	33.55	29.66	26.13	28.56	22.84	26.26	25.08	23.64	17.96	17.50	17.20	16.22	13.69
TRADER COST	35.58	33.55	29.66	26.13	28.56	22.84	26.26	25.08	23.64	17.96	17.44	17.20	16.22	13.69
-DEC														
WT.AVG	35.53	33.50	29.62	26.09	28.53	22.41	25.68	24.60	22.95	17.83	17.43	17.11	17.12	13.69
TRADER COST	35.53	33.49	29.62	26.09	28.53	22.41	25.68	24.60	22.95	17.83	17.36	17.11	17.12	13.69
2009 AVG														
WT.AVG	31.96	29.70	25.77	22.57	24.73	19.92	22.82	20.13	20.02	14.75	14.27	13.89	13.87	13.69
TRADER COST	31.96	29.70	25.77	22.57	24.73	19.92	22.82	20.13	20.02	14.75	14.22	13.89	13.87	13.69

Table 8.1-4 (Cont.)
Wholesale Prices of Petroleum Product at Refinery in Thailand

Unit : Baht/Litre

Products	1. Gasoline					2. Kerosene	3. Diesel			4. Fuel Oil				5. LPG (Baht/kg) (exclude vat)
	ULG95	UGR 91	Gasohol 95 (E10)	Gasohol 95 (E20)	Gasohol 91		HSD	HSD B5	LSD	600 (2%S)	1500 (2%S)	2000	2500	
2010														
-JAN														
WT.AVG	36.72	34.74	30.69	27.02	29.62	22.94	26.32	25.28	23.54	18.40	17.99	17.68	17.68	13.69
TRADER COST	36.73	34.74	30.69	27.02	29.62	22.94	26.32	25.28	23.54	18.40	17.92	17.68	17.68	13.69
-FEB														
WT.AVG	36.48	34.84	30.88	26.91	29.18	22.14	26.20	24.88	23.05	17.74	17.30	16.86	16.93	13.69
TRADER COST	36.48	34.83	30.88	26.91	29.18	22.14	26.19	24.88	23.05	17.74	17.23	16.86	16.93	13.69
-MAR														
WT.AVG	37.10	35.63	31.60	27.41	29.66	22.96	27.05	25.68	23.96	17.75	17.22	16.87	16.80	13.69
TRADER COST	37.11	35.63	31.60	27.41	29.66	22.96	27.05	25.68	23.96	17.75	17.15	16.87	16.80	13.69
-APR														
WT.AVG	37.61	36.01	32.05	27.81	30.11	24.36	28.31	26.92	25.23	18.44	17.81	17.33	17.35	13.69
TRADER COST	37.61	36.00	32.05	27.81	30.11	24.36	28.31	26.92	25.23	18.44	17.74	17.33	17.35	13.69
-MAY														
WT.AVG	35.76	34.35	30.39	26.36	28.43	23.09	26.99	25.62	24.06	17.43	16.82	16.54	16.51	13.69
TRADER COST	35.78	34.36	30.39	26.36	28.43	23.09	27.00	25.62	24.06	17.43	16.78	16.54	16.51	13.69
-JUN														
WT.AVG	35.44	33.98	30.10	26.09	28.15	22.78	26.30	25.35	23.52	16.86	16.25	15.83	15.89	13.69
TRADER COST	35.44	33.97	30.10	26.09	28.15	22.78	26.29	25.35	23.52	16.86	16.18	15.83	15.89	13.69
-JUL														
WT.AVG	35.15	33.70	29.84	25.86	27.89	22.40	26.03	25.21	23.20	16.83	16.26	15.86	15.85	13.69
TRADER COST	35.16	33.70	29.84	25.86	27.89	22.40	26.03	25.21	23.20	16.83	16.20	15.86	15.85	13.69
-AUG														
WT.AVG	34.92	33.44	29.64	25.68	27.62	22.51	26.26	25.38	23.52	16.92	16.32	15.98	15.93	13.69
TRADER COST	34.93	33.44	29.64	25.68	27.62	22.51	26.27	25.38	23.52	16.92	16.26	15.98	15.93	13.69
-SEP														
WT.AVG	34.39	32.90	29.16	25.23	27.15	22.04	25.84	24.82	22.81	16.19	15.62	15.23	15.25	13.69
TRADER COST	34.39	32.90	29.16	25.23	27.15	22.04	25.83	24.82	22.81	16.19	15.56	15.23	15.25	13.69
-OCT														
WT.AVG	35.27	33.81	29.94	25.87	27.98	22.82	26.50	25.48	23.50	16.63	16.04	15.67	15.65	13.69
TRADER COST	35.27	33.80	29.94	25.87	27.98	22.82	26.49	25.48	23.50	16.63	15.97	15.67	15.65	13.69
-NOV														
WT.AVG	35.98	34.33	30.58	26.50	28.59	23.48	27.32	26.38	24.15	17.28	16.66	16.29	16.23	13.69
TRADER COST	35.98	34.32	30.58	26.50	28.59	23.48	27.31	26.38	24.15	17.28	16.59	16.29	16.23	13.69
-DEC														
WT.AVG	37.92	35.92	31.92	27.14	29.03	24.78	28.14	27.93	25.50	18.04	17.34	16.94	16.88	13.69
TRADER COST	37.91	35.92	31.92	27.14	29.03	24.78	28.12	27.93	25.50	18.04	17.27	16.94	16.88	13.69
2010 AVG														
WT.AVG	36.06	34.47	30.57	26.49	28.62	23.03	26.77	25.75	23.84	17.37	16.80	16.42	16.41	13.69
TRADER COST	36.07	34.47	30.57	26.49	28.62	23.03	26.77	25.75	23.84	17.37	16.74	16.42	16.41	13.69

Table 8.1-4 (Cont.)
Wholesale Prices of Petroleum Product at Refinery in Thailand

Unit : Baht/Litre

Products	1. Gasoline					2. Kerosene	3. Diesel			4. Fuel Oil				5. LPG (Baht/kg) (exclude vat)
	ULG95	UGR 91	Gasohol 95 (E10)	Gasohol 95 (E20)	Gasohol 91		HSD	HSD B5	LSD	600 (2%S)	1500 (2%S)	2000	2500	
2011														
-JAN														
WT.AVG	39.09	37.59	32.95	28.00	30.01	26.28	28.27	28.79	26.85	19.15	18.38	17.84	17.88	13.69
TRADER COST	39.05	37.55	32.95	28.00	30.01	26.28	28.23	28.79	26.85	19.15	18.24	17.84	17.88	13.69
-FEB														
WT.AVG	40.33	38.86	34.07	29.00	31.12	28.57	28.30	29.58	28.92	21.55	20.79	20.31	20.25	13.69
TRADER COST	40.32	38.84	34.07	29.00	31.12	28.57	28.29	29.58	28.92	21.55	20.69	20.31	20.25	13.69
-MAR														
WT.AVG	41.97	40.47	35.54	30.30	32.60	30.74	28.56	30.31	31.33	22.98	21.95	21.47	21.35	13.69
TRADER COST	41.97	40.47	35.54	30.30	32.60	30.74	28.55	30.31	31.33	22.98	21.86	21.47	21.35	13.69
-APR														
WT.AVG	43.50	41.98	36.92	31.51	33.99	31.80	28.61	29.47	32.56	23.92	22.98	22.48	22.38	13.69
TRADER COST	43.49	41.97	36.92	31.51	33.99	31.80	28.61	29.47	32.56	23.92	22.88	22.48	22.38	13.69
-MAY														
WT.AVG	42.69	41.34	36.19	30.95	33.20	30.03	28.34		30.88	22.94	22.07	21.80	21.62	13.69
TRADER COST	42.70	41.34	36.19	30.95	33.20	30.03	28.34		30.88	22.94	21.98	21.80	21.62	13.69
-JUN														
WT.AVG	41.93	40.47	35.51	30.29	32.56	29.88	28.42		30.64	23.31	22.49	22.07	21.98	13.69
TRADER COST	41.93	40.47	35.51	30.29	32.56	29.88	28.42		30.64	23.31	22.40	22.07	21.98	13.69
-JUL														
WT.AVG	42.77	41.27	36.26	30.93	33.33	29.97	28.68		30.72	23.57	22.70	22.16	22.17	13.69
TRADER COST	42.77	41.26	36.26	30.93	33.33	29.97	28.68		30.72	23.57	22.60	22.16	22.17	13.69
-AUG														
WT.AVG	40.56	39.20	35.40	30.16	32.44	28.87	27.89		29.46	22.78	21.96	21.48	21.47	13.69
TRADER COST	40.57	39.19	35.40	30.16	32.44	28.87	27.89		29.46	22.78	21.87	21.48	21.47	13.69
-SEP														
WT.AVG	34.66	33.85	35.12	29.29	31.63	29.11	26.12		29.89	23.24	22.41	21.93	21.90	13.69
TRADER COST	34.67	33.85	35.12	29.29	31.63	29.11	26.12		29.89	23.24	22.32	21.93	21.90	13.69
-OCT														
WT.AVG	34.49	33.88	34.97	29.15	31.48	29.41	26.77		29.94	23.49	22.78	22.33	22.26	13.69
TRADER COST	34.50	33.88	34.97	29.15	31.48	29.41	26.75		29.94	23.49	22.68	22.33	22.26	13.69
-NOV														
WT.AVG	32.76	31.98	32.26	27.78	30.03	30.44	27.44		31.32	24.59	23.86	23.39	23.24	13.69
TRADER COST	32.77	31.98	32.26	27.78	30.03	30.44	27.44		31.32	24.59	23.76	23.39	23.24	13.69
-DEC														
WT.AVG	33.12	32.24	32.46	27.81	30.26	29.59	26.71		30.67	24.07	23.38	23.00	22.81	13.69
TRADER COST	33.12	32.23	32.46	27.81	30.26	29.59	26.71		30.67	24.07	23.28	23.00	22.81	13.69
2011 AVG														
WT.AVG	38.99	37.76	34.80	29.60	31.89	29.56	27.84	29.54	30.26	22.97	22.15	21.69	21.61	13.69
TRADER COST	38.99	37.75	34.80	29.60	31.89	29.56	27.84	29.54	30.26	22.97	22.05	21.69	21.61	13.69

Table 8.1-4 (Cont.)
Wholesale Prices of Petroleum Product at Refinery in Thailand

Unit : Baht/Litre

Products	1. Gasoline					2. Kerosene	3. Diesel			4. Fuel Oil				5. LPG (Baht/kg) (exclude vat)
	ULG95	UGR 91	Gasohol 95 (E10)	Gasohol 95 (E20)	Gasohol 91		HSD	HSD B5	LSD	600 (2%S)	1500 (2%S)	2000	2500	
2012														
-JAN														
WT.AVG	36.40	35.46	35.46	30.74	33.35	30.64	28.74		31.90	25.85	25.08	24.86	22.81	13.69
TRADER COST	36.39	35.45	35.46	30.74	33.35	30.64	28.73		31.90	25.85	24.97	24.86	22.81	13.69
-FEB														
WT.AVG	38.25	37.24	37.22	32.36	35.06	31.13	29.32		32.16	25.78	24.91	24.70	24.55	13.69
TRADER COST	38.23	37.24	37.22	32.36	35.06	31.13	29.32		32.16	25.78	24.81	24.70	24.55	13.69
-MAR														
WT.AVG	40.51	39.55	38.82	33.84	36.65	31.89	30.04		32.77	26.20	25.36	25.11	24.94	13.69
TRADER COST	40.50	39.55	38.82	33.84	36.65	31.89	30.03		32.77	26.20	25.26	25.11	24.94	13.69
-APR														
WT.AVG	41.45	40.53	38.71	33.76	36.54	31.54	29.67		32.40	25.89	24.98	24.82	24.70	13.69
TRADER COST	41.45	40.54	38.71	33.76	36.54	31.54	29.67		32.40	25.89	24.88	24.82	24.70	13.69
-MAY														
WT.AVG	39.74	38.88	36.61	31.91	34.42	29.92	28.02		30.76	24.39	23.70	23.40	23.26	13.69
TRADER COST	39.75	38.90	36.61	31.91	34.42	29.92	28.02		30.76	24.39	23.63	23.40	23.26	13.69
-JUN														
WT.AVG	38.64	37.83	34.35	29.67	32.16	27.41	27.13		28.26	22.05	21.48	21.07	20.93	13.69
TRADER COST	38.66	37.85	34.35	29.67	32.16	27.41	27.13		28.26	22.05	21.40	21.07	20.93	13.69
-JUL														
WT.AVG	41.32	40.32	36.41	31.48	34.28	28.76	27.97		29.53	22.72	22.01	21.51	21.45	13.69
TRADER COST	41.30	40.31	36.41	31.48	34.28	28.76	27.95		29.53	22.72	21.90	21.51	21.45	13.69
-AUG														
WT.AVG	43.58	41.92	36.96	32.45	34.36	31.11	28.49		31.95	24.36	23.56	23.08	22.97	13.69
TRADER COST	43.57	41.92	36.96	32.45	34.36	31.11	28.48		31.95	24.36	23.46	23.08	22.97	13.69
-SEP														
WT.AVG	43.36	41.03	36.10	31.78	33.17	31.43	27.96		31.96	24.48	23.70	23.27	23.12	13.69
TRADER COST	43.35	41.04	36.10	31.78	33.17	31.43	27.96		31.96	24.48	23.61	23.27	23.12	13.69
-OCT														
WT.AVG	43.14	40.97	35.87	30.48	32.93	30.66	27.59		31.08	23.28	22.43	22.02	21.90	13.69
TRADER COST	43.14	40.98	35.87	30.48	32.93	30.66	27.60		31.08	23.28	22.34	22.02	21.90	13.69
-NOV														
WT.AVG	42.87	40.68	35.68	29.30	32.75	29.67	27.77		30.31	22.19	21.40	20.82	20.74	13.69
TRADER COST	42.86	40.68	35.68	29.30	32.75	29.67	27.77		30.31	22.19	21.31	20.82	20.74	13.69
-DEC														
WT.AVG	43.08	40.91	35.95	29.62	33.02	29.54	27.67		30.22	21.99	21.10	20.62	20.57	13.69
TRADER COST	43.08	40.92	35.95	29.62	33.02	29.54	27.68		30.22	21.99	21.02	20.62	20.57	13.69
2012 AVG														
WT.AVG	41.03	39.61	36.51	31.45	34.06	30.31	28.36		31.11	24.10	23.31	22.94	22.66	13.69
TRADER COST	41.02	39.61	36.51	31.45	34.06	30.31	28.36		31.11	24.10	23.22	22.94	22.66	13.69

After Jan'1992 Wholesale Prices Including VAT.

Table 8.1-4 (Cont.)
Wholesale Prices of Petroleum Product at Refinery in Thailand

Unit : Baht/Litre

Products	1. Gasoline					2. Kerosene	3. Diesel			4. Fuel Oil				5. LPG (Baht/kg) (exclude vat)
	ULG95	UGR 91	Gasohol 95 (E10)	Gasohol 95 (E20)	Gasohol 91		HSD	HSD B5	LSD	600 (2%S)	1500 (2%S)	2000	2500	
2013														
-JAN														
WT.AVG	43.54	39.91	36.49	30.24	33.56	29.71	27.80		30.38	22.17	21.35	20.87	20.85	13.69
TRADER COST	43.53	39.93	36.49	30.24	33.56	29.71	27.80		30.38	22.17	21.26	20.87	20.85	13.69
-FEB														
WT.AVG	45.79	42.16	38.78	32.57	35.86	30.72	28.08		31.38	22.68	21.80	21.35	21.34	13.69
TRADER COST	45.78	42.19	38.78	32.57	35.86	30.72	28.08		31.38	22.68	21.71	21.35	21.34	13.69
-MAR														
WT.AVG	44.24	41.13	37.75	32.08	35.10	28.39	27.43		29.37	21.83	21.10	20.70	20.64	13.69
TRADER COST	44.25	41.16	37.75	32.08	35.10	28.39	27.44		29.37	21.83	21.02	20.70	20.64	13.69
-APR														
WT.AVG	41.92	39.26	35.82	30.46	34.08	26.56	27.53		27.61	20.85	20.16	19.75	19.76	13.69
TRADER COST	41.93	39.32	35.82	30.46	34.08	26.56	27.54		27.61	20.85	20.08	19.75	19.76	13.69
-MAY														
WT.AVG	42.91	33.81	36.32	31.17	34.87	26.86	27.86		27.96	21.15	20.48	19.98	19.97	13.69
TRADER COST	42.90	33.18	36.32	31.17	34.87	26.86	27.86		27.96	21.15	20.39	19.98	19.97	13.69
-JUN														
WT.AVG	44.41	35.03	37.11	31.34	35.66	27.98	28.00		29.38	22.16	21.41	20.94	20.76	13.69
TRADER COST	44.41	34.38	37.11	31.34	35.66	27.98	28.00		29.38	22.16	21.32	20.94	20.76	13.69
-JUL														
WT.AVG	45.53	35.97	38.12	32.25	36.65	29.17	28.07		30.48	22.10	21.22	20.69	20.63	13.69
TRADER COST	45.52	35.31	38.12	32.25	36.65	29.17	28.07		30.48	22.10	21.13	20.69	20.63	13.69
-AUG														
WT.AVG	45.06	35.48	38.03	32.48	36.75	30.20	28.10		31.03	22.53	21.57	20.97	21.01	13.69
TRADER COST	45.06	34.83	38.03	32.48	36.75	30.20	28.10		31.03	22.53	21.47	20.97	21.01	13.69
-SEP														
WT.AVG	45.17	35.65	37.31	31.54	35.94	30.26	27.73		31.15	22.68	21.79	21.26	21.25	13.69
TRADER COST	45.18	34.99	37.31	31.54	35.94	30.26	27.74		31.15	22.68	21.70	21.26	21.25	13.69
-OCT														
WT.AVG	44.43	34.89	36.91	31.45	35.68	29.67	27.90		30.80	22.71	21.75	21.86	21.37	13.69
TRADER COST	44.43	34.25	36.91	31.45	35.68	29.67	27.91		30.80	22.71	21.66	21.86	21.37	13.69
-NOV														
WT.AVG	44.86	35.18	37.42	31.96	36.17	29.85	28.17		30.88	22.71	21.70	22.94	21.70	13.69
TRADER COST	44.85	34.54	37.42	31.96	36.17	29.85	28.17		30.88	22.71	21.61	22.94	21.70	13.69
-DEC														
WT.AVG	46.35	36.37	38.74	33.11	37.48	31.35	28.17		32.23	23.32	22.38	22.75	22.18	13.69
TRADER COST	46.33	35.70	38.74	33.11	37.48	31.35	28.16		32.23	23.32	22.28	22.75	22.18	13.69
2013 AVG														
WT.AVG	44.52	37.07	37.40	31.72	35.65	29.23	27.90		30.22	22.24	21.39	21.17	20.95	13.69
TRADER COST	44.51	36.65	37.40	31.72	35.65	29.23	27.90		30.22	22.24	21.30	21.17	20.95	13.69

Table 8.1-5Y
Retail Prices of Petroleum Products in Bangkok

Unit : Baht/Litre

Products	1. Gasoline						2. Kerosene	3. Diesel			4. Fuel Oil		5. LPG				
	ULG 95	UGR 91	Gasohol 95 (E10)	Gasohol 95 (E20)	Gasohol 95 (E85)	Gasohol 91		HSD	B5	LSD	600 (2%S)	1500 (2%S)	LOW INCOME HOUSEHOLD (Baht/kg)	Cooking (Baht/kg)	Industry (Baht/kg)	Automobile (Baht/kg)	Automobile (Baht/L)
1997 (Min)	10.43	10.04					10.90	9.43		9.21	5.67	5.43		11.36		10.46	5.65
(WT.AVG)	10.48	10.09					11.17	9.49		9.48	5.85	5.45		11.36		10.53	5.68
(Max)	10.50	10.12					11.40	9.51		10.00	6.06	5.97		11.36		10.58	5.71
1998 (Min)	11.84	11.18					11.16	9.18		8.80	6.59	6.21		12.70		11.94	6.45
(WT.AVG)	11.86	11.20					11.70	9.19		9.54	6.79	6.42		12.70		11.94	6.45
(Max)	11.87	11.20					12.10	9.19		10.93		7.01		12.70		11.94	6.45
1999 (Min)	11.96	11.14					11.25	8.95		8.58	6.41	6.09		11.03		10.75	5.81
(WT.AVG)	11.98	11.16					11.63	8.96		8.95	6.87	6.29		11.03		10.75	5.81
(Max)	11.98	11.17					11.93	8.97		9.51	7.86	7.69		11.03		10.75	5.81
2000 (Min)	15.62	14.66					14.83	12.92		12.58	9.30	8.94		10.70		10.57	5.71
(WT.AVG)	15.63	14.68					15.10	12.95		12.77	9.68	9.22		10.70		10.57	5.71
(Max)	15.64	14.68					15.43	12.97		12.94	10.47	10.25		10.70		10.57	5.71
2001 (Min)	15.50	14.50					15.33	13.42		13.05	9.39	8.90		11.90		12.00	6.48
(WT.AVG)	15.51	14.51					15.97	13.43		13.18	9.76	9.25		11.90		12.00	6.48
(Max)	15.51	14.51					16.53	13.43		13.30	10.41	9.98		11.90		12.00	6.48
2002 (Min)	15.29	14.29					14.54	13.12		12.72	9.31	8.96		13.77		13.98	7.55
(WT.AVG)	15.29	14.29					15.56	13.12		12.83	9.91	9.24		13.77		13.98	7.55
(Max)	15.29	14.29					16.12	13.12		12.98	10.65	10.19		13.77		13.98	7.55
2003 (Min)	16.60	15.65					15.60	14.03		13.58	10.38	10.02		14.87		14.88	8.05
(WT.AVG)	16.60	15.65					16.71	14.03		13.73	11.00	10.36		14.87		14.88	8.05
(Max)	16.60	15.65					17.41	14.03		13.85	12.40	11.80		14.87		14.88	8.05
2004 (Min)	19.05	18.26					17.73	14.59		14.28	10.66	10.25		16.46		16.46	8.90
(WT.AVG)	19.05	18.26					19.50	14.59		14.37	11.75	10.98		16.46		16.46	8.90
(Max)	19.05	18.26					20.22	14.59		14.45	13.02	12.53		16.46		16.46	8.90
2005 (Min)	23.89	23.09					22.06	20.01		17.14	13.75	13.10		16.81		16.81	9.09
(WT.AVG)	23.90	23.10					24.51	20.03		18.18	15.83	15.09		16.81		16.81	9.09
(Max)	23.91	23.11					25.71	20.05		19.91	17.30	16.86		16.81		16.81	9.09
2006 (Min)	27.54	26.75					26.87	25.56	25.06	25.37	17.22	16.35		16.81		16.81	9.09
(WT.AVG)	27.58	26.79					28.42	25.59	25.09	25.37	18.11	17.29		16.81		16.81	9.09
(Max)	27.66	26.86					29.25	25.61	25.18	25.37	19.27	18.79		16.81		16.81	9.09
2007 (Min)	29.18	28.32	26.17			25.76	26.01	25.66	24.95	25.45	18.48	17.66		16.91		16.91	9.14
(WT.AVG)	29.18	28.32	26.17			25.76	28.94	25.66	24.95	25.45	19.35	18.45		16.91		16.91	9.14
(Max)	29.23	28.35	26.25			25.76	30.50	25.67	24.95	25.45	20.67	20.19		16.91		16.91	9.14
2008 (Min)	34.86	33.40	28.95	27.36		28.15	34.99	31.15	30.34	33.20	22.53	21.06		18.13		18.13	9.79
(WT.AVG)	35.33	33.43	28.97	27.37		28.16	38.34	31.26	30.39	33.20	24.30	22.90		18.13		18.13	9.79
(Max)	35.89	33.45	29.02	27.37		28.20	40.88	31.34	30.50	33.20	27.12	26.11		18.13		18.13	9.79
2009 (Min)	37.23	31.32	27.49	25.39	18.77	26.65	26.20	24.75	22.71	27.04	18.10	16.39		18.13		18.13	9.79
(WT.AVG)	37.47	31.34	27.50	25.39	18.87	26.69	37.21	24.77	22.71	27.04	21.18	19.83		18.13		18.13	9.79
(Max)	38.29	31.36	27.53	25.39	18.96	26.74	39.88	24.79	22.73	27.04	27.28	25.90		18.13		18.13	9.79
2010 (Min)	41.12	36.08	32.30	29.96	19.21	30.84	28.68	28.64	27.50	27.04	21.06	19.35		18.13		18.13	9.79
(WT.AVG)	41.26	36.10	32.35	29.96	19.21	30.85	37.51	28.69	27.55	27.04	23.59	22.04		18.13		18.13	9.79
(Max)	41.90	36.13	32.40	29.96	19.21	30.90	39.88	28.72	27.58	27.04	27.28	25.90		18.13		18.13	9.79
2011 (Min)	44.51	39.68	36.48	32.94	21.75	33.94	32.11	29.40	29.65	27.04	26.69	25.19		18.13	20.38	18.13	9.79
(WT.AVG)	44.64	39.72	36.52	32.94	21.75	33.96	38.21	29.45	29.95	27.04	28.58	26.68		18.13	20.38	18.13	9.79
(Max)	45.31	39.80	36.65	32.94	21.75	34.12	39.88	29.54	30.17	27.04	30.98	29.76		18.13	20.38	18.13	9.79
2012 (Min)	46.27	41.94	37.94	34.34	22.22	35.88	36.15	30.41		27.04	29.72	28.12		18.13	28.71	20.65	11.15
(WT.AVG)	46.42	41.96	37.96	34.35	22.23	35.94	36.15	30.42		27.04	31.33	29.41		18.13	28.71	20.76	11.21
(Max)	47.19	42.01	38.01	34.36	22.23	36.00	36.15	30.51		27.04	33.33	32.10		18.13	28.71	20.86	11.26
2013 (Min)	46.41	45.07	38.80	33.79	22.73	36.33	35.46	29.97		27.04	27.62	25.94	18.13	18.40	29.70	21.38	11.55
(WT.AVG)	46.66	45.19	38.89	33.82	22.74	36.43	35.46	29.97		27.04	29.25	27.24	18.13	18.40	29.70	21.38	11.55
(Max)	46.91	45.66	38.95	33.87	22.74	36.50	35.46	30.01		27.04	31.27	29.95	18.13	18.40	29.70	21.38	11.55

Table 8.1-6
Tax and Oil Fund Revenue in Thailand

Unit : Million Bahts

Month	Oil Fund	Oil Fund Inflow (Outflow)	Excise Tax & Import Duty
2009		10,225	123,445
Jan	14,960	3,891	1,483
Feb	16,618	1,658	7,169
Mar	19,567	2,949	9,325
Apr	15,694	-3,873	8,645
May	17,566	1,872	10,037
Jun	15,173	-2,393	13,331
Jul	16,593	1,420	12,557
Aug	19,054	2,461	12,225
Sep	19,683	629	11,039
Oct	20,561	878	12,351
Nov	20,758	197	12,279
Dec	21,294	536	13,004
2010		6,147	153,561
Jan	20,794	-500	12,514
Feb	20,705	-89	12,443
Mar	21,764	1,059	14,603
Apr	22,705	941	13,852
May	22,670	-35	11,939
Jun	23,820	1,150	12,564
Jul	25,441	1,621	12,605
Aug	26,901	1,460	12,664
Sep	27,525	624	12,007
Oct	28,171	646	12,023
Nov	28,768	597	12,431
Dec	27,441	-1,327	13,916
2011		6,147	153,561
Jan	25,183	-2,258	12,514
Feb	21,684	-3,499	14,068
Mar	14,258	-7,426	13,536
Apr	1,003	-13,255	13,246
May	550	-453	4,915
Jun	-1,253	-1,803	5,122
Jul	-524	729	4,861
Aug	1,317	1,841	5,322
Sep	-317	-1,634	4,751
Oct	-3,296	-2,979	4,804
Nov	-11,380	-8,084	4,701
Dec	-14,000	-2,620	4,926

Table 8.1-6 (Cont.)
Tax and Oil Fund Revenue in Thailand

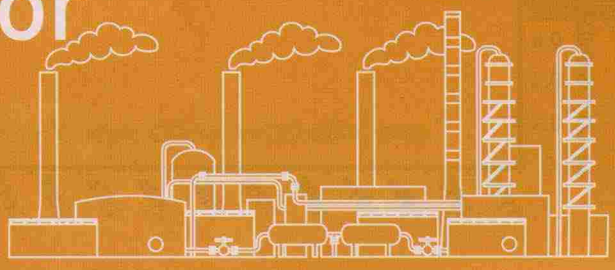
Unit : Million Bahts

Month	Oil Fund	Oil Fund Inflow (Outflow)	Excise Tax & Import Duty
2012		-4,079	56,699
Jan	-15,774	-1,774	5,514
Feb	-18,699	-2,925	5,245
Mar	-21,304	-2,605	5,151
Apr	-22,820	-1,516	4,897
May	-21,864	956	5,128
Jun	-18,623	3,241	4,997
Jul	-14,213	4,410	5,327
Aug	-15,325	-1,112	5,338
Sep	-18,423	-3,098	5,036
Oct	-19,500	-1,077	4,945
Nov	-18,079	1,421	5,121
Dec	-16,800	1,279	5,485
2013		18,506	63,092
Jan	-15,114	1,686	5,856
Feb	-15,492	-378	4,882
Mar	-13,098	2,394	5,211
Apr	-8,023	5,075	5,501
May	-2,024	5,999	5,501
Jun	3,256	5,280	5,028
Jul	5,738	2,482	5,562
Aug	7,032	1,294	5,191
Sep	5,444	-1,587	5,249
Oct	5,440	-4	5,204
Nov	5,360	-80	5,014
Dec	1,706	-3,653	4,891



Chapter 9

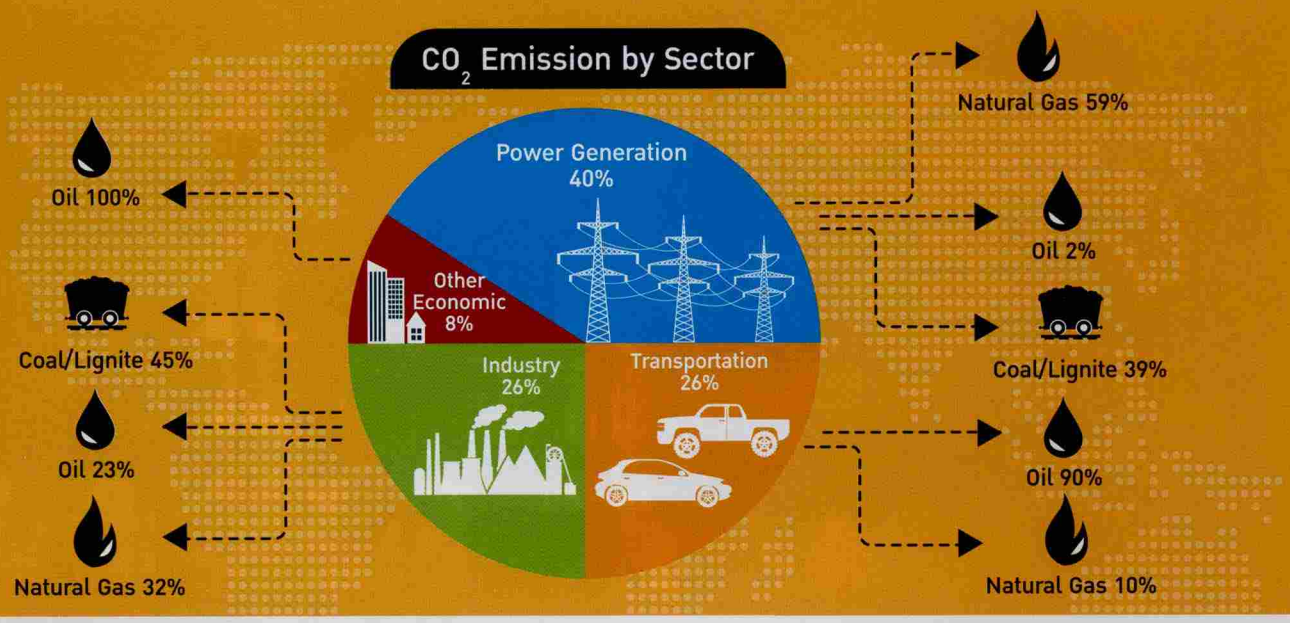
Air Pollution Emission in The Energy Sector



Air Pollution Emission in The Energy Sector

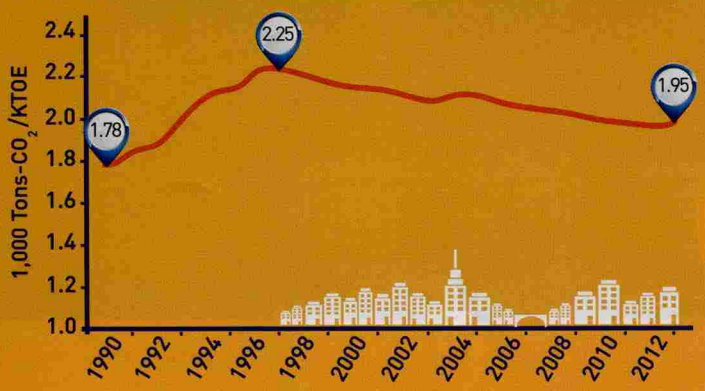


CO_2 Emission by Sector

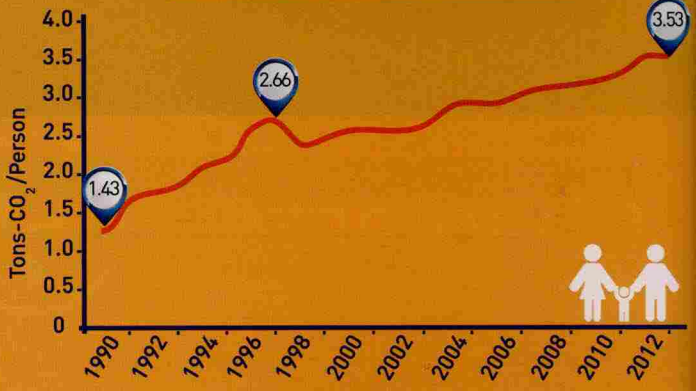


CO_2 Emission Indicators

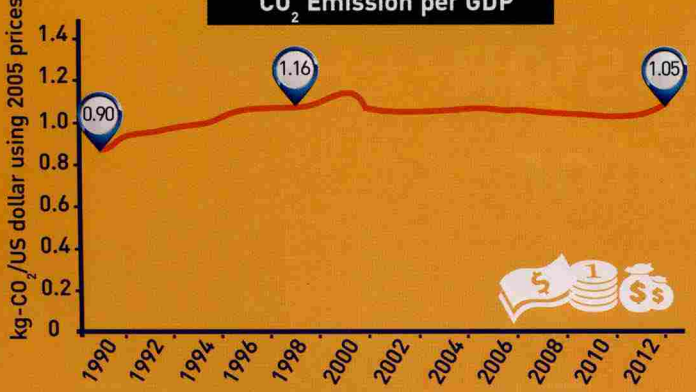
CO_2 Emission per Primary Energy Consumption



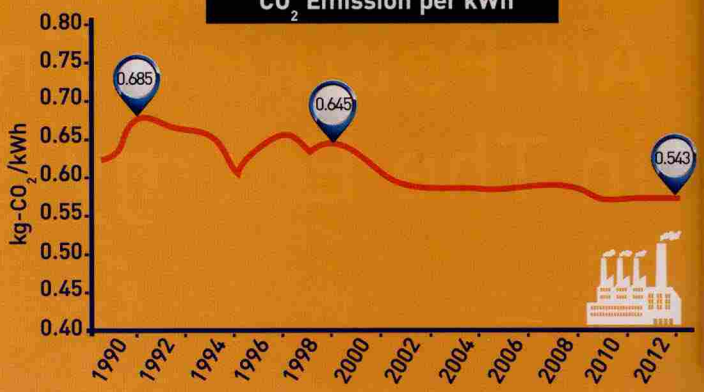
CO_2 Emission per Capita



CO_2 Emission per GDP



CO_2 Emission per kWh



บทที่ 9

การปล่อยมลพิษทางอากาศในภาคพลังงาน

การคำนวณปริมาณการปลดปล่อยมลพิษทางอากาศ เป็นการประมาณปริมาณก๊าซคาร์บอนไดออกไซด์ (CO_2) ที่เกิดจากการใช้พลังงานของประเทศ ซึ่งคำนวณจากปริมาณการใช้พลังงาน (Energy Consumption) และค่าสัมประสิทธิ์การปล่อยก๊าซ CO_2 (Emission Factor) ตามชนิดเชื้อเพลิง โดยอ้างอิงระเบียบวิธีประมาณการและค่าสัมประสิทธิ์การปล่อยก๊าซ CO_2 ตามหลักเกณฑ์ของ Intergovernmental Panel on Climate Change (IPCC) ฉบับปี 2006 โดยมีสูตรคำนวณดังนี้

$$CO_2 \text{ Emission} = \sum \left(EF_{Fuel} \times FC_{Fuel} \right)$$

CO_2 Emission	หมายถึง	ปริมาณการปล่อยก๊าซ CO_2 จากการใช้พลังงาน
EF_{Fuel} (Emission Factor)[1]	หมายถึง	ค่าสัมประสิทธิ์การปล่อยก๊าซ CO_2 ตามชนิดเชื้อเพลิง
FC_{Fuel} (Fuel Consumption)[2]	หมายถึง	ปริมาณการใช้เชื้อเพลิงแต่ละชนิด

ขอบเขตการคำนวณปริมาณก๊าซ CO_2 ข้างต้น คำนวณจากการใช้พลังงานของ 4 ภาคเศรษฐกิจ ได้แก่ ภาคการผลิตไฟฟ้า (Power Generation) ภาคการขนส่ง (Transportation) ภาคอุตสาหกรรม (Industry) และภาคเศรษฐกิจอื่นๆ (Other Sectors) ซึ่งหมายถึงภาคครัวเรือน เกษตรกรรม และพาณิชยกรรม ด้านชนิดเชื้อเพลิง ได้แบ่งเชื้อเพลิงในการคำนวณออกเป็น 3 ชนิด ได้แก่ น้ำมันสำเร็จรูป (คำนวณจากการใช้น้ำมันเบนซิน ดีเซล น้ำมันเตา ก๊าซปิโตรเลียมเหลว (LPG) น้ำมันเครื่องบิน และน้ำมันก๊าด) ก๊าซธรรมชาติ และถ่านหิน/ลิกไนต์ โดยในการคำนวณจะไม่รวมเชื้อเพลิงบางชนิด ได้แก่ น้ำมันเตาสำหรับเรือเดินสมุทรระหว่างประเทศ (Bunker Oil) น้ำมันเครื่องบินสำหรับเที่ยวบินระหว่างประเทศ และเชื้อเพลิงหมุนเวียน เช่น ชีวมวล ก๊าซชีวภาพ เอทานอล ไบโอดีเซล พลังน้ำ เป็นต้น เพื่อให้สอดคล้องกับข้อยกเว้นในการคำนวณและป้องกันการนับซ้ำของ IPCC

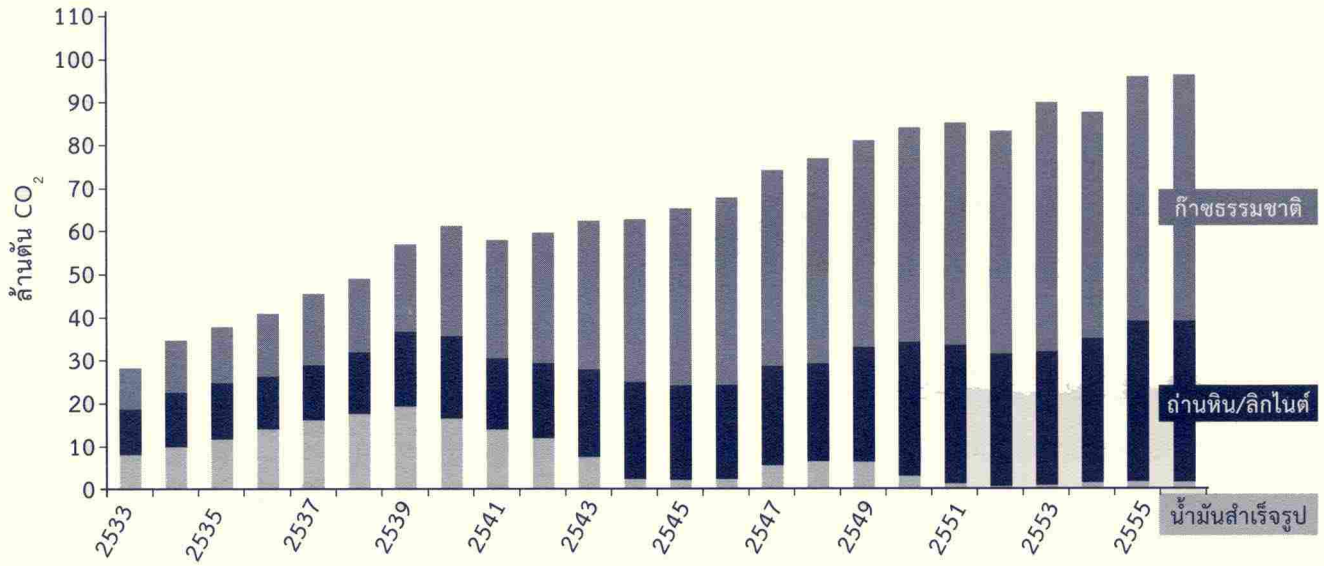
[1] อ้างอิงจากคู่มือการคำนวณการปล่อยมลพิษทางอากาศของ Intergovernmental Panel on Climate Change (IPCC) ฉบับปี 2006

[2] อ้างอิงจากฐานข้อมูลสถิติพลังงานของสำนักงานนโยบายและแผนพลังงาน

การปล่อยก๊าซ CO_2 รายภาคเศรษฐกิจ

• **ภาคการผลิตไฟฟ้า** ในปี 2556 มีการปล่อยก๊าซ CO_2 รวมทั้งสิ้น 96.4 ล้านตัน โดยกว่า 25 ปีที่ผ่านมา มีการปล่อยก๊าซ CO_2 จากการใช้น้ำมันสำเร็จรูป (น้ำมันดีเซล และน้ำมันเตา) ลดลงจาก 3.8 ล้านตันในปี 2532 เหลือ 1.5 ล้านตันในปี 2556 ในขณะที่การใช้ถ่านหิน/ลิกไนต์ และก๊าซธรรมชาติยังคงมีแนวโน้มการปล่อยก๊าซ CO_2 สูงขึ้นตามปริมาณการใช้พลังงานที่เพิ่มขึ้น โดยถ่านหิน/ลิกไนต์ปล่อยก๊าซ CO_2 เพิ่มขึ้นจาก 7.1 ล้านตันในปี 2532 เป็น 37.6 ล้านตันในปี 2556 เช่นเดียวกับก๊าซธรรมชาติที่ปล่อยก๊าซ CO_2 เพิ่มขึ้นจาก 9.8 ล้านตัน ในปี 2532 เป็น 57.3 ล้านตันในปี 2556 โดยก๊าซธรรมชาตินับเป็นเชื้อเพลิงที่มีการปล่อยก๊าซ CO_2 ในภาคการผลิตไฟฟ้ามากที่สุด

การปล่อยก๊าซ CO_2 ภาคการผลิตไฟฟ้า



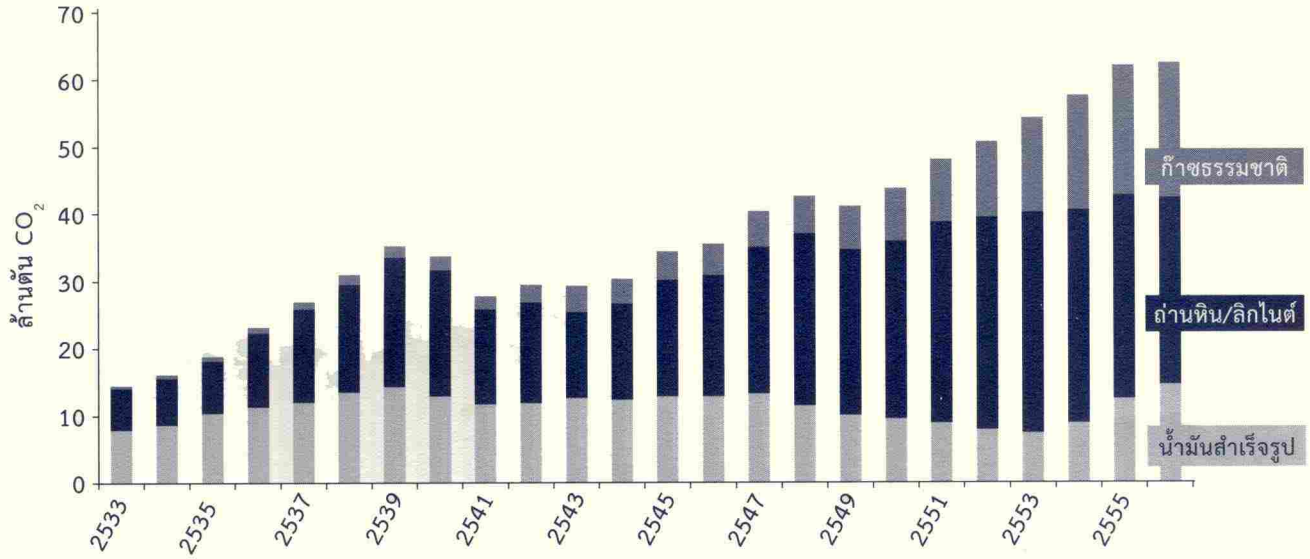
หน่วย : ล้านตัน CO_2

ปี พ.ศ.	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544
น้ำมันสำเร็จรูป	8.10	9.90	11.63	14.09	16.06	17.62	19.19	16.43	14.00	12.02	7.56	2.37
ถ่านหิน/ลิกไนต์	10.44	12.53	13.13	12.14	12.85	14.37	17.51	19.27	16.53	17.40	20.32	22.57
ก๊าซธรรมชาติ	9.62	12.32	13.04	14.73	16.65	17.03	20.20	25.54	27.45	30.24	34.53	37.80

ปี พ.ศ.	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556
น้ำมันสำเร็จรูป	2.14	2.30	5.58	6.48	6.33	2.95	1.21	0.54	0.83	1.42	1.67	1.53
ถ่านหิน/ลิกไนต์	21.98	21.92	23.04	22.77	26.72	31.28	32.31	30.93	31.14	33.68	37.42	37.60
ก๊าซธรรมชาติ	41.15	43.66	45.49	47.64	47.98	49.85	51.64	51.76	57.99	52.62	56.91	57.28

• **ภาคอุตสาหกรรม** มีการปล่อยก๊าซ CO_2 จากการใช้ถ่านหิน/ลิกไนต์ และก๊าซธรรมชาติเพิ่มขึ้น ในขณะที่มีแนวโน้มการปล่อยก๊าซ CO_2 จากน้ำมันสำเร็จรูป (น้ำมันดีเซล น้ำมันเตา น้ำมันก๊าด และ LPG) ลดลงเช่นเดียวกับภาคการผลิตไฟฟ้า ในปี 2556 ถ่านหิน/ลิกไนต์เป็นเชื้อเพลิงที่มีสัดส่วนการปล่อยก๊าซ CO_2 มากที่สุดในภาคอุตสาหกรรม โดยเพิ่มขึ้นจาก 4.8 ล้านตันในปี 2532 เป็น 27.8 ล้านตันในปี 2556 เช่นเดียวกับก๊าซธรรมชาติที่ปล่อยก๊าซ CO_2 ในช่วงดังกล่าวเพิ่มขึ้น ในขณะที่น้ำมันสำเร็จรูปมีแนวโน้มการปล่อยก๊าซ CO_2 ลดลงอยู่ที่ระดับ 14.5 ล้านตันในปี 2556

การปล่อยก๊าซ CO_2 ภาคอุตสาหกรรม



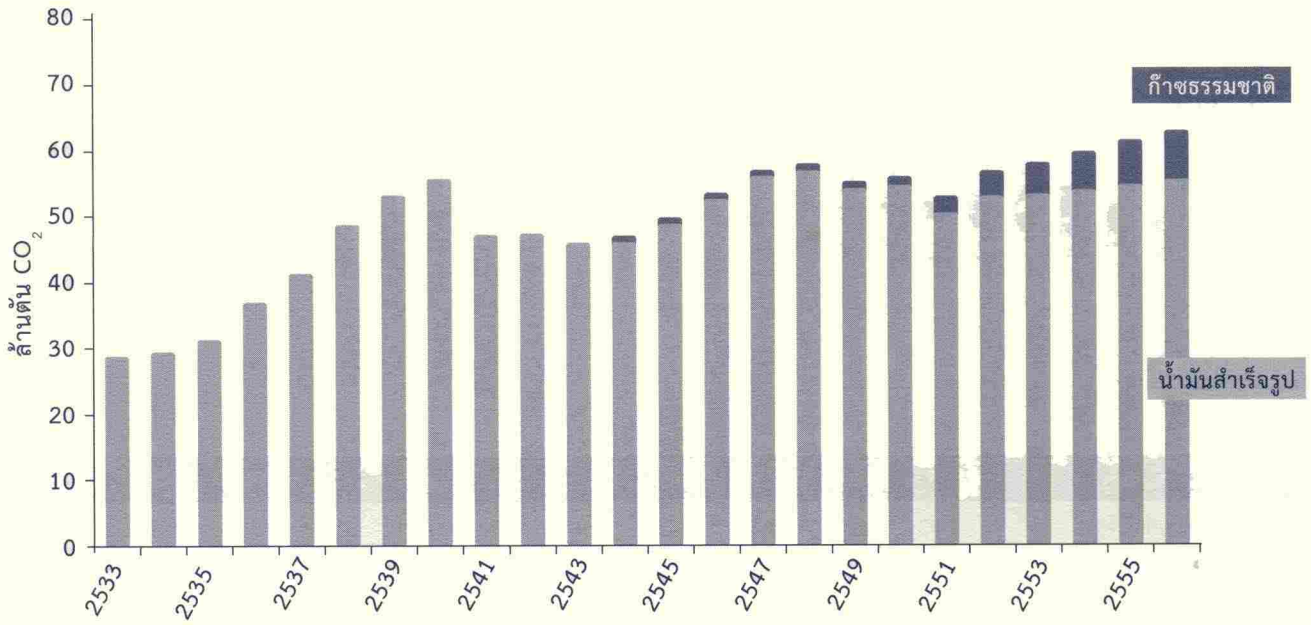
หน่วย : ล้านตัน CO_2

ปี พ.ศ.	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544
น้ำมันสำเร็จรูป	7.93	8.65	10.40	11.26	11.97	13.51	14.28	12.91	11.69	11.87	12.63	12.34
ถ่านหิน/ลิกไนต์	6.16	6.90	7.66	10.97	13.82	15.97	19.27	18.76	14.11	14.97	12.78	14.24
ก๊าซธรรมชาติ	0.37	0.52	0.71	0.87	1.14	1.55	1.66	2.05	1.95	2.61	3.86	3.76

ปี พ.ศ.	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556
น้ำมันสำเร็จรูป	12.86	12.87	13.24	11.41	10.06	9.54	8.88	7.96	7.46	8.89	12.51	14.52
ถ่านหิน/ลิกไนต์	17.27	17.98	21.73	25.57	24.59	26.35	29.84	31.47	32.71	31.65	30.20	27.77
ก๊าซธรรมชาติ	4.22	4.62	5.35	5.62	6.41	7.88	9.34	11.26	14.00	17.00	19.30	20.03

• **ภาคการขนส่ง** เชื้อเพลิงสำคัญที่ก่อให้เกิดการปล่อยก๊าซ CO_2 ในภาคเศรษฐกิจนี้ คือ น้ำมันสำเร็จรูป (น้ำมันเบนซิน ดีเซล น้ำมันเตา น้ำมันเครื่องบิน และ LPG) โดยมีการปล่อยก๊าซ CO_2 เพิ่มขึ้นจาก 25.2 ล้านตัน ในปี 2532 เป็น 55.2 ล้านตันในปี 2540 ก่อนจะลดลงในปี 2541 ซึ่งเป็นช่วงที่ประเทศเกิดภาวะวิกฤตเศรษฐกิจ อันส่งผลให้มีการใช้พลังงานลดลง จากนั้นการปล่อยก๊าซ CO_2 เริ่มมีแนวโน้มเพิ่มขึ้น ก่อนจะลดลงอีกครั้งในปี 2551 จากภาวะวิกฤตเศรษฐกิจของสหรัฐอเมริกาซึ่งส่งผลกระทบต่อประเทศไทย อย่างไรก็ดีปัจจุบันการปล่อยก๊าซ CO_2 เริ่มกลับมามีแนวโน้มเพิ่มขึ้น โดยในปี 2556 มีการปล่อยก๊าซ CO_2 จากน้ำมันสำเร็จรูปที่ระดับ 55.9 ล้านตัน ในส่วนของก๊าซธรรมชาติเริ่มมีการใช้เป็นเชื้อเพลิงภาคขนส่งในปี 2544 โดยมีแนวโน้มการปล่อยก๊าซ CO_2 เพิ่มขึ้นอย่างต่อเนื่อง จาก 0.01 ล้านตันในปี 2544 เป็น 6.5 ล้านตันในปี 2556

การปล่อยก๊าซ CO_2 ภาคการขนส่ง



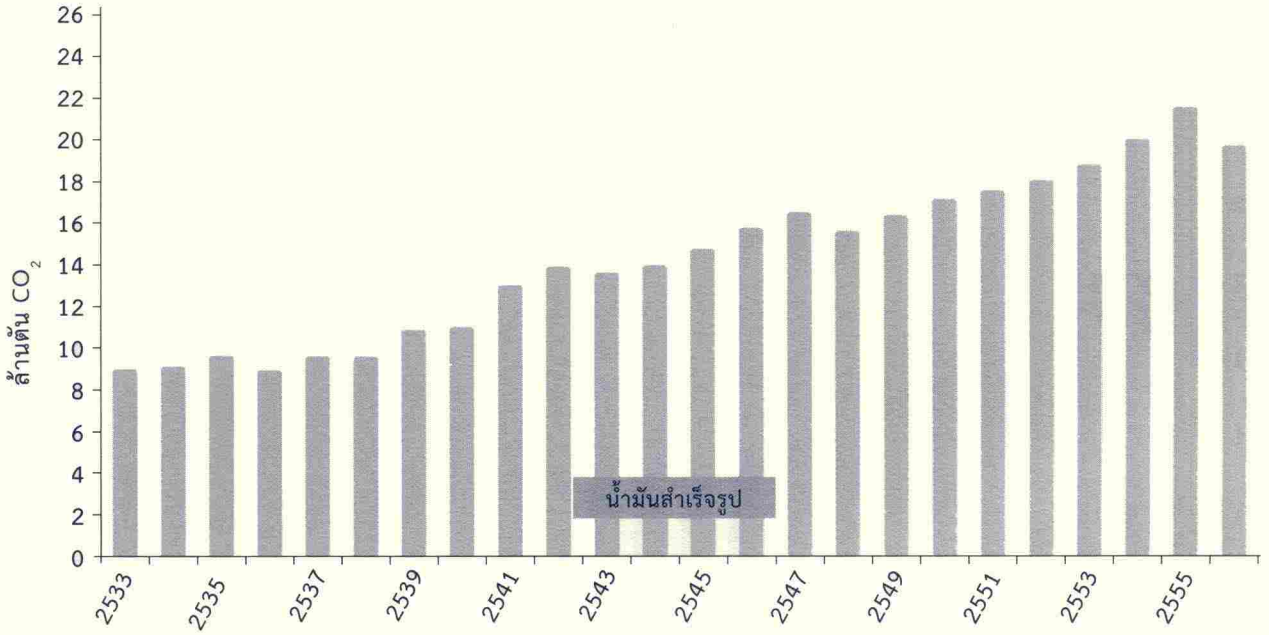
หน่วย : ล้านตัน CO_2

ปี พ.ศ.	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544
น้ำมันสำเร็จรูป	28.35	28.98	30.91	36.53	40.94	48.21	52.71	55.24	46.74	46.89	45.56	46.53
ก๊าซธรรมชาติ	-	-	-	-	-	-	-	-	-	-	-	0.01

ปี พ.ศ.	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556
น้ำมันสำเร็จรูป	49.24	53.00	56.48	57.38	54.60	55.07	50.89	53.35	53.74	54.35	55.15	55.91
ก๊าซธรรมชาติ	0.01	0.01	0.06	0.14	0.23	0.50	1.65	3.03	3.85	4.90	5.92	6.52

• **ภาคเศรษฐกิจอื่นๆ** ยังคงมีแนวโน้มการปล่อยก๊าซ CO_2 จากการใช้น้ำมันสำเร็จรูปเพิ่มสูงขึ้น จาก 8.1 ล้านตัน ในปี 2532 เป็น 19.6 ล้านตันในปี 2556

การปล่อยก๊าซ CO_2 ภาคเศรษฐกิจอื่นๆ



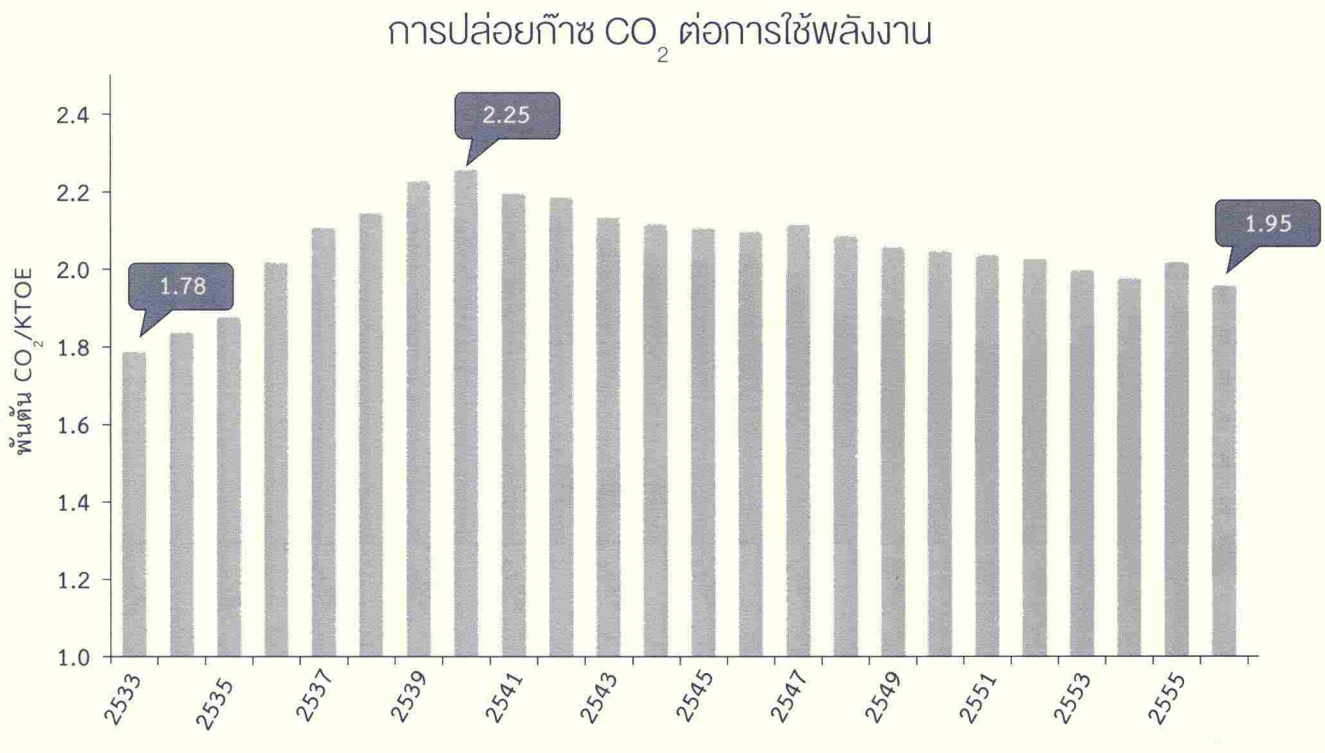
หน่วย : ล้านตัน CO_2

ปี พ.ศ.	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544
น้ำมันสำเร็จรูป	8.84	8.97	9.48	8.79	9.45	9.44	10.74	10.86	12.88	13.77	13.49	13.84

ปี พ.ศ.	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556
น้ำมันสำเร็จรูป	14.61	15.59	16.37	15.47	16.22	17.02	17.44	17.91	18.66	19.87	21.41	19.56

ดัชนีชี้วัดการปล่อยก๊าซ CO_2

- **การปล่อยก๊าซ CO_2 ต่อการใช้พลังงานขั้นต้น** มีแนวโน้มเพิ่มสูงขึ้นในช่วงปี 2533-2540 จาก 1.78 พันตัน เป็น 2.25 พันตัน ต่อการใช้พลังงานขั้นต้น 1 KTOE หรือเพิ่มขึ้นเฉลี่ยร้อยละ 3.4 ต่อปี จากนั้นจึงลดลงอย่างชัดเจน ตั้งแต่ปี 2541 ต่อเนื่องจนถึงปี 2556 ซึ่งมีการปล่อยก๊าซ CO_2 ที่ระดับ 1.95 พันตันต่อการใช้พลังงานขั้นต้น 1 KTOE เฉลี่ยลดลงร้อยละ 0.8 ต่อปี

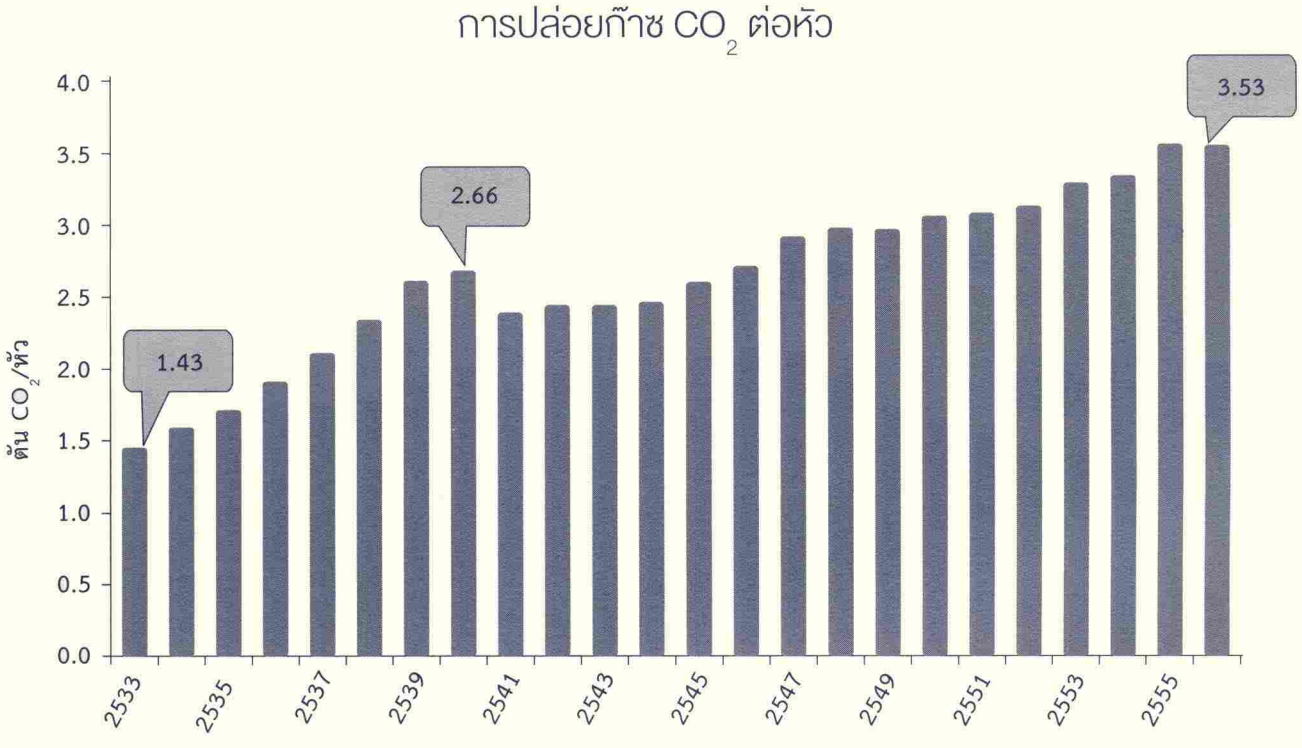


หน่วย : ล้านตัน CO_2/KTOE

ปี พ.ศ.	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544
CO_2	1.78	1.83	1.87	2.01	2.10	2.14	2.22	2.25	2.19	2.18	2.13	2.11

ปี พ.ศ.	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556
CO_2	2.10	2.09	2.11	2.08	2.05	2.04	2.03	2.02	1.99	1.97	2.01	1.95

• **การปล่อยก๊าซ CO_2 ต่อหัว** มีอัตราการเติบโตค่อนข้างสูงในช่วงปี 2533-2540 โดยเฉลี่ยเพิ่มขึ้นร้อยละ 9.3 ต่อปี ก่อนจะลดต่ำลงเล็กน้อยในปี 2541 ตามการใช้พลังงานที่ลดลงจากภาวะเศรษฐกิจ และมีแนวโน้มเพิ่มขึ้นในปีต่อมาต่อเนื่องจนถึงปี 2556 ซึ่งมีการปล่อยก๊าซ CO_2 ที่ระดับ 3.53 ตันต่อหัว เฉลี่ยเพิ่มขึ้นร้อยละ 2.7 ต่อปี

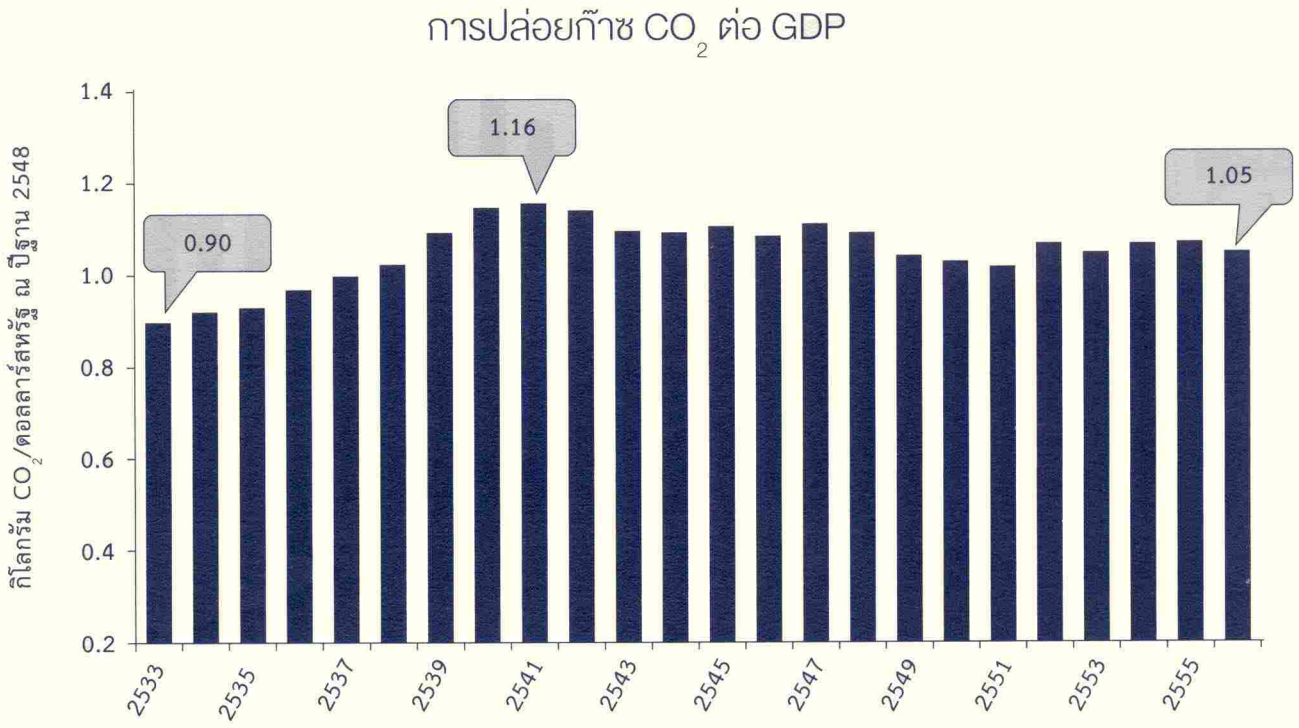


หน่วย : ล้านตัน CO_2/KTOE

ปี พ.ศ.	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544
CO_2	1.43	1.57	1.69	1.89	2.09	2.32	2.59	2.66	2.37	2.42	2.42	2.44

ปี พ.ศ.	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556
CO_2	2.58	2.69	2.90	2.96	2.95	3.04	3.06	3.11	3.27	3.32	3.54	3.53

• **การปล่อยก๊าซ CO_2 ต่อ GDP** มีแนวโน้มเพิ่มขึ้นจาก 0.90 กิโลกรัม ต่อ GDP 1 ดอลลาร์สหรัฐ ในปี 2533 มาอยู่ที่ 1.15 กิโลกรัม ต่อ 1 ดอลลาร์สหรัฐ ในปี 2540 เฉลี่ยเพิ่มขึ้นร้อยละ 3.6 ต่อปี โดยในปี 2541 มีการปล่อยก๊าซ CO_2 เพิ่มขึ้นเป็น 1.16 กิโลกรัม ต่อ 1 ดอลลาร์สหรัฐ ซึ่งเป็นอัตราสูงสุดของประเทศในรอบกว่า 25 ปีที่ผ่านมา จากนั้นจึงมีแนวโน้มลดลงจนถึงปี 2556 มีการปล่อยก๊าซ CO_2 ที่ระดับ 1.05 กิโลกรัม ต่อ 1 ดอลลาร์สหรัฐ เฉลี่ยลดลงร้อยละ 0.7 ต่อปี

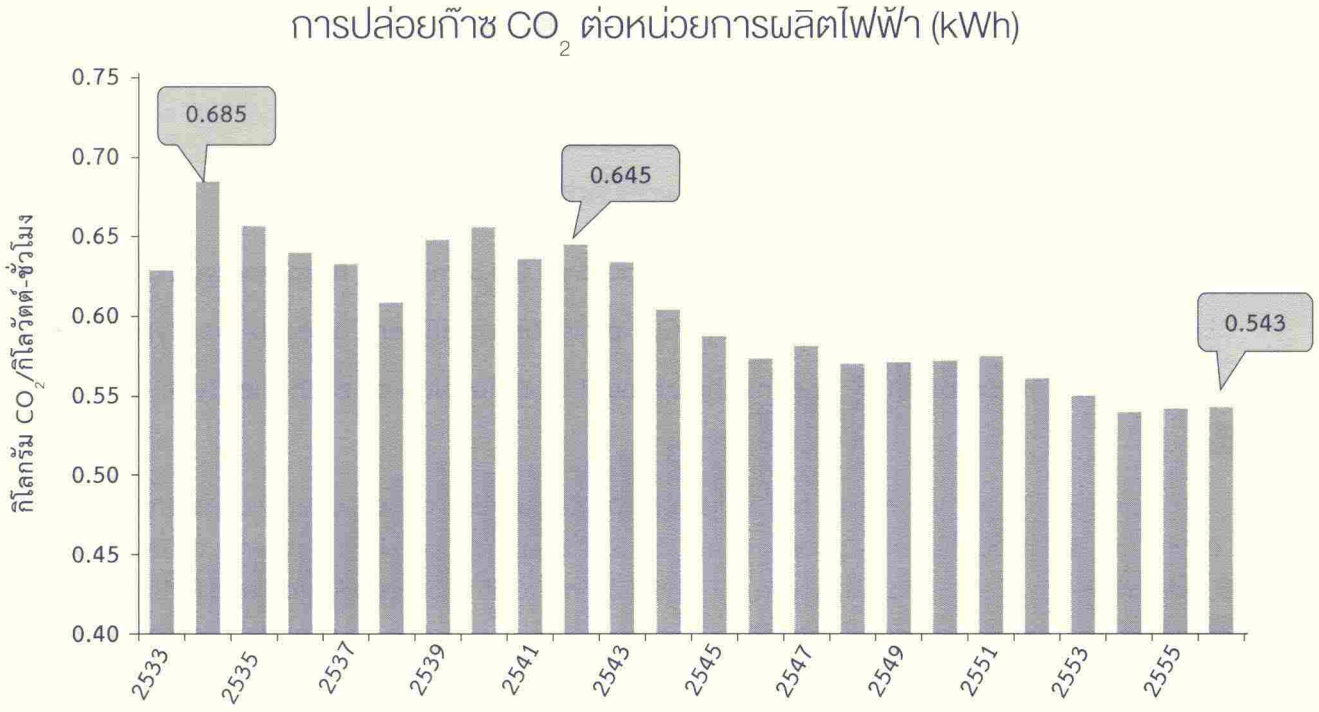


หน่วย : กิโลกรัม CO_2/ดอลลาร์สหรัฐ ณ ปีฐาน 2548

ปี พ.ศ.	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544
CO_2	0.90	0.92	0.93	0.97	1.00	1.02	1.09	1.15	1.16	1.14	1.10	1.09

ปี พ.ศ.	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556
CO_2	1.10	1.08	1.11	1.09	1.04	1.03	1.02	1.07	1.05	1.07	1.07	1.05

• **การปล่อยก๊าซ CO_2 ต่อหน่วยการผลิตไฟฟ้า (kWh)** มีการเปลี่ยนแปลงเป็นช่วงตามสัดส่วนเชื้อเพลิงที่ใช้ในการผลิตไฟฟ้า จาก 0.629 กิโลกรัม ต่อ 1 kWh ในปี 2533 เพิ่มขึ้นเป็น 0.685 กิโลกรัม ต่อ 1 kWh ในปี 2534 จากนั้นจึงเริ่มมีแนวโน้มลดลงตามสัดส่วนของก๊าซธรรมชาติที่นำมาใช้เป็นเชื้อเพลิงในการผลิตไฟฟ้าที่เพิ่มขึ้น โดยปี 2556 มีการปล่อยก๊าซ CO_2 ที่ระดับ 0.543 กิโลกรัม ต่อ 1 kWh เฉลี่ยลดลงร้อยละ 1.0 ต่อปี



หน่วย : กิโลกรัม CO_2/กิโลวัตต์-ชั่วโมง

ปี พ.ศ.	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544
CO_2	0.629	0.685	0.657	0.640	0.633	0.609	0.648	0.656	0.636	0.645	0.634	0.604

ปี พ.ศ.	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556
CO_2	0.587	0.573	0.581	0.570	0.571	0.572	0.575	0.561	0.550	0.540	0.542	0.543

Chapter 9 : Air Pollution Emission in The Energy Sector

The calculation of the amount of air pollution emissions herein is the estimation of CO_2 emission stemming from energy use in Thailand, calculated from the amount of energy consumption and the CO_2 emission factor by fuel type, with reference to the estimation methodologies and CO_2 emission factors prescribed in the 2006 Guidelines of the Intergovernmental Panel on Climate Change (IPCC), using the following calculation formula:

$$CO_2 \text{ Emission} = \sum (EF_{Fuel} \times FC_{Fuel})$$

Where:

CO_2 Emission	means the amount of CO_2 emission from energy consumption
EF_{Fuel} (Emission Factor)[1]	means the CO_2 emission coefficient of each fuel type
FC_{Fuel} (Fuel Consumption)[2]	means the amount of utilization of each fuel type

The scope of the above-mentioned CO_2 emission calculation covers energy consumption in four major economic sectors, namely: power generation, transportation, industry and other economic sectors (covering the residential, agricultural and commercial sectors). As for the fuel types used in the calculation, they are divided into three types, namely: petroleum products (calculated from consumption of gasoline, diesel, fuel oil, LPG, jet petroleum and kerosene), natural gas and coal/ lignite. Certain types of fuel are not included in the calculation, i.e. bunker oil for international ocean liners, jet petroleum for international flights, and renewable fuels, such as biomass, biogas, ethanol, biodiesel and hydropower, to be in line with the exceptions to the calculation and to avoid the possibilities of double counting prescribed by the IPCC.

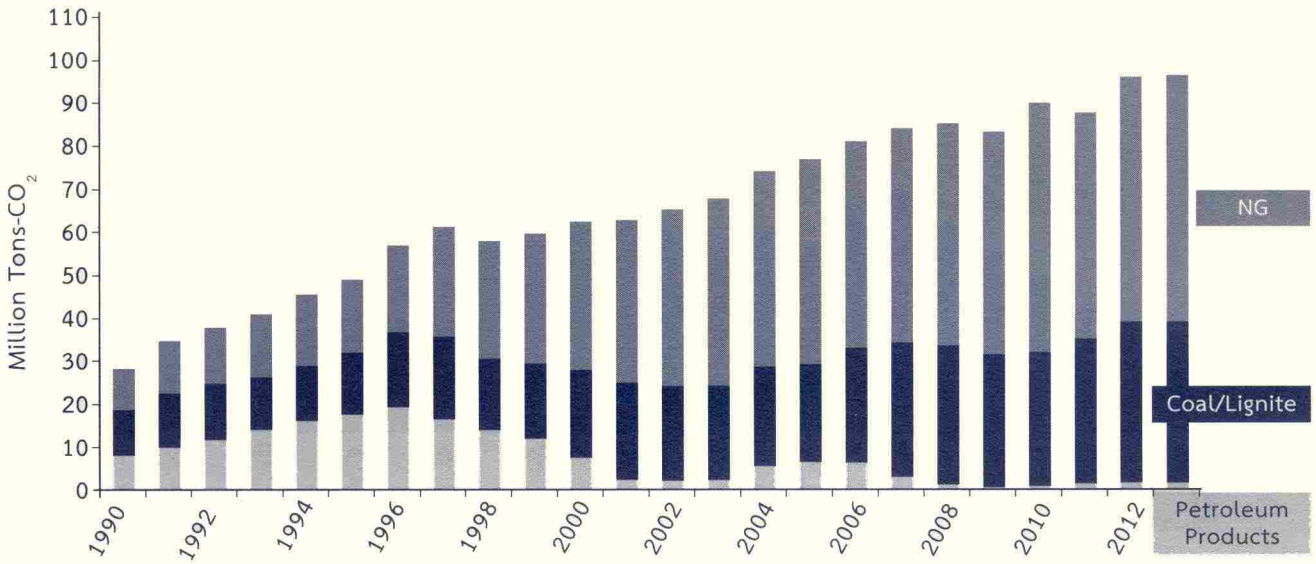
[1] Based on the 2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories

[2] Based on the energy statistics database of the Energy Policy and Planning Office

CO_2 Emission by Economic Sector

- **Power Generation Sector.** In 2013, CO_2 emissions in this sector totaled 96.4 million tons. Over the past 25 years, CO_2 emissions from the use of petroleum products (diesel and fuel oil) had decreased since 1989 from 3.8 million tons to 1.5 million tons in 2013. However, CO_2 emissions from burning of coal/lignite and natural gas had been rising in accordance with increased volume of energy use. CO_2 emission from coal/lignite consumption increased from 7.1 million tons in 1989 to 37.6 million tons in 2013. Similarly, CO_2 emission from natural gas consumption increased from 9.8 million tons in 1989 to 57.3 million tons in 2013, accounted for the largest CO_2 emission source in the power generation sector.

CO_2 Emission in the Power Generation Sector

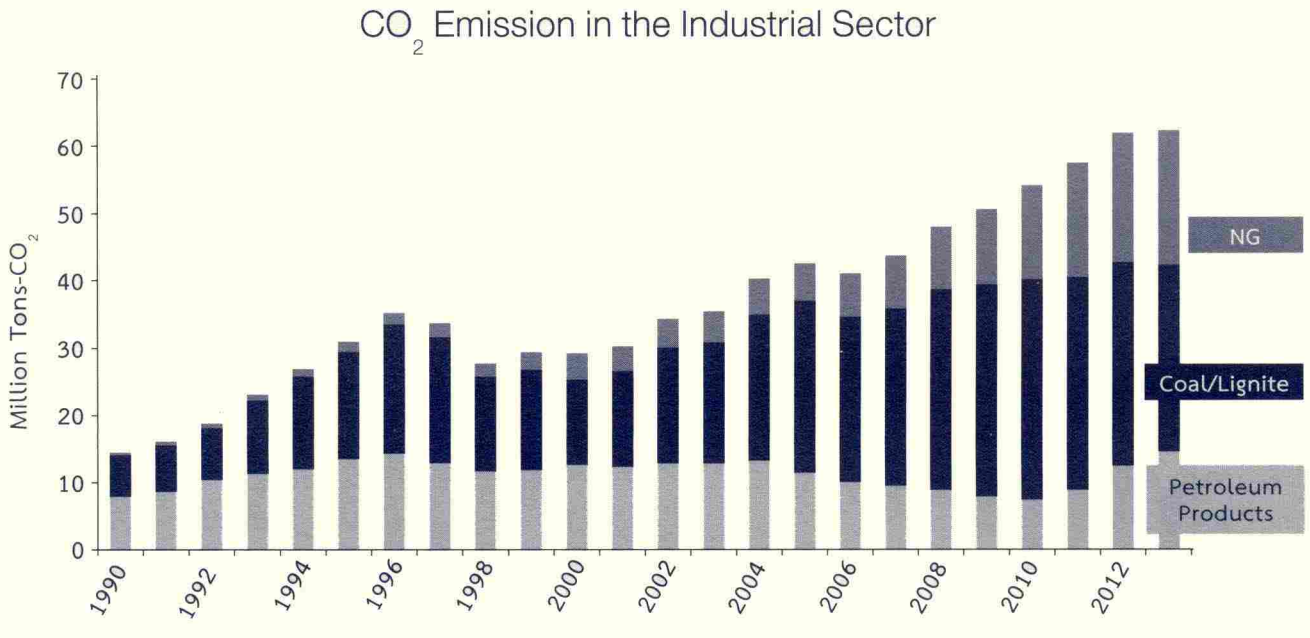


Unit : Million Tons-CO_2

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Petroleum Products	8.10	9.90	11.63	14.09	16.06	17.62	19.19	16.43	14.00	12.02	7.56	2.37
Coal/Lignite	10.44	12.53	13.13	12.14	12.85	14.37	17.51	19.27	16.53	17.40	20.32	22.57
NG	9.62	12.32	13.04	14.73	16.65	17.03	20.20	25.54	27.45	30.24	34.53	37.80

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Petroleum Products	2.14	2.30	5.58	6.48	6.33	2.95	1.21	0.54	0.83	1.42	1.67	1.53
Coal/Lignite	21.98	21.92	23.04	22.77	26.72	31.28	32.31	30.93	31.14	33.68	37.42	37.60
NG	41.15	43.66	45.49	47.64	47.98	49.85	51.64	51.76	57.99	52.62	56.91	57.28

• **Industrial Sector.** Similar to the power generation sector, CO_2 emissions from coal/lignite and natural gas consumption in this sector increased while a decrease in emissions had been observed in the use of petroleum products (diesel, fuel oil, kerosene and LPG). In 2013, coal/lignite accounted for the largest CO_2 emission source in the industrial sector, with the emission increasing from 4.8 million tons in 1989 to 27.8 million tons in 2013. CO_2 emission from natural gas consumption also increased over the same period, whereas the CO_2 emission from petroleum product consumption decreased to only 14.5 million tons in 2013.

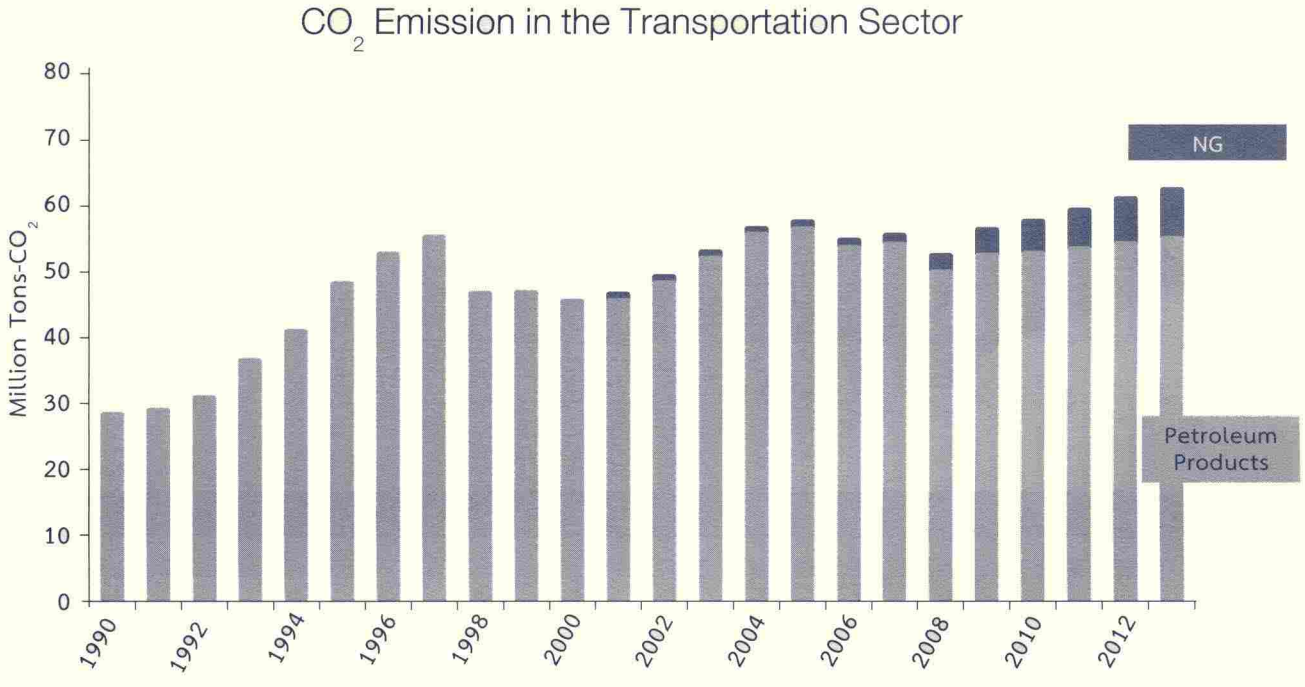


Unit : Million Tons-CO_2

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Petroleum Products	7.93	8.65	10.40	11.26	11.97	13.51	14.28	12.91	11.69	11.87	12.63	12.34
Coal/Lignite	6.16	6.90	7.66	10.97	13.82	15.97	19.27	18.76	14.11	14.97	12.78	14.24
NG	0.37	0.52	0.71	0.87	1.14	1.55	1.66	2.05	1.95	2.61	3.86	3.76

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Petroleum Products	12.86	12.87	13.24	11.41	10.06	9.54	8.88	7.96	7.46	8.89	12.51	14.52
Coal/Lignite	17.27	17.98	21.73	25.57	24.59	26.35	29.84	31.47	32.71	31.65	30.20	27.77
NG	4.22	4.62	5.35	5.62	6.41	7.88	9.34	11.26	14.00	17.00	19.30	20.03

• **Transportation Sector.** The major fuel that constituted the largest CO_2 emission source in this economic sector was petroleum products (gasoline, diesel, fuel oil, jet petroleum and LPG). CO_2 emission increased from 25.2 million tons in 1989 to 55.2 million tons in 1997 before declining in 1998 when the economic crisis hit the country. After that the trend of CO_2 emission was continuously on the rise again. In 2008, CO_2 emission dropped at a coincident time of the US economic crisis. In 2013, CO_2 emission was at 55.9 million tons. For CO_2 emission from natural gas in transport, natural gas was used as a fuel in transport for the first time in 2001 in case of Thailand. Since then, CO_2 from natural gas in transport had a rising trend the same as CO_2 trend of oil in transport. In 2013 CO_2 emission was 6.5 million tons, compared to only 0.01 million ton in 2001.

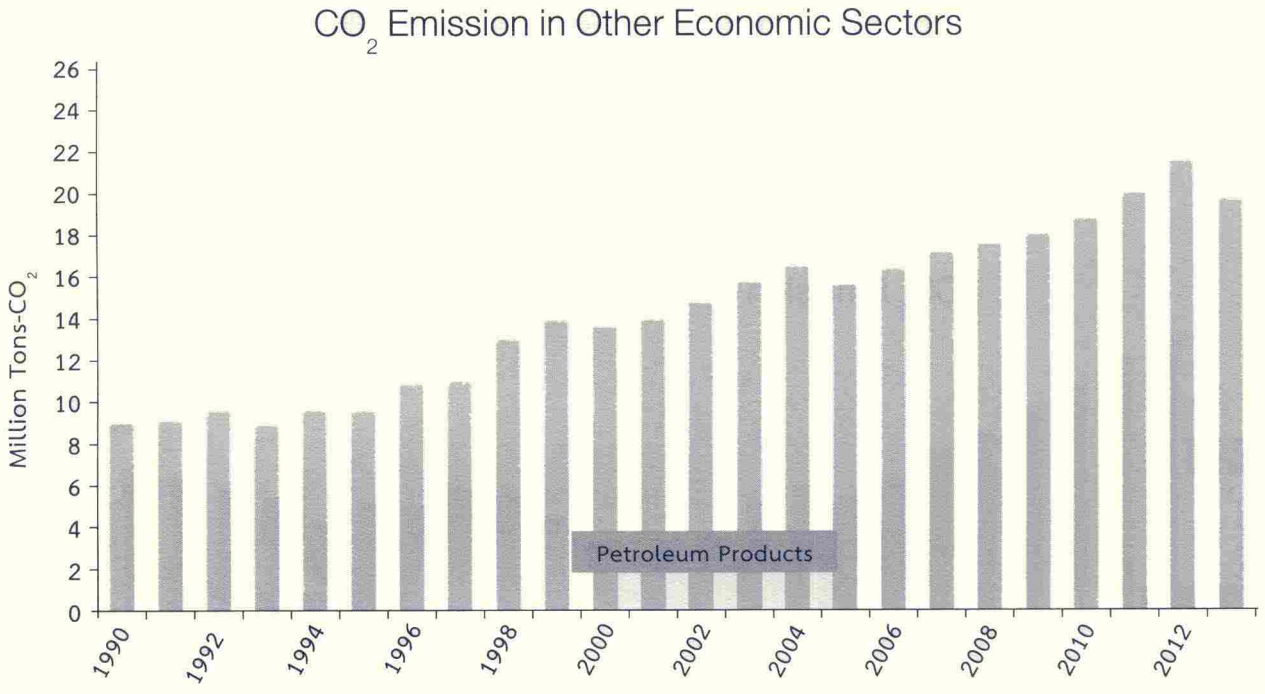


Unit : Million Tons-CO_2

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Petroleum Products	28.35	28.98	30.91	36.53	40.94	48.21	52.71	55.24	46.74	46.89	45.56	46.53
NG	-	-	-	-	-	-	-	-	-	-	-	0.01

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Petroleum Products	49.24	53.00	56.48	57.38	54.60	55.07	50.89	53.35	53.74	54.35	55.15	55.91
NG	0.01	0.01	0.06	0.14	0.23	0.50	1.65	3.03	3.85	4.90	5.92	6.52

• **Other Economic Sectors.** The trend still showed increasing CO_2 emissions stemming from petroleum product consumption, rising from 8.1 million tons in 1989 to 19.6 million tons in 2013.



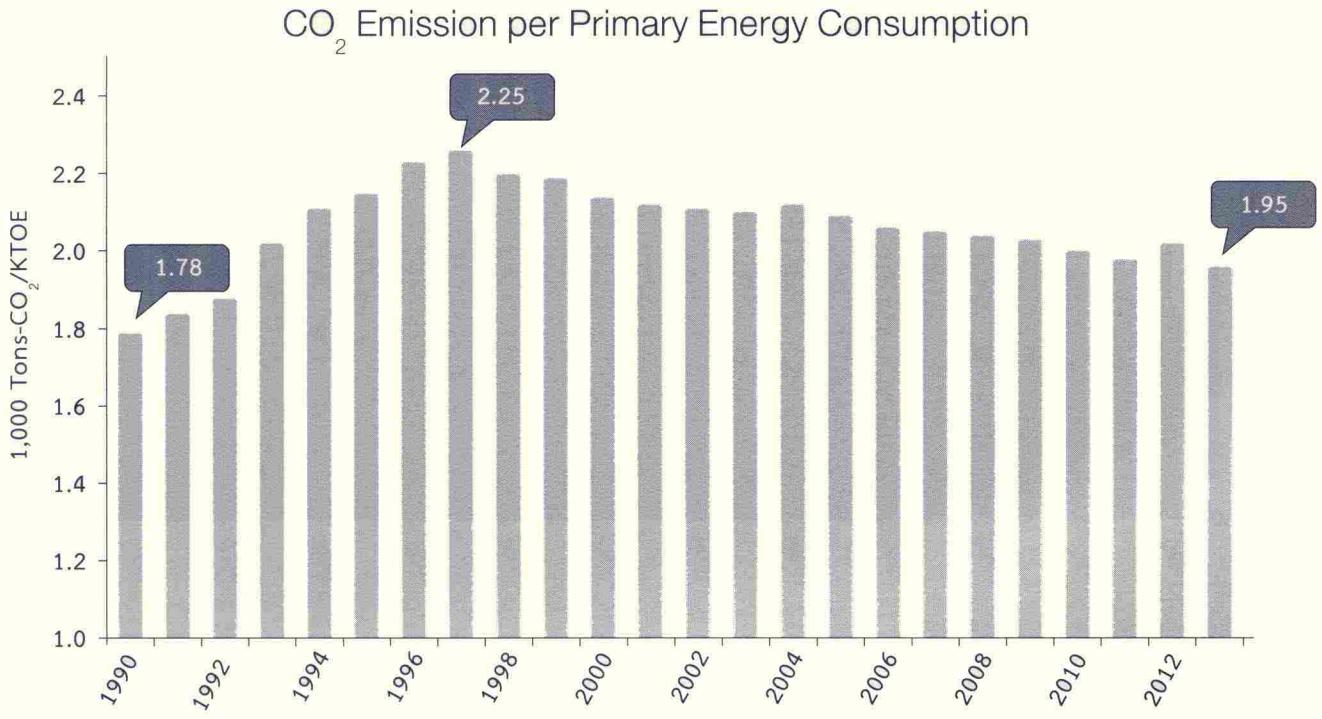
Unit : Million Tons-CO_2

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Petroleum Products	8.84	8.97	9.48	8.79	9.45	9.44	10.74	10.86	12.88	13.77	13.49	13.84

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Petroleum Products	14.61	15.59	16.37	15.47	16.22	17.02	17.44	17.91	18.66	19.87	21.41	19.56

CO_2 Emission Indicators

- **CO_2 Emission per Primary Energy Consumption.** This indicator reflects an increasing trend of emission during the period 1990-1997, i.e. from 1.78 thousand tons to 2.25 thousand tons per 1 KTOE of primary energy consumption, or at an average annual growth rate of 3.4%. Since 1998, the emission had continuously and distinctly declined. In 2013 the level of CO_2 emission was at 1.95 thousand tons per 1 KTOE of primary energy consumption, or a decrease at an average annual rate of 0.8%.

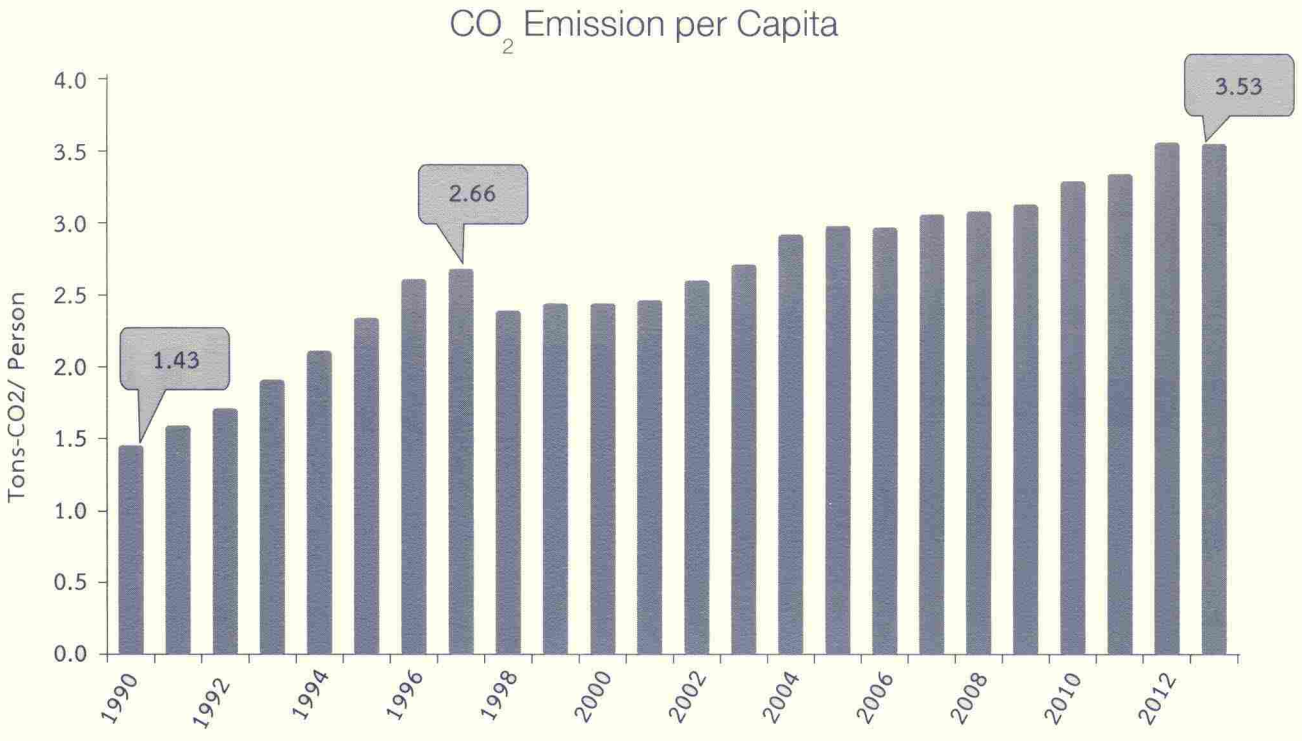


Unit: 1,000 Tons-CO_2/KTOE

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
CO_2	1.78	1.83	1.87	2.01	2.10	2.14	2.22	2.25	2.19	2.18	2.13	2.11

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CO_2	2.10	2.09	2.11	2.08	2.05	2.04	2.03	2.02	1.99	1.97	2.01	1.95

- **CO_2 Emission per Capita.** This indicator illustrates a rather high growth rate during 1990-1997, with an average annual growth rate of 9.3%, before decreasing slightly in 1998 due to the shrinkage in energy consumption caused by the economic crisis. In 1999, the rising trend resumed and continued in following years. In 2013, the CO_2 emission per capita stood at 3.53 tons, accounting for an average annual growth rate of 2.7%.

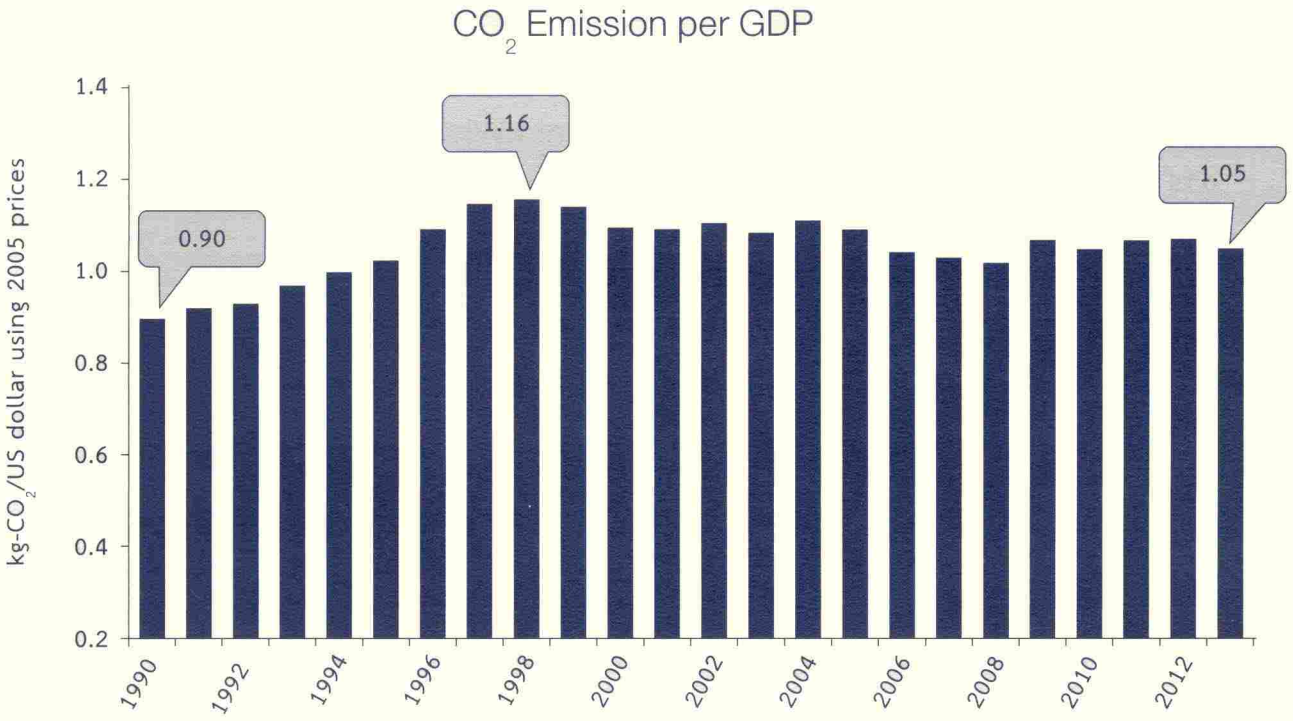


Unit: Ton-CO_2/Person

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
CO_2	1.43	1.57	1.69	1.89	2.09	2.32	2.59	2.66	2.37	2.42	2.42	2.44

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CO_2	2.58	2.69	2.90	2.96	2.95	3.04	3.06	3.11	3.27	3.32	3.54	3.53

• **CO_2 Emission per GDP.** Between 1990 and 1997, CO_2 emission per GDP used to have a rising trend, from 0.90 kilogram to 1.15 kilograms per a US Dollar with an average growth rate of 3.6% per annum. In 1998, it reached the highest rate ever in the past 25 years at 1.16 kilograms per a US Dollar. After then, the rate declined around 0.7% per annum until 2013 at 1.05 kilograms per a US Dollar.

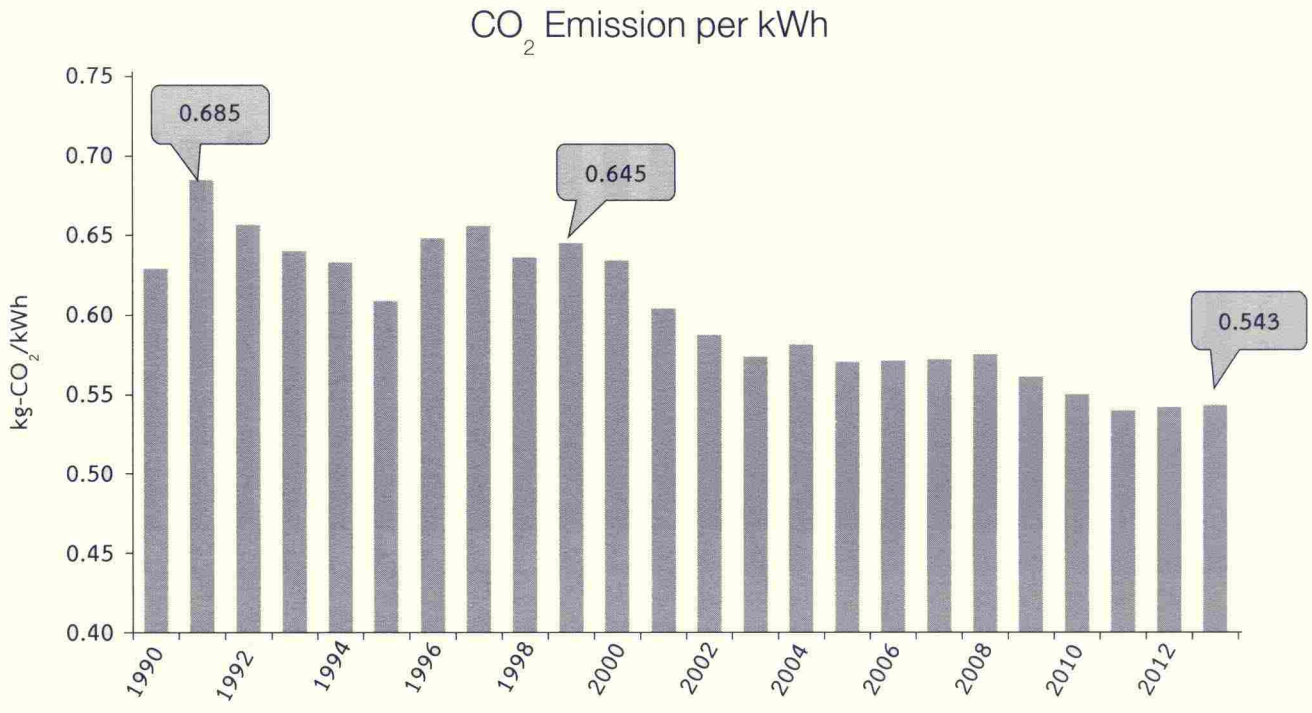


Unit: kg-CO_2/US dollar using 2005 prices

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
CO_2	0.90	0.92	0.93	0.97	1.00	1.02	1.09	1.15	1.16	1.14	1.10	1.09

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CO_2	1.10	1.08	1.11	1.09	1.04	1.03	1.02	1.07	1.05	1.07	1.07	1.05

- **CO_2 Emission per Unit of Power Generation (kWh).** The emission varied periodically in accordance with the shares of fuel used in power generation, i.e. the emission increased from 0.629 kg/kWh in 1990 to 0.685 kg/kWh in 1991. After that the emission decreased due to greater use of natural gas as fuel in power generation. In 2013, CO_2 emission stood at 0.543 kg/kWh, or a decrease at an average annual rate of 1.0%.



Unit : kg-CO_2/kWh

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
CO_2	0.629	0.685	0.657	0.640	0.633	0.609	0.648	0.656	0.636	0.645	0.634	0.604

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CO_2	0.587	0.573	0.581	0.570	0.571	0.572	0.575	0.561	0.550	0.540	0.542	0.543

Table 9.1-1Y
CO_2 Emission by Energy Type

Unit : 1,000 Tons

	Oil	Coal/Lignite	Natural Gas	Total
1989	43,910	11,964	10,047	65,921
1990	53,221	16,594	9,987	79,802
1991	56,495	19,425	12,835	88,756
1992	62,417	20,790	13,754	96,962
1993	70,672	23,109	15,601	109,382
1994	78,419	26,664	17,793	122,876
1995	88,777	30,339	18,576	137,692
1996	96,916	36,777	21,860	155,553
1997	95,440	38,024	27,593	161,058
1998	85,309	30,637	29,400	145,345
1999	84,552	32,373	32,855	149,780
2000	79,242	33,100	38,385	150,727
2001	75,082	36,810	41,570	153,462
2002	78,851	39,244	45,377	163,472
2003	83,762	39,903	48,291	171,956
2004	91,671	44,763	50,902	187,336
2005	90,750	48,333	53,404	192,486
2006	87,210	51,313	54,613	193,136
2007	84,577	57,629	58,232	200,439
2008	78,416	62,154	62,624	203,195
2009	79,756	62,401	66,045	208,202
2010	80,694	63,856	75,833	220,383
2011	84,531	65,334	74,520	224,385
2012	90,739	67,623	82,132	240,495
2013	91,513	65,369	83,835	240,717
Growth Rate (%)				
1989	19.9	21.8	2.8	17.3
1990	21.2	38.7	-0.6	21.1
1991	6.2	17.1	28.5	11.2
1992	10.5	7.0	7.2	9.3
1993	13.2	11.2	13.4	12.8
1994	11.0	15.4	14.1	12.3
1995	13.2	13.8	4.4	12.1
1996	9.2	21.2	17.7	13.0
1997	-1.5	3.4	26.2	3.5
1998	-10.6	-19.4	6.6	-9.8
1999	-0.9	5.7	11.8	3.1
2000	-6.3	2.2	16.8	0.6
2001	-5.3	11.2	8.3	1.8
2002	5.0	6.6	9.2	6.5
2003	6.2	1.7	6.4	5.2
2004	9.4	12.2	5.4	8.9
2005	-1.0	8.0	4.9	2.8
2006	-3.9	6.2	2.3	0.3
2007	-3.0	12.3	6.6	3.8
2008	-7.3	7.9	7.5	1.4
2009	1.7	0.4	5.5	2.5
2010	1.2	2.3	14.8	5.9
2011	4.8	2.3	-1.7	1.8
2012	7.3	3.5	10.2	7.2
2013	0.9	-3.3	2.1	0.1

Remarks : 1. CO_2 Emission Factors Reference from IPCC 2006

2. Emission Estimation Excluded Bunker Oil for Oversea, Jet Oil for International Flight and Renewable Energy

Table 9.1-2Y
CO_2 Emission from Energy Consumption by Sector

Unit : 1,000 Tons

	Power Generation	Transport	Industry	Other	Total
1989	20,771	25,202	11,803	8,145	65,921
1990	28,149	28,354	14,460	8,838	79,802
1991	34,750	28,978	16,062	8,966	88,756
1992	37,799	30,912	18,775	9,476	96,962
1993	40,967	36,534	23,092	8,789	109,382
1994	45,559	40,939	26,929	9,450	122,876
1995	49,014	48,211	31,031	9,436	137,692
1996	56,887	52,711	35,211	10,744	155,553
1997	61,242	55,235	33,718	10,863	161,058
1998	57,974	46,741	27,746	12,884	145,345
1999	59,659	46,893	29,455	13,774	149,780
2000	62,405	45,560	29,267	13,495	150,727
2001	62,749	46,537	30,338	13,839	153,462
2002	65,265	49,245	34,352	14,609	163,472
2003	67,884	53,003	35,478	15,591	171,956
2004	74,099	56,546	40,321	16,371	187,336
2005	76,893	57,520	42,599	15,474	192,486
2006	81,028	54,831	41,057	16,220	193,136
2007	84,080	55,571	43,770	17,017	200,439
2008	85,160	52,538	48,060	17,438	203,195
2009	83,231	56,380	50,685	17,906	208,202
2010	89,965	57,587	54,173	18,658	220,383
2011	87,719	59,246	57,547	19,873	224,385
2012	95,996	61,071	62,015	21,414	240,495
2013	96,414	62,430	62,313	19,561	240,717
Growth Rate (%)					
1989	13.0	19.7	25.3	10.6	17.3
1990	35.5	12.5	22.5	8.5	21.1
1991	23.5	2.2	11.1	1.4	11.2
1992	8.8	6.7	16.9	5.7	9.3
1993	8.4	18.2	23.0	-7.2	12.8
1994	11.2	12.1	16.6	7.5	12.3
1995	7.6	17.8	15.2	-0.1	12.1
1996	16.1	9.3	13.5	13.9	13.0
1997	7.7	4.8	-4.2	1.1	3.5
1998	-5.3	-15.4	-17.7	18.6	-9.8
1999	2.9	0.3	6.2	6.9	3.1
2000	4.6	-2.8	-0.6	-2.0	0.6
2001	0.6	2.1	3.7	2.6	1.8
2002	4.0	5.8	13.2	5.6	6.5
2003	4.0	7.6	3.3	6.7	5.2
2004	9.2	6.7	13.7	5.0	8.9
2005	3.8	1.7	5.7	-5.5	2.8
2006	5.4	-4.7	-3.6	4.8	0.3
2007	3.8	1.4	6.6	4.9	3.8
2008	1.3	-5.5	9.8	2.5	1.4
2009	-2.3	7.3	5.5	2.7	2.5
2010	8.1	2.1	6.9	4.2	5.9
2011	-2.5	2.9	6.2	6.5	1.8
2012	9.4	3.1	7.8	7.8	7.2
2013	0.4	2.2	0.5	-8.7	0.1

Remarks : 1. CO_2 Emission Factors Reference from IPCC 2006

2. Emission Estimation Excluded Bunker Oil for Oversea, Jet Oil for International Flight and Renewable Energy

Table 9.1-3Y
CO_2 Emission in Power Generation by Energy Type

Unit : 1,000 Tons

	Oil	Coal/Lignite	Natural Gas	Total
1989	3,779	7,149	9,843	20,771
1990	8,097	10,437	9,615	28,149
1991	9,901	12,529	12,320	34,750
1992	11,630	13,129	13,039	37,799
1993	14,092	12,143	14,731	40,967
1994	16,061	12,847	16,651	45,559
1995	17,619	14,368	17,027	49,014
1996	19,185	17,506	20,196	56,887
1997	16,429	19,268	25,544	61,242
1998	13,997	16,529	27,448	57,974
1999	12,016	17,402	30,240	59,659
2000	7,559	20,321	34,526	62,405
2001	2,373	22,574	37,801	62,749
2002	2,141	21,977	41,147	65,265
2003	2,302	21,921	43,661	67,884
2004	5,576	23,037	45,486	74,099
2005	6,485	22,766	47,642	76,893
2006	6,331	26,723	47,975	81,028
2007	2,952	31,276	49,852	84,080
2008	1,211	32,310	51,639	85,160
2009	543	30,932	51,757	83,231
2010	833	31,143	57,989	89,965
2011	1,420	33,683	52,616	87,719
2012	1,665	37,419	56,912	95,996
2013	1,531	37,598	57,284	96,414
Growth Rate (%)				
1989	50.0	14.7	2.2	13.0
1990	114.3	46.0	-2.3	35.5
1991	22.3	20.1	28.1	23.5
1992	17.5	4.8	5.8	8.8
1993	21.2	-7.5	13.0	8.4
1994	14.0	5.8	13.0	11.2
1995	9.7	11.8	2.3	7.6
1996	8.9	21.8	18.6	16.1
1997	-14.4	10.1	26.5	7.7
1998	-14.8	-14.2	7.5	-5.3
1999	-14.2	5.3	10.2	2.9
2000	-37.1	16.8	14.2	4.6
2001	-68.6	11.1	9.5	0.6
2002	-9.8	-2.6	8.9	4.0
2003	7.5	-0.3	6.1	4.0
2004	142.3	5.1	4.2	9.2
2005	16.3	-1.2	4.7	3.8
2006	-2.4	17.4	0.7	5.4
2007	-53.4	17.0	3.9	3.8
2008	-59.0	3.3	3.6	1.3
2009	-55.1	-4.3	0.2	-2.3
2010	53.3	0.7	12.0	8.1
2011	70.5	8.2	-9.3	-2.5
2012	17.2	11.1	8.2	9.4
2013	-8.0	0.5	0.7	0.4

Remarks : 1. CO_2 Emission Factors Reference from IPCC 2006

2. Emission Estimation Excluded Bunker Oil for Oversea, Jet Oil for International Flight and Renewable Energy

Table 9.1-4Y
CO_2 Emission in Transport by Energy Type

Unit : 1,000 Tons

	Oil	Coal/Lignite	Natural Gas	Total
1989	25,202			25,202
1990	28,354			28,354
1991	28,978			28,978
1992	30,912			30,912
1993	36,534			36,534
1994	40,939			40,939
1995	48,211			48,211
1996	52,711			52,711
1997	55,235			55,235
1998	46,741			46,741
1999	46,893			46,893
2000	45,560			45,560
2001	46,531		6	46,537
2002	49,240		6	49,245
2003	52,996		7	53,003
2004	56,483		63	56,546
2005	57,383		137	57,520
2006	54,601		230	54,831
2007	55,071		500	55,571
2008	50,891		1,647	52,538
2009	53,347		3,033	56,380
2010	53,742		3,845	57,587
2011	54,345		4,901	59,246
2012	55,152		5,919	61,071
2013	55,906		6,524	62,430
Growth Rate (%)				
1989	19.7			19.7
1990	12.5			12.5
1991	2.2			2.2
1992	6.7			6.7
1993	18.2			18.2
1994	12.1			12.1
1995	17.8			17.8
1996	9.3			9.3
1997	4.8			4.8
1998	-15.4			-15.4
1999	0.3			0.3
2000	-2.8			-2.8
2001	2.1			2.1
2002	5.8		-0.6	5.8
2003	7.6		19.6	7.6
2004	6.6		849.3	6.7
2005	1.6		118.1	1.7
2006	-4.9		67.8	-4.7
2007	0.9		117.6	1.4
2008	-7.6		229.4	-5.5
2009	4.8		84.2	7.3
2010	0.7		26.8	2.1
2011	1.1		27.5	2.9
2012	1.5		20.8	3.1
2013	1.4		10.2	2.2

Remarks : 1. CO_2 Emission Factors Reference from IPCC 2006

2. Emission Estimation Excluded Bunker Oil for Oversea, Jet Oil for International Flight and Renewable Energy

Table 9.1-5Y
CO_2 Emission in Industry by Energy Type

Unit : 1,000 Tons

	Oil	Coal/Lignite	Natural Gas	Total
1989	6,783	4,815	204	11,803
1990	7,932	6,157	371	14,460
1991	8,651	6,896	516	16,062
1992	10,399	7,661	715	18,775
1993	11,256	10,966	870	23,092
1994	11,970	13,817	1,142	26,929
1995	13,512	15,970	1,549	31,031
1996	14,276	19,271	1,664	35,211
1997	12,913	18,756	2,049	33,718
1998	11,686	14,108	1,951	27,746
1999	11,870	14,971	2,614	29,455
2000	12,629	12,779	3,859	29,267
2001	12,339	14,236	3,763	30,338
2002	12,862	17,266	4,224	34,352
2003	12,873	17,982	4,623	35,478
2004	13,240	21,726	5,354	40,321
2005	11,408	25,567	5,624	42,599
2006	10,058	24,590	6,408	41,057
2007	9,536	26,353	7,881	43,770
2008	8,877	29,844	9,338	48,060
2009	7,960	31,469	11,256	50,685
2010	7,462	32,713	13,998	54,173
2011	8,893	31,652	17,003	57,547
2012	12,509	30,204	19,301	62,015
2013	14,515	27,771	20,026	62,313
Growth Rate (%)				
1989	19.5	34.0	38.8	25.3
1990	16.9	27.9	81.6	22.5
1991	9.1	12.0	38.9	11.1
1992	20.2	11.1	38.7	16.9
1993	8.2	43.1	21.7	23.0
1994	6.3	26.0	31.3	16.6
1995	12.9	15.6	35.6	15.2
1996	5.7	20.7	7.5	13.5
1997	-9.6	-2.7	23.1	-4.2
1998	-9.5	-24.8	-4.8	-17.7
1999	1.6	6.1	34.0	6.2
2000	6.4	-14.6	47.6	-0.6
2001	-2.3	11.4	-2.5	3.7
2002	4.2	21.3	12.2	13.2
2003	0.1	4.1	9.5	3.3
2004	2.9	20.8	15.8	13.7
2005	-13.8	17.7	5.1	5.7
2006	-11.8	-3.8	13.9	-3.6
2007	-5.2	7.2	23.0	6.6
2008	-6.9	13.3	18.5	9.8
2009	-10.3	5.4	20.5	5.5
2010	-6.3	4.0	24.4	6.9
2011	19.2	-3.2	21.5	6.2
2012	40.7	-4.6	13.5	7.8
2013	16.0	-8.1	3.8	0.5

Remarks : 1. CO_2 Emission Factors Reference from IPCC 2006

2. Emission Estimation Excluded Bunker Oil for Oversea, Jet Oil for International Flight and Renewable Energy

Table 9.1-6Y
CO_2 Emission in Other Economic Sectors by Energy Type

Unit : 1,000 Tons

	Oil	Coal/Lignite	Natural Gas	Total
1989	8,145			8,145
1990	8,838			8,838
1991	8,966			8,966
1992	9,476			9,476
1993	8,789			8,789
1994	9,450			9,450
1995	9,436			9,436
1996	10,744			10,744
1997	10,863			10,863
1998	12,884			12,884
1999	13,774			13,774
2000	13,495			13,495
2001	13,839			13,839
2002	14,609			14,609
2003	15,591			15,591
2004	16,371			16,371
2005	15,474			15,474
2006	16,220			16,220
2007	17,017			17,017
2008	17,438			17,438
2009	17,906			17,906
2010	18,658			18,658
2011	19,873			19,873
2012	21,414			21,414
2013	19,561			19,561
Growth Rate (%)				
1989	10.6			10.6
1990	8.5			8.5
1991	1.4			1.4
1992	5.7			5.7
1993	-7.2			-7.2
1994	7.5			7.5
1995	-0.1			-0.1
1996	13.9			13.9
1997	1.1			1.1
1998	18.6			18.6
1999	6.9			6.9
2000	-2.0			-2.0
2001	2.6			2.6
2002	5.6			5.6
2003	6.7			6.7
2004	5.0			5.0
2005	-5.5			-5.5
2006	4.8			4.8
2007	4.9			4.9
2008	2.5			2.5
2009	2.7			2.7
2010	4.2			4.2
2011	6.5			6.5
2012	7.8			7.8
2013	-8.7			-8.7

Remarks : 1. CO_2 Emission Factors Reference from IPCC 2006

2. Emission Estimation Excluded Bunker Oil for Oversea, Jet Oil for International Flight and Renewable Energy

Table 9.1-7Y
CO_2 Emission by Sector and Energy Type

Unit : 1,000 Tons

1989

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	3,779	7,149	9,843	20,771
Transport	25,202		1,647	25,202
Industry	6,783	4,815	204	11,803
Other	8,145			8,145
Total	**43,910**	**11,964**	**10,047**	**65,921**

1990

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	8,097	10,437	9,615	28,149
Transport	28,354		3,033	28,354
Industry	7,932	6,157	371	14,460
Other	8,838			8,838
Total	**53,221**	**16,594**	**9,987**	**79,802**

1991

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	9,901	12,529	12,320	34,750
Transport	28,978		3,845	28,978
Industry	8,651	6,896	516	16,062
Other	8,966			8,966
Total	**56,495**	**19,425**	**12,835**	**88,756**

1992

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	11,630	13,129	13,039	37,799
Transport	30,912		3,284	30,912
Industry	10,399	7,661	715	18,775
Other	9,476			9,476
Total	**62,417**	**20,790**	**13,754**	**96,962**

1993

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	14,092	12,143	14,731	40,967
Transport	36,534			36,534
Industry	11,256	10,966	870	23,092
Other	8,789			8,789
Total	**70,672**	**23,109**	**15,601**	**109,382**

1994

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	16,061	12,847	16,651	45,559
Transport	40,939			40,939
Industry	11,970	13,817	1,142	26,929
Other	9,450			9,450
Total	**78,419**	**26,664**	**17,793**	**122,876**

1995

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	17,619	14,368	17,027	49,014
Transport	48,211			48,211
Industry	13,512	15,970	1,549	31,031
Other	9,436			9,436
Total	**88,777**	**30,339**	**18,576**	**137,692**

Table 9.1-7Y (Cont.)
CO_2 Emission by Sector and Energy Type

Unit : 1,000 Tons

1996

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	19,185	17,506	20,196	56,887
Transport	52,711			52,711
Industry	14,276	19,271	1,664	35,211
Other	10,744			10,744
Total	**96,916**	**36,777**	**21,860**	**155,553**

1997

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	16,429	19,268	25,544	61,242
Transport	55,235			55,235
Industry	12,913	18,756	2,049	33,718
Other	10,863			10,863
Total	**95,440**	**38,024**	**27,593**	**161,058**

1998

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	13,997	16,529	27,448	57,974
Transport	46,741			46,741
Industry	11,686	14,108	1,951	27,746
Other	12,884			12,884
Total	**85,309**	**30,637**	**29,400**	**145,345**

1999

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	12,016	17,402	30,240	59,659
Transport	46,893			46,893
Industry	11,870	14,971	2,614	29,455
Other	13,774			13,774
Total	**84,552**	**32,373**	**32,855**	**149,780**

2000

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	7,559	20,321	34,526	62,405
Transport	45,560			45,560
Industry	12,629	12,779	3,859	29,267
Other	13,495			13,495
Total	**79,242**	**33,100**	**38,385**	**150,727**

2001

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	2,373	22,574	37,801	62,749
Transport	46,531		6	46,537
Industry	12,339	14,236	3,763	30,338
Other	13,839			13,839
Total	**75,082**	**36,810**	**41,570**	**153,462**

2002

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	2,141	21,977	41,147	65,265
Transport	49,240		6	49,245
Industry	12,862	17,266	4,224	34,352
Other	14,609			14,609
Total	**78,851**	**39,244**	**45,377**	**163,472**

Table 9.1-7Y (Cont.)
CO_2 Emission by Sector and Energy Type

Unit : 1,000 Tons

2003

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	2,302	21,921	43,661	67,884
Transport	52,996		7	53,003
Industry	12,873	17,982	4,623	35,478
Other	15,591			15,591
Total	**83,762**	**39,903**	**48,291**	**171,956**

2004

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	5,576	23,037	45,486	74,099
Transport	56,483		63	56,546
Industry	13,240	21,726	5,354	40,321
Other	16,371			16,371
Total	**91,671**	**44,763**	**50,902**	**187,336**

2005

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	6,485	22,766	47,642	76,893
Transport	57,383		137	57,520
Industry	11,408	25,567	5,624	42,599
Other	15,474			15,474
Total	**90,750**	**48,333**	**53,404**	**192,486**

2006

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	6,331	26,723	47,975	81,028
Transport	54,601		230	54,831
Industry	10,058	24,590	6,408	41,057
Other	16,220			16,220
Total	**87,210**	**51,313**	**54,613**	**193,136**

2007

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	2,952	31,276	49,852	84,080
Transport	55,071		500	55,571
Industry	9,536	26,353	7,881	43,770
Other	17,017			17,017
Total	**84,577**	**57,629**	**58,232**	**200,439**

2008

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	1,211	32,310	51,639	85,160
Transport	50,891		1,647	52,538
Industry	8,877	29,844	9,338	48,060
Other	17,438			17,438
Total	**78,416**	**62,154**	**62,624**	**203,195**

2009

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	543	30,932	51,757	83,231
Transport	53,347		3,033	56,380
Industry	7,960	31,469	11,256	50,685
Other	17,906			17,906
Total	**79,756**	**62,401**	**66,045**	**208,202**

Table 9.1-7Y (Cont.)
CO_2 Emission by Sector and Energy Type

Unit : 1,000 Tons

2010

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	833	31,143	57,989	89,965
Transport	53,742		3,845	57,587
Industry	7,462	32,713	13,998	54,173
Other	18,658			18,658
Total	**80,694**	**63,856**	**75,833**	**220,383**

2011

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	1,420	33,683	52,616	87,719
Transport	54,345		4,901	59,246
Industry	8,893	31,652	17,003	57,547
Other	19,873			19,873
Total	**84,531**	**65,334**	**74,520**	**224,385**

2012

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	1,665	37,419	56,912	95,996
Transport	55,152		5,919	61,071
Industry	12,509	30,204	19,301	62,015
Other	21,414			21,414
Total	**90,739**	**67,623**	**82,132**	**240,495**

2013

	Oil	Coal/Lignite	Natural Gas	Total
Power Generation	1,531	37,598	57,284	96,414
Transport	55,906		6,524	62,430
Industry	14,515	27,771	20,026	62,313
Other	19,561			19,561
Total	**91,513**	**65,369**	**83,835**	**240,717**

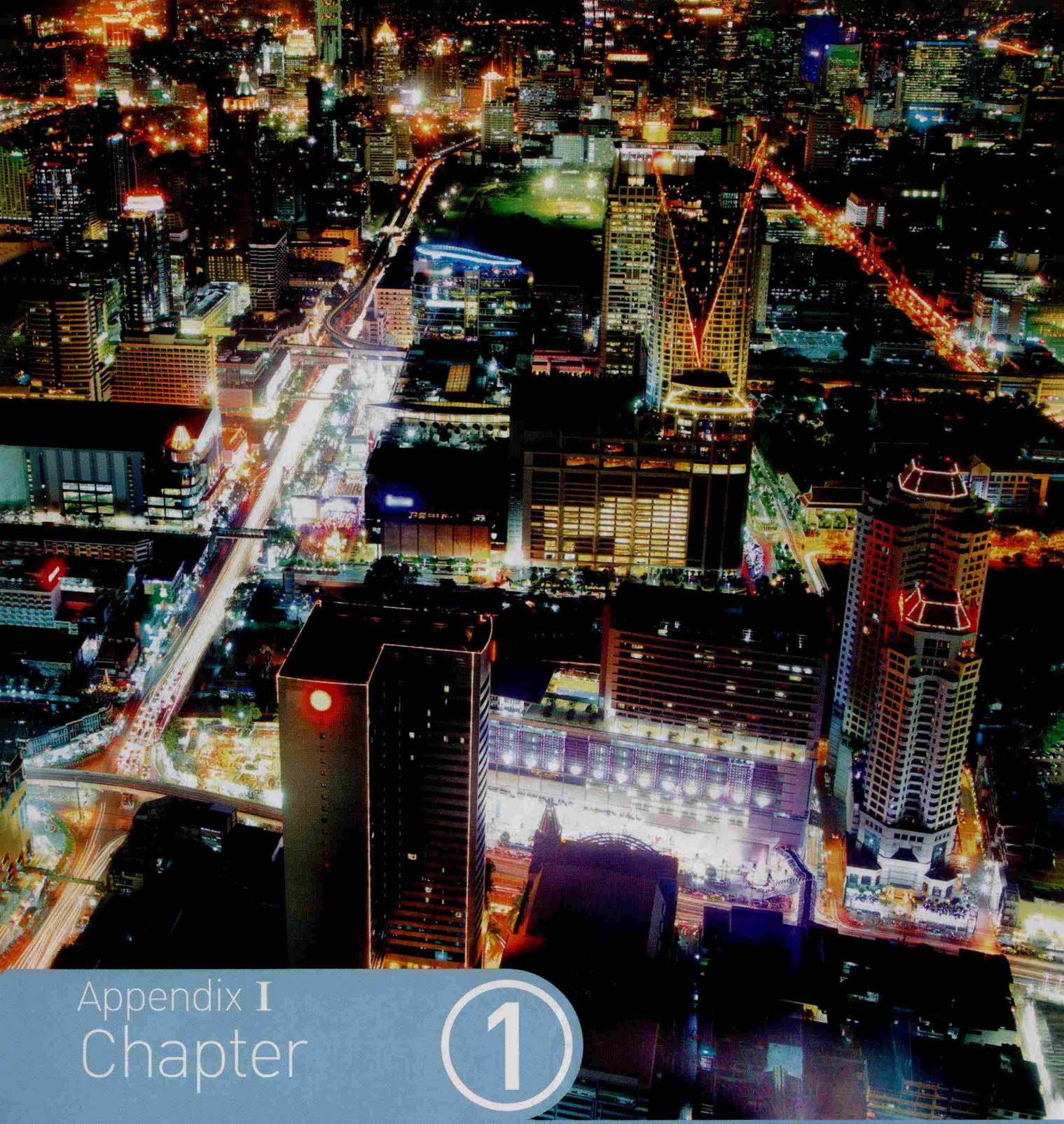
Remarks : 1. CO_2 emission factors reference from IPCC2006

2. Emission estimation excluded bunker oil for oversea, jet oil for international flight and renewable energy



Appendix I

Environmental Statistics



Appendix I
Chapter 1

Thailand's Energy Situation in 2013

Table 1.1-1M
Primary Commercial Energy Production (Physical Unit)

2009													
Month	Hydro (GWh)	Lignite (Tons)					NG (MMSCF)	Condensate (1,000 Barrels)	Crude Oil (1,000 Barrels)				
		EGAT			Others	Total			Benjamas	Sirikit	Tantawan	Fang	Others	Total
		Mae-Moh	Krabi	Total										
Jan	743	1,468,620		1,468,620	93,065	1,561,685	89,297	2,513	1,331	667	280	39	2,443	4,762
Feb	715	1,174,194		1,174,194	138,458	1,312,652	77,109	2,328	1,119	601	248	35	2,181	4,183
Mar	810	1,254,630		1,254,630	211,163	1,465,793	94,185	2,793	1,450	646	268	35	2,666	5,065
Apr	719	1,227,083		1,227,083	217,794	1,444,877	84,015	2,351	815	668	99	38	3,160	4,780
May	540	1,413,339		1,413,339	154,931	1,568,270	97,526	2,612	222	687	116	38	3,713	4,777
Jun	368	1,435,227		1,435,227	177,569	1,612,796	90,670	2,624	802	615	167	39	3,004	4,626
Jul	369	1,469,759		1,469,759	178,411	1,648,170	89,842	2,626	812	664	194	37	2,995	4,701
Aug	584	1,279,005		1,279,005	217,282	1,496,287	90,983	2,686	896	648	193	41	2,931	4,709
Sep	392	1,254,357		1,254,357	125,811	1,380,168	91,238	2,484	792	639	183	38	2,479	4,132
Oct	476	1,143,009		1,143,009	109,720	1,252,729	93,542	2,607	645	642	207	40	2,699	4,234
Nov	517	1,237,910		1,237,910	115,830	1,353,740	92,919	2,379	822	630	174	37	3,160	4,823
Dec	733	1,274,633		1,274,633	194,300	1,468,933	100,188	2,620	902	677	132	37	3,686	5,434
YTD	6,966	15,631,766		15,631,766	1,934,334	17,566,100	1,091,516	30,623	10,609	7,783	2,262	454	35,116	56,225

2010													
Month	Hydro (GWh)	Lignite (Tons)					NG (MMSCF)	Condensate (1,000 Barrels)	Crude Oil (1,000 Barrels)				
		EGAT			Others	Total			Benjamas	Sirikit	Tantawan	Fang	Others	Total
		Mae-Moh	Krabi	Total										
Jan	619	1,358,183		1,358,183	177,050	1,535,233	98,931	2,568	841	733	128	36	2,910	4,648
Feb	639	1,209,511		1,209,511	252,862	1,462,373	91,480	2,302	748	631	161	34	2,727	4,300
Mar	769	1,343,448		1,343,448	222,982	1,566,430	112,654	2,903	913	683	169	39	3,056	4,860
Apr	513	1,412,283		1,412,283	206,286	1,618,569	101,305	2,550	869	677	106	37	2,849	4,539
May	521	1,537,747		1,537,747	183,169	1,720,916	107,210	2,727	873	677	121	39	3,193	4,903
Jun	416	1,242,187		1,242,187	218,660	1,460,847	110,333	2,734	876	683	113	37	3,264	4,971
Jul	335	1,276,520		1,276,520	153,860	1,430,380	106,349	2,846	891	712	88	36	3,329	5,057
Aug	341	1,291,936		1,291,936	132,330	1,424,266	110,399	2,751	818	696	93	35	3,377	5,019
Sep	245	1,303,351		1,303,351	123,300	1,426,651	108,116	2,662	746	624	113	32	3,266	4,781
Oct	171	1,301,037		1,301,037	165,200	1,466,237	113,739	2,852	733	575	98	33	3,009	4,449
Nov	329	1,370,110		1,370,110	173,200	1,543,310	108,615	2,687	714	648	102	30	2,786	4,281
Dec	450	1,340,950		1,340,950	261,900	1,602,850	110,467	2,767	709	621	117	33	2,619	4,099
YTD	5,347	15,987,263		15,987,263	2,270,799	18,258,062	1,279,597	32,349	9,733	7,960	1,409	421	36,386	55,909

Table 1.1-1M (Cont.)
Primary Commercial Energy Production (Physical Unit)

2011													
Month	Hydro (GWh)	Lignite (Tons)					NG (MMSCF)	Condensate (1,000 Barrels)	Crude Oil (1,000 Barrels)				
		EGAT			Others	Total			Benjamas	Sirikit	Tantawan	Fang	Others	Total
		Mae-Moh	Krabi	Total										
Jan	577	1,645,139		1,645,139	191,874	1,837,013	114,015	2,815	890	633	141	33	2,555	4,252
Feb	652	1,394,702		1,394,702	176,770	1,571,472	105,267	2,656	703	526	144	31	2,357	3,761
Mar	584	1,529,052		1,529,052	200,700	1,729,752	120,417	3,033	860	702	155	34	2,515	4,266
Apr	470	1,455,516		1,455,516	172,400	1,627,916	110,112	2,721	898	727	138	30	2,277	4,069
May	374	1,340,459		1,340,459	171,000	1,511,459	117,341	2,650	878	762	206	31	2,702	4,579
Jun	394	1,618,168		1,618,168	182,905	1,801,073	109,486	2,372	771	762	188	31	2,633	4,385
Jul	392	1,456,668		1,456,668	861,525	2,318,193	99,752	2,347	845	755	190	31	2,448	4,270
Aug	902	1,664,345		1,664,345	310,755	1,975,100	105,402	2,486	814	784	177	33	2,604	4,412
Sep	999	1,377,383		1,377,383	1,080,640	2,458,023	105,214	2,355	798	724	125	32	2,615	4,293
Oct	1,137	1,352,220		1,352,220	136,026	1,488,246	101,649	2,416	806	468	151	32	2,623	4,080
Nov	632	1,141,767		1,141,767	155,800	1,297,567	103,331	2,334	808	765	189	31	2,602	4,395
Dec	822	1,582,917		1,582,917	128,375	1,711,292	113,458	2,525	810	778	179	31	2,535	4,334
YTD	**7,935**	**17,558,336**		**17,558,336**	**3,768,770**	**21,327,106**	**1,305,442**	**30,710**	**9,883**	**8,386**	**1,981**	**381**	**30,466**	**51,097**

2012													
Month	Hydro (GWh)	Lignite (Tons)					NG (MMSCF)	Condensate (1,000 Barrels)	Crude Oil (1,000 Barrels)				
		EGAT			Others	Total			Benjamas	Sirikit	Tantawan	Fang	Others	Total
		Mae-Moh	Krabi	Total										
Jan	1,138	1,292,151		1,292,151	161,879	1,454,030	120,649	2,501	708	777	119	32	2,753	4,390
Feb	1,252	1,480,657		1,480,657	123,334	1,603,991	104,210	2,285	827	776	113	29	2,844	4,589
Mar	1,073	1,313,185		1,313,185	125,950	1,439,135	119,214	2,634	991	844	113	31	3,112	5,091
Apr	849	1,372,951		1,372,951	365,320	1,738,271	115,908	2,617	895	833	106	28	2,789	4,651
May	746	1,529,188		1,529,188	284,522	1,813,710	122,274	2,665	898	876	97	29	2,357	4,257
Jun	481	1,249,878		1,249,878	32,848	1,282,726	117,017	2,603	908	829	107	27	2,517	4,389
Jul	440	1,632,368		1,632,368	45,420	1,677,788	132,289	3,004	711	886	103	30	2,772	4,503
Aug	449	1,247,007		1,247,007	31,740	1,278,747	125,166	2,889	724	888	105	30	2,777	4,524
Sep	401	1,536,691		1,536,691	31,650	1,568,341	122,303	2,836	724	863	119	28	2,660	4,393
Oct	411	1,343,814		1,343,814	112,720	1,456,534	127,777	2,976	548	895	129	28	2,792	4,393
Nov	597	1,271,893		1,271,893	117,135	1,389,028	129,384	2,940	725	898	113	27	2,817	4,579
Dec	593	1,320,678		1,320,678	43,450	1,364,128	126,352	2,856	651	1,038	147	27	2,904	4,767
YTD	**8,431**	**16,590,461**		**16,590,461**	**1,475,968**	**18,066,429**	**1,462,542**	**32,808**	**9,311**	**10,403**	**1,372**	**346**	**33,094**	**54,526**

Table 1.1-1M (Cont.)
Primary Commercial Energy Production (Physical Unit)

2013													
Month	Hydro (GWh)	Lignite (Tons)					NG (MMSCF)	Condensate (1,000 Barrels)	Crude Oil (1,000 Barrels)				
		EGAT			Others	Total			Benjamas	Sirikit	Tantawan	Fang	Others	Total
		Mae-Moh	Krabi	Total										
Jan	598	1,511,773		1,511,773	37,900	1,549,673	122,924	2,994	641	1,020	128	30	2,956	4,776
Feb	595	1,335,122		1,335,122	69,590	1,404,712	115,783	2,721	610	959	93	28	2,704	4,395
Mar	549	1,256,906		1,256,906	48,535	1,305,441	129,737	2,896	691	1,072	113	31	2,994	4,901
Apr	543	1,170,905		1,170,905	36,040	1,206,945	123,331	2,753	674	1,073	94	29	2,870	4,740
May	574	1,541,706		1,541,706	151,642	1,693,348	131,980	3,025	450	1,032	80	31	3,208	4,800
Jun	432	1,793,489		1,793,489	108,817	1,902,306	121,485	2,690	643	1,001	67	30	2,847	4,588
Jul	323	1,738,907		1,738,907	123,300	1,862,207	129,335	2,995	629	1,001	68	30	2,549	4,277
Aug	355	1,216,365		1,216,365	97,110	1,313,475	122,328	2,632	596	1,014	82	31	2,833	4,557
Sep	360	1,320,036		1,320,036	122,378	1,442,414	115,553	2,484	480	979	70	31	2,730	4,291
Oct	367	1,420,072		1,420,072	115,539	1,535,611	124,615	2,756	718	1,021	95	31	2,807	4,672
Nov	296	1,180,080		1,180,080	61,691	1,241,771	121,141	2,726	695	934	66	24	2,464	4,183
Dec	420	1,586,600		1,586,600	66,260	1,652,860	117,904	2,600	710	899	48	23	2,701	4,381
YTD	5,412	17,071,961		17,071,961	1,038,802	18,110,763	1,476,114	33,273	7,538	12,004	1,005	349	33,664	54,561

Table 1.1-2M
Primary Commercial Energy Production

Unit : KTOE

2009														
Month	Hydro	Lignite				NG	Condensate	Crude Oil						Grand Total
		EGAT			Non EGAT	Total			Benjamas	Sirikit	Tantawan	Fang	Others	Total	
		Mae-Moh	Krabi	Total											
Jan	165	364		364	41	405	2,194	313	182	91	38	5	334	652	3,729
Feb	158	291		291	60	351	1,895	290	153	82	34	5	298	572	3,266
Mar	180	311		311	92	403	2,314	348	198	88	37	5	365	693	3,938
Apr	159	304		304	95	399	2,064	293	112	91	14	5	432	654	3,569
May	120	350		350	68	418	2,396	325	30	94	16	5	508	654	3,913
Jun	82	356		356	77	433	2,228	327	110	84	23	5	411	633	3,703
Jul	82	364		364	78	442	2,207	327	111	91	26	5	410	643	3,701
Aug	129	317		317	95	412	2,235	334	123	89	26	6	401	644	3,754
Sep	87	311		311	55	366	2,242	309	108	87	25	5	339	565	3,569
Oct	105	283		283	48	331	2,298	324	88	88	28	6	369	579	3,637
Nov	115	307		307	50	357	2,283	296	113	86	24	5	432	660	3,711
Dec	162	316		316	85	401	2,462	326	123	93	18	5	504	744	4,095
YTD	**1,543**	**3,872**		**3,872**	**843**	**4,715**	**26,819**	**3,811**	**1,451**	**1,064**	**309**	**62**	**4,802**	**7,688**	**44,576**

2010														
Month	Hydro	Lignite				NG	Condensate	Crude Oil						Grand Total
		EGAT			Non EGAT	Total			Benjamas	Sirikit	Tantawan	Fang	Others	Total	
		Mae-Moh	Krabi	Total											
Jan	137	336		336	77	413	2,431	320	115	100	18	5	398	636	3,937
Feb	141	300		300	110	410	2,248	287	102	86	22	5	373	588	3,674
Mar	170	333		333	97	430	2,768	361	125	93	23	5	418	665	4,394
Apr	114	350		350	90	440	2,489	317	119	93	15	5	390	621	3,981
May	115	381		381	80	461	2,634	339	119	93	17	5	437	671	4,220
Jun	92	308		308	95	403	2,711	340	120	93	15	5	447	680	4,226
Jul	74	316		316	67	383	2,613	354	122	97	12	5	456	692	4,116
Aug	75	320		320	58	378	2,712	342	112	95	13	5	462	687	4,194
Sep	54	323		323	54	377	2,656	331	102	85	15	4	447	654	4,072
Oct	38	322		322	72	394	2,795	355	100	79	13	5	412	609	4,191
Nov	73	339		339	76	415	2,669	334	98	89	14	4	381	586	4,077
Dec	100	332		332	114	446	2,714	344	97	85	16	5	358	561	4,165
YTD	**1,185**	**3,960**		**3,960**	**990**	**4,950**	**31,440**	**4,026**	**1,331**	**1,088**	**193**	**58**	**4,975**	**7,644**	**49,245**

Table 1.1-2M (Cont.)

Primary Commercial Energy Production

Unit : KTOE

2011														
Month	Hydro	Lignite					NG	Condensate	Crude Oil						Grand Total
		EGAT			Non EGAT	Total			Benjamas	Sirikit	Tantawan	Fang	Others	Total	
		Mae-Moh	Krabi	Total											
Jan	128	408		408	84	492	2,801	350	122	87	19	5	350	582	4,353
Feb	144	345		345	77	422	2,586	331	96	72	20	4	323	515	3,998
Mar	129	379		379	87	466	2,959	377	118	96	21	5	344	584	4,515
Apr	104	361		361	75	436	2,705	339	123	99	19	4	312	557	4,141
May	83	332		332	75	407	2,883	330	120	104	28	4	370	627	4,330
Jun	87	401		401	80	481	2,690	295	106	104	26	4	360	600	4,153
Jul	87	361		361	376	737	2,451	292	116	103	26	4	335	584	4,151
Aug	200	412		412	135	547	2,590	309	111	107	24	5	356	604	4,250
Sep	221	341		341	471	812	2,585	293	109	99	17	4	358	588	4,499
Oct	252	335		335	59	394	2,498	301	110	64	21	4	359	558	4,003
Nov	140	283		283	68	351	2,539	291	111	105	26	4	356	601	3,922
Dec	182	392		392	56	448	2,788	314	111	106	25	4	347	593	4,325
YTD	1,758	4,349		4,349	1,643	5,992	32,075	3,822	1,351	1,147	271	52	4,166	6,987	50,634

2012															
Month	Hydro	Lignite					NG	Condensate	Crude Oil						Grand Total
		EGAT			Non EGAT	Total			Benjamas	Sirikit	Tantawan	Fang	Others	Total	
		Mae-Moh	Krabi	Total											
Jan	252	320		320	71	391	2,964	311	97	106	16	4	377	601	4,519
Feb	277	367		367	54	421	2,560	284	113	106	15	4	389	628	4,170
Mar	238	325		325	55	380	2,929	328	136	116	15	4	426	697	4,572
Apr	188	340		340	159	499	2,848	326	123	114	15	4	382	637	4,498
May	165	379		379	124	503	3,004	332	123	120	13	4	323	583	4,587
Jun	107	310		310	14	324	2,875	324	124	113	15	4	344	601	4,231
Jul	98	404		404	20	424	3,250	374	97	121	14	4	379	616	4,762
Aug	99	309		309	14	323	3,075	360	99	121	14	4	380	619	4,476
Sep	89	381		381	14	395	3,005	353	99	118	16	4	364	601	4,443
Oct	91	333		333	49	382	3,139	370	75	122	18	4	382	601	4,583
Nov	132	315		315	51	366	3,179	366	99	123	15	4	386	627	4,670
Dec	131	327		327	19	346	3,104	355	89	142	20	4	397	652	4,588
YTD	1,868	4,109		4,109	643	4,752	35,935	4,083	1,273	1,422	188	47	4,525	7,455	54,093

Table 1.1-2M (Cont.)
Primary Commercial Energy Production

Unit : KTOE

2013														
Month	Hydro	Lignite				NG	Condensate	Crude Oil						Grand Total
		EGAT			Non EGAT	Total									
		Mae-Moh	Krabi	Total				Benjamas	Sirikit	Tantawan	Fang	Others	Total	
Jan	132	374		374	17	391	3,020	373	88	140	18	4	405	654	4,570
Feb	132	331		331	30	361	2,845	339	83	131	13	4	370	601	4,278
Mar	122	311		311	21	332	3,188	360	95	147	15	4	410	671	4,673
Apr	120	290		290	16	306	3,030	343	92	147	13	4	393	649	4,448
May	127	382		382	66	448	3,243	376	62	141	11	4	439	657	4,851
Jun	96	444		444	47	491	2,985	335	88	137	9	4	390	628	4,535
Jul	72	431		431	54	485	3,178	373	86	137	9	4	349	585	4,693
Aug	79	301		301	42	343	3,006	328	82	139	11	4	388	624	4,380
Sep	80	372		372	53	380	2,839	309	66	134	10	4	374	587	4,195
Oct	81	352		352	50	402	3,062	343	98	140	13	4	384	639	4,527
Nov	65	292		292	27	319	2,976	339	95	128	9	3	337	572	4,271
Dec	93	393		393	29	422	2,897	324	97	123	7	3	370	600	4,336
YTD	**1,199**	**4,229**		**4,229**	**453**	**4,682**	**36,268**	**4,141**	**1,031**	**1,641**	**137**	**48**	**4,603**	**7,460**	**53,750**

Table 1.1- 3M
Primary Commercial Energy Import (Net) (Physical Unit)

2009														
Month	Coal (Tons)	Crude Oil (M. Litres)	Condensate (Barrels)	Petroleum Products (Million Litres)							Electricity (GWh)	NG & LNG (MMSCF)		
				Gasoline	Diesel	JP&KERO.	Fuel Oil	LPG	Others	Total		NG	LNG	Total
Jan	893,980	3,420		-134	-259	-101	-400	35	-48	-907	171	10,029		10,029
Feb	1,136,571	2,701		-46	-25	-105	-324	-2	-55	-556	108	21,086		21,086
Mar	1,320,589	4,642		-65	-43	-54	-327	41	27	-421	134	20,698		20,698
Apr	1,590,725	3,755		-125	-350	-78	-328	24	-96	-952	112	23,966		23,966
May	1,465,033	3,707		-120	-596	-197	-278	121	-49	-1,120	150	28,009		28,009
Jun	1,234,669	4,117		-158	-270	-100	-500	79	-110	-1,060	184	27,876		27,876
Jul	1,554,504	3,377		-144	-329	-205	-329	124	-138	-1,022	248	26,711		26,711
Aug	1,448,911	3,538		-153	-564	-152	-294	166	-75	-1,072	277	29,306		29,306
Sep	1,678,140	4,146		-109	-466	-160	-328	164	-87	-986	207	28,028		28,028
Oct	2,043,748	3,747		-115	-635	-172	-193	204	-181	-1,091	275	30,219		30,219
Nov	847,676	3,859		-87	-364	-120	-224	204	-167	-758	337	28,312		28,312
Dec	1,174,294	3,227		-81	-510	-174	-269	207	-142	-969	279	19,307		19,307
YTD	**16,388,840**	**44,237**		**-1,337**	**-4,411**	**-1,618**	**-3,795**	**1,367**	**-1,121**	**-10,915**	**2,483**	**293,548**		**293,548**

2010														
Month	Coal (Tons)	Crude Oil (M. Litres)	Condensate (Barrels)	Petroleum Products (Million Litres)							Electricity (GWh)	NG & LNG (MMSCF)		
				Gasoline	Diesel	JP&KERO.	Fuel Oil	LPG	Others	Total		NG	LNG	Total
Jan	1,260,121	3,635		-86	-198	-98	-230	200	-8	-420	166	23,739		23,739
Feb	1,339,828	3,706		-79	-261	-59	-273	202	-66	-536	145	27,418		27,418
Mar	1,267,862	3,448		-71	-301	-103	-278	229	113	-410	572	20,953		20,953
Apr	1,925,201	4,400		-134	-360	-152	-292	228	11	-698	745	27,119		27,119
May	1,419,128	3,488		-158	-413	-69	-273	324	51	-537	794	28,961		28,961
Jun	1,361,404	4,046		-152	-487	-213	-268	237	76	-806	791	26,110		26,110
Jul	1,133,692	3,627		-149	-544	-133	-246	165	-20	-928	803	27,982		27,982
Aug	1,040,141	3,903		-109	-618	-312	-171	247	36	-927	772	26,361		26,361
Sep	1,612,568	3,570		-135	-731	-154	-282	247	52	-1,003	782	27,674		27,674
Oct	1,600,902	3,583		-70	-581	-286	-246	270	159	-753	797	26,285		26,285
Nov	1,327,558	3,926		-73	-474	-145	-315	263	-184	-928	487	23,715		23,715
Dec	1,615,799	4,293		-125	-477	-105	-260	288	11	-667	424	25,515		25,515
YTD	**16,904,205**	**45,627**		**-1,342**	**-5,444**	**-1,827**	**-3,133**	**2,901**	**232**	**-8,613**	**7,277**	**311,830**		**311,830**

Table 1.1- 3M (Cont.)
Primary Commercial Energy Import (Net) (Physical Unit)

2011														
Month	Coal (Tons)	Crude Oil (M. Litres)	Condensate (Barrels)	Petroleum Products (Million Litres)							Electricity (GWh)	NG & LNG (MMSCF)		
				Gasoline	Diesel	JP&KERO.	Fuel Oil	LPG	Others	Total		NG	LNG	Total
Jan	1,535,900	3,649		-57	-306	-87	-341	210	66	-515	414	19,290		19,290
Feb	1,628,442	3,057		-42	-166	4	-176	209	277	106	640	22,174		22,174
Mar	1,414,313	3,749		-60	-260	-23	-242	165	134	-285	793	25,993		25,993
Apr	1,500,031	3,899		-55	-350	-127	-314	135	49	-662	1,022	26,041		26,041
May	1,473,014	4,289		-146	-408	-105	-341	212	134	-654	1,077	29,530	2,905	32,434
Jun	1,477,621	3,461		-103	-282	-114	-256	315	-40	-480	1,073	28,604	7,263	35,867
Jul	1,197,479	4,007		-84	-640	-126	-198	269	-19	-797	1,316	29,943	6,594	36,536
Aug	988,884	4,287		-167	-722	-169	-251	292	-60	-1,078	796	28,925	9,220	38,145
Sep	1,828,474	3,479		-67	-615	-146	-306	199	13	-921	1,129	28,933	3,584	32,518
Oct	1,025,569	3,339		-44	-321	-18	-169	257	-60	-356	1,173	22,756	3,018	25,775
Nov	1,242,255	3,499		-27	-240	-127	-236	162	106	-362	910	21,966	3,134	25,100
Dec	1,019,123	3,488		-82	-340	-260	-320	207	-109	-904	466	19,247		19,247
YTD	**16,331,105**	**44,204**		**-935**	**-4,649**	**-1,297**	**-3,151**	**2,631**	**491**	**-6,910**	**10,810**	**303,402**	**35,719**	**339,121**

2012														
Month	Coal (Tons)	Crude Oil (M. Litres)	Condensate (Barrels)	Petroleum Products (Million Litres)							Electricity (GWh)	NG & LNG (MMSCF)		
				Gasoline	Diesel	JP&KERO.	Fuel Oil	LPG	Others	Total		NG	LNG	Total
Jan	1,098,521	4,135		-69	-417	-72	-355	207	-38	-744	486	18,382	3,566	21,948
Feb	1,586,875	4,192		-97	-466	-70	-291	294	81	-550	801	23,249	3,367	26,616
Mar	1,476,171	4,606		-139	-378	-25	-412	308	-7	-654	1,167	28,527	6,166	34,693
Apr	1,884,858	4,056		-180	-459	-23	-236	340	38	-519	1,139	17,137		17,137
May	1,502,830	3,908		-152	-405	-77	-214	213	-92	-729	1,078	25,767	3,554	29,320
Jun	1,160,143	3,971		-143	-536	-98	-267	244	-258	-1,059	939	28,202	6,674	34,876
Jul	1,466,067	3,722		-50	-400	-132	-159	196	-52	-596	949	26,421	5,856	32,277
Aug	1,956,484	3,763		-54	-361	-52	-309	332	138	-305	1,116	27,044	3,093	30,138
Sep	1,635,712	3,500		-94	-489	-63	-312	333	-199	-825	1,146	23,322	4,435	27,758
Oct	2,315,324	4,212		-149	-531	-57	-169	256	-95	-745	800	28,907	3,336	32,244
Nov	1,330,740	3,494		-93	-527	-40	-410	253	-32	-850	520	27,660	2,951	30,611
Dec	990,645	4,108		-44	-386	-72	-357	212	-80	-727	414	26,003	4,454	30,458
YTD	**18,404,370**	**47,668**		**-1,265**	**-5,356**	**-781**	**-3,492**	**3,186**	**-595**	**-8,303**	**10,555**	**300,622**	**47,452**	**348,075**

Table 1.1- 3M (Cont.)
Primary Commercial Energy Import (Net) (Physical Unit)

2013														
Month	Coal (Tons)	Crude Oil (M. Litres)	Condensate (Barrels)	Petroleum Products (Million Litres)							Electricity (GWh)	NG & LNG (MMSCF)		
				Gasoline	Diesel	JP&KERO.	Fuel Oil	LPG	Others	Total		NG	LNG	Total
Jan	1,519,927	4,345		-72	-295	-58	-299	170	94	-460	364	25,108	4,445	29,553
Feb	1,105,768	3,772		-108	-277	-96	-304	334	-39	-490	558	20,259	4,430	24,689
Mar	602,370	4,336		-171	-433	-76	-241	251	57	-613	822	27,940	9,095	37,035
Apr	976,399	4,235		-110	-271	-121	-282	250	-72	-606	1,144	17,820	9,006	26,826
May	1,792,684	3,845		-38	-126	-78	-335	333	-18	-262	1,312	26,787	3,154	29,941
Jun	2,173,714	3,780	-24	-59	-192	-39	-189	338	39	-102	1,270	24,687	8,962	33,649
Jul	1,609,902	3,687		-119	-272	-162	-450	253	111	-639	1,301	25,312	10,240	35,552
Aug	1,797,770	4,644		-142	-680	-162	-216	334	-9	-875	1,519	26,564	2,851	29,415
Sep	1,249,771	3,650		-189	-539	-164	-314	341	75	-790	1,601	26,775	2,925	29,700
Oct	1,596,963	4,157		-72	-523	-230	-297	360	204	-558	1,342	28,083	7,263	35,346
Nov	1,277,428	4,436		-120	-583	-169	-245	327	-273	-1,063	1,045	27,563	2,878	30,441
Dec	1,625,421	4,041		-171	-487	-185	-334	307	-161	-1,031	322	23,478	4,548	28,025
YTD	**17,328,117**	**48,931**	**-24**	**-1,372**	**-4,678**	**-1,540**	**-3,506**	**3,598**	**8**	**-7,489**	**12,601**	**300,375**	**69,798**	**370,172**

Remark : LPG includes Propane and Buthane

Table 1.1-4M
Primary Commercial Energy Import (Net)

Unit : KTOE

2009													
Month	Coal	Crude Oil	Condensate	Petroleum Products							Electricity (GWh)	NG & LNG			Grand Total
				Gasoline	Diesel	JP&KERO.	Fuel Oil	LPG	Others	Total		NG	LNG	Total	
Jan	558	2,942		-99	-224	-83	-376	22	-36	-796	15	246		246	2,965
Feb	709	2,323		-34	-21	-86	-305	-1	-41	-488	9	518		518	3,071
Mar	824	3,992		-48	-37	-44	-308	26	20	-391	11	509		509	4,945
Apr	993	3,229		-93	-302	-63	-309	15	-71	-823	10	589		589	3,998
May	914	3,188		-90	-514	-161	-262	76	-52	-1,003	13	688		688	3,800
Jun	771	3,541		-118	-233	-82	-471	49	-82	-937	16	685		685	4,076
Jul	970	2,904		-107	-284	-168	-310	78	-103	-894	21	656		656	3,657
Aug	904	3,043		-114	-486	-124	-277	105	-56	-952	24	720		720	3,739
Sep	1,047	3,566		-82	-402	-130	-309	103	-65	-885	18	689		689	4,435
Oct	1,276	3,223		-85	-548	-141	-182	129	-135	-962	23	742		742	4,302
Nov	529	3,318		-65	-314	-98	-211	129	-124	-683	29	696		696	3,889
Dec	733	2,775		-61	-439	-142	-253	130	-106	-871	24	474		474	3,135
YTD	**10,230**	**38,044**		**-996**	**-3,802**	**-1,322**	**-3,572**	**861**	**-850**	**-9,681**	**212**	**7,212**		**7,212**	**46,017**

2010													
Month	Coal	Crude Oil	Condensate	Petroleum Products							Electricity (GWh)	NG & LNG			Grand Total
				Gasoline	Diesel	JP&KERO.	Fuel Oil	LPG	Others	Total		NG	LNG	Total	
Jan	787	3,126		-64	-170	-80	-217	126	-6	-411	14	583		583	4,099
Feb	836	3,187		-59	-225	-48	-257	128	-49	-510	12	674		674	4,199
Mar	791	2,965		-53	-259	-84	-262	144	84	-430	49	515		515	3,890
Apr	1,202	3,784		-100	-310	-124	-275	144	8	-657	63	666		666	5,058
May	886	3,000		-118	-356	-56	-257	204	38	-545	68	712		712	4,121
Jun	850	3,480		-113	-420	-174	-252	149	57	-753	67	642		642	4,286
Jul	708	3,119		-111	-469	-109	-232	104	-15	-832	68	688		688	3,751
Aug	649	3,357		-81	-533	-255	-161	156	27	-847	66	648		648	3,873
Sep	1,007	3,070		-101	-630	-126	-265	155	39	-928	67	680		680	3,896
Oct	999	3,082		-52	-501	-234	-231	170	118	-730	68	646		646	4,065
Nov	829	3,376		-54	-409	-118	-297	166	-137	-849	42	583		583	3,981
Dec	1,009	3,692		-93	-411	-86	-244	182	8	-644	36	627		627	4,720
YTD	**10,551**	**39,239**		**-1,000**	**-4,693**	**-1,494**	**-2,949**	**1,828**	**173**	**-8,135**	**620**	**7,662**		**7,662**	**49,937**

Table 1.1-4M (cont.)
Primary Commercial Energy Import (Net)

Unit : KTOE

2011														
Month	Coal	Crude Oil	Condensate	Petroleum Products							Electricity (GWh)	NG & LNG			Grand Total
				Gasoline	Diesel	JP&KERO.	Fuel Oil	LPG	Others	Total		NG	LNG	Total	
Jan	959	3,138		-42	-264	-71	-321	132	52	-514	35	474		474	4,092
Feb	1,016	2,629		-31	-143	4	-166	132	209	5	55	545		545	4,250
Mar	883	3,224		-45	-224	-18	-228	104	100	-311	68	639		639	4,503
Apr	936	3,353		-41	-302	-104	-296	85	39	-619	87	640		640	4,397
May	919	3,689		-109	-352	-86	-321	133	102	-633	92	726	71	797	4,864
Jun	922	2,976		-77	-243	-93	-241	198	-30	-486	91	703	178	881	4,384
Jul	747	3,446		-62	-552	-103	-186	170	-11	-744	112	736	162	898	4,459
Aug	617	3,687		-125	-622	-138	-237	184	-45	-983	68	711	227	938	4,327
Sep	1,141	2,992		-50	-530	-119	-288	126	13	-848	96	711	88	799	4,180
Oct	640	2,871		-33	-277	-15	-160	162	-32	-355	100	559	74	633	3,889
Nov	775	3,010		-20	-207	-104	-222	102	84	-367	78	540	77	617	4,113
Dec	636	3,000		-61	-293	-212	-301	130	-61	-798	40	473		473	3,351
YTD	**10,194**	**38,015**		**-696**	**-4,008**	**-1,060**	**-2,966**	**1,658**	**421**	**-6,651**	**921**	**7,455**	**878**	**8,333**	**50,812**

2012														
Month	Coal	Crude Oil	Condensate	Petroleum Products							Electricity (GWh)	NG & LNG			Grand Total
				Gasoline	Diesel	JP&KERO.	Fuel Oil	LPG	Others	Total		NG	LNG	Total	
Jan	686	3,556		-51	-360	-59	-334	130	-28	-702	41	452	88	540	4,121
Feb	991	3,605		-72	-402	-57	-274	185	78	-542	68	571	83	654	4,776
Mar	921	3,962		-104	-326	-21	-388	194	-1	-646	99	701	152	853	5,189
Apr	1,177	3,488		-134	-395	-18	-222	214	41	-514	97	421		421	4,669
May	938	3,361		-113	-349	-63	-202	134	-63	-656	92	633	87	720	4,455
Jun	724	3,415		-107	-462	-80	-251	154	-172	-918	80	693	164	857	4,158
Jul	915	3,201		-37	-345	-108	-149	123	-39	-555	81	649	144	793	4,435
Aug	1,221	3,236		-40	-311	-43	-291	209	128	-348	95	664	76	740	4,944
Sep	1,021	3,010		-70	-422	-52	-294	210	-124	-752	98	573	109	682	4,059
Oct	1,445	3,622		-111	-458	-47	-159	161	-45	-659	68	710	82	792	5,268
Nov	831	3,005		-69	-454	-33	-386	159	-4	-787	44	680	73	753	3,846
Dec	618	3,533		-33	-333	-59	-336	133	-59	-687	35	639	109	748	4,247
YTD	**11,488**	**40,995**		**-942**	**-4,617**	**-639**	**-3,287**	**2,007**	**-288**	**-7,766**	**899**	**7,386**	**1,166**	**8,552**	**54,168**

Table 1.1-4M (Cont.)
Primary Commercial Energy Import (Net)

Unit : KTOE

2013														
Month	Coal	Crude Oil	Condensate	Petroleum Products							Electricity (GWh)	NG & LNG			Grand Total
				Gasoline	Diesel	JP&KERO.	Fuel Oil	LPG	Others	Total		NG	LNG	Total	
Jan	949	3,737		-54	-254	-47	-281	107	89	-440	31	617	109	726	5,003
Feb	690	3,244		-81	-239	-78	-286	211	-16	-489	48	498	109	607	4,100
Mar	376	3,729		-127	-373	-62	-227	158	58	-573	70	686	223	909	4,511
Apr	609	3,642		-82	-234	-99	-266	158	-41	-564	97	438	221	659	4,443
May	1,119	3,307		-29	-108	-64	-315	210	28	-278	112	658	77	735	4,995
Jun	1,357	3,251		-44	-166	-32	-178	213	67	-140	108	607	220	827	5,403
Jul	1,005	3,171		-89	-235	-133	-423	159	98	-623	111	622	252	874	4,538
Aug	1,122	3,994		-106	-586	-132	-203	210	29	-788	129	653	70	723	5,180
Sep	780	3,139		-141	-465	-134	-296	215	64	-757	136	658	72	730	4,028
Oct	997	3,575		-53	-450	-188	-280	227	165	-579	114	690	178	868	4,975
Nov	797	3,815		-90	-503	-138	-230	206	-208	-963	89	677	71	748	4,486
Dec	1,015	3,475		-128	-420	-151	-315	193	-92	-913	27	577	112	689	4,293
YTD	**10,816**	**42,080**		**-1,022**	**-4,032**	**-1,258**	**-3,300**	**2,267**	**241**	**-7,104**	**1,074**	**7,380**	**1,715**	**9,095**	**55,961**

Remark : LPG includes Propane and Butane

Table 1.1-5M
Primary Commercial Energy Consumption (Physical Unit)

2009							
Month	Hydro/Import (GWh)	Lignite (Tons)			NG & LNG (MMSCF)	Petroleum (M.Litres)	Imported Coal (Tons)
		EGAT Mae-Moh	Others	Total			
Jan	914	1,461,488	111,470	1,572,958	99,315	3,565	1,263,101
Feb	824	1,144,939	157,131	1,302,070	98,170	3,095	1,173,015
Mar	945	1,255,136	247,544	1,502,680	114,859	3,469	1,230,511
Apr	831	1,313,460	234,662	1,548,122	107,953	3,294	1,475,963
May	689	1,370,259	183,435	1,553,694	125,502	3,435	1,432,156
Jun	552	1,463,154	194,639	1,657,793	118,513	3,170	1,523,827
Jul	616	1,451,536	165,359	1,616,895	116,521	3,277	1,486,020
Aug	861	1,304,125	179,357	1,483,482	120,255	3,262	1,390,062
Sep	599	1,243,891	134,061	1,377,952	119,232	3,161	1,467,969
Oct	752	1,287,741	41,449	1,329,190	123,725	3,382	1,297,112
Nov	854	1,227,355	193,949	1,421,304	121,197	3,276	1,277,320
Dec	1,012	1,295,181	199,472	1,494,653	119,472	3,680	1,370,606
YTD	9,448	15,818,265	2,042,528	17,860,793	1,384,714	40,065	16,387,662

2010							
Month	Hydro/Import (GWh)	Lignite (Tons)			NG & LNG (MMSCF)	Petroleum (M.Litres)	Imported Coal (Tons)
		EGAT Mae-Moh	Others	Total			
Jan	784	1,363,194	171,521	1,534,715	122,618	3,442	1,315,121
Feb	783	1,161,660	144,184	1,305,844	118,865	3,346	1,235,730
Mar	1,341	1,370,186	189,422	1,559,608	133,582	3,677	1,555,802
Apr	1,258	1,427,231	161,905	1,589,136	128,392	3,358	1,516,103
May	1,314	1,482,298	165,206	1,647,504	136,136	3,368	1,509,430
Jun	1,206	1,257,482	188,479	1,445,961	136,412	3,295	1,492,723
Jul	1,138	1,278,053	155,133	1,433,186	134,297	3,415	1,451,511
Aug	1,112	1,370,701	134,749	1,505,450	136,728	3,314	1,450,044
Sep	1,028	1,219,748	132,236	1,351,984	135,757	3,215	1,454,902
Oct	967	1,340,644	61,942	1,402,586	139,992	3,292	1,463,079
Nov	816	1,357,249	290,589	1,647,838	132,302	3,470	1,322,788
Dec	875	1,375,750	222,319	1,598,069	135,951	3,635	1,136,970
YTD	12,624	16,004,196	2,017,685	18,021,881	1,591,032	40,827	16,904,203

2011							
Month	Hydro/Import (GWh)	Lignite (Tons)			NG & LNG (MMSCF)	Petroleum (M.Litres)	Imported Coal (Tons)
		EGAT Mae-Moh	Others	Total			
Jan	991	1,491,892	277,871	1,769,763	133,282	3,592	1,384,942
Feb	1,291	1,350,179	307,575	1,657,754	127,414	3,348	1,260,899
Mar	1,377	1,524,371	289,908	1,814,279	146,380	3,702	1,454,710
Apr	1,493	1,453,644	278,587	1,732,231	136,122	3,552	1,385,672
May	1,451	1,552,462	253,227	1,805,689	149,737	3,560	1,422,440
Jun	1,467	1,490,675	260,229	1,750,904	145,311	3,528	1,360,711
Jul	1,709	1,537,595	120,233	1,657,828	136,246	3,542	1,497,170
Aug	1,698	1,393,272	308,030	1,701,302	143,504	3,537	1,422,393
Sep	2,128	1,344,072	283,836	1,627,908	137,694	3,429	1,392,038
Oct	2,311	1,391,102	287,435	1,678,537	127,393	3,361	1,347,183
Nov	1,542	1,277,770	66,034	1,343,804	128,402	3,298	1,262,477
Dec	1,288	1,354,134	124,024	1,478,158	132,681	3,801	1,140,470
YTD	18,745	17,161,168	2,856,989	20,018,157	1,644,165	42,248	16,331,105

Table 1.1-5M (Cont.)
Primary Commercial Energy Consumption (Physical Unit)

2012							
Month	Hydro/Import (GWh)	Lignite (Tons)			NG & LNG (MMSCF)	Petroleum (M.Litres)	Imported Coal (Tons)
		EGAT Mae-Moh	Others	Total			
Jan	1,624	1,422,026	86,026	1,508,052	142,571	3,736	1,377,152
Feb	2,053	1,305,278	54,232	1,359,510	130,795	3,627	1,300,236
Mar	2,241	1,396,404	86,462	1,482,866	153,866	3,867	1,488,056
Apr	1,988	1,423,127	74,782	1,497,909	133,025	3,694	1,659,593
May	1,824	1,487,165	65,895	1,553,060	151,560	3,904	1,632,311
Jun	1,420	1,464,663	60,762	1,525,425	151,852	3,659	1,456,871
Jul	1,389	1,329,878	249,397	1,579,275	164,529	3,642	1,459,848
Aug	1,565	1,518,295	212,345	1,730,640	155,268	3,660	1,540,894
Sep	1,547	1,325,208	172,756	1,497,964	150,029	3,446	1,622,458
Oct	1,211	1,305,321	189,694	1,495,015	159,983	3,692	1,736,470
Nov	1,118	1,440,217	174,743	1,614,960	159,959	3,779	1,550,234
Dec	1,007	1,336,699	184,502	1,521,201	156,774	3,963	1,580,254
YTD	**18,986**	**16,754,281**	**1,611,596**	**18,365,877**	**1,810,211**	**44,669**	**18,404,375**

2013							
Month	Hydro/Import (GWh)	Lignite (Tons)			NG & LNG (MMSCF)	Petroleum (M.Litres)	Imported Coal (Tons)
		EGAT Mae-Moh	Others	Total			
Jan	962	1,478,443	155,102	1,633,545	152,442	3,960	1,363,919
Feb	1,153	1,300,431	175,545	1,475,976	140,443	3,665	1,213,462
Mar	1,372	1,292,567	208,176	1,500,743	166,730	4,067	1,386,971
Apr	1,687	1,435,925	152,900	1,588,825	150,126	3,881	1,481,746
May	1,886	1,575,563	114,615	1,690,178	161,885	3,972	1,546,770
Jun	1,702	1,461,197	149,511	1,610,708	155,095	3,658	1,352,098
Jul	1,624	1,392,047	155,528	1,547,575	164,847	3,792	1,570,894
Aug	1,875	1,494,943	138,287	1,633,230	151,708	3,778	1,556,111
Sep	1,961	1,295,697	116,776	1,412,473	145,218	3,508	1,549,298
Oct	1,710	1,442,740	135,472	1,578,212	159,920	3,731	1,426,902
Nov	1,341	1,318,530	139,703	1,458,233	151,546	3,830	1,447,501
Dec	742	1,396,864	134,544	1,531,408	145,897	3,999	1,432,430
YTD	**18,013**	**16,884,947**	**1,776,159**	**18,661,106**	**1,845,859**	**45,841**	**17,328,104**

Table 1.1-6M
Primary Commercial Energy Consumption

Unit : KTOE

2009								
Month	Hydro/Import Electricity	Lignite			NG	Petroleum	Imported Coal	Total
		EGAT Mae-Moh	Others	Total				
Jan	180	362	53	415	2,440	2,866	788	6,689
Feb	167	284	75	359	2,412	2,486	732	6,156
Mar	191	311	118	429	2,822	2,782	768	6,992
Apr	169	325	112	437	2,652	2,642	921	6,821
May	133	339	87	426	3,084	2,757	894	7,294
Jun	98	362	93	455	2,912	2,534	951	6,950
Jul	103	360	79	439	2,863	2,614	928	6,947
Aug	153	323	86	409	2,955	2,600	868	6,985
Sep	105	308	64	372	2,930	2,521	916	6,844
Oct	128	319	20	339	3,040	2,707	810	7,024
Nov	144	304	93	397	2,978	2,616	797	6,932
Dec	186	321	95	416	2,935	2,951	856	7,344
YTD	1,755	3,918	974	4,892	34,022	32,075	10,229	82,973

2010								
Month	Hydro/Import Electricity	Lignite			NG	Petroleum	Imported Coal	Total
		EGAT Mae-Moh	Others	Total				
Jan	151	338	82	420	3,013	2,749	821	7,154
Feb	153	288	69	357	2,921	2,678	771	6,880
Mar	219	339	90	429	3,282	2,953	971	7,854
Apr	177	354	77	431	3,155	2,685	946	7,394
May	183	367	79	446	3,345	2,693	942	7,609
Jun	159	311	90	401	3,352	2,625	932	7,469
Jul	142	317	74	391	3,300	2,724	906	7,463
Aug	141	340	64	404	3,359	2,633	905	7,442
Sep	121	302	63	365	3,336	2,552	908	7,282
Oct	106	332	30	362	3,440	2,613	913	7,434
Nov	115	336	139	475	3,251	2,765	826	7,432
Dec	136	341	106	447	3,340	2,894	710	7,527
YTD	1,805	3,964	962	4,926	39,092	32,563	10,551	88,937

2011								
Month	Hydro/Import Electricity	Lignite			NG	Petroleum	Imported Coal	Total
		EGAT Mae-Moh	Others	Total				
Jan	163	370	133	503	3,275	2,860	864	7,665
Feb	199	334	147	481	3,131	2,671	787	7,269
Mar	197	378	138	516	3,597	2,952	908	8,170
Apr	191	360	133	493	3,345	2,833	865	7,727
May	175	385	121	506	3,679	2,832	888	8,080
Jun	178	369	124	493	3,570	2,809	849	7,899
Jul	199	381	57	438	3,348	2,820	935	7,740
Aug	268	345	147	492	3,526	2,802	888	7,976
Sep	317	333	135	468	3,383	2,722	869	7,759
Oct	352	345	137	482	3,130	2,675	841	7,480
Nov	218	317	31	348	3,155	2,630	788	7,139
Dec	222	335	59	394	3,260	3,025	712	7,613
YTD	2,679	4,251	1,363	5,614	40,397	33,631	10,194	92,515

Table 1.1-6M (Cont.)
Primary Commercial Energy Consumption

Unit : KTOE

2012								
Month	Hydro/Import Electricity	Lignite			NG	Petroleum	Imported Coal	Total
		EGAT Mae-Moh	Others	Total				
Jan	293	352	41	393	3,503	2,970	860	8,019
Feb	345	323	26	349	3,214	2,887	812	7,607
Mar	337	346	41	387	3,780	3,076	929	8,509
Apr	285	353	36	389	3,268	2,948	1,036	7,926
May	257	368	31	399	3,724	3,126	1,019	8,525
Jun	187	363	29	392	3,731	2,910	909	8,129
Jul	179	329	119	448	4,042	2,889	911	8,469
Aug	194	376	101	477	3,815	2,898	962	8,346
Sep	187	328	82	410	3,686	2,724	1,013	8,020
Oct	159	323	90	413	3,931	2,924	1,084	8,511
Nov	176	357	83	440	3,930	3,000	968	8,514
Dec	166	331	88	419	3,852	3,143	986	8,566
YTD	**2,767**	**4,150**	**769**	**4,919**	**44,477**	**35,492**	**11,488**	**99,143**

2013								
Month	Hydro/Import Electricity	Lignite			NG	Petroleum	Imported Coal	Total
		EGAT Mae-Moh	Others	Total				
Jan	163	366	74	440	3,746	3,149	851	8,349
Feb	180	322	84	406	3,451	2,917	757	7,711
Mar	192	320	99	419	4,097	3,240	866	8,814
Apr	217	356	73	429	3,689	3,097	925	8,357
May	239	390	55	445	3,978	3,157	965	8,784
Jun	204	362	71	433	3,811	2,895	844	8,187
Jul	183	345	74	419	4,050	3,004	981	8,637
Aug	208	370	66	436	3,727	2,984	971	8,326
Sep	216	321	56	377	3,568	2,773	967	7,901
Oct	195	357	65	422	3,929	2,952	891	8,389
Nov	154	327	67	394	3,723	3,040	904	8,215
Dec	120	346	64	410	3,585	3,177	894	8,186
YTD	**2,273**	**4,182**	**847**	**5,029**	**45,353**	**36,386**	**10,816**	**99,857**

Table 1.2-1M
Final Modern Energy Consumption (Physical Unit)

2009													
Month	Solid Fossil Fuel (Thousand Tons)			Petroleum Products (Million Litres)								Electricity* (GWh)	NG in Industry (MMSCF)
	Coal**	Lignite**	Total	LPG***	Premium	Regular	J.P.	Kerosene	Diesel	Fuel Oil	Total		
Jan	777	111	888	558	287	378	396	1	1,718	218	3,556	9,681	14,278
Feb	745	157	902	489	255	334	365	1	1,439	212	3,095	10,274	14,056
Mar	709	248	956	559	289	373	405	2	1,624	214	3,465	11,923	15,986
Apr	943	235	1,177	531	277	357	344	1	1,586	195	3,292	11,267	15,255
May	931	183	1,115	557	284	368	349	1	1,658	215	3,433	12,148	16,044
Jun	1,018	195	1,212	563	262	345	322	1	1,459	215	3,168	11,900	16,715
Jul	967	165	1,132	598	269	362	356	1	1,471	218	3,276	12,067	16,360
Aug	916	179	1,096	611	263	353	363	1	1,446	188	3,225	12,486	16,543
Sep	977	134	1,111	588	254	346	347	2	1,394	229	3,159	12,124	17,501
Oct	889	41	931	612	265	358	378	2	1,472	251	3,337	12,348	18,368
Nov	902	194	1,096	600	248	339	390	2	1,473	215	3,267	11,706	18,356
Dec	1,005	199	1,204	630	278	378	416	2	1,714	250	3,668	11,368	18,072
YTD	10,778	2,043	12,821	6,894	3,233	4,292	4,431	18	18,452	2,620	39,940	139,292	197,533

2010													
Month	Solid Fossil Fuel (Thousand Tons)			Petroleum Products (Million Litres)								Electricity* (GWh)	NG in Industry (MMSCF)
	Coal**	Lignite**	Total	LPG***	Premium	Regular	J.P.	Kerosene	Diesel	Fuel Oil	Total		
Jan	780	172	952	625	256	350	434	2	1,565	206	3,437	11,719	18,389
Feb	770	144	914	589	240	352	398	1	1,545	219	3,344	11,737	18,598
Mar	1,000	189	1,189	639	244	376	436	1	1,686	253	3,636	13,257	19,329
Apr	1,010	162	1,171	598	240	367	383	1	1,547	214	3,351	12,909	18,583
May	1,007	165	1,172	613	233	366	342	2	1,588	211	3,355	13,911	18,965
Jun	1,020	188	1,208	621	240	377	341	1	1,508	200	3,288	13,377	19,757
Jul	1,019	155	1,174	645	248	388	365	1	1,514	210	3,372	13,497	19,690
Aug	959	135	1,094	650	242	377	397	1	1,431	202	3,299	13,036	19,488
Sep	1,017	132	1,150	635	234	374	369	1	1,403	189	3,205	12,967	19,878
Oct	987	62	1,049	647	237	379	399	1	1,434	192	3,289	13,099	19,946
Nov	908	291	1,198	648	241	391	406	1	1,582	200	3,469	12,192	20,317
Dec	813	222	1,035	676	252	413	441	1	1,665	180	3,628	12,186	21,638
YTD	11,289	2,018	13,307	7,587	2,908	4,509	4,712	15	18,468	2,475	40,674	153,884	234,578

Table 1.2-1M (Cont.)
Final Modern Energy Consumption (Physical Unit)

2011													
Month	Solid Fossil Fuel (Thousand Tons)			Petroleum Products (Million Litres)								Electricity* (GWh)	NG in Industry (MMSCF)
	Coal**	Lignite**	Total	LPG***	Premium	Regular	J.P.	Kerosene	Diesel	Fuel Oil	Total		
Jan	837	278	1,115	670	236	395	481	1	1,623	177	3,584	11,893	21,135
Feb	816	308	1,124	613	221	375	435	1	1,492	203	3,340	11,863	20,343
Mar	916	290	1,206	697	227	389	477	1	1,704	207	3,701	13,221	24,821
Apr	856	279	1,134	660	228	390	426	1	1,658	164	3,526	12,335	23,152
May	868	253	1,121	696	223	388	388	1	1,686	153	3,535	13,665	25,347
Jun	874	260	1,134	689	223	399	383	1	1,604	172	3,471	13,589	25,617
Jul	921	120	1,041	714	223	390	410	1	1,519	215	3,471	13,628	25,946
Aug	893	308	1,201	737	213	420	417	1	1,535	181	3,504	13,646	26,498
Sep	857	284	1,140	704	154	448	397	1	1,500	161	3,363	13,568	26,722
Oct	778	287	1,065	663	135	441	409	1	1,499	197	3,344	12,624	25,282
Nov	794	66	860	607	130	425	411	1	1,573	140	3,287	11,667	23,608
Dec	786	124	910	728	181	477	445	1	1,789	172	3,794	11,631	26,690
YTD	10,196	2,857	13,053	8,178	2,394	4,937	5,077	13	19,181	2,142	41,921	153,332	295,160

2012													
Month	Solid Fossil Fuel (Thousand Tons)			Petroleum Products (Million Litres)								Electricity* (GWh)	NG in Industry (MMSCF)
	Coal**	Lignite**	Total	LPG***	Premium	Regular	J.P.	Kerosene	Diesel	Fuel Oil	Total		
Jan	766	86	852	730	180	454	489	1	1,694	184	3,732	12,265	27,164
Feb	810	54	864	699	174	432	458	1	1,695	151	3,610	12,924	26,686
Mar	839	86	926	754	183	457	472	1	1,827	166	3,861	14,332	28,312
Apr	881	75	956	713	182	433	405	1	1,722	143	3,599	13,482	29,700
May	945	66	1,011	753	186	446	382	1	1,805	235	3,808	14,702	29,154
Jun	887	61	948	731	189	446	377	1	1,700	186	3,630	13,916	28,204
Jul	917	249	1,167	755	195	440	396	1	1,647	191	3,624	14,132	29,041
Aug	909	212	1,121	769	206	440	407	1	1,655	155	3,631	13,794	29,403
Sep	889	173	1,062	738	197	412	385	1	1,549	151	3,432	13,537	29,012
Oct	951	190	1,141	769	211	444	413	1	1,665	168	3,670	13,875	29,598
Nov	932	175	1,107	747	221	449	437	1	1,752	162	3,770	13,967	29,144
Dec	899	185	1,084	772	253	478	471	1	1,835	152	3,962	13,351	28,250
YTD	10,625	1,612	12,237	8,930	2,376	5,329	5,091	13	20,546	2,044	44,329	164,276	343,669

Table 1.2-1M (Cont.)
Final Modern Energy Consumption (Physical Unit)

Month	2013												
	Solid Fossil Fuel (Thousand Tons)			Petroleum Products (Million Litres)								Electricity* (GWh)	NG in Industry (MMSCF)
	Coal**	Lignite**	Total	LPG***	Premium	Regular	J.P.	Kerosene	Diesel	Fuel Oil	Total		
Jan	648	155	803	760	344	342	494	1	1,844	144	3,928	13,157	29,302
Feb	611	176	787	706	365	257	466	1	1,686	160	3,640	12,851	27,029
Mar	643	208	851	764	415	288	498	1	1,904	181	4,050	14,715	29,526
Apr	742	153	895	723	409	278	445	1	1,768	187	3,812	14,060	27,939
May	838	115	953	759	420	286	447	1	1,885	148	3,945	15,176	29,172
Jun	843	150	992	747	398	275	408	1	1,666	128	3,623	14,320	28,721
Jul	870	156	1,026	765	409	289	442	1	1,705	148	3,758	14,160	30,900
Aug	863	138	1,001	789	417	297	459	1	1,625	158	3,746	14,200	30,225
Sep	846	117	962	732	370	269	440	1	1,526	147	3,485	13,950	29,910
Oct	902	135	1,038	759	398	285	459	1	1,660	139	3,702	14,113	30,545
Nov	857	140	997	746	396	286	494	1	1,739	138	3,800	13,619	29,181
Dec	870	135	1,005	774	409	294	511	1	1,825	160	3,974	12,193	30,036
YTD	**9,533**	**1,776**	**11,309**	**9,025**	**4,749**	**3,446**	**5,562**	**11**	**20,832**	**1,838**	**45,463**	**166,515**	**352,486**

* Including Power Generation from SPP

** Preliminary data

*** Excluding LPG and Propane used as Feedstock in Petrochemical Industries

Table 1.2-2M
Final Modern Energy Consumption

Unit : KTOE

2009														
Month	Solid Fossil Fuel			Petroleum Products								Electricity*	Natural Gas	Total
	Coal**	Lignite**	Total	LPG***	Premium	Regular	J.P.	Kerosene	Diesel	Fuel Oil	Total			
Jan	485	53	538	351	214	282	324	1	1,480	205	2,857	825	351	4,571
Feb	465	75	540	308	190	248	298	1	1,240	200	2,485	875	345	4,245
Mar	442	118	560	352	215	278	331	1	1,400	202	2,779	1,016	393	4,748
Apr	588	112	700	335	206	266	282	1	1,367	184	2,641	960	375	4,676
May	581	87	668	351	212	274	285	1	1,429	202	2,754	1,035	394	4,851
Jun	635	93	728	355	196	257	263	1	1,257	202	2,531	1,014	411	4,684
Jul	604	79	683	377	201	269	291	1	1,268	205	2,612	1,028	402	4,725
Aug	572	86	658	385	196	263	297	1	1,247	177	2,566	1,064	406	4,694
Sep	610	64	674	370	189	258	283	1	1,201	216	2,518	1,033	430	4,655
Oct	555	20	575	385	198	267	309	1	1,269	236	2,665	1,052	451	4,743
Nov	563	93	656	378	185	253	319	1	1,270	202	2,608	997	451	4,712
Dec	627	95	722	397	207	282	340	2	1,477	235	2,940	969	444	5,075
YTD	**6,728**	**974**	**7,702**	**4,344**	**2,409**	**3,198**	**3,622**	**14**	**15,906**	**2,466**	**31,959**	**11,869**	**4,853**	**56,383**

2010														
Month	Solid Fossil Fuel			Petroleum Products								Electricity*	Natural Gas	Total
	Coal**	Lignite**	Total	LPG***	Premium	Regular	J.P.	Kerosene	Diesel	Fuel Oil	Total			
Jan	487	82	569	394	191	260	354	1	1,349	194	2,743	999	452	4,763
Feb	481	69	550	371	179	262	325	1	1,332	206	2,676	1,000	457	4,683
Mar	624	90	714	403	182	280	356	1	1,453	238	2,913	1,130	475	5,232
Apr	630	77	707	377	179	274	313	1	1,334	201	2,679	1,100	457	4,943
May	628	79	707	386	174	272	280	2	1,368	199	2,681	1,185	466	5,039
Jun	637	90	727	392	179	281	278	1	1,300	188	2,619	1,140	485	4,971
Jul	636	74	710	407	185	289	298	1	1,305	198	2,683	1,150	484	5,027
Aug	599	64	663	410	180	281	324	1	1,233	190	2,619	1,111	479	4,872
Sep	635	63	698	400	174	278	302	1	1,210	178	2,543	1,105	488	4,834
Oct	616	30	646	408	177	282	326	1	1,236	180	2,610	1,116	490	4,862
Nov	567	139	706	408	179	291	332	1	1,363	188	2,762	1,039	499	5,006
Dec	507	106	613	426	188	307	361	1	1,435	169	2,887	1,038	532	5,070
YTD	**7,047**	**962**	**8,009**	**4,781**	**2,166**	**3,360**	**3,851**	**12**	**15,919**	**2,330**	**32,419**	**13,112**	**5,764**	**59,304**

Table 1.2-2M (Cont.)
Final Modern Energy Consumption

Unit : KTOE

2011														
Month	Solid Fossil Fuel			Petroleum Products								Electricity*	Natural Gas	Total
	Coal**	Lignite**	Total	LPG***	Premium	Regular	J.P.	Kerosene	Diesel	Fuel Oil	Total			
Jan	522	133	655	422	176	295	393	1	1,399	166	2,852	1,013	519	5,039
Feb	510	147	657	386	164	280	356	1	1,286	191	2,664	1,011	500	4,832
Mar	572	138	710	439	169	289	390	1	1,469	195	2,952	1,127	610	5,399
Apr	534	133	667	416	170	291	348	1	1,429	154	2,809	1,051	569	5,096
May	542	121	663	438	166	289	317	1	1,453	144	2,808	1,164	623	5,258
Jun	546	124	670	434	167	298	313	1	1,383	162	2,758	1,158	629	5,215
Jul	575	57	632	450	166	291	335	1	1,309	202	2,754	1,161	637	5,184
Aug	558	147	705	464	159	313	340	1	1,323	170	2,770	1,163	651	5,289
Sep	535	135	670	443	114	334	324	1	1,293	151	2,660	1,156	657	5,143
Oct	485	137	622	418	100	328	334	1	1,292	186	2,659	1,076	621	4,978
Nov	496	31	527	383	97	317	336	1	1,356	132	2,622	994	580	4,723
Dec	491	59	550	459	135	355	364	1	1,542	162	3,018	991	656	5,215
YTD	6,364	1,363	7,727	5,153	1,784	3,678	4,150	11	16,534	2,016	33,326	13,065	7,252	61,370

2012														
Month	Solid Fossil Fuel			Petroleum Products								Electricity*	Natural Gas	Total
	Coal**	Lignite**	Total	LPG***	Premium	Regular	J.P.	Kerosene	Diesel	Fuel Oil	Total			
Jan	478	41	519	460	134	338	400	1	1,460	173	2,966	1,045	667	5,197
Feb	506	26	532	440	130	322	374	1	1,461	142	2,870	1,101	656	5,159
Mar	524	41	565	475	136	340	386	1	1,575	156	3,069	1,221	696	5,551
Apr	550	36	586	450	136	322	331	1	1,485	135	2,860	1,149	730	5,325
May	590	31	621	474	139	333	312	1	1,556	221	3,036	1,253	716	5,626
Jun	554	29	583	461	141	332	308	1	1,465	175	2,883	1,186	693	5,345
Jul	573	119	692	475	145	328	323	1	1,420	180	2,872	1,204	714	5,482
Aug	567	101	668	484	153	328	332	1	1,426	146	2,870	1,175	722	5,435
Sep	555	82	637	465	147	307	315	1	1,335	142	2,712	1,154	713	5,216
Oct	594	90	684	485	157	330	337	1	1,435	158	2,903	1,182	727	5,496
Nov	582	83	665	471	165	334	357	1	1,510	153	2,991	1,190	716	5,562
Dec	561	88	649	487	188	356	385	1	1,582	143	3,142	1,138	694	5,623
YTD	6,632	769	7,401	5,627	1,770	3,970	4,162	11	17,710	1,924	35,174	13,998	8,444	65,017

Table 1.2-2M (Cont.)
Final Modern Energy Consumption

Unit : KTOE

2013														
Month	Solid Fossil Fuel			Petroleum Products								Electricity*	Natural Gas	Total
	Coal**	Lignite**	Total	LPG***	Premium	Regular	J.P.	Kerosene	Diesel	Fuel Oil	Total			
Jan	404	74	478	479	256	255	404	1	1,589	136	3,120	1,121	720	5,439
Feb	382	84	466	445	272	191	381	1	1,453	150	2,893	1,095	664	5,118
Mar	401	99	500	481	309	215	407	1	1,641	170	3,224	1,254	725	5,703
Apr	463	73	536	456	305	207	364	1	1,524	176	3,033	1,198	686	5,453
May	523	55	578	479	313	213	365	1	1,624	139	3,134	1,293	717	5,722
Jun	526	71	597	471	296	205	333	1	1,436	121	2,863	1,220	706	5,386
Jul	543	74	617	482	305	215	361	1	1,469	139	2,972	1,207	759	5,555
Aug	539	66	605	497	311	221	375	1	1,401	149	2,955	1,210	743	5,513
Sep	528	56	584	461	275	200	360	1	1,315	139	2,751	1,189	735	5,259
Oct	563	65	628	478	297	213	376	1	1,431	131	2,927	1,203	750	5,508
Nov	535	67	602	470	295	213	404	1	1,499	130	3,012	1,160	717	5,491
Dec	543	64	607	488	305	219	418	1	1,573	151	3,155	1,039	738	5,539
YTD	**5,950**	**847**	**6,797**	**5,687**	**3,538**	**2,567**	**4,547**	**9**	**17,956**	**1,730**	**36,034**	**14,189**	**8,661**	**65,681**

* Including Power Generation from SPP

** Preliminary data

*** Excluding LPG and Propane used as Feedstock in Petrochemical Industries



Appendix I

Chapter 2

Oil

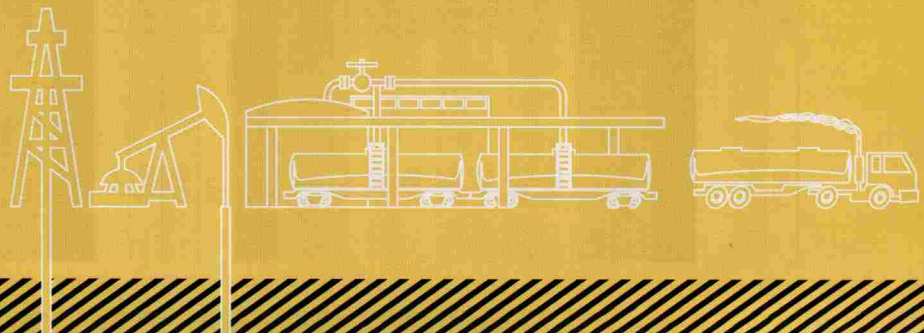


Table 2.1.1-1M
Production of Crude Oil

Unit : Barrels/Day

2009												
Month	Chaba	Bualaung	Songkhla	Big Oil Project	Sirikit	Nasanun	Tantawan	Jusmin	Banyen	Benjamas	Others	Total
Jan		7,725		33,137	21,529	12,745	9,047	14,463	8,422	42,941	3,590	153,599
Feb		6,955	1,019	34,796	21,464	10,032	8,843	14,741	8,151	39,948	3,430	149,379
Mar	3,078	6,144	8,367	36,086	20,838	8,431	8,653	12,925	8,083	46,786	4,010	163,401
Apr	7,725	6,146	8,646	34,854	22,268	8,351	3,292	12,911	8,107	27,166	19,852	159,318
May		13,213	6,584	33,549	22,147	16,130	3,746	13,213	7,615	7,172	30,725	154,094
Jun	9,323	11,907	5,156	33,721	20,500	8,111	5,553	9,046	4,300	26,741	19,856	154,214
Jul	7,093	10,768	4,524	30,464	21,411	7,103	6,246	12,630	6,097	26,199	19,120	151,655
Aug	6,625	10,768	7,545	27,957	20,905	5,771	6,236	12,630	6,097	28,916	18,464	151,914
Sep	875	11,127	2,187	31,773	21,285	5,389	6,113	13,051	6,300	26,405	13,213	137,718
Oct	5,698	8,205	4,755	29,428	20,720	5,250	6,679	15,134	4,941	20,805	14,951	136,566
Nov	5,815	7,123	6,764	39,509	20,995	5,906	5,809	16,646	7,123	27,405	17,666	160,761
Dec		6,739	4,900	40,169	21,837	6,913	4,266	16,262	4,047	29,094	41,061	175,288
YTD	**3,862**	**8,916**	**5,063**	**33,766**	**21,324**	**8,346**	**6,196**	**13,637**	**6,596**	**29,067**	**17,269**	**154,041**

2010												
Month	Chaba	Bualaung	Songkhla	Big Oil Project	Sirikit	Nasanun	Tantawan	Jusmin	Banyen	Benjamas	Others	Total
Jan	5,234	6,846	6,361	34,065	23,634	7,265	4,136	15,015	4,056	27,144	16,191	149,947
Feb	5,129	6,221	6,726	38,536	22,534	5,927	5,741	15,011	4,030	26,722	17,003	153,580
Mar	6,744	6,171	8,375	38,141	22,022	6,758	5,447	14,489	3,885	29,463	15,284	156,779
Apr	5,185	4,930	9,757	41,735	22,580	5,937	3,542	14,349	3,701	28,977	10,599	151,292
May	3,235	10,210	7,793	42,447	21,846	6,036	3,890	14,839	3,252	28,164	16,445	158,157
Jun	3,409	10,814	7,305	44,373	22,751	6,240	3,764	15,464	3,290	29,187	19,115	165,712
Jul	2,599	10,465	9,133	42,743	22,978	5,399	2,847	14,099	3,368	28,746	20,768	163,145
Aug	2,323	10,818	11,772	38,771	22,464	6,513	3,003	13,384	4,104	26,392	22,366	161,910
Sep	2,966	9,310	10,473	33,902	20,786	9,731	3,768	13,314	4,446	24,883	25,803	159,382
Oct	2,569	9,248	7,849	28,711	18,534	8,825	3,166	12,221	4,622	23,650	24,105	143,500
Nov	3,225	7,333	4,461	34,903	21,609	5,648	3,409	11,164	4,336	23,804	22,812	142,704
Dec	2,380	7,322	4,997	26,018	20,039	5,946	3,762	13,142	3,622	22,857	22,140	132,225
YTD	**3,739**	**8,327**	**7,926**	**36,998**	**21,808**	**6,689**	**3,860**	**13,868**	**3,891**	**26,665**	**19,403**	**153,174**

Table 2.1.1-1M (Cont.)
Production of Crude Oil

Unit : Barrels/Day

2011												
Month	Chaba	Bualaung	Songkhla	Big Oil Project	Sirikit	Nasanun	Tantawan	Jusmin	Banyen	Benjamas	Others	Total
Jan	2,934	6,847	7,593	28,536	20,427	3,103	4,546	12,387	5,139	28,710	16,947	137,169
Feb	2,562	6,177	8,499	29,204	18,794	2,562	5,127	13,381	4,830	25,103	18,100	134,339
Mar	3,147	6,274	8,852	27,046	22,652	3,267	4,992	13,732	3,730	27,755	16,177	137,624
Apr	2,316	5,390	7,732	27,465	24,224	2,267	4,587	13,408	4,396	29,947	13,908	135,640
May	2,318	5,220	6,660	37,797	24,566	2,403	6,643	12,840	5,869	28,337	15,043	147,696
Jun	2,506	7,695	7,233	37,000	25,386	2,187	6,252	12,423	5,286	25,714	14,476	146,158
Jul	1,991	8,260	5,800	31,291	24,366	2,465	6,136	12,715	5,048	27,248	12,410	137,730
Aug	990	10,027	10,903	31,846	25,286	2,589	5,695	12,732	4,582	26,266	11,397	142,313
Sep	1,996	10,508	13,993	26,868	24,117	2,361	4,167	12,665	4,138	26,603	15,692	143,108
Oct	1,461	9,128	14,775	28,924	15,094	1,996	4,864	12,350	4,010	26,005	13,007	131,614
Nov	1,906	8,115	13,788	30,582	25,515	2,025	6,296	12,781	5,251	26,935	13,314	146,508
Dec	1,913	7,943	11,607	31,000	25,096	2,438	5,787	11,792	3,203	26,133	12,909	139,821
YTD	**2,167**	**7,641**	**9,787**	**30,643**	**22,974**	**2,474**	**5,428**	**12,762**	**4,620**	**27,077**	**14,419**	**139,991**

2012												
Month	Chaba	Bualaung	Songkhla	Big Oil Project	Sirikit	Nasanun	Tantawan	Jusmin	Banyen	Benjamas	Others	Total
Jan	2,493	7,484	18,439	27,218	25,080	2,124	3,828	11,274	3,629	22,851	17,180	141,600
Feb	2,215	7,413	22,121	29,107	26,766	1,798	3,905	11,112	5,055	28,518	20,247	158,257
Mar	1,978	6,819	22,601	33,048	27,235	1,552	3,632	9,805	4,982	31,970	20,588	164,210
Apr	1,691	5,557	21,705	30,576	27,757	1,506	3,534	9,735	4,720	29,840	18,426	155,047
May	1,080	6,729	18,854	19,968	28,274	1,354	3,129	8,934	4,441	28,966	15,591	137,320
Jun	1,898	7,355	17,511	25,333	27,638	1,253	3,573	8,655	3,513	30,281	19,293	146,303
Jul	1,708	7,169	20,152	27,966	28,584	1,137	3,325	8,391	2,952	22,935	20,923	145,242
Aug	1,225	7,298	18,905	29,066	28,630	1,180	3,403	9,915	3,388	23,342	19,579	145,931
Sep	1,695	6,912	19,828	26,609	28,752	1,180	3,978	11,789	2,991	24,129	18,571	146,434
Oct	1,691	7,598	18,321	29,628	28,873	1,178	4,177	12,576	2,647	17,684	17,325	141,698
Nov	1,153	7,946	20,484	29,302	29,918	1,014	3,750	11,541	3,010	24,182	20,349	152,649
Dec	1,587	8,105	19,823	31,559	33,479	1,236	4,748	11,221	2,959	20,989	18,070	153,776
YTD	**1,699**	**7,200**	**19,883**	**28,281**	**28,423**	**1,375**	**3,748**	**10,408**	**3,685**	**25,439**	**18,834**	**148,977**



Table 2.1.1-1M (Cont.)
Production of Crude Oil

Unit : Barrels/Day

2013												
Month	Chaba	Bualaung	Songkhla	Big Oil Project	Sirikit	Nasanun	Tantawan	Jusmin	Banyen	Benjamas	Others	Total
Jan	1,506	10,276	19,823	31,911	32,910	1,404	4,135	10,221	3,427	20,693	17,755	154,061
Feb	1,382	10,825	20,507	32,797	34,266	1,244	3,336	10,002	3,052	21,777	17,778	156,966
Mar	1,822	10,620	21,506	31,139	34,586	1,158	3,637	10,993	2,921	22,286	17,438	158,106
Apr	1,752	12,042	22,763	28,945	35,774	1,079	3,141	10,750	2,591	22,461	16,704	158,002
May	1,411	14,654	20,529	39,403	33,286	1,072	2,583	9,971	2,429	14,507	14,998	154,843
Jun	561	14,003	20,011	30,578	33,351	1,091	2,244	11,178	2,353	21,441	16,124	152,935
Jul	340	13,267	20,290	20,035	32,275	1,095	2,189	10,681	2,318	20,295	15,167	137,952
Aug	1,004	12,565	20,601	29,918	32,713	1,279	2,660	10,137	2,184	19,238	14,697	146,996
Sep	1,251	13,233	20,270	31,233	32,640	1,286	2,343	10,099	2,385	16,016	12,270	143,026
Oct	946	11,620	20,143	28,897	32,928	1,215	3,066	10,899	2,550	23,163	15,287	150,714
Nov	1,203	12,429	18,596	26,518	31,121	1,152	2,200	10,319	3,176	23,165	9,552	139,431
Dec	1,189	12,206	18,856	26,645	28,990	1,161	1,534	10,459	3,566	22,906	13,808	141,320
YTD	**1,196**	**12,317**	**20,322**	**29,816**	**32,889**	**1,186**	**2,754**	**10,478**	**2,745**	**20,652**	**15,126**	**149,481**

Source : Department of Mineral Fuels (DMF)

Compiled by : Energy Policy and Planning Office (EPPO)

Table 2.1.1-2M
Production of Condensate

Unit : Barrels/Day

2009												
Month	Pailin	Erawan	Bannpot	Satun	Gomin	Phuhorm	Funan & Jakrawan	Bongkot	Arthit	Trat	Others	Total
Jan	22,334	12,524	1,123	3,774	535	196	5,628	16,645	17,743	398	162	81,062
Feb	23,247	14,456	1,650	3,542	420	194	6,467	14,543	17,939	490	207	83,155
Mar	21,949	14,337	2,771	4,138	310	196	9,041	18,452	17,846	755	289	90,084
Apr	22,135	11,294	626	2,789	267	497	5,464	17,263	17,081	837	97	78,350
May	24,023	12,825	414	2,205	273	507	7,113	17,259	18,551	742	361	84,273
Jun	23,181	11,991	2,156	2,423	500	509	7,546	19,200	18,742	554	679	87,481
Jul	21,856	11,396	1,460	2,169	204	474	6,026	22,423	17,955	274	479	84,716
Aug	23,487	12,889	1,576	3,097	346	474	8,045	19,023	16,849	299	563	86,648
Sep	23,406	11,654	2,434	3,072	181	519	5,874	20,806	13,373	979	490	82,788
Oct	22,315	12,878	2,786	3,194	441	520	8,573	14,147	17,551	1,074	609	84,088
Nov	18,766	11,396	1,748	2,203	1,637	376	5,453	19,437	17,402	683	205	79,306
Dec	18,654	12,386	2,355	2,655	3,878	439	3,789	20,153	19,135	680	405	84,529
YTD	**22,106**	**12,496**	**1,759**	**2,937**	**753**	**409**	**6,591**	**18,300**	**17,520**	**647**	**380**	**83,900**

2010												
Month	Pailin	Erawan	Bannpot	Satun	Gomin	Phuhorm	Funan & Jakrawan	Bongkot	Arthit	Trat	Others	Total
Jan	20,493	11,964	1,418	2,719	5,169	424	3,176	19,886	16,604	424	554	82,831
Feb	22,722	10,912	1,046	2,595	3,864	384	3,051	17,283	19,533	532	307	82,229
Mar	25,100	12,312	1,980	3,601	3,769	520	4,693	20,384	20,422	359	502	93,642
Apr	21,198	12,889	2,835	1,958	3,045	429	5,966	19,509	16,829	162	182	85,002
May	21,225	10,794	5,024	3,510	1,998	486	6,050	20,097	17,464	881	429	87,958
Jun	21,034	10,887	4,617	1,529	2,472	385	7,729	20,682	17,598	4,125	66	91,124
Jul	22,135	11,643	4,811	2,375	2,227	415	8,044	19,744	17,682	2,734		91,810
Aug	23,374	11,146	4,301	2,871	1,424	422	9,175	20,014	13,392	2,621		88,740
Sep	23,291	11,000	5,457	2,750	1,863	342	8,830	16,858	16,088	2,267		88,746
Oct	23,953	9,908	5,290	2,969	1,639	421	8,832	20,124	17,439	1,435		92,010
Nov	21,848	9,876	4,562	3,233	1,350	448	7,947	19,437	19,160	1,698		89,559
Dec	22,798	10,801	3,942	2,588	1,491	451	7,065	20,525	18,065	1,529		89,255
YTD	**22,435**	**11,180**	**3,789**	**2,730**	**2,519**	**428**	**6,733**	**19,568**	**17,508**	**1,567**	**170**	**88,627**

Table 2.1.1-2M (Cont.)
Production of Condensate

Unit : Barrels/Day

2011												
Month	Pailin	Erawan	Bannpot	Satun	Gomin	Phuhorm	Funan & Jakrawan	Bongkot	Arthit	Trat	Others	Total
Jan	26,038	10,861	3,344	2,224	2,426	413	6,559	19,737	17,450	1,755		90,807
Feb	26,198	11,842	2,263	1,956	4,945	426	5,726	21,179	19,058	1,224	44	94,861
Mar	24,486	11,787	3,743	2,958	6,479	368	5,679	21,513	19,419	1,391	2	97,825
Apr	23,369	11,064	3,006	2,903	6,086	514	5,417	21,372	15,383	1,572	22	90,708
May	14,144	11,748	3,299	3,104	5,993	485	5,075	21,315	17,404	1,320	1,594	85,481
Jun	13,033	10,418	2,092	1,893	5,830	486	4,398	20,769	18,170	720	1,261	79,070
Jul	16,677	7,025	1,797	2,311	4,483	428	3,691	21,140	16,315	856	988	75,711
Aug	16,914	11,136	2,873	2,818	3,370	466	6,735	19,404	14,972	740	752	80,180
Sep	14,234	10,581	3,493	2,590	2,889	232	6,818	20,573	14,822	1,323	949	78,504
Oct	15,343	10,688	3,127	2,662	3,082	278	6,667	20,270	13,967	1,010	835	77,929
Nov	13,033	9,673	2,701	2,905	2,571	213	5,016	18,858	12,873	1,584	8,388	77,815
Dec	13,619	9,668	2,822	3,103	4,361	249	4,320	20,582	10,146	1,010	11,567	81,447
YTD	**18,048**	**10,531**	**2,886**	**2,625**	**4,372**	**380**	**5,508**	**20,556**	**15,811**	**1,208**	**2,213**	**84,136**

2012												
Month	Pailin	Erawan	Bannpot	Satun	Gomin	Phuhorm	Funan & Jakrawan	Bongkot	Arthit	Trat	Others	Total
Jan	12,262	9,463	2,587	3,316	3,438	445	4,952	20,422	9,344	1,485	12,973	80,687
Feb	11,746	9,861	2,708	3,320	2,527	262	7,410	19,558	10,238	1,144	10,025	78,799
Mar	12,285	10,192	2,639	4,081	2,180	382	7,652	23,010	9,703	1,322	11,537	84,983
Apr	11,743	10,286	2,855	4,145	2,571	370	6,646	23,985	12,460	1,154	11,019	87,234
May	12,184	10,059	2,217	3,003	4,635	541	5,713	22,903	9,002	938	14,773	85,968
Jun	10,744	10,286	1,831	3,137	5,065	502	5,861	20,936	11,503	2,404	14,494	86,763
Jul	11,242	10,520	1,523	5,175	3,163	547	8,146	33,893	11,431	1,414	9,850	96,904
Aug	13,760	6,100	1,532	3,542	1,957	400	9,774	33,421	12,705	698	9,319	93,208
Sep	12,158	7,630	1,873	5,110	3,685	300	9,410	32,859	10,238	1,211	10,059	94,533
Oct	11,123	7,982	3,124	4,939	4,489	323	7,250	32,846	9,951	1,518	12,468	96,013
Nov	11,681	8,550	2,482	3,867	4,085	591	12,017	30,875	10,001	2,234	11,620	98,003
Dec	11,357	7,450	2,769	3,162	3,630	541	9,323	33,076	10,047	1,567	9,211	92,133
YTD	**11,861**	**9,025**	**2,344**	**3,901**	**3,453**	**435**	**7,842**	**27,359**	**10,548**	**1,422**	**11,450**	**89,639**

Table 2.1.1-2M (Cont.)
Production of Condensate

Unit : Barrels/Day

2013												
Month	Pailin	Erawan	Bannpot	Satun	Gomin	Phuhorm	Funan & Jakrawan	Bongkot	Arthit	Trat	Others	Total
Jan	11,914	8,781	2,209	2,150	4,281	514	8,346	34,091	10,155	1,752	12,388	96,581
Feb	11,500	6,734	3,069	2,832	3,372	535	9,277	34,569	9,848	1,461	13,987	97,184
Mar	12,455	7,185	2,444	3,293	2,021	529	10,341	34,335	8,847	1,185	10,769	93,404
Apr	12,486	7,442	2,099	3,150	2,036	563	10,029	34,082	9,196	1,294	9,379	91,756
May	14,085	6,686	2,033	3,303	2,123	526	9,974	35,052	8,430	1,432	13,938	97,582
Jun	10,467	5,347	2,095	2,995	3,535	477	7,774	29,757	9,824	2,325	15,062	89,658
Jul	11,413	4,705	2,095	2,242	3,246	369	7,966	32,471	9,916	3,517	18,687	96,627
Aug	11,217	4,464	1,356	2,009	3,421	204	7,154	27,779	9,465	3,803	14,041	84,913
Sep	11,193	4,962	1,307	1,765	1,547	199	5,889	30,689	9,022	2,807	13,431	82,811
Oct	10,959	3,879	1,548	1,353	2,632	238	6,311	33,247	9,315	3,016	16,406	88,904
Nov	9,750	4,841	1,904	2,352	924	291	4,237	33,689	8,875	5,366	18,650	90,879
Dec	7,356	5,387	923	2,982	1,738	86	4,822	30,148	7,932	5,026	17,481	83,881
YTD	11,234	5,863	1,915	2,533	2,573	376	7,671	32,480	9,230	2,757	14,527	91,159

Source : Department of Mineral Fuels (DMF)

Compiled by : Energy Policy and Planning office (EPPO)

Table 2.1.2 -1M
Import of Crude Oil Classified by Sources

Unit : Million Litres

2009													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Middle East	2,946	2,157	3,892	3,139	2,961	3,514	2,772	3,256	3,440	2,690	3,064	2,770	36,601
Far East	541	496	638	716	709	366	461	390	368	575	461	302	6,025
Others	239	228	274	145	300	343	453	88	452	621	513	337	3,995
Total	**3,726**	**2,882**	**4,804**	**4,000**	**3,970**	**4,224**	**3,686**	**3,734**	**4,261**	**3,887**	**4,037**	**3,409**	**46,620**
2010													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Middle East	2,809	2,990	2,768	3,025	2,637	2,960	2,788	2,906	2,740	2,703	3,047	3,023	34,397
Far East	426	686	326	469	316	314	471	418	221	48	121	433	4,250
Others	581	67	532	1,034	694	892	594	735	823	909	898	958	8,718
Total	**3,816**	**3,744**	**3,627**	**4,528**	**3,647**	**4,166**	**3,853**	**4,059**	**3,785**	**3,661**	**4,065**	**4,414**	**47,365**
2011													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Middle East	2,277	2,098	3,071	2,962	3,546	2,658	3,111	3,741	2,976	3,213	2,981	3,092	35,725
Far East	475	101	94	515	245	252	287	436	272	261	495	283	3,716
Others	1,045	1,009	712	671	631	718	655	328	380	67	185	250	6,648
Total	**3,797**	**3,207**	**3,877**	**4,148**	**4,422**	**3,627**	**4,053**	**4,505**	**3,628**	**3,541**	**3,661**	**3,625**	**46,090**
2012													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Middle East	3,537	3,166	3,484	3,165	2,773	3,362	2,748	3,127	2,628	3,344	2,892	3,234	37,460
Far East	257	440	509	320	385	38	206	252	315	450	342	508	4,022
Others	672	883	725	804	1,029	737	1,046	548	676	534	434	489	8,575
Total	**4,466**	**4,488**	**4,718**	**4,289**	**4,187**	**4,137**	**4,000**	**3,926**	**3,618**	**4,327**	**3,668**	**4,231**	**50,056**
2013													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Middle East	3,261	3,006	3,388	3,398	2,956	2,800	2,867	3,537	2,616	3,340	3,226	3,176	37,572
Far East	330	396	483	284	290	399	349	428	519	301	234	356	4,370
Others	919	529	711	645	716	693	610	810	515	702	1,036	545	8,431
Total	**4,510**	**3,932**	**4,582**	**4,328**	**3,961**	**3,893**	**3,826**	**4,774**	**3,650**	**4,344**	**4,496**	**4,078**	**50,374**

Source : Department of Energy Business (DOEB)

Compiled by : Energy Policy and Planning Office (EPPO)

Table 2.2-1M
Material Intake by Refinery

Unit : Barrels/Day

2009								
Month	Thai Oil	Bangchak	ESSO	IRPC	PTTAR	SPRC	RPC	Total
Jan	275,497	79,034	140,722	102,001	135,780	153,916	8,742	895,692
Feb	281,149	96,003	141,430	60,011	144,470	148,293	9,964	881,320
Mar	280,573	89,528	152,348	158,352	150,411	153,092	14,176	998,481
Apr	271,846	95,418	141,552	149,691	140,085	156,241	10,023	964,856
May	250,887	97,194	143,181	148,486	134,662	156,996	9,819	941,225
Jun	275,051	81,742	145,380	152,604	134,312	154,045	7,233	950,366
Jul	277,059	90,021	140,477	145,168	122,464	166,812	11,376	953,378
Aug	270,623	89,092	104,860	145,481	149,849	140,002	10,136	910,044
Sep	267,370	86,134	135,964	168,653	146,271	158,899	10,957	974,247
Oct	268,514	75,325	130,423	144,235	151,103	150,531	11,606	931,737
Nov	243,282	86,156	133,719	161,464	151,249	133,496	8,700	918,066
Dec	257,041	56,881	140,605	143,971	151,178	157,199	9,925	916,800
YTD	268,177	85,098	137,506	140,469	142,634	152,514	10,234	936,633

2010								
Month	Thai Oil	Bangchak	ESSO	IRPC	PTTAR	SPRC	RPC	Total
Jan	230,660	78,691	130,239	168,489	141,955	181,355	8,518	939,908
Feb	269,505	91,246	102,927	159,426	129,906	153,656	11,475	918,140
Mar	264,759	98,340	121,060	182,762	149,534	170,033	12,164	998,652
Apr	250,187	74,041	122,232	172,553	152,223	164,437	13,297	948,970
May	249,128	88,107	132,047	173,021	152,507	158,966	11,948	965,724
Jun	256,714	87,841	129,206	170,686	150,123	162,414	1,237	958,221
Jul	256,916	88,802	117,338	177,610	151,848	177,453	11,864	981,833
Aug	268,415	90,074	127,237	161,807	153,217	159,737	12,159	972,644
Sep	254,286	91,928	121,071	174,892	138,450	160,876	11,870	953,374
Oct	268,634	95,061	131,349	174,863	151,560	133,143	11,352	965,963
Nov	251,130	88,715	125,550	179,407	146,732	170,822	10,967	973,323
Dec	245,801	89,930	136,755	180,486	136,176	159,333	11,286	959,769
YTD	255,423	88,575	124,933	173,097	146,312	162,738	10,686	961,764



Table 2.2-1M (Cont.)
Material Intake by Refinery

Unit : Barrels/Day

2011								
Month	Thai Oil	Bangchak	ESSO	IRPC	PTTAR/PTTGC	SPRC	RPC	Total
Jan	287,972	95,283	135,083	162,917	152,795	167,755	12,283	1,014,087
Feb	286,860	7,356	139,085	172,167	18,301	147,734	12,398	783,901
Mar	282,488	109,430	131,887	170,985	87,831	147,809	12,434	942,865
Apr	258,684	106,372	133,866	165,957	140,242	156,500	12,372	973,992
May	257,711	90,380	134,102	187,303	148,524	149,717	12,160	979,896
Jun	276,239	101,468	134,094	152,103	151,224	148,682	8,874	972,684
Jul	263,467	98,523	133,659	163,923	148,185	176,087	11,090	994,933
Aug	280,281	86,636	119,329	176,501	147,789	158,617	12,583	981,738
Sep	283,963	86,772	74,754	181,110	146,074	127,700	11,438	911,812
Oct	268,567	93,869	1,962	189,344	161,459	133,152	10,137	858,489
Nov	284,531	92,101	57,928	9,717	147,959	193,095	9,510	794,841
Dec	276,364	103,713	128,223	159,765	151,162	171,954	12,864	1,004,045
YTD	275,498	89,918	110,206	157,863	134,267	156,640	11,515	935,909

2012								
Month	Thai Oil	Bangchak	ESSO	IRPC	PTTGC	SPRC	RPC	Total
Jan	281,034	96,464	134,888	177,499	150,995	163,265	11,585	1,015,732
Feb	288,125	108,682	138,875	193,650	148,825	169,514	2,111	1,049,782
Mar	273,448	106,317	144,230	192,910	164,312	148,283		1,029,500
Apr	273,955	99,994	143,059	179,732	147,002	162,474		1,006,216
May	264,117	88,622	146,779	169,177	145,602	165,569		979,866
Jun	281,448	33,656	145,717	162,874	133,207	163,765		920,667
Jul	269,626	34,734	137,592	168,987	144,046	166,913	142	922,041
Aug	256,216	50,302	147,079	185,162	148,598	162,433		949,790
Sep	256,892	48,831	138,131	182,360	149,008	166,320		941,542
Oct	275,457	49,057	139,692	148,453	150,099	161,561		924,319
Nov	273,226	97,471	143,743	178,786	143,042	165,509		1,001,777
Dec	271,680	111,338	151,579	167,032	148,857	166,615		1,017,101
YTD	271,235	76,731	142,254	174,920	147,439	163,012	1,155	976,745

Table 2.2-1M (Cont.)
Material Intake by Refinery

Unit : Barrels/Day

2013								
Month	Thai Oil	Bangchak	ESSO	IRPC	PTTGC	SPRC	RPC	Total
Jan	280,957	107,239	145,858	169,925	184,763	171,471		1,060,214
Feb	295,933	104,879	153,201	212,940	198,324	176,443		1,141,721
Mar	297,577	87,416	144,687	174,348	188,907	182,255		1,075,190
Apr	309,022	88,632	149,258	193,394	181,605	183,415		1,105,327
May	267,405	97,856	142,023	192,727	103,930	197,575		1,001,517
Jun	313,463	100,643	130,671	184,776	85,431	181,079		996,063
Jul	316,337	104,229	134,550	177,170	169,200	185,802		1,087,287
Aug	310,343	97,979	130,405	180,491	188,857	188,769		1,096,843
Sep	293,182	102,235	143,144	188,719	169,200	187,289		1,083,769
Oct	281,862	103,317	138,921	170,922	193,496	187,442		1,075,959
Nov	300,361	103,699	141,966	167,373	198,480	175,040		1,086,919
Dec	301,638	101,126	149,459	184,727	195,433	187,639		1,120,022
YTD	**297,279**	**99,909**	**141,928**	**182,876**	**171,388**	**183,766**		**1,077,147**

Remark : Since mid of October 2011 PTTAR merged with PTTCH to form PTTGC.

Source : Department of Energy Business (DOEB)

Compiled by : Energy Policy and Planning Office(EPPO)

Table 2.3.1-1M
Production of Petroleum Products

Unit : Million Litres

2009											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	781.8	388.3	393.5	3.8	1,806.1	1,806.1		486.1	608.8	692.9	4,379.5
Feb	641.2	366.9	274.3	3.3	1,503.3	1,503.3		454.8	588.1	633.1	3,823.7
Mar	763.3	447.3	316.0	7.2	1,990.1	1,990.1		542.3	680.4	728.1	4,711.4
Apr	731.6	446.4	285.2	7.6	1,928.0	1,928.0		428.9	541.0	687.6	4,324.7
May	785.2	492.0	293.3	4.8	2,012.0	2,012.0		500.2	583.8	718.7	4,604.6
Jun	758.2	489.2	269.0	7.9	1,842.9	1,842.9		455.5	591.9	701.0	4,357.4
Jul	765.7	440.8	325.0	13.1	1,940.1	1,940.1		569.4	593.1	738.0	4,619.4
Aug	743.4	426.0	317.4	3.0	1,865.5	1,865.5		523.1	565.0	698.5	4,398.4
Sep	716.3	420.7	295.6	8.4	1,967.0	1,967.0		447.5	579.1	674.4	4,392.7
Oct	740.5	433.3	307.2	8.5	1,944.2	1,944.2		581.8	493.6	668.8	4,437.4
Nov	685.5	384.8	300.6	16.5	1,804.4	1,804.4		506.0	517.5	660.1	4,190.0
Dec	739.4	454.7	284.7	8.7	1,885.4	1,885.4		479.4	541.9	671.8	4,326.4
YTD	**8,852.1**	**5,190.3**	**3,661.8**	**92.9**	**22,489.0**	**22,489.0**		**5,975.0**	**6,884.2**	**8,273.0**	**52,566.1**

2010											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	716.5	391.0	325.5	16.4	1,820.1	1,820.1		530.9	546.2	687.3	4,317.3
Feb	659.4	382.8	276.6	0.6	1,723.9	1,723.9		493.6	505.5	584.2	3,967.2
Mar	710.6	445.0	265.6	6.7	2,037.2	2,037.2		568.1	562.0	690.8	4,575.3
Apr	737.3	469.2	268.1	2.1	1,821.8	1,821.8		533.7	490.6	651.3	4,236.7
May	749.8	440.8	309.0	12.7	2,075.3	2,075.3		473.7	551.2	609.8	4,472.3
Jun	739.6	437.4	302.2	24.4	1,947.5	1,947.5		484.3	499.4	601.8	4,296.9
Jul	740.0	447.2	292.8	25.3	2,023.3	2,023.3		519.0	466.0	721.1	4,494.7
Aug	761.2	468.9	292.3	30.5	2,036.2	2,036.2		591.4	456.8	708.0	4,584.1
Sep	747.2	449.6	297.6	112.4	1,928.3	1,928.3		490.4	478.9	695.5	4,452.6
Oct	714.1	454.3	259.8	165.2	1,960.6	1,960.6		446.2	486.0	723.4	4,495.5
Nov	664.0	413.4	250.7	55.9	1,868.4	1,868.4		498.9	477.9	698.8	4,263.9
Dec	802.3	505.4	296.9	14.7	2,062.2	2,062.2		565.8	479.3	806.4	4,730.6
YTD	**8,741.9**	**5,305.0**	**3,436.9**	**466.7**	**23,304.8**	**23,304.8**		**6,196.1**	**5,999.8**	**8,178.4**	**52,887.6**

Table 2.3.1-1M (Cont.)
Production of Petroleum Products

Unit : Million Litres

2011											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	706.1	447.7	258.4	7.5	2,099.1	2,099.1		593.5	524.8	833.8	4,764.7
Feb	651.0	421.1	229.8	1.7	1,379.0	1,379.0		380.1	354.2	730.7	3,496.8
Mar	668.6	438.4	230.2	0.9	1,941.2	1,941.2		487.9	555.5	873.0	4,527.0
Apr	679.6	443.2	236.4	1.0	1,962.6	1,962.6		563.3	508.2	881.7	4,596.3
May	739.2	447.6	291.6	13.7	2,043.4	2,043.4		572.3	538.9	905.4	4,812.9
Jun	748.7	501.8	246.9	50.3	2,075.8	2,075.8		465.2	495.1	771.6	4,606.8
Jul	745.8	493.5	252.3	67.7	2,058.4	2,058.4		505.7	511.6	828.0	4,717.1
Aug	732.9	455.5	277.5	1.0	2,107.7	2,107.7		533.7	496.3	843.9	4,715.5
Sep	640.1	478.5	161.6	2.2	1,921.3	1,921.3		508.7	469.3	862.9	4,404.3
Oct	625.3	492.0	133.3	1.0	1,752.7	1,752.4	0.4	452.6	423.2	817.5	4,072.2
Nov	622.0	492.5	129.5	4.0	1,622.7	1,622.7		553.2	435.0	799.4	4,036.1
Dec	766.7	587.9	178.8	0.9	2,134.7	2,134.7		676.5	503.7	893.7	4,976.1
YTD	8,325.9	5,699.7	2,626.2	151.8	23,098.6	23,098.2	0.4	6,292.7	5,815.8	10,041.5	53,726.3

2012											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	725.9	542.0	183.9	0.9	2,073.3	2,073.3		494.3	516.8	880.3	4,691.3
Feb	707.7	525.5	182.2	9.2	2,101.7	2,101.7		564.2	536.5	708.0	4,627.2
Mar	837.6	641.8	195.8	15.2	2,085.0	2,085.0		500.9	560.8	847.6	4,847.1
Apr	756.1	570.4	185.7	1.2	2,193.9	2,193.9		498.1	515.6	873.3	4,838.2
May	776.7	592.9	183.8	23.3	2,152.9	2,152.9		475.2	528.2	915.3	4,871.6
Jun	773.8	582.6	191.1	11.3	2,014.5	2,014.5		413.2	491.3	870.0	4,574.0
Jul	742.5	527.3	215.3	0.3	1,915.3	1,915.3		478.3	497.4	904.7	4,538.6
Aug	733.5	523.9	209.6	8.2	2,042.6	2,042.6		455.2	507.1	903.3	4,649.7
Sep	741.2	516.8	224.4	3.5	2,125.0	2,125.0		448.0	471.6	852.6	4,641.9
Oct	754.8	526.5	228.2	0.3	1,913.7	1,913.7		467.4	495.5	914.8	4,546.4
Nov	788.8	565.6	223.2	2.2	2,200.8	2,200.8		508.7	496.7	906.4	4,903.5
Dec	811.5	531.4	280.1	0.4	2,305.9	2,305.9		554.3	520.6	953.6	5,146.3
YTD	9,150.1	6,646.8	2,503.3	75.9	25,124.6	25,124.6		5,857.8	6,138.1	10,530.1	56,876.5



Table 2.3.1-1M (Cont.)
Production of Petroleum Products

Unit : Million Litres

2013											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	757.6	363.0	394.7	12.1	2,033.9	2,033.9		544.6	517.7	878.4	4,744.3
Feb	776.6	380.9	395.7	36.3	1,845.1	1,845.1		563.9	467.1	787.6	4,476.6
Mar	883.6	481.6	401.9	32.9	2,151.6	2,151.6		573.2	557.8	933.2	5,132.2
Apr	803.3	410.1	393.2	50.6	2,048.5	2,048.5		530.0	530.2	881.7	4,844.2
May	779.1	361.1	418.0	32.4	1,880.4	1,880.4		433.0	426.9	837.7	4,389.4
Jun	770.8	344.4	426.4	6.5	1,802.7	1,802.7		452.2	496.8	775.3	4,304.2
Jul	845.6	395.9	449.7	39.7	2,285.5	2,285.5		603.3	524.3	907.2	5,205.4
Aug	901.3	403.7	497.7	56.9	2,333.8	2,333.8		574.5	481.4	799.2	5,147.2
Sep	807.1	371.4	435.7	102.6	2,217.7	2,217.7		569.9	484.0	757.2	4,938.5
Oct	799.2	366.2	433.0	117.3	2,287.3	2,287.2		668.6	470.8	838.4	5,181.6
Nov	842.2	435.5	406.7	100.5	2,246.0	2,246.0		574.3	461.6	818.9	5,043.4
Dec	886.9	473.0	413.9	99.4	2,385.8	2,385.8		592.6	492.7	872.2	5,329.5
YTD	**9,853.3**	**4,786.7**	**5,066.6**	**687.1**	**25,518.2**	**25,518.2**		**6,680.1**	**5,911.2**	**10,087.1**	**58,737.0**

Source : Department of Energy Business (DOEB)

Compiled by : Energy Policy and Planning Office (EPPO)

Table 2.3.1-2M
Production of Petroleum Products

Unit : Barrels/Day

2009											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	158,622.2	78,783.6	79,838.6	770.9	366,446.2	366,446.2		98,626.6	123,521.6	140,585.0	888,583.0
Feb	144,034.2	82,417.5	61,616.6	741.2	337,689.7	337,689.7		102,162.7	132,106.2	142,214.6	858,946.1
Mar	154,868.7	90,754.3	64,114.3	1,460.8	403,778.6	403,778.6		110,029.2	138,048.8	147,726.8	955,917.8
Apr	153,384.9	93,590.7	59,794.1	1,593.3	404,218.2	404,218.2		89,921.7	113,424.3	144,160.0	906,713.4
May	159,312.1	99,823.6	59,508.7	973.8	408,222.0	408,222.0		101,487.4	118,449.3	145,819.6	934,250.6
Jun	158,961.7	102,564.1	56,397.6	1,656.2	386,376.5	386,376.5		95,498.6	124,095.8	146,969.4	913,567.4
Jul	155,355.6	89,435.5	65,940.4	2,657.9	393,634.0	393,634.0		115,527.6	120,336.2	149,735.5	937,258.2
Aug	150,831.1	86,432.7	64,398.4	608.6	378,498.1	378,498.1		106,133.6	114,634.9	141,721.2	892,425.1
Sep	150,177.1	88,202.6	61,974.5	1,761.1	412,394.9	412,394.9		93,821.4	121,412.2	141,392.5	920,960.0
Oct	150,242.7	87,913.8	62,328.9	1,724.5	394,465.8	394,465.8		118,043.5	100,148.3	135,695.2	900,324.9
Nov	143,719.7	80,675.9	63,022.8	3,459.3	378,304.7	378,304.7		106,086.3	108,497.3	138,394.4	878,468.6
Dec	150,019.5	92,255.7	57,763.8	1,765.1	382,535.7	382,535.7		97,267.2	109,948.0	136,303.9	877,813.4
YTD	**152,539.9**	**89,439.5**	**63,100.3**	**1,600.8**	**387,531.9**	**387,531.9**		**102,961.5**	**118,628.9**	**142,560.8**	**905,823.4**

2010											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	145,373.3	79,331.4	66,041.8	3,327.4	369,286.7	369,286.7		107,716.2	110,820.5	139,448.8	875,962.0
Feb	148,122.5	85,989.2	62,133.2	134.7	387,243.5	387,243.5		110,878.4	113,551.6	131,230.1	891,176.4
Mar	144,176.2	90,287.6	53,888.5	1,359.3	413,334.9	413,334.9		115,263.8	114,026.2	140,158.9	928,309.8
Apr	154,579.9	98,370.9	56,208.9	440.2	381,952.7	381,952.7		111,893.8	102,857.6	136,549.4	888,254.2
May	152,129.6	89,435.5	62,694.1	2,576.7	421,065.2	421,065.2		96,110.7	111,834.9	123,724.5	907,416.6
Jun	155,062.1	91,703.8	63,358.2	5,115.6	408,306.6	408,306.6		101,536.7	104,702.6	126,171.4	900,880.3
Jul	150,141.3	90,734.0	59,407.2	5,133.2	410,514.7	410,514.7		105,301.8	94,548.4	146,306.6	911,948.1
Aug	154,442.6	95,136.8	59,305.8	6,188.2	413,132.0	413,132.0		119,991.3	92,681.8	143,648.7	930,100.9
Sep	156,655.5	94,261.6	62,393.8	23,565.4	404,281.1	404,281.1		102,815.6	100,404.6	145,816.2	933,527.0
Oct	144,886.3	92,174.5	52,711.7	33,518.0	397,793.3	397,793.3		90,531.1	98,606.3	146,773.2	912,126.6
Nov	139,212.1	86,672.1	52,560.9	11,719.8	391,722.7	391,722.7		104,597.7	100,194.9	146,508.1	893,962.4
Dec	162,781.5	102,542.4	60,239.1	2,982.5	418,407.3	418,407.3		114,797.2	97,246.9	163,613.4	959,819.5
YTD	**150,640.9**	**91,416.1**	**59,224.8**	**8,042.2**	**401,589.8**	**401,589.8**		**106,771.5**	**103,388.9**	**140,930.7**	**911,364.0**



Table 2.3.1-2M (Cont.)
Production of Petroleum Products

Unit : Barrels/Day

2011											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	143,263.2	90,835.4	52,427.7	1,521.7	425,894.1	425,894.1		120,417.3	106,478.5	169,172.7	966,738.1
Feb	146,235.6	94,592.6	51,620.4	381.8	309,767.9	309,767.9		85,382.7	79,564.7	164,138.8	785,501.0
Mar	135,654.7	88,948.5	46,706.1	182.6	393,857.1	393,857.1		98,991.8	112,707.4	177,126.1	918,517.7
Apr	142,482.7	92,919.8	49,562.8	209.6	411,472.4	411,472.4		118,099.6	106,547.5	184,854.3	963,650.1
May	149,979.0	90,815.2	59,163.7	2,779.6	414,592.9	414,592.9		116,116.0	109,339.3	183,699.9	976,510.9
Jun	156,970.0	105,205.7	51,764.2	10,545.7	435,205.5	435,205.5		97,532.3	103,801.0	161,771.1	965,846.9
Jul	151,318.0	100,128.0	51,190.0	13,735.9	417,636.3	417,636.3		102,603.3	103,800.4	167,995.9	957,078.4
Aug	148,700.7	92,418.0	56,302.9	202.8	427,638.9	427,638.9		108,284.3	100,696.1	171,221.9	956,756.5
Sep	134,201.3	100,320.7	33,880.5	461.2	402,813.5	402,813.5		106,652.4	98,391.9	180,912.8	923,406.7
Oct	126,869.4	99,823.6	27,045.7	202.8	355,611.7	355,550.8	81.1	91,829.6	85,864.6	165,865.5	826,237.8
Nov	130,406.5	103,255.9	27,150.5	838.6	340,210.0	340,210.0		115,982.1	91,200.7	167,599.6	846,211.8
Dec	155,558.5	119,281.1	36,277.3	182.6	433,117.1	433,117.1		137,257.5	102,197.5	181,326.0	1,009,624.7
YTD	**143,472.4**	**98,217.6**	**45,254.8**	**2,615.8**	**398,036.5**	**398,029.6**	**6.8**	**108,436.2**	**100,218.2**	**173,035.7**	**925,816.1**

2012											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	147,280.5	109,968.3	37,312.1	182.6	420,659.4	420,659.4		100,290.3	104,855.4	178,607.2	951,850.7
Feb	158,972.2	118,044.2	40,928.0	2,066.6	472,109.6	472,109.6		126,737.5	120,515.2	159,039.6	1,039,438.4
Mar	169,943.7	130,217.1	39,726.5	3,083.9	423,033.3	423,033.3		101,629.4	113,782.7	171,972.6	983,451.0
Apr	158,521.5	119,588.2	38,933.2	251.5	459,966.0	459,966.0		104,430.0	108,099.0	183,093.2	1,014,361.5
May	157,587.5	120,295.6	37,291.8	4,727.4	436,809.7	436,809.7		96,415.0	107,168.4	185,708.5	988,435.1
Jun	162,232.4	122,146.0	40,065.4	2,369.1	422,353.6	422,353.6		86,630.1	103,004.3	182,401.4	958,990.5
Jul	150,648.5	106,985.8	43,683.0	60.8	388,602.2	388,602.2		97,044.0	100,919.3	183,557.9	920,853.7
Aug	148,822.5	106,295.9	42,526.5	1,663.7	414,430.6	414,430.6		92,357.1	102,887.3	183,273.8	943,412.2
Sep	155,397.6	108,350.6	47,046.9	733.7	445,520.6	445,520.6		93,926.2	98,874.1	178,753.3	973,217.8
Oct	153,144.1	106,823.5	46,300.3	60.8	388,277.6	388,277.6		94,832.5	100,533.8	185,607.1	922,450.5
Nov	165,377.2	118,581.8	46,795.3	461.2	461,412.6	461,412.6		106,652.4	104,136.5	190,032.9	1,028,072.0
Dec	164,648.2	107,817.6	56,830.5	81.1	467,852.5	467,852.5		112,463.9	105,626.4	193,479.4	1,044,166.8
YTD	**157,244.3**	**114,225.1**	**43,019.1**	**1,304.3**	**431,765.8**	**431,765.8**		**100,666.1**	**105,483.1**	**180,959.5**	**977,422.8**

Table 2.3.1-2M (Cont.)
Production of Petroleum Products

Unit : Barrels/Day

2013											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	153,712.2	73,650.4	80,082.1	2,455.0	412,665.4	412,665.4		110,495.8	105,038.0	178,221.7	962,599.4
Feb	174,449.4	85,562.4	88,886.9	8,154.1	414,469.0	414,469.0		126,670.1	104,925.7	176,920.3	1,005,592.8
Mar	179,276.8	97,713.5	81,542.9	6,675.2	436,546.0	436,546.0		116,298.6	113,174.0	189,340.3	1,041,305.0
Apr	168,417.3	85,980.2	82,437.0	10,608.6	429,481.9	429,481.9		111,118.0	111,160.0	184,854.3	1,015,625.9
May	158,074.4	73,264.9	84,809.5	6,573.7	381,521.2	381,521.2		87,852.9	86,615.3	169,964.0	890,585.8
Jun	161,603.4	72,205.7	89,397.6	1,362.7	377,948.2	377,948.2		94,806.8	104,157.4	162,546.9	902,425.5
Jul	171,566.8	80,325.6	91,241.2	8,054.8	463,713.4	463,713.4		122,405.7	106,377.1	184,065.1	1,056,159.9
Aug	182,868.0	81,908.1	100,980.1	11,544.6	473,513.2	473,513.2		116,562.4	97,673.0	162,152.6	1,044,334.3
Sep	169,213.9	77,866.5	91,347.4	21,510.7	464,955.8	464,955.8		119,483.4	101,473.8	158,752.1	1,035,405.0
Oct	162,152.6	74,299.6	87,852.9	23,799.4	464,078.6	464,058.4		135,654.7	95,522.3	170,106.0	1,051,314.4
Nov	176,572.9	91,305.5	85,267.4	21,070.5	470,889.1	470,889.1		120,405.8	96,777.5	171,687.9	1,057,389.4
Dec	179,946.3	95,968.7	83,977.6	20,167.6	484,063.7	484,063.7		120,234.7	99,965.7	176,963.8	1,081,338.9
YTD	**169,792.7**	**82,484.7**	**87,307.9**	**11,840.1**	**439,731.2**	**439,731.2**		**115,111.9**	**101,862.1**	**173,821.5**	**1,012,160.9**

Source : Department of Energy Business (DOEB)

Compiled by : Energy Policy and Planning Office (EPPO)

Table 2.3.2-1M
Sale of Petroleum Products

Unit : Million Litres

2009											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	665.2	378.3	286.9	1.0	1,718.1	1,718.1		396.2	226.4	707.4	3,714.3
Feb	588.5	333.5	255.0	1.4	1,439.3	1,439.3		364.7	212.2	629.8	3,235.8
Mar	662.0	373.0	289.0	1.7	1,627.1	1,627.1		404.7	214.3	787.3	3,697.0
Apr	634.5	357.3	277.1	1.2	1,587.3	1,587.3		344.5	195.0	755.7	3,518.1
May	652.0	367.9	284.1	1.3	1,660.3	1,660.3		349.2	215.0	794.9	3,672.8
Jun	607.9	345.4	262.5	1.4	1,459.2	1,459.2		322.0	216.7	796.3	3,403.6
Jul	630.9	361.6	269.3	1.3	1,472.0	1,472.0		356.3	218.8	872.8	3,552.1
Aug	616.4	352.9	263.5	1.4	1,446.3	1,446.3		362.9	224.4	863.3	3,514.7
Sep	600.1	346.3	253.8	1.7	1,394.4	1,394.4		346.5	230.5	836.2	3,409.4
Oct	623.3	358.1	265.2	1.7	1,472.3	1,472.3		377.7	295.2	862.4	3,632.6
Nov	587.1	339.2	248.0	1.6	1,473.9	1,473.9		390.4	222.7	840.0	3,515.7
Dec	656.4	378.0	278.4	1.9	1,715.0	1,715.0		416.3	259.7	897.6	3,946.8
Total	**7,524.4**	**4,291.6**	**3,232.8**	**17.6**	**18,465.3**	**18,465.3**		**4,431.5**	**2,730.9**	**9,643.7**	**42,813.4**

2010											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	605.8	349.6	256.2	1.8	1,565.5	1,565.5		433.6	210.2	963.8	3,780.8
Feb	591.6	351.7	240.0	1.4	1,546.2	1,546.2		398.1	219.4	806.8	3,563.5
Mar	620.3	376.2	244.1	1.5	1,688.0	1,688.0		436.0	292.4	892.7	3,930.8
Apr	607.4	367.3	240.1	1.1	1,548.3	1,548.3		383.4	218.9	879.0	3,638.0
May	599.1	365.7	233.5	1.9	1,588.3	1,588.3		342.0	223.7	888.2	3,643.1
Jun	617.0	377.0	240.0	1.1	1,508.8	1,508.8		340.6	206.2	904.5	3,578.2
Jul	636.6	388.3	248.4	1.0	1,516.6	1,516.6		365.2	250.8	882.9	3,653.1
Aug	619.0	377.3	241.8	0.9	1,431.3	1,431.3		396.9	215.6	966.2	3,629.9
Sep	607.4	373.5	233.9	1.1	1,404.0	1,404.0		369.4	198.5	947.4	3,527.6
Oct	615.7	378.7	237.1	1.2	1,435.1	1,435.1		398.7	193.7	975.9	3,620.2
Nov	632.0	391.2	240.8	1.1	1,582.6	1,582.6		406.4	200.0	950.2	3,772.2
Dec	664.6	412.7	251.9	1.1	1,665.5	1,665.5		441.5	185.8	1,029.9	3,988.4
Total	**7,416.8**	**4,509.2**	**2,907.6**	**15.3**	**18,480.1**	**18,480.1**		**4,711.7**	**2,615.2**	**11,087.4**	**44,326.4**

Table 2.3.2-1M (Cont.)
Sale of Petroleum Products

Unit : Million Litres

2011											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	631.7	395.4	236.2	1.0	1,623.5	1,623.5		481.0	184.1	1,067.9	3,989.3
Feb	596.1	375.4	220.7	1.0	1,492.2	1,492.2		435.1	210.4	935.0	3,669.7
Mar	615.3	388.5	226.8	1.1	1,704.6	1,704.6		476.6	207.1	1,100.8	4,105.4
Apr	617.8	389.9	227.9	1.0	1,658.1	1,658.1		425.7	189.6	1,055.0	3,947.2
May	611.3	387.9	223.4	0.9	1,686.4	1,686.4		387.6	177.5	1,082.6	3,946.2
Jun	622.8	399.3	223.5	1.0	1,606.5	1,606.5		382.6	226.3	1,066.8	3,905.9
Jul	612.7	390.0	222.7	1.2	1,520.6	1,520.6		409.8	283.2	1,103.1	3,930.5
Aug	633.4	419.9	213.5	1.2	1,536.3	1,536.3		416.6	212.0	1,142.8	3,942.1
Sep	601.5	447.8	153.6	1.2	1,500.3	1,500.3		396.7	225.2	1,078.9	3,803.7
Oct	575.2	440.6	134.6	1.1	1,499.8	1,499.8		408.8	213.2	1,055.6	3,753.8
Nov	555.4	425.1	130.3	1.1	1,573.1	1,573.1		410.6	150.1	993.3	3,683.5
Dec	657.9	476.9	181.0	1.1	1,790.9	1,790.9		445.4	177.3	1,077.2	4,149.7
Total	**7,331.1**	**4,936.8**	**2,394.3**	**13.0**	**19,192.1**	**19,192.1**		**5,076.5**	**2,455.9**	**12,758.9**	**46,827.6**

2012											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	633.6	453.5	180.1	1.2	1,694.6	1,694.6		488.8	187.6	1,105.4	4,111.2
Feb	605.8	431.7	174.0	1.4	1,695.9	1,695.9		458.0	167.3	1,013.9	3,942.3
Mar	639.9	457.0	182.9	1.3	1,829.6	1,829.6		472.4	169.0	1,152.6	4,264.8
Apr	614.7	432.5	182.2	1.2	1,723.0	1,723.0		404.7	237.0	1,123.4	4,104.0
May	632.2	446.3	185.9	1.3	1,806.4	1,806.4		381.9	329.4	1,154.9	4,306.0
Jun	634.6	445.8	188.8	1.0	1,700.2	1,700.2		377.0	214.6	1,111.6	4,039.0
Jul	635.2	440.1	195.1	1.0	1,649.6	1,649.6		395.6	205.8	1,169.8	4,056.9
Aug	645.7	439.9	205.8	0.9	1,656.0	1,656.0		406.6	182.4	1,215.4	4,106.8
Sep	608.8	412.0	196.8	0.9	1,553.5	1,553.5		385.0	160.5	1,167.7	3,876.3
Oct	654.2	443.5	210.7	1.0	1,666.0	1,666.0		412.7	188.6	1,160.9	4,083.4
Nov	670.1	448.8	221.2	1.2	1,753.8	1,753.8		437.2	169.1	1,126.1	4,157.5
Dec	730.3	477.7	252.5	1.0	1,836.1	1,836.1		471.4	152.0	1,176.5	4,367.3
Total	**7,705.0**	**5,328.9**	**2,376.0**	**13.4**	**20,564.6**	**20,564.6**		**5,091.4**	**2,363.3**	**13,678.1**	**49,415.8**

Table 2.3.2-1M (Cont.)
Sale of Petroleum Products

Unit : Million Litres

Month	2013										
	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	685.7	342.0	343.8	1.1	1,845.0	1,845.0		493.9	174.2	1,189.5	4,389.3
Feb	621.6	257.0	364.7	0.9	1,686.4	1,686.4		465.9	184.0	1,099.9	4,058.7
Mar	703.1	288.4	414.6	1.0	1,906.0	1,906.0		497.5	195.8	1,200.6	4,503.9
Apr	687.4	278.4	409.0	0.8	1,781.2	1,781.2		445.1	243.1	1,176.1	4,333.7
May	706.0	285.8	420.2	0.9	1,905.6	1,905.6		446.7	153.1	1,141.5	4,353.6
Jun	673.0	275.4	397.6	0.8	1,671.7	1,671.7		407.5	157.3	1,106.4	4,016.6
Jul	697.6	288.5	409.1	1.0	1,707.0	1,707.0		442.1	179.4	1,161.6	4,188.7
Aug	714.4	296.9	417.4	1.0	1,627.9	1,627.9		458.6	187.1	1,161.7	4,150.6
Sep	638.5	268.9	369.7	0.8	1,529.5	1,529.5		440.1	167.3	1,115.8	3,891.9
Oct	683.3	285.3	398.0	0.9	1,663.3	1,663.3		459.4	164.7	1,181.4	4,153.0
Nov	681.9	285.7	396.2	1.0	1,741.0	1,741.0		494.2	165.9	1,190.5	4,274.5
Dec	702.3	293.6	408.7	0.9	1,827.3	1,827.3		511.4	183.1	1,208.3	4,433.2
Total	**8,194.9**	**3,445.8**	**4,749.1**	**11.0**	**20,891.9**	**20,891.9**		**5,562.4**	**2,154.9**	**13,933.2**	**50,748.2**

Source : Department of Energy Business (DOEB)

Complied by : Energy Policy and Planning Office (EPPO)

* Including Propane and Butane

Table 2.3.2-2M
Sale of Petroleum Products

Unit : Barrels/Day

2009											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	134,964.8	76,754.6	58,210.1	202.8	348,591.6	348,591.6		80,386.4	45,935.1	143,526.9	753,621.1
Feb	132,196.0	74,914.8	57,281.2	314.4	323,313.2	323,313.2		81,923.3	47,666.9	141,473.4	726,880.2
Mar	134,315.6	75,679.3	58,636.2	344.9	330,128.2	330,128.2		82,111.0	43,480.1	159,738.1	750,099.7
Apr	133,027.2	74,910.3	58,095.8	251.5	332,788.2	332,788.2		72,226.7	40,883.0	158,437.6	737,600.4
May	132,286.6	74,644.5	57,642.0	263.7	336,864.3	336,864.3		70,850.4	43,622.1	161,280.1	745,191.9
Jun	127,450.3	72,415.4	55,034.9	293.5	305,931.1	305,931.1		67,509.4	45,432.6	166,949.7	713,587.9
Jul	128,005.6	73,366.3	54,639.2	263.7	298,659.4	298,659.4		72,291.0	44,393.1	177,085.5	720,715.4
Aug	125,063.6	71,601.1	53,462.4	284.0	293,445.1	293,445.1		73,630.1	45,529.3	175,158.1	713,115.1
Sep	125,815.0	72,604.1	53,210.8	356.4	292,345.4	292,345.4		72,646.0	48,325.8	175,315.0	714,813.7
Oct	126,463.6	72,656.2	53,807.4	344.9	298,720.3	298,720.3		76,632.9	59,894.2	174,975.5	737,039.5
Nov	123,089.5	71,115.5	51,994.8	335.4	309,013.1	309,013.1		81,850.0	46,690.5	176,111.7	737,108.5
Dec	133,179.4	76,693.8	56,485.5	385.4	347,962.6	347,962.6		84,464.6	52,691.4	182,117.3	800,786.5
YTD	**129,660.9**	**73,953.1**	**55,707.8**	**303.2**	**318,195.2**	**318,195.2**		**76,363.8**	**47,059.0**	**166,180.8**	**737,763.3**

2010											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	122,912.9	70,931.6	51,981.3	365.2	317,630.0	317,630.0		87,974.6	42,648.2	195,548.9	767,106.9
Feb	132,892.4	79,003.1	53,911.7	314.4	347,326.4	347,326.4		89,426.1	49,284.3	181,233.3	800,487.7
Mar	125,854.9	76,328.5	49,526.3	304.3	342,484.5	342,484.5		88,461.6	59,326.1	181,123.1	797,539.9
Apr	127,345.5	77,006.9	50,338.5	230.6	324,611.6	324,611.6		80,382.4	45,893.8	184,288.3	762,747.7
May	121,553.5	74,198.2	47,375.6	385.4	322,256.0	322,256.0		69,389.6	45,387.3	180,210.1	739,179.0
Jun	129,358.2	79,040.6	50,317.6	230.6	316,330.1	316,330.1		71,409.1	43,231.2	189,634.5	750,206.8
Jul	129,162.1	78,783.6	50,398.7	202.8	307,708.5	307,708.5		74,096.7	50,885.7	179,134.8	741,202.4
Aug	125,591.1	76,551.7	49,059.6	182.6	290,401.7	290,401.7		80,528.4	43,743.8	196,035.8	736,490.8
Sep	127,345.5	78,306.8	49,038.7	230.6	294,358.1	294,358.1		77,447.2	41,616.8	198,628.8	739,596.1
Oct	124,921.6	76,835.8	48,106.0	243.4	291,172.7	291,172.7		80,893.7	39,300.5	198,003.9	734,518.0
Nov	132,503.0	82,017.7	50,485.3	230.6	331,802.8	331,802.8		85,204.5	41,931.3	199,215.8	790,886.4
Dec	134,843.1	83,734.2	51,108.9	223.1	337,919.4	337,919.4		89,577.5	37,697.6	208,960.1	809,228.3
YTD	**127,806.7**	**77,702.8**	**50,103.9**	**263.6**	**318,450.2**	**318,450.2**		**81,192.3**	**45,065.2**	**191,058.7**	**763,835.6**



Table 2.3.2-2M (Cont.)
Sale of Petroleum Products

Unit : Barrels/Day

2011											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	128,167.9	80,224.1	47,923.4	202.8	329,397.8	329,397.8		97,591.8	37,352.7	216,670.1	809,409.0
Feb	133,903.3	84,326.9	49,576.3	224.6	335,196.2	335,196.2		97,737.5	47,262.6	210,031.1	824,350.9
Mar	124,840.4	78,824.1	46,016.2	223.1	345,852.5	345,852.5		96,699.1	42,019.2	223,345.3	832,976.2
Apr	129,525.9	81,745.1	47,780.7	209.6	347,631.9	347,631.9		89,250.8	39,750.9	221,187.9	827,562.3
May	124,028.9	78,702.4	45,326.4	182.6	342,159.8	342,159.8		78,641.5	36,013.6	219,652.6	800,668.0
Jun	130,574.2	83,715.9	46,858.2	209.6	336,813.6	336,813.6		80,214.6	47,445.3	223,661.8	818,918.6
Jul	124,312.9	79,128.5	45,184.4	243.4	308,520.1	308,520.1		83,145.8	57,459.4	223,812.0	797,484.0
Aug	128,512.8	85,195.0	43,317.7	243.4	311,705.5	311,705.5		84,525.5	43,013.4	231,866.8	799,842.3
Sep	126,108.5	93,884.3	32,203.2	251.5	314,548.0	314,548.0		83,170.8	47,214.7	226,198.7	797,488.7
Oct	116,704.4	89,394.9	27,309.4	223.1	304,299.9	304,299.9		82,942.9	43,256.9	214,174.5	761,622.3
Nov	116,443.3	89,125.1	27,318.2	230.6	329,811.0	329,811.0		86,085.0	31,469.4	208,252.0	772,283.5
Dec	133,483.7	96,759.9	36,723.7	223.1	363,362.2	363,362.2		90,368.8	35,973.0	218,557.0	841,950.3
YTD	**126,329.9**	**85,071.2**	**41,258.7**	**224.0**	**330,719.5**	**330,719.5**		**87,478.5**	**42,320.2**	**219,862.1**	**806,936.8**

2012											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	128,553.4	92,012.2	36,541.1	243.4	343,823.6	343,823.6		99,174.4	38,062.8	224,278.6	834,146.0
Feb	136,082.2	96,973.7	39,086.0	314.4	380,953.8	380,953.8		102,881.5	37,580.9	227,754.6	885,581.8
Mar	129,831.6	92,722.4	37,109.2	263.7	371,214.2	371,214.2		95,846.9	34,289.0	233,855.2	865,305.6
Apr	128,876.0	90,676.5	38,199.4	251.5	361,238.6	361,238.6		84,848.1	49,688.6	235,528.4	860,436.7
May	128,269.3	90,551.4	37,717.9	263.7	366,507.1	366,507.1		77,485.0	66,833.1	234,321.8	873,662.1
Jun	133,048.2	93,464.9	39,583.2	209.6	356,458.4	356,458.4		79,040.6	44,992.3	233,054.4	846,806.1
Jul	128,878.0	89,293.5	39,584.5	202.8	334,693.3	334,693.3		80,264.7	41,755.5	237,345.0	823,128.6
Aug	131,008.4	89,252.9	41,755.5	182.6	335,991.9	335,991.9		82,496.5	37,007.8	246,596.9	833,262.5
Sep	127,639.0	86,378.5	41,260.4	188.6	325,701.8	325,701.8		80,717.8	33,649.9	244,816.2	812,693.9
Oct	132,733.0	89,983.3	42,749.6	202.8	338,020.8	338,020.8		83,734.2	38,265.7	235,539.2	828,501.6
Nov	140,491.0	94,093.9	46,376.0	251.5	367,696.0	367,696.0		91,661.9	35,452.9	236,094.5	871,652.2
Dec	148,173.2	96,922.3	51,230.6	202.8	372,533.0	372,533.0		95,644.0	30,839.8	238,704.4	886,102.8
YTD	**132,410.2**	**91,577.0**	**40,831.5**	**230.2**	**353,402.3**	**353,402.3**		**87,495.6**	**40,613.2**	**235,057.9**	**849,211.3**

Table 2.3.2-2M (Cont.)
Sale of Petroleum Products

Unit : Barrels/Day

2013											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	139,124.1	69,389.6	69,754.8	223.1	374,338.8	374,338.8		100,209.1	35,344.0	241,342.0	890,565.5
Feb	139,631.4	57,730.4	81,923.3	202.1	378,819.8	378,819.8		104,656.1	41,332.3	247,073.0	911,732.3
Mar	142,654.5	58,514.5	84,119.7	202.8	386,715.3	386,715.3		100,939.6	39,726.5	243,594.1	913,817.3
Apr	144,118.0	58,368.4	85,749.6	167.7	373,440.6	373,440.6		93,318.2	50,967.5	246,577.3	908,599.3
May	143,242.9	57,987.0	85,255.9	182.6	386,634.1	386,634.1		90,632.6	31,063.0	231,603.1	883,329.4
Jun	141,099.0	57,739.4	83,359.5	167.7	350,483.2	350,483.2		85,435.1	32,979.0	231,964.2	842,113.1
Jul	141,538.6	58,534.8	83,003.8	202.8	346,339.4	346,339.4		89,699.2	36,399.1	235,681.2	849,866.2
Aug	144,947.2	60,239.1	84,687.8	202.8	330,290.6	330,290.6		93,047.0	37,961.4	235,701.5	842,140.8
Sep	133,865.8	56,376.7	77,510.1	167.7	320,670.0	320,670.0		92,269.9	35,075.5	233,935.0	815,980.8
Oct	138,637.2	57,885.5	80,751.6	182.6	337,473.0	337,473.0		93,209.3	33,416.5	239,698.5	842,627.0
Nov	142,964.9	59,898.9	83,066.0	209.6	365,012.4	365,012.4		103,612.3	34,782.0	249,596.4	896,186.0
Dec	142,492.2	59,569.5	82,922.6	182.6	370,747.6	370,747.6		103,759.8	37,149.8	245,156.4	899,478.6
YTD	**141,215.0**	**59,378.2**	**81,836.8**	**189.5**	**360,010.5**	**360,010.5**		**95,851.6**	**37,133.3**	**240,097.8**	**874,497.1**

Source : Department of Energy Business (DOEB)

Compiled by : Energy Policy and Planning Office (EPPO)

* Including Propane and Butane

Table 2.3.3-1M
Import of Petroleum Products

Unit : Million Litres

2009											
Month	Gasoline				Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium	Base ULG		Total	HSD	LSD				
Jan						22.6	22.6		0.2		37.0	59.8
Feb	6.6	6.6				120.6	120.6					127.2
Mar	7.5	7.5				201.2	201.2		0.3		42.5	251.4
Apr						3.0	3.0		0.3		26.5	29.7
May						4.3	4.3		0.3		123.8	128.3
Jun						5.9	5.9		8.3		81.3	95.5
Jul						3.0	3.0		0.2		125.3	128.5
Aug						6.1	6.1		0.3	6.6	168.0	180.9
Sep						3.0	3.0		0.2	15.4	166.2	184.7
Oct						3.1	3.1		0.2	18.0	207.0	228.2
Nov						6.2	6.2		0.2	43.2	206.9	256.5
Dec						6.1	6.1		0.1		210.2	216.4
Total	**14.1**	**14.1**				**385.3**	**385.3**		**10.5**	**83.2**	**1,394.7**	**1,887.7**

2010											
Month	Gasoline				Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium	Base ULG		Total	HSD	LSD				
Jan						3.0	3.0		0.3		203.6	206.9
Feb						6.0	6.0		0.2	1.5	206.8	214.5
Mar						3.1	3.1		0.3	47.6	233.3	284.2
Apr						6.0	6.0		0.4	1.5	232.3	240.1
May						6.0	6.0		0.5		327.7	334.1
Jun						6.0	6.0		0.1	3.2	240.7	249.9
Jul						3.1	3.1		0.4	20.2	168.2	191.9
Aug						3.1	3.1			20.2	252.4	275.6
Sep						6.4	6.4		0.2	6.9	251.2	264.6
Oct						6.3	6.3		0.3		275.7	282.3
Nov						6.3	6.3		0.2		264.9	271.3
Dec						6.2	6.2		0.2		290.3	296.8
Total						**61.2**	**61.2**		**3.3**	**101.2**	**2,947.1**	**3,112.8**

Table 2.3.3-1M (Cont.)
Import of Petroleum Products

Unit : Million Litres

2011												
Month	Gasoline				Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium	Base ULG		Total	HSD	LSD				
Jan									0.3	12.9	211.3	224.4
Feb						17.3	17.3		8.2	6.3	210.7	242.4
Mar						8.2	8.2			14.7	167.3	190.2
Apr	9.5			9.5		3.9	3.9		0.5	61.8	137.4	213.0
May									0.2	5.1	213.7	218.9
Jun						3.8	3.8		0.3		317.2	321.3
Jul	3.0			3.0		13.0	13.0		0.2	53.6	272.0	341.8
Aug									0.2	56.0	294.3	350.4
Sep									0.3	51.0	202.1	253.3
Oct	3.1			3.1					0.2	54.1	260.1	317.5
Nov	18.5	18.5				9.7	9.7		0.2	8.9	165.1	202.4
Dec									0.3	7.3	210.0	217.5
Total	**34.1**	**18.5**		**15.6**		**56.0**	**56.0**		**10.8**	**331.7**	**2,661.2**	**3,093.7**

2012												
Month	Gasoline				Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium	Base ULG		Total	HSD	LSD				
Jan	7.5			7.5					0.2	6.1	209.7	223.5
Feb	31.0			31.0		5.1	5.1		0.2	5.5	295.7	337.4
Mar	42.3			42.3					0.3	12.6	308.6	363.7
Apr	14.4			14.4					0.3	65.9	341.7	422.2
May									0.2	59.2	213.4	272.7
Jun	8.1			8.1					0.3	49.0	244.7	302.0
Jul	32.8	12.5		20.3		10.2	10.2		0.3	55.1	197.2	295.5
Aug	46.1	8.6		37.5					0.3	27.1	334.0	407.3
Sep	31.5			31.5					0.3	29.0	334.5	395.2
Oct									0.2	37.0	257.0	294.2
Nov	26.5	13.7		12.8					0.2	16.0	254.4	297.1
Dec	64.8	27.7		37.1					0.3		213.3	278.3
Total	**305.0**	**62.5**		**242.5**		**15.3**	**15.3**		**2.8**	**362.5**	**3,204.1**	**3,889.6**



Table 2.3.3-1M (Cont.)
Import of Petroleum Products

Unit : Million Litres

Month	2013											
	Gasoline				Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium	Base ULG		Total	HSD	LSD				
Jan	32.6			32.6		1.2	1.2		0.1	14.4	171.8	220.2
Feb	22.8			22.8						18.4	335.3	376.4
Mar	42.8			42.8					0.5	55.0	251.1	349.3
Apr	21.0			21.0		40.8	40.8		0.1	23.1	250.9	335.9
May	38.5			38.5		82.9	82.9		13.4	3.3	334.5	472.6
Jun	26.5			26.5		64.4	64.4		0.3	18.5	339.1	448.8
Jul	10.0			10.0		7.3	7.3		0.3	28.3	254.4	300.2
Aug	5.1			5.1					0.3	30.3	335.2	370.8
Sep	19.8			19.8					0.3	16.5	342.1	378.7
Oct	28.3			28.3					0.2	17.1	360.0	405.6
Nov	5.2			5.2					0.4	22.9	327.6	356.1
Dec	9.6			9.6					0.3	20.6	307.5	338.0
Total	**262.2**			**262.2**		**196.7**	**196.7**		**16.2**	**268.4**	**3,609.6**	**4,353.1**

Source : Department of Energy Business (DOEB)

Compiled by : Energy Policy and Planning Office (EPPO)

* Including Propane and Butane

Table 2.3.3-2M
Import of Petroleum Products

Unit : Barrels/Day

2009											
Month	Gasoline				Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium	Base ULG		Total	HSD	LSD				
Jan						4,585.3	4,585.3		40.5		7,507.0	12,145.9
Feb	1,482.5	1,482.5				27,090.6	27,090.6					28,585.8
Mar	1,521.7	1,521.7				40,822.2	40,822.2		60.8		8,622.9	51,012.5
Apr						628.9	628.9		62.8		5,555.9	6,246.5
May						872.4	872.4		60.8		25,118.2	26,049.6
Jun						1,236.9	1,236.9		1,740.1		17,045.0	20,023.1
Jul						608.6	608.6		40.5		25,422.5	26,078.1
Aug						1,237.6	1,237.6		60.8	1,339.0	34,086.1	36,721.5
Sep						628.9	628.9		41.9	3,228.7	34,844.9	38,743.5
Oct						628.9	628.9		40.5	3,652.0	41,998.9	46,312.2
Nov						1,299.8	1,299.8		41.9	9,057.1	43,377.9	53,783.2
Dec						1,237.6	1,237.6		20.2		42,648.2	43,907.6
YTD	242.9	242.9				6,639.5	6,639.5		180.9	1,433.7	24,033.5	32,529.7

2010											
Month	Gasoline				Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium	Base ULG		Total	HSD	LSD				
Jan						608.6	608.6		60.8		41,309.1	41,995.1
Feb						1,347.7	1,347.7		44.9	336.9	46,453.9	48,185.7
Mar						628.9	628.9		60.8	9,657.7	47,335.0	57,680.9
Apr						1,257.9	1,257.9		83.8	314.4	48,703.2	50,348.8
May						1,217.3	1,217.3		101.4		66,488.2	67,800.0
Jun						1,257.9	1,257.9		20.9	670.9	50,464.3	52,406.7
Jul						628.9	628.9		81.1	4,098.4	34,126.7	38,936.7
Aug						628.9	628.9			4,098.4	51,210.3	55,933.8
Sep						1,341.8	1,341.8		41.9	1,446.6	52,665.7	55,494.1
Oct						1,278.2	1,278.2		60.8		55,937.7	57,278.0
Nov						1,320.8	1,320.8		41.9		55,538.0	56,891.1
Dec						1,257.9	1,257.9		40.5		58,900.0	60,223.5
YTD						1,054.6	1,054.6		56.8	1,743.8	50,784.6	53,640.3



Table 2.3.3-2M (Cont.)
Import of Petroleum Products

Unit : Barrels/Day

2011											
Month	Gasoline				Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium	Base ULG		Total	HSD	LSD				
Jan									60.8	2,617.3	42,871.4	45,546.9
Feb						3,886.1	3,886.1		1,841.9	1,415.1	47,330.0	54,471.2
Mar						1,663.7	1,663.7			2,982.5	33,944.1	38,608.1
Apr	1,991.7			1,991.7		817.6	817.6		104.8	12,956.7	28,806.8	44,669.8
May									40.5	1,034.7	43,358.3	44,429.1
Jun						796.6	796.6		62.8		66,503.1	67,362.9
Jul	608.6			608.6		2,637.6	2,637.6		40.5	10,875.1	55,187.0	69,362.3
Aug									40.5	11,362.0	59,711.6	71,098.7
Sep									62.8	10,692.4	42,371.6	53,118.8
Oct	628.9			628.9					40.5	10,976.5	52,772.6	64,419.3
Nov	3,878.6	3,878.6				2,033.6	2,033.6		41.9	1,865.9	34,614.3	42,437.9
Dec									60.8	1,481.1	42,607.6	44,138.2
YTD	**587.6**	**318.7**		**268.8**		**964.9**	**964.9**		**186.1**	**5,715.8**	**45,857.9**	**53,311.1**

2012											
Month	Gasoline				Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium	Base ULG		Total	HSD	LSD				
Jan	1,521.7			1,521.7					40.5	1,237.6	42,546.8	45,350.0
Feb	6,963.6			6,963.6		1,145.6	1,145.6		44.9	1,235.4	66,423.7	75,793.5
Mar	8,582.4			8,582.4					60.8	2,556.4	62,612.9	73,797.5
Apr	3,019.0			3,019.0					62.8	13,816.3	71,639.7	88,532.7
May									40.5	12,011.3	43,297.5	55,349.2
Jun	1,698.2			1,698.2					62.8	10,273.1	51,303.0	63,317.3
Jul	6,654.9	2,536.1		4,118.7		2,069.5	2,069.5		60.8	11,179.4	40,010.6	59,963.1
Aug	9,353.3	1,744.8		7,608.5					60.8	5,498.4	67,766.4	82,657.1
Sep	6,604.1			6,604.1					62.8	6,080.0	70,130.1	82,875.8
Oct									40.5	7,507.0	52,143.6	59,693.6
Nov	5,555.9	2,872.2		2,683.6					41.9	3,354.5	53,336.6	62,291.0
Dec	13,147.5	5,620.1		7,527.3					60.8		43,277.2	56,476.3
YTD	**5,241.4**	**1,074.0**		**4,167.3**		**262.9**	**262.9**		**48.1**	**6,229.5**	**55,062.4**	**66,843.2**

Table 2.3.3-2M (Cont.)
Import of Petroleum Products

Unit : Barrels/Day

Month	2013											
	Gasoline				Kerosene	Diesel			J.P.	Fuel Oil	LPG*	Total
	Total	Regular	Premium	Base ULG		Total	HSD	LSD				
Jan	6,614.3			6,614.3		243.4	243.4		20.2	2,921.6	34,857.1	44,685.8
Feb	5,121.6			5,121.6						4,133.2	75,319.2	84,569.9
Mar	8,683.8			8,683.8					101.4	11,159.1	50,946.6	70,876.8
Apr	4,402.7			4,402.7		8,553.9	8,553.9		20.9	4,843.0	52,602.8	70,428.3
May	7,811.4			7,811.4		16,819.8	16,819.8		2,718.7	669.5	67,867.9	95,889.7
Jun	5,555.9			5,555.9		13,501.8	13,501.8		62.8	3,878.6	71,094.6	94,097.0
Jul	2,028.9			2,028.9		1,481.1	1,481.1		60.8	5,741.8	51,616.1	60,921.1
Aug	1,034.7			1,034.7					60.8	6,147.6	68,009.9	75,251.0
Sep	4,151.2			4,151.2					62.8	3,459.3	71,723.5	79,402.1
Oct	5,741.8			5,741.8					40.5	3,469.4	73,041.7	82,301.9
Nov	1,090.2			1,090.2					83.8	4,801.1	68,683.5	74,664.4
Dec	1,947.7			1,947.7					60.8	4,179.6	62,389.8	68,589.5
YTD	**4,518.2**			**4,518.2**		**3,389.5**	**3,389.5**		**279.1**	**4,625.0**	**62,200.8**	**75,012.9**

Source : Department of Energy Business (DOEB)

Compiled by : Energy Policy and Planning Office (EPPO)

* Including Propane and Butane

Table 2.3.4-1M
Export of Petroleum Products

Unit : Million Litres

2009											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	133.5	29.8	103.7		282.0	282.0		101.4	399.8	2.0	918.7
Feb	52.6	41.8	10.8		145.5	145.5		104.8	323.8	1.6	628.2
Mar	72.3	59.0	13.3		244.0	244.0		54.2	327.3	1.8	699.6
Apr	124.9	111.9	12.9		352.9	352.9		77.9	328.0	2.1	885.7
May	120.4	107.4	13.0		600.5	600.5		197.6	278.4	2.8	1,199.7
Jun	158.1	146.6	11.5	6.4	275.9	275.9		102.0	500.2	2.8	1,045.4
Jul	143.8	85.4	58.4		332.2	332.2		205.5	329.0	1.7	1,012.1
Aug	153.3	97.8	55.5		569.8	569.8		152.1	300.9	1.7	1,177.8
Sep	109.4	58.8	50.6		469.0	469.0		159.7	343.4	2.3	1,083.8
Oct	114.7	62.9	51.8		638.4	638.4		172.2	210.8	3.0	1,139.1
Nov	87.0	36.1	50.9	6.5	370.4	370.4		114.1	267.3	2.7	847.9
Dec	81.2	66.5	14.8	6.2	515.9	515.9		167.5	269.0	3.2	1,043.1
Total	**1,351.1**	**903.9**	**447.2**	**19.0**	**4,796.5**	**4,796.5**		**1,609.3**	**3,878.0**	**27.8**	**11,681.6**

2010											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	86.1	36.1	49.9		200.7	200.7		98.0	230.4	3.8	619.0
Feb	79.3	32.2	47.1		266.7	266.7		59.3	274.4	4.4	684.0
Mar	70.6	67.8	2.8		304.0	304.0		102.8	325.6	4.1	807.1
Apr	134.2	90.9	43.4		365.6	365.6		152.1	293.3	4.0	949.2
May	158.3	91.0	67.3	5.4	418.6	418.6		63.7	272.6	3.9	922.5
Jun	152.1	88.7	63.4	23.3	493.1	493.1		189.7	270.9	3.5	1,132.5
Jul	149.4	65.6	83.8	23.3	546.9	546.9		110.6	266.2	3.4	1,099.7
Aug	109.3	62.1	47.2	24.7	621.4	621.4		286.8	191.3	5.3	1,238.7
Sep	135.0	70.1	64.9	111.4	737.5	737.5		43.0	288.9	4.4	1,320.2
Oct	69.9	57.9	12.0	161.6	587.2	587.2		124.9	245.5	5.3	1,194.3
Nov	72.9	56.2	16.7	63.0	480.3	480.3		81.8	315.4	1.8	1,015.2
Dec	124.7	83.2	41.5	13.4	483.1	483.1		91.7	259.6	1.9	974.4
Total	**1,341.8**	**801.8**	**539.9**	**426.1**	**5,505.3**	**5,505.3**		**1,404.5**	**3,234.0**	**45.7**	**11,957.3**

Table 2.3.4-1M (Cont.)
Export of Petroleum Products

Unit : Million Litres

2011											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	56.6	38.4	18.2		306.0	306.0		87.3	354.2	1.7	805.7
Feb	42.1	39.7	2.4		183.0	183.0		3.9	182.8	1.6	413.3
Mar	60.0	49.5	10.5		268.5	268.5		22.5	256.6	2.0	609.7
Apr	64.7	55.6	9.1		354.0	354.0		127.9	376.0	2.2	924.8
May	146.2	77.8	68.3		407.9	407.9		105.5	345.6	2.0	1,007.1
Jun	102.7	84.4	18.3	49.4	286.0	286.0		65.3	256.2	2.5	762.0
Jul	86.7	84.0	2.7	57.4	652.9	652.9		68.8	251.6	2.5	1,119.8
Aug	167.4	73.2	94.3		721.7	721.7		169.3	307.3	2.7	1,368.4
Sep	67.3	58.3	9.0		614.9	614.9		145.8	357.3	2.8	1,188.0
Oct	47.1	45.0	2.2		320.8	320.8		18.2	223.6	3.2	613.0
Nov	45.6	43.7	1.9		250.1	250.1		127.2	244.4	3.1	670.5
Dec	82.1	80.8	1.4		339.6	339.6		259.9	327.4	3.3	1,012.2
Total	**968.7**	**730.3**	**238.4**	**106.8**	**4,705.5**	**4,705.5**		**1,201.5**	**3,482.9**	**29.9**	**10,495.1**

2012											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	76.2	74.0	2.3		417.5	417.5		72.0	361.4	2.8	929.8
Feb	127.9	118.7	9.2		471.4	471.4		70.0	296.5	1.9	967.8
Mar	181.3	178.8	2.5		378.4	378.4		25.5	424.9	1.0	1,011.1
Apr	194.5	183.0	11.4		458.7	458.7		22.9	301.9	1.4	979.3
May	152.2	150.6	1.6	14.7	405.2	405.2		62.8	273.6	0.8	909.2
Jun	151.5	148.8	2.7	9.2	536.1	536.1		89.4	315.6	0.9	1,102.7
Jul	82.7	79.8	2.9		410.1	410.1		131.8	213.6	1.5	839.7
Aug	100.1	88.3	11.9	6.4	360.6	360.6		45.9	335.9	1.7	850.5
Sep	125.4	95.2	30.3	1.2	489.4	489.4		62.3	340.9	1.9	1,021.1
Oct	148.7	131.3	17.4		530.9	530.9		57.1	206.5	1.4	944.5
Nov	119.7	112.4	7.3		527.2	527.2		40.5	426.3	1.6	1,115.3
Dec	109.3	107.5	1.8		385.9	385.9		72.3	357.0	1.5	926.0
Total	**1,569.6**	**1,468.2**	**101.4**	**31.5**	**5,371.3**	**5,371.3**		**752.5**	**3,854.2**	**18.4**	**11,597.5**



Table 2.3.4-1M (Cont.)
Export of Petroleum Products

Unit : Million Litres

Month	2013										
	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	104.9	101.5	3.4		296.5	296.5		58.1	313.4	1.7	774.5
Feb	131.3	129.2	2.0		276.9	276.9		95.8	322.3	1.2	827.5
Mar	213.5	202.8	10.7		432.7	432.7		76.4	296.3	0.4	1,019.3
Apr	131.3	128.4	2.8		312.1	312.1		120.8	305.3	0.4	869.8
May	77.0	67.3	9.6		208.7	208.7		91.8	338.3	1.1	716.8
Jun	85.3	70.4	14.9		256.5	256.5		39.2	207.1	1.5	589.7
Jul	129.0	87.9	41.1		279.5	279.5		162.4	478.1	1.4	1,050.3
Aug	146.8	90.3	56.6	6.7	679.7	679.7		155.1	246.3	1.4	1,236.0
Sep	209.1	117.7	91.4		539.0	539.0		164.6	330.5	0.7	1,243.9
Oct	99.8	96.4	3.5	7.2	522.5	522.5		223.2	314.3	0.4	1,167.4
Nov	125.4	121.7	3.7	4.6	583.2	583.2		164.5	267.7	0.4	1,145.7
Dec	181.0	155.9	25.1	0.7	487.0	487.0		184.6	354.9	0.5	1,208.6
Total	**1,634.4**	**1,369.5**	**264.9**	**19.2**	**4,874.3**	**4,874.3**		**1,536.6**	**3,774.3**	**11.2**	**11,850.0**

Source : Department of Energy Business (DOEB)

Compiled by : Energy Policy and Planning Office (EPPO)

Table 2.3.4-2M
Export of Petroleum Products

Unit : Barrels/Day

2009											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	27,086.3	6,046.2	21,040.0		57,216.0	57,216.0		20,573.4	81,116.8	405.7	186,401.6
Feb	11,815.6	9,389.6	2,426.0		32,683.9	32,683.9		23,541.4	72,735.9	359.4	141,119.8
Mar	14,669.2	11,970.7	2,698.4		49,506.0	49,506.0		10,996.8	66,407.0	365.2	141,954.3
Apr	26,186.1	23,460.5	2,704.5		73,987.8	73,987.8		16,332.2	68,767.4	440.2	185,702.3
May	24,428.3	21,790.7	2,637.6		121,837.6	121,837.6		40,091.7	56,485.5	568.1	243,428.0
Jun	33,146.7	30,735.6	2,411.0	1,341.8	57,844.3	57,844.3		21,384.9	104,870.3	587.0	219,178.7
Jul	29,176.1	17,327.1	11,848.9		67,401.2	67,401.2		41,694.6	66,752.0	344.9	205,361.1
Aug	31,103.5	19,843.0	11,260.5		115,608.8	115,608.8		30,860.1	61,050.7	344.9	238,978.6
Sep	22,936.4	12,327.8	10,608.6		98,329.0	98,329.0		33,482.1	71,996.1	482.2	227,235.7
Oct	23,271.9	12,762.0	10,509.8		129,527.3	129,527.3		34,938.2	42,769.9	608.6	231,121.5
Nov	18,240.1	7,568.6	10,671.5	1,362.7	77,656.8	77,656.8		23,921.8	56,041.2	566.0	177,777.9
Dec	16,474.9	13,492.4	3,002.8	1,257.9	104,672.8	104,672.8		33,984.6	54,578.3	649.2	211,645.6
YTD	**23,282.2**	**15,576.0**	**7,706.1**	**327.4**	**82,653.6**	**82,653.6**		**27,731.5**	**66,825.9**	**479.0**	**201,298.1**

2010											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	17,469.1	7,324.4	10,124.3		40,720.7	40,720.7		19,883.5	46,746.7	770.9	125,598.6
Feb	17,813.3	7,233.1	10,580.1		59,909.4	59,909.4		13,320.6	61,639.0	988.3	153,660.4
Mar	14,324.2	13,756.1	568.1		61,679.6	61,679.6		20,857.4	66,062.1	831.8	163,762.8
Apr	28,135.9	19,057.8	9,099.1		76,650.5	76,650.5		31,888.7	61,492.3	838.6	199,017.9
May	32,118.0	18,463.3	13,654.7	1,095.6	84,931.2	84,931.2		12,924.3	55,308.8	791.2	187,182.1
Jun	31,888.7	18,596.5	13,292.2	4,885.0	103,381.7	103,381.7		39,771.8	56,796.0	733.7	237,440.2
Jul	30,312.3	13,309.8	17,002.4	4,727.4	110,962.5	110,962.5		22,440.0	54,010.2	689.8	223,126.2
Aug	22,176.2	12,599.6	9,576.5	5,011.4	126,078.1	126,078.1		58,189.9	38,813.5	1,075.3	251,342.2
Sep	28,303.6	14,696.9	13,606.7	23,355.7	154,621.8	154,621.8		9,015.2	60,569.8	922.4	276,800.3
Oct	14,182.2	11,747.5	2,434.7	32,787.6	119,139.1	119,139.1		25,341.4	49,810.3	1,075.3	242,317.2
Nov	15,283.9	11,782.7	3,501.2	13,208.3	100,698.1	100,698.1		17,149.9	66,125.7	377.3	212,861.0
Dec	25,300.8	16,880.7	8,420.0	2,718.7	98,017.9	98,017.9		18,605.3	52,671.1	385.4	197,705.8
YTD	**23,121.9**	**13,816.6**	**9,303.5**	**7,342.5**	**94,867.6**	**94,867.6**		**24,202.4**	**55,728.4**	**787.5**	**206,049.7**

Table 2.3.4-2M (Cont.)
Export of Petroleum Products

Unit : Barrels/Day

2011											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	11,483.7	7,791.1	3,692.6		62,085.4	62,085.4		17,712.6	71,864.9	344.9	163,487.5
Feb	9,457.0	8,917.9	539.1		41,107.7	41,107.7		876.0	41,062.7	359.4	92,859.1
Mar	12,173.6	10,043.2	2,130.3		54,476.9	54,476.9		4,565.1	52,062.5	405.7	123,706.2
Apr	13,564.7	11,656.9	1,907.8		74,218.5	74,218.5		26,815.1	78,830.9	461.2	193,902.2
May	29,663.0	15,785.1	13,857.6		82,760.3	82,760.3		21,405.2	70,120.0	405.7	204,347.1
Jun	21,531.7	17,695.0	3,836.7	10,357.0	59,961.8	59,961.8		13,690.5	53,714.0	524.1	159,762.9
Jul	17,590.8	17,043.0	547.8	11,646.0	132,469.2	132,469.2		13,959.0	51,048.0	507.2	227,216.8
Aug	33,964.4	14,851.8	19,132.8		146,428.3	146,428.3		34,349.8	62,349.2	547.8	277,651.8
Sep	14,109.9	12,222.9	1,886.9		128,917.9	128,917.9		30,567.9	74,910.3	587.0	249,088.5
Oct	9,556.2	9,130.2	446.3		65,088.2	65,088.2		3,692.6	45,367.0	649.2	124,375.8
Nov	9,560.3	9,162.0	398.3		52,435.1	52,435.1		26,668.3	51,240.1	649.9	140,576.6
Dec	16,657.5	16,393.8	284.0		68,902.6	68,902.6		52,732.0	66,427.3	669.5	205,381.8
YTD	**16,692.7**	**12,584.5**	**4,108.1**	**1,840.3**	**81,085.4**	**81,085.4**		**20,704.3**	**60,017.5**	**515.2**	**180,852.4**

2012											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	15,460.4	15,014.1	466.6		84,708.1	84,708.1		14,608.3	73,325.7	568.1	188,668.4
Feb	28,730.4	26,663.8	2,066.6		105,891.6	105,891.6		15,724.2	66,603.4	426.8	217,399.9
Mar	36,784.6	36,277.3	507.2		76,774.9	76,774.9		5,173.7	86,209.5	202.8	205,148.1
Apr	40,778.2	38,367.1	2,390.0		96,169.5	96,169.5		4,801.1	63,295.3	293.5	205,322.4
May	30,880.4	30,555.7	324.6	2,982.5	82,212.5	82,212.5		12,741.7	55,511.7	162.3	184,490.7
Jun	31,763.0	31,196.9	566.0	1,928.8	112,397.0	112,397.0		18,743.3	66,167.6	188.6	231,199.5
Jul	16,779.3	16,190.9	588.3		83,206.6	83,206.6		26,741.3	43,338.0	304.3	170,372.3
Aug	20,309.6	17,915.5	2,414.4	1,298.5	73,163.4	73,163.4		9,312.8	68,151.9	344.9	172,580.0
Sep	26,290.9	19,959.3	6,352.6	251.5	102,606.0	102,606.0		13,061.6	71,472.0	398.3	214,089.3
Oct	30,170.2	26,639.9	3,530.3		107,716.2	107,716.2		11,585.2	41,897.5	284.0	191,642.3
Nov	25,095.9	23,565.4	1,530.4		110,531.0	110,531.0		8,491.1	89,376.6	335.4	233,836.6
Dec	22,176.2	21,811.0	365.2		78,296.6	78,296.6		14,669.2	72,433.0	304.3	187,896.2
YTD	**26,973.5**	**25,230.9**	**1,742.5**	**541.3**	**92,305.6**	**92,305.6**		**12,931.6**	**66,234.3**	**316.2**	**199,304.3**

Table 2.3.4-2M (Cont.)
Export of Petroleum Products

Unit : Barrels/Day

2013											
Month	Gasoline			Kerosene	Diesel			J.P.	Fuel Oil	LPG	Total
	Total	Regular	Premium		Total	HSD	LSD				
Jan	21,283.5	20,593.7	689.8		60,157.9	60,157.9		11,788.1	63,586.8	344.9	157,154.6
Feb	29,494.2	29,022.4	449.2		62,200.6	62,200.6		21,519.7	72,398.9	269.5	185,888.9
Mar	43,317.7	41,146.8	2,170.9		87,792.0	87,792.0		15,501.0	60,117.3	81.1	206,820.3
Apr	27,527.9	26,919.9	587.0		65,433.8	65,433.8		25,326.5	64,008.2	83.8	182,369.4
May	15,622.8	13,654.7	1,947.7		42,343.9	42,343.9		18,625.6	68,638.9	223.1	145,441.5
Jun	17,883.7	14,759.8	3,123.8		53,776.9	53,776.9		8,218.5	43,419.9	314.4	123,637.5
Jul	26,173.2	17,834.3	8,338.9		56,708.7	56,708.7		32,949.9	97,003.4	284.0	213,104.1
Aug	29,784.7	18,321.2	11,483.7	1,359.3	137,906.8	137,906.8		31,468.8	49,972.7	284.0	250,784.1
Sep	43,839.2	24,676.6	19,162.6		113,005.0	113,005.0		34,509.5	69,291.5	146.7	260,792.5
Oct	20,248.7	19,558.9	710.1	1,460.8	106,011.9	106,011.9		45,285.8	63,769.4	81.1	236,875.0
Nov	26,290.9	25,515.2	775.7	964.4	122,271.8	122,271.8		34,488.5	56,125.1	83.8	240,218.1
Dec	36,723.7	31,631.1	5,092.6	142.0	98,809.2	98,809.2		37,454.1	72,006.9	101.4	245,237.4
YTD	**28,164.0**	**23,599.3**	**4,564.7**	**330.8**	**83,994.2**	**83,994.2**		**26,478.7**	**65,038.9**	**192.9**	**204,200.9**

Source : Department of Energy Business (DOEB)

Compiled by : Energy Policy and Planning Office (EPPO)

Table 2.4-1M
Demand and Supply of Crude Oil and Oil Products

Unit : Barrels/Day

2009													
Month	Crude Oil Balance				Oil Products			Oil Products					Demand
	Production	Import	Export	Throughput	Production	Import	Supply	Consumption	Mogas	Diesel Oil	Others	Export	
Jan	234,661	756,027	62,037	895,691	998,922	39,563	1,038,486	857,762	134,965	348,592	374,204	236,233	1,093,995
Feb	232,534	647,308	40,616	881,320	935,658	43,543	979,201	833,015	132,206	323,309	377,499	167,132	1,000,147
Mar	253,484	974,758	32,854	998,480	1,071,633	70,949	1,142,582	851,973	134,312	330,120	387,540	166,714	1,018,688
Apr	237,667	838,598	51,339	964,855	1,014,911	18,768	1,033,679	834,626	133,021	332,793	368,810	226,754	1,061,380
May	238,367	805,458	53,355	941,225	1,068,236	52,038	1,120,275	831,212	132,287	336,867	362,058	268,890	1,100,102
Jun	241,694	885,576	22,364	950,366	1,053,990	22,264	1,076,255	804,212	127,447	305,938	370,826	254,104	1,058,316
Jul	236,371	747,927	62,698	953,377	1,062,751	36,883	1,099,634	813,417	127,997	298,668	386,751	255,691	1,069,108
Aug	238,561	757,617	39,767	910,044	1,024,159	38,769	1,062,928	806,319	125,064	293,453	387,801	268,355	1,074,674
Sep	220,506	893,332	24,027	974,246	1,047,762	50,595	1,098,358	807,772	125,824	292,346	389,601	268,412	1,076,184
Oct	220,654	788,596	28,316	931,736	1,027,452	49,096	1,076,548	821,351	126,466	298,720	396,163	279,854	1,101,205
Nov	240,066	846,463	37,463	918,065	1,021,483	56,927	1,078,410	798,058	123,096	309,021	365,941	223,144	1,021,202
Dec	259,817	691,657	36,976	916,799	1,034,079	54,586	1,088,666	890,783	133,183	347,953	409,645	262,832	1,153,616
YTD	**237,941**	**803,361**	**41,066**	**936,633**	**1,030,814**	**44,587**	**1,075,401**	**829,375**	**129,660**	**318,195**	**381,519**	**240,405**	**1,069,780**

2010													
Month	Crude Oil Balance				Oil Products			Oil Products					Demand
	Production	Import	Export	Throughput	Production	Import	Supply	Consumption	Mogas	Diesel Oil	Others	Export	
Jan	232,778	774,312	36,759	939,907	1,021,732	55,665	1,077,398	861,076	122,913	317,638	420,524	150,589	1,011,666
Feb	235,809	841,022	8,460	918,140	1,047,109	52,453	1,099,562	887,827	132,896	347,322	407,608	179,128	1,066,955
Mar	250,421	735,828	36,224	998,652	1,078,110	99,685	1,177,795	906,456	125,855	342,480	438,121	190,532	1,096,988
Apr	236,293	949,279	26,706	948,970	1,036,158	83,516	1,119,675	899,252	127,354	324,615	447,282	235,332	1,134,584
May	246,115	739,887	32,170	965,724	1,077,155	105,280	1,182,435	880,760	121,562	322,255	436,942	221,220	1,101,980
Jun	256,836	873,449	25,147	958,221	1,082,323	105,349	1,187,672	886,792	129,366	316,320	441,104	283,610	1,170,402
Jul	254,954	781,768	45,881	981,832	1,057,095	73,531	1,130,627	861,413	129,168	307,706	424,538	272,335	1,133,748
Aug	250,650	823,637	31,657	972,644	1,080,719	89,296	1,170,016	862,063	125,598	290,396	446,067	287,990	1,150,053
Sep	248,127	793,463	44,994	953,373	1,103,481	93,904	1,197,385	872,368	127,350	294,350	450,668	316,458	1,188,827
Oct	235,510	742,814	15,785	965,962	1,067,484	104,440	1,171,925	861,541	124,929	291,167	445,445	268,732	1,130,274
Nov	232,263	852,270	29,143	973,322	1,035,155	62,331	1,097,487	905,333	132,505	331,795	441,032	266,461	1,171,794
Dec	221,479	895,650	24,671	959,768	1,127,929	81,232	1,209,162	912,189	134,836	337,924	439,428	221,857	1,134,046
YTD	**241,801**	**816,201**	**29,956**	**961,763**	**1,068,081**	**84,122**	**1,152,204**	**882,964**	**127,806**	**318,449**	**436,709**	**241,321**	**1,124,286**

Table 2.4-1M (Cont.)
Demand and Supply of Crude Oil and Oil Products

Unit : Barrels/Day

2011													
Month	Crude Oil Balance				Oil Products			Oil Products					Demand
	Production	Import	Export	Throughput	Production	Import	Supply	Consumption	Mogas	Diesel Oil	Others	Export	
Jan	227,976	770,288	29,956	1,014,086	1,144,915	81,188	1,226,104	935,318	128,166	329,406	477,745	196,495	1,131,813
Feb	229,200	720,501	33,692	783,901	926,337	122,772	1,049,110	963,690	133,913	335,193	494,582	113,350	1,077,040
Mar	235,448	786,565	26,015	942,864	1,060,965	90,241	1,151,206	965,682	124,831	345,848	495,002	159,234	1,124,916
Apr	226,348	869,566	52,102	973,991	1,114,335	72,054	1,186,390	965,571	129,526	347,633	488,411	219,419	1,184,990
May	233,177	897,280	27,069	979,896	1,156,814	103,324	1,260,138	934,227	124,036	342,154	468,036	246,110	1,180,337
Jun	225,227	760,513	34,934	972,684	1,172,906	87,742	1,260,648	945,258	130,579	336,813	477,866	195,130	1,140,388
Jul	213,441	822,328	9,284	994,932	1,169,766	98,441	1,268,208	915,443	124,309	308,512	482,622	266,831	1,182,275
Aug	222,493	913,966	44,155	981,737	1,169,892	96,739	1,266,632	921,820	128,510	311,698	481,611	324,332	1,246,152
Sep	221,612	760,657	31,172	911,811	1,108,188	103,946	1,212,134	917,797	126,104	314,544	477,148	297,605	1,215,403
Oct	209,542	718,407	40,981	858,489	1,007,600	102,042	1,109,643	871,949	116,708	304,306	450,934	186,003	1,057,953
Nov	224,322	767,471	33,792	794,840	1,072,762	105,597	1,178,360	868,388	116,443	329,800	422,144	186,552	1,054,941
Dec	221,267	735,433	27,696	1,004,045	1,192,901	80,294	1,273,195	961,530	133,486	363,355	464,689	265,173	1,226,704
YTD	**224,127**	**794,226**	**32,502**	**935,908**	**1,109,511**	**95,173**	**1,204,685**	**930,353**	**126,330**	**330,720**	**473,302**	**222,204**	**1,152,557**

2012													
Month	Crude Oil Balance				Oil Products			Oil Products					Demand
	Production	Import	Export	Throughput	Production	Import	Supply	Consumption	Mogas	Diesel Oil	Others	Export	
Jan	222,286	906,091	67,115	1,015,732	1,146,855	82,265	1,229,120	965,905	128,559	343,818	493,527	235,957	1,201,863
Feb	237,055	973,478	64,266	1,013,582	1,229,145	138,340	1,367,486	1,003,334	131,385	367,822	504,127	263,711	1,267,045
Mar	249,193	957,280	22,654	1,029,500	1,176,297	117,925	1,294,223	1,011,892	129,824	371,215	510,852	259,552	1,271,444
Apr	242,280	899,262	48,899	1,006,215	1,219,949	158,464	1,378,414	989,426	128,876	361,232	499,316	267,854	1,257,280
May	223,287	849,587	56,697	979,865	1,180,321	111,626	1,291,948	1,013,197	128,269	366,500	518,428	257,207	1,270,405
Jun	233,066	867,405	34,847	920,667	1,136,108	84,640	1,220,748	972,090	133,040	356,464	482,585	306,763	1,278,853
Jul	242,146	811,491	56,246	922,040	1,095,403	107,652	1,203,056	966,743	128,873	334,685	503,184	231,038	1,197,782
Aug	239,138	796,656	33,107	949,789	1,131,220	152,886	1,284,107	982,730	131,003	335,996	515,731	218,331	1,201,061
Sep	240,967	758,599	24,794	941,541	1,170,448	110,271	1,280,719	964,232	127,631	325,703	510,897	283,105	1,247,337
Oct	237,710	877,855	23,337	924,318	1,091,945	101,587	1,193,532	967,315	132,739	338,012	496,563	255,897	1,223,213
Nov	250,652	769,031	36,407	1,001,776	1,216,140	113,546	1,329,686	1,003,516	140,489	367,695	495,331	291,943	1,295,460
Dec	245,908	858,377	24,949	1,017,100	1,230,905	84,714	1,315,620	1,016,343	148,169	372,536	495,637	241,720	1,258,063
YTD	**238,616**	**860,211**	**41,036**	**976,745**	**1,168,213**	**113,491**	**1,281,705**	**988,039**	**132,409**	**353,402**	**502,227**	**259,094**	**1,247,134**



Table 2.4-1M (Cont.)
Demand and Supply of Crude Oil and Oil Products

Unit : Barrels/Day

Month	2013												
	Crude Oil Balance				Oil Products			Oil Products					Demand
	Production	Import	Export	Throughput	Production	Import	Supply	Consumption	Mogas	Diesel Oil	Others	Export	
Jan	250,641	915,062	33,438	1,060,214	1,287,968	122,069	1,410,037	1,039,796	139,129	374,341	526,326	215,759	1,255,555
Feb	254,150	883,202	35,923	1,141,721	1,370,929	134,882	1,505,812	1,070,829	139,639	378,824	552,365	249,879	1,320,708
Mar	251,509	929,746	49,949	1,075,190	1,388,196	140,780	1,528,976	1,071,475	142,647	386,706	542,121	275,121	1,346,597
Apr	249,757	907,302	19,368	1,105,327	1,339,801	108,074	1,447,876	1,029,680	144,120	373,437	512,122	236,859	1,266,539
May	252,425	803,681	23,458	1,001,517	1,198,036	163,026	1,361,062	1,028,726	143,237	386,630	498,858	214,058	1,242,785
Jun	242,592	816,178	28,760	996,063	1,209,142	162,489	1,371,632	996,420	141,096	350,478	504,845	180,453	1,176,874
Jul	234,579	776,218	28,068	1,087,287	1,405,949	139,750	1,545,700	1,002,337	141,546	346,347	514,444	273,365	1,275,703
Aug	231,909	968,691	26,395	1,096,843	1,420,570	144,354	1,564,924	978,598	144,938	330,291	503,367	318,870	1,297,468
Sep	225,836	765,253		1,083,768	1,464,666	135,098	1,599,765	957,470	133,875	320,676	502,918	305,970	1,263,441
Oct	239,618	881,270	37,748	1,075,959	1,451,612	169,146	1,620,758	987,951	138,643	337,470	511,837	286,174	1,274,126
Nov	230,310	942,714	12,607	1,086,918	1,444,021	93,404	1,537,425	1,015,335	142,964	365,013	507,357	320,546	1,335,881
Dec	225,200	827,312	7,422	1,120,022	1,434,398	96,215	1,530,614	1,007,699	142,494	370,752	494,452	311,396	1,319,095
YTD	240,639	868,040	25,284	1,077,146	1,367,955	134,203	1,502,159	1,015,245	141,214	360,011	514,019	265,886	1,281,132

Source : Department of Energy Business (DOEB)

Compiled by : Energy Policy and Planning Office (EPPO)

Table 2.4-2M

Demand and Supply of LPG, Propane and Butane

Unit : Thousand Tons

2009													
Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Total Supply	**394**	**342**	**416**	**386**	**455**	**422**	**466**	**468**	**454**	**473**	**468**	**476**	**5,221**
- Production	374	342	393	371	388	379	399	377	364	361	356	363	4,467
GSP	224	217	230	220	238	233	235	224	218	217	219	221	2,695
Refinery	148	125	163	152	150	146	163	153	147	144	138	141	1,770
Others	2											1	2
- Import	20		23	14	67	44	68	91	90	112	112	114	753
Total Demand	**383**	**341**	**426**	**409**	**431**	**432**	**472**	**467**	**453**	**467**	**455**	**486**	**5,223**
- Consumption	382	340	425	408	429	430	471	466	452	466	454	485	5,208
Cooking	185	164	180	172	179	181	192	193	191	198	191	205	2,231
Industry	40	38	43	38	45	51	53	54	55	58	59	59	593
Automobile	56	54	58	55	56	55	55	56	54	56	55	58	666
Feedstock*	68	60	83	80	91	86	105	92	92	92	95	110	1,056
Own Use	32	24	62	63	58	57	67	70	60	62	54	53	662
- Feedstock	12	15	40	41	37	39	43	43	42	43	34	33	422
- Energy	20	9	22	23	21	18	24	27	18	19	20	19	240
- Export	1	1	1	1	2	2	1	1	1	2	1	2	15
Balance (Supply-Demand)	**11**	**1**	**-10**	**-24**	**24**	**-9**	**-6**	**1**	**1**	**6**	**13**	**-10**	**-2**

2010													
Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Total Supply	**481**	**427**	**499**	**477**	**506**	**455**	**480**	**519**	**511**	**540**	**520**	**592**	**6,008**
- Production	371	315	373	352	329	325	389	382	376	391	377	435	4,416
GSP	222	176	214	199	183	195	236	239	233	250	234	295	2,676
Refinery	147	138	156	151	144	130	153	143	143	141	143	140	1,730
Others	2	2	2	2	2	1						0	10
- Import	110	112	126	125	177	130	91	136	136	149	143	157	1,591
Total Demand	**523**	**438**	**484**	**477**	**482**	**490**	**479**	**525**	**514**	**530**	**514**	**557**	**6,012**
- Consumption	520	436	482	475	480	488	477	522	512	527	513	556	5,987
Cooking	199	187	204	192	195	199	210	209	203	208	209	219	2,435
Industry	62	59	67	58	66	64	66	69	68	68	68	65	778
Automobile	55	52	55	54	54	54	58	58	55	58	61	67	680
Feedstock*	134	72	88	107	132	132	104	150	148	154	139	166	1,527
Own Use	70	65	68	63	33	39	39	37	36	39	37	40	567
- Feedstock	48	45	48	44	16	20	24	20	20	22	24	24	354
- Energy	22	21	20	19	17	19	16	17	16	16	13	16	213
- Export	2	2	2	2	2	2	2	3	2	3	1	1	25
Balance (Supply-Demand)	**-41**	**-11**	**15**	**0**	**25**	**-35**	**2**	**-6**	**-3**	**10**	**6**	**35**	**-4**

Table 2.4-2M (Cont.)
Demand and Supply of LPG, Propane and Butane

Unit : Thousand Tons

2011													
Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Total Supply	**564**	**508**	**562**	**550**	**604**	**588**	**594**	**615**	**575**	**582**	**521**	**596**	**6,859**
- Production	450	395	471	476	489	417	447	456	466	441	432	483	5,422
GSP	287	252	300	298	308	250	262	279	312	287	288	305	3,428
Refinery	163	143	171	178	181	167	185	177	154	154	143	177	1,994
Others													
- Import	114	114	90	74	115	171	147	159	109	140	89	113	1,437
Total Demand	**578**	**506**	**596**	**571**	**586**	**577**	**597**	**619**	**584**	**572**	**538**	**584**	**6,906**
- Consumption	577	505	594	570	585	576	596	617	583	570	536	582	6,890
Cooking	219	199	221	214	217	217	226	238	228	224	210	245	2,656
Industry	65	62	72	60	68	67	61	58	57	51	46	51	718
Automobile	67	62	69	70	77	78	88	91	86	76	68	88	920
Feedstock*	188	159	194	195	192	184	189	197	176	159	142	137	2,113
Own Use	38	22	39	31	31	30	33	33	35	60	70	61	483
- Feedstock	26	14	24	17	16	19	21	21	26	53	65	51	353
- Energy	13	8	15	13	14	11	12	12	9	8	5	10	131
- Export	1	1	1	1	1	1	1	1	2	2	2	2	16
Balance (Supply-Demand)	**-13**	**3**	**-34**	**-21**	**19**	**11**	**-3**	**-4**	**-9**	**10**	**-17**	**13**	**-47**

2012													
Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Total Supply	**589**	**542**	**624**	**656**	**609**	**602**	**595**	**668**	**641**	**633**	**627**	**630**	**7,416**
- Production	475	382	458	472	494	470	489	488	460	494	489	515	5,686
GSP	312	222	310	293	309	305	329	331	307	334	328	336	3,716
Refinery	163	161	148	179	185	164	159	157	154	160	162	179	1,971
Others													
- Import	113	160	167	185	115	132	106	180	181	139	137	115	1,730
Total Demand	**598**	**549**	**623**	**607**	**624**	**601**	**632**	**657**	**632**	**628**	**609**	**636**	**7,396**
- Consumption	597	548	622	607	624	600	632	656	631	627	608	635	7,386
Cooking	240	228	253	245	257	250	257	267	254	267	258	271	3,047
Industry	50	52	55	45	53	51	54	51	51	52	52	47	614
Automobile	94	88	89	85	88	86	89	90	85	88	88	91	1,061
Feedstock*	79	70	98	105	109	102	110	123	119	110	118	142	1,285
Own Use	134	110	127	126	118	111	122	126	121	109	92	84	1,380
- Feedstock	123	100	116	116	108	102	113	117	112	101	85	76	1,270
- Energy	11	11	10	10	10	9	8	9	9	8	7	8	110
- Export	2	1	1	1	0	1	1	1	1	1	1	1	10
Balance (Supply-Demand)	**-10**	**-7**	**1**	**49**	**-15**	**1**	**-37**	**11**	**9**	**5**	**18**	**-6**	**20**

Table 2.4-2M (Cont.)
Demand and Supply of LPG, Propane and Butane

Unit : Thousand Tons

Description	2013												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Total Supply	**567**	**606**	**639**	**612**	**633**	**602**	**627**	**613**	**594**	**647**	**619**	**637**	**7,396**
- Production	474	425	504	476	452	419	490	432	409	453	442	471	5,447
GSP	322	274	334	314	302	291	327	262	246	287	282	282	3,524
Refinery	153	151	170	163	150	127	163	170	163	166	160	189	1,923
Others													
- Import	93	181	136	135	181	183	137	181	185	194	177	166	1,949
Total Demand	**643**	**595**	**649**	**635**	**617**	**598**	**628**	**628**	**603**	**638**	**643**	**653**	**7,530**
- Consumption	642	594	648	635	616	597	627	627	603	638	643	652	7,524
Cooking	248	198	196	187	196	188	199	210	190	200	195	202	2,409
Industry	49	49	55	45	53	50	52	51	49	51	51	46	601
Automobile	106	128	155	152	156	149	156	159	150	154	152	158	1,775
Feedstock*	114	98	122	130	86	81	96	133	119	114	127	106	1,327
Own Use	125	120	120	120	126	129	124	74	95	119	119	140	1,412
- Feedstock	117	114	113	113	120	112	117	67	88	113	112	127	1,314
- Energy	8	7	7	7	6	17	7	7	7	6	7	13	98
- Export	1	1	0	0	1	1	1	1	0	0	0	0	6
Balance (Supply-Demand)	**-76**	**12**	**-9**	**-24**	**16**	**4**	**-1**	**-15**	**-9**	**9**	**-24**	**-16**	**-134**

Source : Department of Energy Business (DOEB)

Compiled by : Energy Policy and Planning Office (EPPO)

* Including own used as Feedstock of IRPC and PTTGC



Appendix I
Chapter 3

Natural Gas

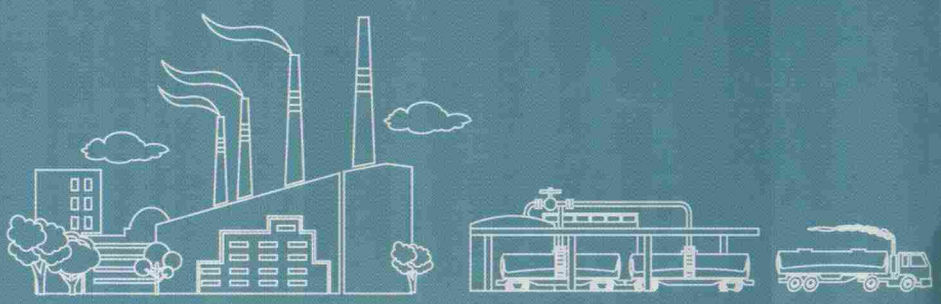


Table 3.1-1M
Production and Import of Natural Gas

Unit : MMscfd

2009																			
Month	Domestic Production															Import				Grand Total
	Sirikit	Benjamas	Nam phong	Erawan	Pailin	Satun	Gomin	Phuhorm	Funan & Jakrawan	Bongkot	Arthit	Yala	JDA	Oths.	Total	Yadana	Yetakun	LNG	Total Import	
Jan	37	148	16	243	371	152	43	44	209	505	373	126	422	191	2,881	166	157		323	3,204
Feb	37	140	16	253	409	66	10	43	183	417	374	143	417	247	2,754	375	377		752	3,506
Mar	28	145	16	278	418	75	12	44	237	526	415	138	443	265	3,038	331	336		667	3,705
Apr	27	67	24	221	419	61	7	94	136	532	353	127	412	321	2,801	398	400		798	3,598
May	64	65	23	235	449	53	6	97	156	648	408	127	455	360	3,146	462	440		902	4,048
Jun	65	68	23	229	458	44	6	96	175	493	431	106	451	379	3,022	477	451		928	3,950
Jul	64	60	23	227	425	44	3	92	144	590	390	92	426	318	2,898	445	416		861	3,759
Aug	63	69	23	247	451	55	7	92	207	570	416	80	313	343	2,935	484	460		944	3,879
Sep	65	72	19	249	436	61	6	100	141	637	340	77	495	344	3,041	471	462		933	3,974
Oct	63	51	18	260	423	57	15	102	244	435	475	71	466	337	3,017	505	469		974	3,991
Nov	64	68	17	244	372	47	50	78	162	552	507	120	482	336	3,097	479	464		943	4,040
Dec	65	83	20	249	376	57	120	84	124	569	524	117	510	335	3,232	317	305		622	3,854
YTD	**54**	**86**	**20**	**244**	**417**	**64**	**24**	**81**	**177**	**540**	**418**	**110**	**441**	**315**	**2,990**	**409**	**394**		**803**	**3,794**

2010																				
Month	Domestic Production															Import				Grand Total
	Sirikit	Benjamas	Nam phong	Erawan	Pailin	Satun	Gomin	Phuhorm	Funan & Jakrawan	Bongkot	Arthit	Yala	JDA	Oths.	Total	Yadana	Yetakun	LNG	Total Import	
Jan	64	85	13	248	438	52	151	81	146	604	458	103	444	301	3,191	390	374		764	3,955
Feb	63	87	17	240	464	58	102	72	133	528	545	119	537	303	3,267	512	466		978	4,245
Mar	63	89	20	248	467	80	129	104	166	629	579	120	619	322	3,634	353	322		675	4,309
Apr	65	88	19	244	399	56	97	87	173	573	448	120	698	309	3,377	467	436		903	4,280
May	62	81	20	253	399	87	72	100	181	540	501	110	688	364	3,458	476	457		933	4,391
Jun	64	94	17	261	394	89	89	79	224	621	522	107	708	407	3,678	429	440		869	4,547
Jul	63	83	17	251	433	90	81	82	223	623	450	94	541	398	3,431	459	443		902	4,332
Aug	62	70	20	275	448	76	75	79	247	639	419	89	666	398	3,561	429	420		849	4,411
Sep	62	65	20	275	454	84	61	77	247	539	516	86	713	405	3,604	474	447		921	4,525
Oct	57	61	18	259	449	67	58	83	242	623	524	67	748	412	3,669	424	423		847	4,516
Nov	65	54	18	256	399	126	52	99	208	600	531	70	688	453	3,621	395	394		790	4,410
Dec	65	58	17	259	414	111	58	97	195	627	523	53	672	414	3,563	411	411		822	4,386
YTD	**63**	**76**	**18**	**256**	**430**	**82**	**85**	**87**	**199**	**596**	**501**	**95**	**644**	**374**	**3,506**	**434**	**419**		**853**	**4,359**

Table 3.1-1M (Cont.)
Production and Import of Natural Gas

Unit : MMscfd

2011																			
Month	Domestic Production															Import				Grand Total
	Sirikit	Benjamas	Nam phong	Erawan	Pailin	Satun	Gomin	Phuhorm	Funan & Jakrawan	Bongkot	Arthit	Yala	JDA	Oths.	Total	Yadana	Yetakun	LNG	Total Import	
Jan	71	88	18	240	463	109	67	87	194	585	525	60	706	464	3,678	312	309		622	4,299
Feb	56	75	17	242	483	91	88	89	198	634	523	62	704	498	3,760	394	397		791	4,551
Mar	63	87	18	242	460	136	104	92	182	646	523	59	799	474	3,884	426	411		838	4,722
Apr	33	97	14	248	477	130	105	101	172	637	417	73	744	423	3,670	448	419		867	4,537
May	39	48	19	251	421	124	106	108	169	650	480	88	810	472	3,785	499	452	94	1,045	4,830
Jun	40	90	18	234	359	74	93	110	158	635	461	65	872	440	3,650	507	445	242	1,194	4,844
Jul	38	101	18	147	380	85	89	97	102	617	379	34	774	357	3,218	506	459	212	1,177	4,395
Aug	37	84	16	261	398	113	94	100	208	544	339	36	776	394	3,400	486	445	297	1,229	4,629
Sep	35	88	13	253	383	111	103	61	212	651	344	41	802	409	3,507	505	458	119	1,083	4,590
Oct	34	85	13	253	384	110	97	53	207	598	337	38	675	395	3,279	372	362	97	830	4,109
Nov	38	97	12	245	344	128	93	51	171	490	302	56	705	712	3,444	358	374	104	836	4,280
Dec	38	89	12	251	379	121	102	54	175	584	259	62	732	802	3,660	304	316		620	4,280
YTD	**43**	**86**	**16**	**239**	**411**	**111**	**95**	**84**	**179**	**606**	**407**	**56**	**758**	**487**	**3,577**	**426**	**404**	**98**	**928**	**4,505**

2012																				
Month	Domestic Production															Import				Grand Total
	Sirikit	Benjamas	Nam phong	Erawan	Pailin	Satun	Gomin	Phuhorm	Funan & Jakrawan	Bongkot	Arthit	Yala	JDA	Oths.	Total	Yadana	Yetakun	LNG	Total Import	
Jan	38	42	13	270	355	142	61	86	177	845	272	59	777	756	3,892	297	296	115	707	4,599
Feb	41	75	12	275	333	134	64	71	198	556	264	77	769	724	3,593	405	396	116	917	4,510
Mar	42	38	13	264	367	159	66	68	216	690	263	81	784	794	3,846	475	444	199	1,118	4,963
Apr	43	37	12	265	365	162	67	79	193	719	287	79	761	797	3,864	294	276		571	4,434
May	44	35	16	275	377	189	96	118	170	664	278	43	794	845	3,944	432	398	115	945	4,889
Jun	43	46	15	271	368	196	99	109	156	632	281	43	713	927	3,901	492	447	222	1,161	5,062
Jul	49	46	16	269	339	192	89	115	167	1,087	260	54	736	847	4,267	430	421	189	1,040	5,307
Aug	46	54	15	181	397	117	61	90	205	1,123	271	52	655	771	4,038	450	421	100	971	5,009
Sep	49	51	16	224	329	188	74	74	190	1,073	257	37	747	767	4,077	399	378	148	924	5,001
Oct	48	40	14	259	343	180	101	66	153	999	270	46	770	833	4,122	484	447	108	1,039	5,161
Nov	46	52	14	254	376	180	131	126	248	1,003	265	42	768	807	4,313	483	438	98	1,019	5,332
Dec	47	45	15	256	382	120	113	120	210	1,012	250	47	702	755	4,076	435	402	144	981	5,057
YTD	**45**	**46**	**14**	**255**	**361**	**163**	**85**	**94**	**190**	**869**	**268**	**55**	**748**	**802**	**3,996**	**423**	**397**	**130**	**950**	**4,946**

Table 3.1-1M (Cont.)
Production and Import of Natural Gas

Unit : MMscfd

Month	2013																			
	Domestic Production															Import				Grand Total
	Sirikit	Benjamas	Nam phong	Erawan	Pailin	Satun	Gomin	Phuhorm	Funan & Jakrawan	Bongkot	Arthit	Yala	JDA	Oths.	Total	Yadana	Yetakun	LNG	Total Import	
Jan	49	40	15	262	387	120	78	110	257	1,031	286	54	492	784	3,965	415	394	143	952	4,917
Feb	50	42	14	218	375	119	72	120	230	1,030	255	42	753	815	4,135	373	350	158	881	5,016
Mar	49	44	15	238	393	148	65	118	235	1,061	261	40	773	746	4,185	469	431	293	1,193	5,378
Apr	51	44	16	227	372	148	62	124	253	1,095	254	44	751	669	4,111	308	285	300	893	5,004
May	50	34	15	188	412	172	65	120	274	1,153	223	47	780	724	4,257	448	415	102	965	5,222
Jun	52	45	15	171	352	175	86	110	251	900	262	44	770	816	4,050	422	400	298	1,120	5,170
Jul	49	41	14	161	406	150	77	87	249	1,013	267	39	770	847	4,172	419	396	330	1,146	5,318
Aug	93	36	12	164	339	158	63	60	230	908	247	44	732	860	3,946	433	423	92	948	4,894
Sep	50	26	10	196	363	126	35	39	193	999	247	61	736	772	3,852	455	436	97	989	4,841
Oct	51	41	11	157	359	116	48	51	220	1,013	251	56	775	869	4,020	452	453	234	1,139	5,159
Nov	51	48	12	177	338	104	26	69	145	1,057	253	51	762	946	4,038	459	459	96	1,014	5,052
Dec	48	47	12	209	265	176	32	48	171	841	216	47	729	961	3,803	375	382	147	903	4,706
YTD	**54**	**41**	**13**	**197**	**363**	**143**	**59**	**88**	**226**	**1,008**	**252**	**47**	**735**	**818**	**4,044**	**419**	**403**	**191**	**1,013**	**5,057**

Remark : Heat Value of NG from Myanmar = 1,000 BTU/SCF

Source : Department of Mineral Fuels (DMF) and PTT

Compiled by : Energy Policy and Planning office (EPPO)

Table 3.2-1M
Distribution of NGL

2009												
Month	(Million Litres)				(Barrel)				(Barrel/Day)			
	Export	Refinery	Solvent	Total	Export	Refinery	Solvent	Total	Export	Refinery	Solvent	Total
Jan	5		60	65	30,224		376,547	406,772	974		12,146	13,121
Feb	5		54	59	30,242		340,727	370,969	1,080		12,168	13,248
Mar	5		58	63	30,233		366,473	396,707	975		11,821	12,797
Apr	15		45	60	94,323		283,584	377,907	3,144		9,452	12,596
May	15		59	74	95,478		372,001	467,479	3,079		12,000	15,080
Jun	15		56	71	95,100		354,295	449,396	3,170		11,809	14,979
Jul	10		48	58	62,952		301,068	364,020	2,030		9,711	11,742
Aug	10		60	70	62,721		377,461	440,183	2,023		12,176	14,199
Sep	5		60	65	30,216		380,330	410,546	1,007		12,677	13,684
Oct	5		55	60	29,878		346,788	376,666	963		11,186	12,150
Nov	20		59	79	125,620		372,240	497,861	4,187		12,408	16,595
Dec	5		61	66	30,215		382,168	412,384	974		12,328	13,302
YTD	114		676	790	717,208		4,253,688	4,970,897	1,964		11,653	13,618

2010												
Month	(Million Litres)				(Barrel)				(Barrel/Day)			
	Export	Refinery	Solvent	Total	Export	Refinery	Solvent	Total	Export	Refinery	Solvent	Total
Jan	10		62	72	63,211		388,408	451,619	2,039		12,529	14,568
Feb	10		41	51	59,808		258,489	318,298	2,136		9,231	11,367
Mar	15		53	68	94,470		334,877	429,348	3,047		10,802	13,849
Apr	7		54	62	45,427		341,766	387,193	1,514		11,392	12,906
May	7		52	59	43,469		328,821	372,291	1,402		10,607	12,009
Jun	12		43	55	75,715		272,854	348,569	2,523		9,095	11,618
Jul	14		62	77	90,857		391,250	482,108	2,930		12,620	15,551
Aug	5		66	71	30,223		416,119	446,343	974		13,423	14,398
Sep	7		60	67	45,340		374,937	420,278	1,511		12,497	14,009
Oct	7		69	75	41,600		432,521	474,122	1,341		13,952	15,294
Nov	22		51	72	136,843		319,031	455,875	4,561		10,634	15,195
Dec	19		62	81	120,904		389,278	510,183	3,900		12,557	16,457
YTD	135		675	810	847,872		4,248,358	5,096,231	2,322		11,639	13,962

Table 3.2-1M (Cont.)
Distribution of NGL

Month	2011 (Million Litres)				2011 (Barrel)				2011 (Barrel/Day)			
	Export	Refinery	Solvent	Total	Export	Refinery	Solvent	Total	Export	Refinery	Solvent	Total
Jan	14		71	85	90,801		445,082	535,884	2,929		14,357	17,286
Feb	7		62	69	45,055		389,470	434,526	1,609		13,909	15,518
Mar	10		74	83	61,904		463,242	525,146	1,996		14,943	16,940
Apr	7		77	83	42,476		482,451	524,928	1,415		16,081	17,497
May	7		78	85	43,885		490,275	534,161	1,415		15,815	17,231
Jun	17		58	75	106,660		362,491	469,151	3,555		12,083	15,638
Jul	20		53	73	126,183		336,060	462,243	4,070		10,840	14,911
Aug	28		62	89	173,596		387,039	560,635	5,599		12,485	18,085
Sep	18		64	82	110,211		404,429	514,640	3,673		13,480	17,154
Oct	28		61	89	175,663		384,932	560,595	5,666		12,417	18,083
Nov	19		53	72	122,214		331,588	453,802	4,073		11,052	15,126
Dec	28		65	93	177,229		407,598	584,827	5,717		13,148	18,865
YTD	203		777	979	1,275,883		4,884,661	6,160,545	3,495		13,382	16,878

Month	2012 (Million Litres)				2012 (Barrel)				2012 (Barrel/Day)			
	Export	Refinery	Solvent	Total	Export	Refinery	Solvent	Total	Export	Refinery	Solvent	Total
Jan	22		65	88	141,426		410,196	551,623	4,562		13,232	17,794
Feb	18		61	78	110,945		382,554	493,499	3,962		13,662	17,625
Mar	15		73	87	93,082		457,094	550,176	3,002		14,744	17,747
Apr	22		66	88	138,804		412,543	551,348	4,626		13,751	18,378
May	22		65	87	139,949		406,245	546,194	4,514		13,104	17,619
Jun	29		68	97	182,886		424,788	607,674	6,096		14,159	20,255
Jul	34		69	103	216,918		433,652	650,570	6,997		13,988	20,986
Aug	27		67	94	170,923		418,903	589,826	5,513		13,513	19,026
Sep	29		65	94	184,920		407,535	592,455	6,164		13,584	19,748
Oct	20		67	87	128,437		418,439	546,877	4,143		13,498	17,641
Nov	33		68	101	205,611		427,080	632,692	6,853		14,236	21,089
Dec	27		70	98	170,782		442,451	613,234	5,509		14,272	19,781
YTD	300		802	1,101	1,884,687		5,041,486	6,926,173	5,149		13,774	18,923



Table 3.2-1M (Cont.)
Distribution of NGL

Month	2013											
	(Million Litres)				(Barrel)				(Barrel/Day)			
	Export	Refinery	Solvent	Total	Export	Refinery	Solvent	Total	Export	Refinery	Solvent	Total
Jan	21		81	102	134,331		508,661	642,993	4,333		16,408	20,741
Feb	20		60	80	125,250		376,928	502,178	4,473		13,461	17,934
Mar	28		69	96	173,699		432,349	606,048	5,603		13,946	19,549
Apr	32		68	101	204,212		430,459	634,671	6,807		14,348	21,155
May	27		62	90	171,671		392,947	564,618	5,537		12,675	18,213
Jun	33		60	93	204,871		378,278	583,149	6,829		12,609	19,438
Jul	33		60	93	204,876		377,158	582,035	6,608		12,166	18,775
Aug	38		55	93	237,412		347,853	585,265	7,658		11,221	18,879
Sep	22		58	80	140,861		363,336	504,197	4,695		12,111	16,806
Oct	15		69	84	93,668		435,393	529,062	3,021		14,044	17,066
Nov	28		62	90	173,833		392,487	566,321	5,794		13,082	18,877
Dec	25		62	87	157,866		390,930	548,796	5,092		12,610	17,703
YTD	**322**		**767**	**1,089**	**2,022,555**		**4,826,783**	**6,849,339**	**5,541**		**13,224**	**18,765**

Source : PTT

Compiled by : Energy Policy and Planning Office (EPPO)

Table 3.2-2M
Consumption of Natural Gas by Sector

Unit : MMscfd

2009								
Month	Electricity				Industry	GSP	NGV	Grand Total
	EGAT	IPP	SPP	Total				
Jan	913	529	412	1,854	341	568	117	2,881
Feb	1,050	856	419	2,325	357	599	133	3,413
Mar	1,197	850	426	2,473	374	593	138	3,578
Apr	1,149	810	404	2,364	363	597	126	3,451
May	1,193	883	435	2,511	373	618	133	3,635
Jun	1,092	1,027	447	2,565	403	625	142	3,735
Jul	1,054	992	415	2,461	372	622	143	3,597
Aug	1,056	1,036	438	2,531	376	587	150	3,643
Sep	1,100	1,073	444	2,617	420	605	151	3,793
Oct	1,109	1,053	438	2,599	434	574	154	3,761
Nov	1,163	949	442	2,554	432	607	159	3,752
Dec	1,137	804	428	2,369	397	592	167	3,526
YTD	**1,101**	**905**	**429**	**2,435**	**387**	**599**	**143**	**3,564**

2010								
Month	Electricity				Industry	GSP	NGV	Grand Total
	EGAT	IPP	SPP	Total				
Jan	1,043	919	434	2,397	428	597	154	3,576
Feb	1,196	1,087	435	2,719	473	520	171	3,884
Mar	1,491	761	434	2,686	499	573	176	3,933
Apr	1,264	1,027	444	2,735	450	563	165	3,913
May	1,377	1,070	445	2,891	464	552	167	4,074
Jun	1,459	1,053	434	2,946	488	552	181	4,166
Jul	1,356	996	416	2,767	472	673	179	4,091
Aug	1,374	902	437	2,713	492	745	181	4,131
Sep	1,403	955	454	2,811	506	749	190	4,256
Oct	1,419	893	464	2,777	472	837	193	4,278
Nov	1,427	826	445	2,697	491	682	204	4,075
Dec	1,331	847	434	2,612	498	767	210	4,086
YTD	**1,346**	**943**	**440**	**2,728**	**478**	**652**	**181**	**4,039**

Table 3.2-2M (Cont.)
Consumption of Natural Gas by Sector

Unit : MMscfd

2011								
Month	Electricity				Industry	GSP	NGV	Grand Total
	EGAT	IPP	SPP	Total				
Jan	1,176	697	466	2,338	485	859	207	3,890
Feb	1,341	752	471	2,564	501	840	230	4,135
Mar	1,202	893	486	2,581	576	972	231	4,360
Apr	1,089	911	468	2,469	562	932	215	4,178
May	1,239	980	478	2,697	570	897	238	4,401
Jun	1,171	1,013	496	2,680	605	812	246	4,342
Jul	1,087	955	472	2,514	591	756	242	4,103
Aug	1,154	1,004	475	2,633	601	784	248	4,265
Sep	1,113	888	477	2,478	627	975	248	4,327
Oct	1,013	782	437	2,232	581	803	222	3,838
Nov	1,100	793	421	2,314	563	871	197	3,945
Dec	1,099	715	402	2,216	568	907	243	3,934
YTD	**1,148**	**866**	**462**	**2,476**	**569**	**867**	**231**	**4,143**

2012								
Month	Electricity				Industry	GSP	NGV	Grand Total
	EGAT	IPP	SPP	Total				
Jan	1,177	714	406	2,297	584	924	267	4,072
Feb	1,263	873	424	2,559	626	730	276	4,192
Mar	1,386	915	412	2,713	601	960	279	4,552
Apr	1,299	729	405	2,433	631	933	260	4,257
May	1,342	944	406	2,691	635	949	278	4,553
Jun	1,386	1,026	404	2,816	631	979	280	4,706
Jul	1,466	958	398	2,822	639	989	271	4,723
Aug	1,214	1,009	410	2,632	642	994	283	4,550
Sep	1,349	894	424	2,666	655	942	284	4,547
Oct	1,314	1,045	424	2,783	646	1,017	285	4,730
Nov	1,420	1,042	458	2,919	647	1,034	292	4,892
Dec	1,339	915	456	2,710	600	1,035	278	4,624
YTD	**1,330**	**922**	**419**	**2,670**	**628**	**958**	**278**	**4,534**

Table 3.2-2M (Cont.)
Consumption of Natural Gas by Sector

Unit : MMscfd

Month	2013							
	Electricity				Industry	GSP	NGV	Grand Total
	EGAT	IPP	SPP	Total				
Jan	1,231	792	481	2,504	625	994	290	4,412
Feb	1,451	845	501	2,798	626	923	310	4,656
Mar	1,469	958	560	2,987	624	1,041	309	4,961
Apr	1,267	743	599	2,609	615	984	291	4,499
May	1,375	956	586	2,918	608	940	314	4,780
Jun	1,426	851	594	2,871	601	932	310	4,714
Jul	1,245	822	610	2,677	675	1,005	307	4,664
Aug	1,073	912	616	2,601	642	814	317	4,374
Sep	1,075	898	647	2,620	668	789	310	4,387
Oct	1,005	994	645	2,644	661	911	309	4,524
Nov	1,135	973	659	2,766	640	925	314	4,645
Dec	1,021	722	619	2,362	638	898	303	4,201
YTD	**1,229**	**873**	**593**	**2,695**	**635**	**930**	**307**	**4,568**

Remark : Heat value of NG = 1,000 BTU/SCF

Compiled by : Energy Policy and Planning Office (EPPO)

Table 3.2-3M
Consumption Share of Natural Gas by Sector

2009										
Month	MMscfd					Share (%)				
	Electricity	Industry	GSP	NGV	Total	Electricity	Industry	GSP	NGV	Total
Jan	1,854	341	568	117	2,881	64.4	11.9	19.7	4.1	100.0
Feb	2,325	357	599	133	3,413	68.1	10.5	17.5	3.9	100.0
Mar	2,473	374	593	138	3,578	69.1	10.5	16.6	3.8	100.0
Apr	2,364	363	597	126	3,451	68.5	10.5	17.3	3.6	100.0
May	2,511	373	618	133	3,635	69.1	10.3	17.0	3.7	100.0
Jun	2,565	403	625	142	3,735	68.7	10.8	16.7	3.8	100.0
Jul	2,461	372	622	143	3,597	68.4	10.4	17.3	4.0	100.0
Aug	2,531	376	587	150	3,643	69.5	10.3	16.1	4.1	100.0
Sep	2,617	420	605	151	3,793	69.0	11.1	16.0	4.0	100.0
Oct	2,599	434	574	154	3,761	69.1	11.5	15.3	4.1	100.0
Nov	2,554	432	607	159	3,752	68.1	11.5	16.2	4.2	100.0
Dec	2,369	397	592	167	3,526	67.2	11.2	16.8	4.8	100.0
YTD	**2,435**	**387**	**599**	**143**	**3,564**	**68.3**	**10.9**	**16.8**	**4.0**	**100.0**

2010										
Month	MMscfd					Share (%)				
	Electricity	Industry	GSP	NGV	Total	Electricity	Industry	GSP	NGV	Total
Jan	2,397	428	597	154	3,576	67.0	12.0	16.7	4.3	100.0
Feb	2,719	473	520	171	3,884	70.0	12.2	13.4	4.4	100.0
Mar	2,686	499	573	176	3,933	68.3	12.7	14.6	4.5	100.0
Apr	2,735	450	563	165	3,913	69.9	11.5	14.4	4.2	100.0
May	2,891	464	552	167	4,074	71.0	11.4	13.5	4.1	100.0
Jun	2,946	488	552	181	4,166	70.7	11.7	13.2	4.3	100.0
Jul	2,767	472	673	179	4,091	67.6	11.5	16.4	4.4	100.0
Aug	2,713	492	745	181	4,131	65.7	11.9	18.0	4.4	100.0
Sep	2,811	506	749	190	4,256	66.1	11.9	17.6	4.5	100.0
Oct	2,777	472	837	193	4,278	64.9	11.0	19.6	4.5	100.0
Nov	2,697	491	682	204	4,075	66.2	12.1	16.7	5.0	100.0
Dec	2,612	498	767	210	4,086	63.9	12.2	18.8	5.1	100.0
YTD	**2,728**	**478**	**652**	**181**	**4,039**	**67.6**	**11.8**	**16.1**	**4.5**	**100.0**

Table 3.2-3M (Cont.)
Consumption Share of Natural Gas by Sector

2011										
Month	MMscfd					Share (%)				
	Electricity	Industry	GSP	NGV	Total	Electricity	Industry	GSP	NGV	Total
Jan	2,338	485	859	207	3,890	60.1	12.5	22.1	5.3	100.0
Feb	2,564	501	840	230	4,135	62.0	12.1	20.3	5.6	100.0
Mar	2,581	576	972	231	4,360	59.2	13.2	22.3	5.3	100.0
Apr	2,469	562	932	215	4,178	59.1	13.4	22.3	5.2	100.0
May	2,697	570	897	238	4,401	61.3	12.9	20.4	5.4	100.0
Jun	2,680	605	812	246	4,342	61.7	13.9	18.7	5.7	100.0
Jul	2,514	591	756	242	4,103	61.3	14.4	18.4	5.9	100.0
Aug	2,633	601	784	248	4,265	61.7	14.1	18.4	5.8	100.0
Sep	2,478	627	975	248	4,327	57.3	14.5	22.5	5.7	100.0
Oct	2,232	581	803	222	3,838	58.2	15.2	20.9	5.8	100.0
Nov	2,314	563	871	197	3,945	58.7	14.3	22.1	5.0	100.0
Dec	2,216	568	907	243	3,934	56.3	14.4	23.0	6.2	100.0
YTD	**2,476**	**569**	**867**	**231**	**4,143**	**59.8**	**13.7**	**20.9**	**5.6**	**100.0**

2012										
Month	MMscfd					Share (%)				
	Electricity	Industry	GSP	NGV	Total	Electricity	Industry	GSP	NGV	Total
Jan	2,297	584	924	267	4,072	56.4	14.3	22.7	6.6	100.0
Feb	2,559	626	730	276	4,192	61.0	14.9	17.4	6.6	100.0
Mar	2,713	601	960	279	4,552	59.6	13.2	21.1	6.1	100.0
Apr	2,433	631	933	260	4,257	57.2	14.8	21.9	6.1	100.0
May	2,691	635	949	278	4,553	59.1	13.9	20.8	6.1	100.0
Jun	2,816	631	979	280	4,706	59.8	13.4	20.8	6.0	100.0
Jul	2,822	639	989	271	4,723	59.8	13.5	20.9	5.7	100.0
Aug	2,632	642	994	283	4,550	57.9	14.1	21.8	6.2	100.0
Sep	2,666	655	942	284	4,547	58.6	14.4	20.7	6.2	100.0
Oct	2,783	646	1,017	285	4,730	58.8	13.6	21.5	6.0	100.0
Nov	2,919	647	1,034	292	4,892	59.7	13.2	21.1	6.0	100.0
Dec	2,710	600	1,035	278	4,624	58.6	13.0	22.4	6.0	100.0
YTD	**2,670**	**628**	**958**	**278**	**4,534**	**58.9**	**13.8**	**21.1**	**6.1**	**100.0**

Table 3.2-3M (Cont.)
Consumption Share of Natural Gas by Sector

Month	2013									
	MMscfd					Share (%)				
	Electricity	Industry	GSP	NGV	Total	Electricity	Industry	GSP	NGV	Total
Jan	2,504	625	994	290	4,412	56.7	14.2	22.5	6.6	100.0
Feb	2,798	626	923	310	4,656	60.1	13.4	19.8	6.6	100.0
Mar	2,987	624	1,041	309	4,961	60.2	12.6	21.0	6.2	100.0
Apr	2,609	615	984	291	4,499	58.0	13.7	21.9	6.5	100.0
May	2,918	608	940	314	4,780	61.0	12.7	19.7	6.6	100.0
Jun	2,871	601	932	310	4,714	60.9	12.8	19.8	6.6	100.0
Jul	2,677	675	1,005	307	4,664	57.4	14.5	21.6	6.6	100.0
Aug	2,601	642	814	317	4,374	59.5	14.7	18.6	7.3	100.0
Sep	2,620	668	789	310	4,387	59.7	15.2	18.0	7.1	100.0
Oct	2,644	661	911	309	4,524	58.4	14.6	20.1	6.8	100.0
Nov	2,766	640	925	314	4,645	59.6	13.8	19.9	6.8	100.0
Dec	2,362	638	898	303	4,201	56.2	15.2	21.4	7.2	100.0
YTD	2,695	635	930	307	4,568	59.0	13.9	20.4	6.7	100.0

Remark : Heat Value of NG = 1,000 BTU/SCF

Compiled by : Energy Policy and Planning Office (EPPO)



Appendix I
Chapter 4

Lignite/Coal



Table 4.1-1M
Production and Consumption of Lignite

Unit : Ton

2009										
Month	EGAT				Total EGAT		Others		Nationwide	
	Mae-Moh		Krabi							
	Production	Consumption	Production	Consumption	Production	Consumption	Production	Consumption	Production	Consumption
Jan	1,468,620	1,461,488			1,468,620	1,461,488	93,065	111,470	1,561,685	1,572,958
Feb	1,174,194	1,144,939			1,174,194	1,144,939	138,458	157,131	1,312,652	1,302,070
Mar	1,254,630	1,255,136			1,254,630	1,255,136	211,163	247,544	1,465,793	1,502,680
Apr	1,227,083	1,313,460			1,227,083	1,313,460	217,794	234,662	1,444,877	1,548,122
May	1,413,339	1,370,259			1,413,339	1,370,259	154,931	183,435	1,568,270	1,553,694
Jun	1,435,227	1,463,154			1,435,227	1,463,154	177,569	194,639	1,612,796	1,657,793
Jul	1,469,759	1,451,536			1,469,759	1,451,536	178,411	165,359	1,648,170	1,616,895
Aug	1,279,005	1,304,125			1,279,005	1,304,125	217,282	179,357	1,496,287	1,483,482
Sep	1,254,357	1,243,891			1,254,357	1,243,891	125,811	134,061	1,380,168	1,377,952
Oct	1,143,009	1,287,741			1,143,009	1,287,741	109,720	41,449	1,252,729	1,329,190
Nov	1,237,910	1,227,355			1,237,910	1,227,355	115,830	193,949	1,353,740	1,421,304
Dec	1,274,633	1,295,181			1,274,633	1,295,181	194,300	199,472	1,468,933	1,494,653
YTD	**15,631,766**	**15,818,265**			**15,631,766**	**15,818,265**	**1,934,334**	**2,042,529**	**17,566,100**	**17,860,794**

2010										
Month	EGAT				Total EGAT		Others		Nationwide	
	Mae-Moh		Krabi							
	Production	Consumption	Production	Consumption	Production	Consumption	Production	Consumption	Production	Consumption
Jan	1,358,183	1,363,194			1,358,183	1,363,194	177,050	171,521	1,535,233	1,534,715
Feb	1,209,511	1,161,660			1,209,511	1,161,660	252,862	144,184	1,462,373	1,305,844
Mar	1,343,448	1,370,186			1,343,448	1,370,186	222,982	189,422	1,566,430	1,559,608
Apr	1,412,283	1,427,231			1,412,283	1,427,231	206,286	161,905	1,618,569	1,589,136
May	1,537,747	1,482,298			1,537,747	1,482,298	183,169	165,206	1,720,916	1,647,504
Jun	1,242,187	1,257,482			1,242,187	1,257,482	218,660	188,479	1,460,847	1,445,961
Jul	1,276,520	1,278,053			1,276,520	1,278,053	153,860	155,133	1,430,380	1,433,186
Aug	1,291,936	1,370,701			1,291,936	1,370,701	132,330	134,749	1,424,266	1,505,450
Sep	1,303,351	1,219,748			1,303,351	1,219,748	123,300	132,236	1,426,651	1,351,984
Oct	1,301,037	1,340,644			1,301,037	1,340,644	165,200	61,942	1,466,237	1,402,586
Nov	1,370,110	1,357,249			1,370,110	1,357,249	173,200	290,589	1,543,310	1,647,838
Dec	1,340,950	1,375,750			1,340,950	1,375,750	261,900	222,319	1,602,850	1,598,069
YTD	**15,987,263**	**16,004,196**			**15,987,263**	**16,004,196**	**2,270,799**	**2,017,685**	**18,258,062**	**18,021,881**

Table 4.1-1M (Cont.)
Production and Consumption of Lignite

Unit : Ton

2011										
Month	EGAT				Total EGAT		Others		Nationwide	
	Mae-Moh		Krabi							
	Production	Consumption	Production	Consumption	Production	Consumption	Production	Consumption	Production	Consumption
Jan	1,645,139	1,491,892			1,645,139	1,491,892	191,874	277,871	1,837,013	1,769,763
Feb	1,394,702	1,350,179			1,394,702	1,350,179	176,770	307,575	1,571,472	1,657,754
Mar	1,529,052	1,524,371			1,529,052	1,524,371	200,700	289,908	1,729,752	1,814,279
Apr	1,455,516	1,453,644			1,455,516	1,453,644	172,400	278,587	1,627,916	1,732,231
May	1,340,459	1,552,462			1,340,459	1,552,462	171,000	253,227	1,511,459	1,805,689
Jun	1,618,168	1,490,675			1,618,168	1,490,675	182,905	260,229	1,801,073	1,750,904
Jul	1,456,668	1,537,595			1,456,668	1,537,595	861,525	120,233	2,318,193	1,657,828
Aug	1,664,345	1,393,272			1,664,345	1,393,272	310,755	308,030	1,975,100	1,701,302
Sep	1,377,383	1,344,072			1,377,383	1,344,072	1,080,640	283,836	2,458,023	1,627,908
Oct	1,352,220	1,391,102			1,352,220	1,391,102	136,026	287,435	1,488,246	1,678,537
Nov	1,141,767	1,277,770			1,141,767	1,277,770	155,800	66,034	1,297,567	1,343,804
Dec	1,582,917	1,354,134			1,582,917	1,354,134	128,375	124,024	1,711,292	1,478,158
YTD	**17,558,336**	**17,161,168**			**17,558,336**	**17,161,168**	**3,768,770**	**2,856,989**	**21,327,106**	**20,018,157**

2012										
Month	EGAT				Total EGAT		Others		Nationwide	
	Mae-Moh		Krabi							
	Production	Consumption	Production	Consumption	Production	Consumption	Production	Consumption	Production	Consumption
Jan	1,292,151	1,422,026			1,292,151	1,422,026	161,879	86,026	1,454,030	1,508,052
Feb	1,480,657	1,305,278			1,480,657	1,305,278	123,334	54,232	1,603,991	1,359,510
Mar	1,313,185	1,396,404			1,313,185	1,396,404	125,950	86,462	1,439,135	1,482,866
Apr	1,372,951	1,423,127			1,372,951	1,423,127	365,320	74,782	1,738,271	1,497,909
May	1,529,188	1,487,165			1,529,188	1,487,165	284,522	65,895	1,813,710	1,553,060
Jun	1,249,878	1,464,663			1,249,878	1,464,663	32,848	60,762	1,282,726	1,525,425
Jul	1,632,368	1,329,878			1,632,368	1,329,878	45,420	249,397	1,677,788	1,579,275
Aug	1,247,007	1,518,295			1,247,007	1,518,295	31,740	212,345	1,278,747	1,730,640
Sep	1,536,691	1,325,208			1,536,691	1,325,208	31,650	172,756	1,568,341	1,497,964
Oct	1,343,814	1,305,321			1,343,814	1,305,321	112,720	189,694	1,456,534	1,495,015
Nov	1,271,893	1,440,217			1,271,893	1,440,217	117,135	174,743	1,389,028	1,614,960
Dec	1,320,678	1,336,699			1,320,678	1,336,699	43,450	184,502	1,364,128	1,521,201
YTD	**16,590,461**	**16,754,281**			**16,590,461**	**16,754,281**	**1,475,968**	**1,611,596**	**18,066,429**	**18,365,877**

Table 4.1-1M (Cont.)
Production and Consumption of Lignite

Unit : Ton

Month	2013									
	EGAT				Total EGAT		Others		Nationwide	
	Mae-Moh		Krabi							
	Production	Consumption	Production	Consumption	Production	Consumption	Production	Consumption	Production	Consumption
Jan	1,511,773	1,478,443			1,511,773	1,478,443	37,900	155,102	1,549,673	1,633,545
Feb	1,335,122	1,300,431			1,335,122	1,300,431	69,590	175,545	1,404,712	1,475,976
Mar	1,256,906	1,292,567			1,256,906	1,292,567	48,535	208,176	1,305,441	1,500,743
Apr	1,170,905	1,435,925			1,170,905	1,435,925	36,040	152,900	1,206,945	1,588,825
May	1,541,706	1,575,563			1,541,706	1,575,563	151,642	114,615	1,693,348	1,690,178
Jun	1,793,489	1,461,197			1,793,489	1,461,197	108,817	149,511	1,902,306	1,610,708
Jul	1,738,907	1,392,047			1,738,907	1,392,047	123,300	155,528	1,862,207	1,547,575
Aug	1,216,365	1,494,943			1,216,365	1,494,943	97,110	138,287	1,313,475	1,633,230
Sep	1,320,036	1,295,697			1,320,036	1,295,697	122,378	116,776	1,442,414	1,412,473
Oct	1,420,072	1,442,740			1,420,072	1,442,740	115,539	135,472	1,535,611	1,578,212
Nov	1,180,080	1,318,530			1,180,080	1,318,530	61,691	139,703	1,241,771	1,458,233
Dec	1,586,600	1,396,864			1,586,600	1,396,864	66,260	134,544	1,652,860	1,531,408
YTD	**17,071,961**	**16,884,947**			**17,071,961**	**16,884,947**	**1,038,802**	**1,776,159**	**18,110,763**	**18,661,106**

Table 4.2-1M
Coal Import

Unit : 1,000 Tons

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1989	56.28	48.50	58.45	21.67	33.66	84.22	24.55	57.03	8.52	10.49	21.68	29.99	455.03
1990	21.00	19.09	31.75	7.13	56.19	54.10	10.37	21.95	25.80	7.45	22.07	64.01	340.90
1991	13.52	13.68	24.58	42.49	83.88	69.06	68.24	1.75	15.39	45.05	10.77	81.02	469.42
1992	0.90	31.60	140.89	8.40	0.78	8.85	75.47	54.80	32.96	43.03	9.36	93.83	500.85
1993	193.78	6.62	116.58	31.72	82.90	74.63	59.03	59.12	117.03	42.81	31.82	119.72	935.76
1994	137.83	70.65	39.54	99.37	168.57	130.76	162.35	163.51	111.79	155.01	140.90	138.93	1,519.21
1995	165.00	21.95	295.16	69.94	170.79	241.18	145.36	362.27	179.53	255.87	233.94	206.17	2,347.16
1996	127.96	87.99	180.88	313.03	313.71	481.60	333.40	382.72	397.35	256.60	510.81	519.79	3,905.84
1997	395.31	330.01	397.77	469.03	368.50	287.43	235.44	130.11	140.33	172.19	157.60	205.06	3,288.78
1998	33.59	50.22	47.16	61.23	116.34	158.75	134.79	193.28	133.01	255.77	247.60	201.23	1,632.98
1999	169.81	330.24	57.55	445.49	306.13	272.05	378.92	323.16	430.93	122.11	368.46	73.09	3,277.93
2000	378.32	325.88	132.41	353.40	382.56	390.15	378.13	467.09	420.24	248.30	236.71	470.02	4,183.20
2001	355.10	472.44	463.02	398.42	212.06	466.24	581.70	459.61	276.19	411.67	524.51	324.24	4,945.21
2002	428.95	325.34	471.01	397.54	386.63	455.33	618.43	394.41	475.20	582.29	594.80	468.92	5,598.84
2003	553.82	868.90	675.68	567.41	587.79	520.47	445.63	575.64	583.64	648.67	618.66	464.13	7,110.44
2004	426.58	419.12	353.70	617.44	654.58	497.82	764.34	596.09	679.98	854.35	652.34	1,033.61	7,549.95
2005	709.09	673.49	655.33	706.58	887.05	766.11	441.86	974.44	696.93	555.24	871.68	630.50	8,568.29
2006	678.58	665.24	965.31	684.08	1,118.73	1,090.71	553.04	1,040.25	1,130.49	1,110.90	1,132.69	1,044.78	11,214.80
2007	1,025.09	888.19	1,087.64	1,107.51	1,316.80	1,206.18	1,131.10	1,674.78	1,272.50	1,114.67	1,334.85	1,254.49	14,413.80
2008	1,309.80	1,483.34	1,322.25	1,536.05	1,510.23	1,245.74	1,363.82	1,252.98	1,310.96	1,383.52	1,008.61	1,251.71	15,979.00
2009	893.98	1,136.57	1,320.59	1,590.73	1,465.03	1,234.67	1,554.50	1,448.91	1,678.14	2,043.75	847.68	1,174.29	16,388.84
2010	1,260.12	1,339.83	1,267.86	1,925.20	1,419.13	1,361.40	1,133.69	1,040.14	1,612.57	1,600.90	1,327.56	1,615.80	16,904.21
2011	1,535.90	1,628.44	1,414.31	1,500.03	1,473.01	1,477.62	1,197.48	988.88	1,828.47	1,025.57	1,242.26	1,019.12	16,331.11
2012	1,098.52	1,586.88	1,476.17	1,884.86	1,502.83	1,160.14	1,466.07	1,956.48	1,635.71	2,315.32	1,330.74	990.65	18,404.37
2013	1,519.93	1,105.77	602.37	976.40	1,792.68	2,173.71	1,609.90	1,797.77	1,249.77	1,596.96	1,277.43	1,625.42	17,328.12

Source : The Customs Department

Compiled by : Energy Policy and Planning Office (EPPO)



Appendix I

Chapter 5

Electricity



Table 5.1-1M
Electricity Generation by Fuel Type

Unit : GWh

2009												
Month	Hydro	Fuel Oil	Lignite	Natural Gas	Diesel	Geo Thermal	Non Conventional	Imported	DEDP	SPP	IPP	Total
Jan	742.81	33.27	1,640.53	2,622.14	1.24	0.09	0.06	171.11	1.47	1,175.62	4,020.95	10,409.34
Feb	715.34	0.00	1,308.97	2,833.02	1.01	0.14	0.06	106.09	2.07	1,028.56	5,098.89	11,094.18
Mar	810.43	0.00	1,467.57	3,782.28	12.90	0.09	0.06	130.43	3.84	1,247.76	5,444.00	12,899.41
Apr	718.98	0.00	1,484.73	3,738.41	8.24	0.03	0.05	108.28	3.70	1,131.85	4,970.90	12,165.21
May	539.55	1.74	1,526.55	3,884.36	6.78	0.03	0.01	147.44	2.26	1,149.93	5,523.26	12,781.95
Jun	367.89	7.27	1,596.28	3,511.53	1.16	0.09	0.02	182.69	1.49	1,210.22	5,793.66	12,672.35
Jul	368.54	1.86	1,619.79	3,501.53	1.94	0.13	0.01	236.85	2.24	1,163.26	5,907.05	12,803.25
Aug	584.43	149.59	1,465.13	3,282.64	0.43	0.14	0.31	275.08	1.87	1,114.68	6,283.35	13,157.69
Sep	391.91	3.42	1,414.31	3,542.13	2.91	0.14	0.30	205.87	1.04	1,148.99	6,039.65	12,750.71
Oct	476.09	181.21	1,447.91	3,713.20	1.80	0.15	0.14	273.76	1.68	1,161.96	5,854.99	13,112.93
Nov	516.94	30.56	1,423.55	3,633.83	2.79	0.16	0.45	336.00	1.12	1,155.70	5,171.54	12,272.68
Dec	732.77	39.28	1,526.71	3,715.89	3.82	0.17	0.34	277.76	1.21	1,207.95	4,732.41	12,238.36
YTD	6,965.73	448.23	17,922.09	41,761.01	45.07	1.40	1.86	2,451.41	24.03	13,896.54	64,840.70	148,358.11

2010												
Month	Hydro	Fuel Oil	Lignite	Natural Gas	Diesel	Geo Thermal	Non Conventional	Imported	DEDP	SPP	IPP	Total
Jan	618.82	15.71	1,516.20	3,426.01	2.71	0.15	0.36	164.14	1.52	1,263.47	5,554.42	12,563.56
Feb	638.58	3.70	1,326.95	3,680.29	4.43	0.10	0.33	143.12	1.72	1,095.52	5,702.45	12,597.24
Mar	769.18	155.17	1,562.91	4,697.21	5.05	0.13	0.45	568.33	3.83	1,267.29	5,466.86	14,496.44
Apr	512.75	16.63	1,585.88	3,996.71	3.16	0.09	0.48	741.42	3.70	1,170.34	5,876.20	13,907.42
May	520.91	51.70	1,658.24	4,330.16	2.78	0.09	0.45	791.99	1.53	1,153.95	6,360.42	14,872.26
Jun	415.50	23.04	1,434.94	4,201.51	2.56	0.14	0.40	789.05	1.48	1,090.41	6,275.37	14,234.45
Jul	334.90	168.90	1,436.77	4,039.46	7.68	0.12	0.50	801.08	2.30	1,050.59	6,372.14	14,214.47
Aug	340.78	53.78	1,525.45	4,345.63	1.78	0.13	0.55	768.50	3.03	1,152.60	5,549.60	13,741.87
Sep	245.45	39.39	1,363.66	4,424.80	2.73	0.13	0.34	780.24	2.15	1,092.89	5,691.64	13,643.46
Oct	170.85	7.28	1,508.24	4,665.88	2.39	0.17	0.51	795.42	1.10	1,139.27	5,350.08	13,641.23
Nov	328.70	0.00	1,525.55	4,539.11	2.86	0.17	0.67	486.98	0.47	1,165.96	4,866.90	12,917.42
Dec	450.27	22.98	1,542.78	4,455.67	3.41	0.18	0.56	423.47	0.75	1,228.46	4,709.84	12,838.42
YTD	5,346.75	558.31	17,987.62	50,802.50	41.58	1.64	5.65	7,253.78	23.63	13,870.80	67,775.98	163,668.29

Table 5.1-1M (Cont.)
Electricity Generation by Fuel Type

Unit : GWh

2011												
Month	Hydro	Fuel Oil	Lignite	Natural Gas	Diesel	Geo Thermal	Non Conventional	Imported	DEDP	SPP	IPP	Total
Jan	576.86	28.65	1,692.66	3,986.62	1.69	0.17	0.60	412.36	1.38	1,312.23	4,590.69	12,603.96
Feb	651.58	31.05	1,493.69	4,219.53	1.53	0.07	0.28	638.01	1.73	1,104.25	4,416.78	12,558.54
Mar	583.67	0.00	1,579.02	4,176.08	1.73	0.18	0.56	789.54	3.45	1,333.72	5,391.25	13,859.23
Apr	470.47	106.12	1,623.15	3,543.82	2.05	0.14	0.29	1,019.11	3.35	1,258.04	5,317.57	13,344.14
May	374.06	100.82	1,710.82	4,226.58	1.00	0.14	0.31	1,075.41	1.15	1,291.47	5,838.57	14,620.37
Jun	394.08	229.14	1,616.95	3,793.61	6.52	0.74	0.11	1,072.21	1.07	1,212.03	5,914.47	14,240.98
Jul	392.17	282.16	1,703.10	3,628.22	5.90	0.10	0.80	1,315.34	1.15	1,311.07	5,788.59	14,428.63
Aug	901.68	127.71	1,550.25	3,874.16	3.16	0.15	0.73	792.65	3.25	1,257.46	5,963.61	14,474.84
Sep	999.19	268.72	1,505.42	3,722.90	1.95	0.10	0.58	1,120.57	8.56	1,193.47	5,287.86	14,109.36
Oct	1,137.35	63.91	1,532.09	3,407.48	3.10	0.00	0.51	1,164.63	8.56	1,212.44	4,877.19	13,407.29
Nov	631.55	38.41	1,346.62	3,695.20	1.26	0.00	0.54	909.58	0.00	1,227.58	4,600.85	12,451.62
Dec	822.20	18.17	1,481.80	3,589.17	6.04	0.00	0.86	464.95	0.00	1,222.39	4,638.50	12,244.12
YTD	**7,934.92**	**1,294.89**	**18,835.62**	**45,863.41**	**35.97**	**1.82**	**6.21**	**10,774.40**	**33.68**	**14,936.19**	**62,625.96**	**162,343.13**

2012												
Month	Hydro	Fuel Oil	Lignite	Natural Gas	Diesel	Geo Thermal	Non Conventional	Imported	DEDP	SPP	IPP	Total
Jan	1,138.30	15.95	1,599.58	3,764.88	1.37	0.00	0.40	484.49	0.00	1,227.94	5,083.86	13,316.80
Feb	1,252.15	64.53	1,473.98	3,885.41	2.89	0.03	0.23	799.21	0.00	1,098.63	5,301.26	13,878.37
Mar	1,073.26	11.40	1,608.57	4,556.92	6.89	0.14	0.27	1,163.70	0.00	1,274.38	5,875.32	15,570.89
Apr	849.04	387.23	1,665.71	3,996.35	2.85	0.10	0.30	1,135.50	0.00	1,221.19	5,457.06	14,715.37
May	745.83	389.27	1,693.85	4,392.06	5.75	0.10	0.24	1,076.04	0.00	1,257.95	6,191.66	15,752.78
Jun	481.09	115.72	1,608.60	4,565.55	2.90	0.10	0.16	937.37	0.00	1,172.13	6,006.80	14,890.47
Jul	440.31	58.35	1,495.18	4,716.60	8.10	0.11	0.16	946.70	0.00	1,193.24	6,279.11	15,137.89
Aug	448.99	110.65	1,701.82	4,216.05	4.49	0.08	0.14	1,114.62	0.00	1,288.72	6,110.54	14,996.14
Sep	401.05	36.08	1,445.58	4,428.89	14.16	0.02	0.17	1,140.61	0.00	1,275.84	5,766.56	14,509.00
Oct	410.56	82.62	1,457.30	4,578.32	4.11	0.11	0.21	797.10	0.00	1,339.17	6,465.89	15,135.43
Nov	597.35	28.13	1,560.39	4,800.22	5.13	0.01	0.24	519.15	0.00	1,313.71	5,998.70	14,823.06
Dec	593.23	0.00	1,491.41	4,667.48	4.07	0.02	0.30	412.88	0.00	1,471.25	5,606.22	14,246.90
YTD	**8,431.21**	**1,299.95**	**18,802.01**	**52,568.77**	**62.76**	**0.86**	**2.87**	**10,527.42**	**0.00**	**15,134.22**	**70,143.03**	**176,973.14**

Table 5.1-1M (Cont.)
Electricity Generation by Fuel Type

Unit : GWh

2013												
Month	Hydro	Fuel Oil	Lignite	Natural Gas	Diesel	Geo Thermal	Non Conventional	Imported	DEDP	SPP	IPP	Total
Jan	597.77	128.45	1,708.80	4,309.01	4.15	0.12	0.30	362.23	0.00	1,518.22	5,338.99	13,968.07
Feb	594.82	101.96	1,529.00	4,811.85	2.77	0.09	0.27	555.79	0.00	1,359.95	5,251.26	14,207.81
Mar	549.10	62.71	1,506.01	4,956.10	7.38	0.09	0.30	818.23	0.00	1,805.79	6,348.51	16,054.26
Apr	543.04	227.45	1,662.79	4,022.07	40.43	0.00	0.29	1,140.09	0.00	1,808.83	5,549.36	14,994.40
May	573.96	21.82	1,754.14	4,694.95	61.73	0.06	0.37	1,310.00	0.00	1,921.75	6,064.33	16,403.16
Jun	431.89	127.49	1,673.95	4,601.28	16.24	0.11	0.47	1,268.21	0.00	1,855.10	5,100.91	15,075.69
Jul	322.84	136.06	1,564.10	4,337.16	8.67	0.13	0.53	1,297.32	0.00	2,011.00	5,378.11	15,055.97
Aug	355.45	132.23	1,649.18	3,726.84	8.52	0.08	0.36	1,515.47	0.00	2,079.81	5,692.56	15,160.57
Sep	360.40	86.69	1,447.16	3,663.99	9.85	0.09	0.27	1,596.69	0.00	1,974.41	5,520.96	14,660.56
Oct	367.39	108.68	1,595.54	3,568.09	7.32	0.12	0.30	1,341.59	0.00	1,987.10	5,790.11	14,766.29
Nov	295.64	12.03	1,432.64	3,851.22	5.11	0.14	0.46	1,044.40	0.00	2,097.52	5,585.94	14,325.14
Dec	419.73	92.83	1,574.59	3,659.49	6.91	0.18	0.38	321.70	0.00	2,183.17	4,467.51	12,726.53
YTD	**5,412.08**	**1,238.44**	**19,097.97**	**50,202.11**	**179.13**	**1.25**	**4.36**	**12,571.79**	**0.00**	**22,602.70**	**66,088.61**	**177,398.48**

Source : EGAT

Remark : Since November 2011, DEDP has been counted into SPP.

Table 5.1-2M
Electricity Generation Classified by Fuel Type

Unit : GWh

2009								
Month	Hydro Electricity	Fuel Oil	Coal & Lignite	Natural Gas	Diesel	Imported	Others	Total
Jan	742.81	33.27	2,688.47	6,572.14	1.25	171.11	200.31	10,409.34
Feb	715.35	0.00	2,280.61	7,680.24	1.01	106.10	310.86	11,094.19
Mar	810.44	0.00	2,584.96	9,168.36	12.91	130.43	192.34	12,899.41
Apr	718.98	0.00	2,579.32	8,579.84	8.24	108.28	170.55	12,165.21
May	539.56	1.74	2,623.54	9,283.32	6.78	147.45	179.60	12,781.96
Jun	367.90	7.28	2,664.16	9,273.53	1.17	182.69	175.60	12,672.36
Jul	368.54	1.86	2,734.54	9,262.09	1.94	236.85	197.46	12,803.26
Aug	584.44	149.60	2,547.79	9,417.85	0.43	275.08	182.49	13,157.69
Sep	391.91	3.42	2,485.55	9,486.16	2.92	205.88	174.90	12,750.72
Oct	476.09	181.21	2,281.20	9,738.35	1.80	273.76	160.52	13,112.93
Nov	516.95	30.56	2,143.09	9,086.13	2.80	336.01	157.18	12,272.69
Dec	732.77	39.29	2,194.85	8,795.38	3.83	277.76	194.48	12,238.37
Total	**6,965.74**	**448.23**	**29,808.07**	**106,343.39**	**45.07**	**2,451.41**	**2,296.32**	**148,358.11**

2010								
Month	Hydro Electricity	Fuel Oil	Coal & Lignite	Natural Gas	Diesel	Imported	Others	Total
Jan	618.82	15.71	2,648.72	8,883.91	2.71	164.14	229.56	12,563.56
Feb	638.59	3.71	2,335.24	9,265.16	4.43	143.13	207.04	12,597.25
Mar	769.18	155.18	2,724.34	10,044.72	5.05	568.33	229.64	14,496.45
Apr	512.76	16.63	2,671.77	9,750.91	3.17	741.43	210.78	13,907.42
May	520.92	51.71	2,731.55	10,583.45	2.79	791.99	189.85	14,872.27
Jun	415.51	23.04	2,490.85	10,327.33	2.56	789.05	186.11	14,234.45
Jul	334.90	168.90	2,488.47	10,238.29	7.69	801.08	175.20	14,214.47
Aug	340.79	53.78	2,647.27	9,761.26	1.78	768.50	168.51	13,741.88
Sep	245.46	39.39	2,408.76	10,006.30	2.73	780.25	160.59	13,643.47
Oct	170.85	7.28	2,353.65	10,142.03	2.39	795.42	169.62	13,641.23
Nov	328.71	0.00	2,256.93	9,694.45	2.87	486.99	147.48	12,917.43
Dec	450.28	22.98	2,006.50	9,740.43	3.42	423.47	191.36	12,838.43
Total	**5,346.75**	**558.31**	**29,764.05**	**118,438.21**	**41.59**	**7,253.78**	**2,265.77**	**163,668.30**

Table 5.1-2M (Cont.)
Electricity Generation Classified by Fuel Type

Unit : GWh

2011								
Month	Hydro Electricity	Fuel Oil	Coal & Lignite	Natural Gas	Diesel	Imported	Others	Total
Jan	576.87	28.66	2,799.69	8,566.41	1.70	412.37	218.31	12,603.96
Feb	651.59	31.05	2,484.71	8,573.87	1.54	638.01	177.80	12,558.54
Mar	583.68	0.00	2,710.58	9,552.37	1.73	789.54	221.32	13,859.24
Apr	470.47	106.12	2,713.98	8,822.74	2.05	1,019.12	209.63	13,344.14
May	374.06	100.82	2,856.24	10,019.06	1.01	1,075.41	193.72	14,620.38
Jun	394.09	229.15	2,700.64	9,653.17	6.52	1,072.22	185.20	14,240.99
Jul	392.17	282.16	2,891.15	9,335.44	5.90	1,315.34	206.48	14,428.63
Aug	901.68	127.71	2,671.71	9,777.91	3.16	792.65	199.98	14,474.85
Sep	999.19	268.72	2,637.18	8,921.36	1.96	1,120.57	160.38	14,109.36
Oct	1,137.35	63.91	2,689.58	8,210.14	3.11	1,164.63	138.59	13,407.30
Nov	631.56	38.41	2,233.08	8,447.82	1.26	909.59	189.92	12,451.63
Dec	822.21	18.17	2,323.21	8,381.10	6.04	464.96	228.46	12,244.13
Total	**7,934.92**	**1,294.89**	**31,711.74**	**108,261.39**	**35.98**	**10,774.41**	**2,329.81**	**162,343.14**

2012								
Month	Hydro Electricity	Fuel Oil	Coal & Lignite	Natural Gas	Diesel	Imported	Others	Total
Jan	1,138.31	15.95	2,864.72	8,580.04	1.37	484.49	231.90	13,316.80
Feb	1,252.16	64.54	2,576.73	8,976.24	2.90	799.21	206.60	13,878.38
Mar	1,073.26	11.40	2,942.00	10,132.79	6.89	1,163.71	240.86	15,570.89
Apr	849.05	387.23	3,150.96	8,968.92	2.86	1,135.51	220.86	14,715.38
May	745.83	389.27	3,039.91	10,252.72	5.75	1,076.04	243.25	15,752.78
Jun	481.10	115.72	2,827.82	10,331.09	2.91	937.38	194.46	14,890.47
Jul	440.31	58.35	2,733.74	10,724.13	8.11	946.70	226.59	15,137.90
Aug	449.00	110.66	3,011.77	10,077.24	4.49	1,114.62	228.40	14,996.14
Sep	401.05	36.09	2,964.79	9,734.93	14.17	1,140.62	217.33	14,509.00
Oct	410.57	82.62	3,034.94	10,582.48	4.12	797.11	223.66	15,135.44
Nov	597.36	28.13	2,753.39	10,723.22	5.13	519.16	196.64	14,823.06
Dec	593.23	0.00	2,681.86	10,284.69	4.07	412.89	270.17	14,246.90
Total	**8,431.22**	**1,299.96**	**34,582.62**	**119,368.49**	**62.76**	**10,527.43**	**2,700.75**	**176,973.14**

Table 5.1-2M (Cont.)
Electricity Generation Classified by Fuel Type

Unit : GWh

2013								
Month	Hydro Electricity	Fuel Oil	Coal & Lignite	Natural Gas	Diesel	Imported	Others	Total
Jan	597.78	128.45	3,239.64	9,339.44	4.16	362.23	296.36	13,968.08
Feb	594.83	101.97	2,854.89	9,825.96	2.77	555.80	271.59	14,207.82
Mar	549.10	62.71	3,075.10	11,240.82	7.38	818.24	300.94	16,054.26
Apr	543.05	227.46	3,174.74	9,571.37	40.44	1,140.10	297.24	14,994.40
May	573.96	21.82	3,191.25	10,942.81	61.74	1,310.01	301.58	16,403.16
Jun	431.90	127.49	2,696.42	10,263.78	16.24	1,268.21	271.66	15,075.69
Jul	322.85	136.07	3,020.87	9,983.53	8.68	1,297.32	286.67	15,055.98
Aug	355.46	132.24	3,071.26	9,781.46	8.53	1,515.48	296.16	15,160.57
Sep	360.41	86.69	2,936.53	9,467.41	9.85	1,596.69	202.98	14,660.56
Oct	367.39	108.68	2,767.67	9,893.85	7.32	1,341.60	279.80	14,766.29
Nov	295.64	12.03	2,640.17	10,065.86	5.12	1,044.41	261.93	14,325.15
Dec	419.73	92.84	2,683.71	8,841.62	6.91	321.70	360.03	12,726.53
Total	**5,412.08**	**1,238.45**	**35,352.24**	**119,217.89**	**179.14**	**12,571.79**	**3,426.97**	**177,398.48**

Source : EGAT

Table 5.1-3M
Peak Generation Requirement, Energy Generation Requirement and Load Factor

Month	Peak Generation Requirement		Gross Energy Generation Requirement (GWh)	Load Factor[3/] (%)
	Net Peak[1/] (MW)	Gross Peak[2/] (MW)		
2009				
Jan	18,603	19,082	10,409	73.3
Feb	20,754	21,301	11,094	77.5
Mar	21,318	21,851	12,899	79.3
Apr	22,045	22,596	12,165	74.8
May	20,828	21,366	12,782	80.4
Jun	20,845	21,361	12,672	82.4
Jul	20,506	21,141	12,812	81.5
Aug	21,258	21,766	13,158	81.2
Sep	20,957	21,444	12,752	82.6
Oct	21,020	21,585	13,113	81.7
Nov	21,804	22,380	12,277.	76.2
Dec	20,886	21,505	12,238	76.5
Total	**22,045**	**22,596**	**148,372**	**75.0**
2010				
Jan	20,970	21,510	12,564	78.5
Feb	21,872	22,449	12,597	83.5
Mar	23,304	23,886	14,496	81.6
Apr	23,898	24,495	13,907	78.9
May	24,010	24,630	14,872	81.2
Jun	23,237	23,813	14,234	83.0
Jul	22,866	23,574	14,214	81.0
Aug	21,893	22,417	13,742	82.4
Sep	22,215	22,731	13,635	83.3
Oct	21,774	22,360	13,641	82.0
Nov	22,295	22,884	12,917	78.4
Dec	22,302	22,964	12,838	75.1
Total	**24,010**	**24,630**	**163,660**	**75.9**
2011				
Jan	21,288	21,837	12,604	77.6
Feb	22,207	22,792	12,559	82.0
Mar	23,156	23,735	13,859	78.5
Apr	23,322	23,905	13,344	77.5
May	23,900	24,518	14,620	80.2
Jun	23,029	23,600	14,241	83.8
Jul	23,351	24,075	14,429	80.6
Aug	23,443	24,003	14,475	81.1
Sep	22,809	23,338	14,109	84.0
Oct	22,062	22,622	13,407	79.7
Nov	20,955	21,508	12,452	80.4
Dec	21,105	21,731	12,244	75.7
Total	**23,900**	**24,518**	**162,343**	**75.6**

Table 5.1-3M (Cont.)
Peak Generation Requirement, Energy Generation Requirement and Load Factor

Month	Peak Generation Requirement		Gross Energy Generation Requirement (GWh)	Load Factor[3/] (%)
	Net Peak[1/] (MW)	Gross Peak[2/] (MW)		
2012				
Jan	22,251	22,824	13,317	78.4
Feb	23,554	24,175	13,878	82.5
Mar	24,572	25,185	15,571	83.1
Apr	26,121	26,774	14,715	76.3
May	25,207	25,859	15,753	81.9
Jun	23,927	24,520	14,890	84.3
Jul	23,933	24,674	15,138	82.5
Aug	24,156	24,733	14,996	81.5
Sep	24,009	24,567	14,509	82.0
Oct	24,131	24,780	15,135	82.1
Nov	24,658	25,309	14,823	81.3
Dec	24,074	24,788	14,247	77.3
Total	**26,121**	**26,774**	**176,973**	**75.2**
2013				
Jan	23,391	23,993	13,968	78.2
Feb	24,589	25,238	13,760	78.2
Mar	26,423	27,083	16,054	79.7
Apr	26,325	26,982	14,994	77.2
May	26,598	27,285	16,403	80.8
Jun	25,038	25,659	15,076	81.6
Jul	24,568	25,329	15,056	79.9
Aug	23,942	24,514	15,161	83.1
Sep	24,364	24,929	14,661	81.7
Oct	23,742	24,380	14,766	81.4
Nov	24,251	24,892	14,433	80.5
Dec	22,905	23,585	12,727	72.5
Total	**26,598**	**27,285**	**177,059**	**74.1**

Source : EGAT

Remarks : 1/ Net Peak Generation Requirement on EGAT system excluding station service

2/ Gross Peak Generation Requirement estimated by EPPO since 2009 (estimated from Net Peak Generation Requirement and EGAT station service)

3/ Load Factor estimated from Gross Peak Generation Requirement and Gross Energy Generation Requirement

Table 5.1-4M
EGAT Purchased from SPP

Unit : GWh

2009					
Month	Natural Gas (NG)	Coal	Oil	Renewable Energy	Total
Jan	825.10	151.87	2.94	195.73	1,175.63
Feb	607.01	112.93	2.76	305.86	1,028.56
Mar	892.67	166.77	2.54	185.79	1,247.77
Apr	771.00	194.11	2.49	164.26	1,131.86
May	826.78	145.86	2.41	174.89	1,149.94
Jun	865.88	170.37	2.38	171.61	1,210.23
Jul	803.60	164.62	2.69	192.36	1,163.26
Aug	817.73	116.78	2.87	177.29	1,114.68
Sep	828.99	146.60	2.39	171.03	1,149.00
Oct	850.30	153.13	2.46	156.07	1,161.96
Nov	834.94	165.34	2.40	153.03	1,155.70
Dec	835.74	179.48	2.26	190.48	1,207.96
YTD	9,759.71	1,867.85	30.58	2,238.41	13,896.54

2010					
Month	Natural Gas (NG)	Coal	Oil	Renewable Energy	Total
Jan	864.73	171.26	2.60	224.90	1,263.48
Feb	752.60	138.07	1.79	203.07	1,095.52
Mar	857.66	184.42	0.01	225.21	1,267.29
Apr	809.44	154.44	2.38	204.09	1,170.35
May	811.28	154.89	1.84	185.95	1,153.96
Jun	783.22	123.10	0.18	183.93	1,090.42
Jul	782.20	96.13	1.12	171.14	1,050.59
Aug	830.06	157.76	2.28	162.50	1,152.60
Sep	825.01	109.92	0.20	157.78	1,092.89
Oct	843.80	127.64	2.47	165.36	1,139.27
Nov	847.78	172.02	1.93	144.24	1,165.97
Dec	887.67	150.96	2.28	187.56	1,228.46
YTD	9,895.45	1,740.59	19.06	2,215.71	13,870.81

2011					
Month	Natural Gas (NG)	Coal	Oil	Renewable Energy	Total
Jan	904.13	191.94	1.02	215.15	1,312.23
Feb	816.10	112.42	0.00	175.74	1,104.25
Mar	947.54	169.04	0.43	216.71	1,333.72
Apr	875.16	177.02	1.31	204.54	1,258.04
May	913.14	186.23	0.86	191.25	1,291.48
Jun	901.12	127.64	2.54	180.74	1,212.04
Jul	912.00	194.66	2.57	201.86	1,311.08
Aug	898.30	163.33	2.57	193.27	1,257.46
Sep	874.20	168.15	2.39	148.73	1,193.47
Oct	881.45	201.47	2.42	127.10	1,212.45
Nov	821.13	217.07	2.56	186.83	1,227.59
Dec	832.20	162.62	2.02	225.56	1,222.39
YTD	10,576.45	2,071.59	20.69	2,267.47	14,936.20

Table 5.1-4M (Cont.)
EGAT Purchased from SPP

Unit : GWh

2012					
Month	Natural Gas (NG)	Coal	Oil	Renewable Energy	Total
Jan	822.90	173.56	1.60	229.89	1,227.95
Feb	789.79	102.51	2.73	203.61	1,098.64
Mar	850.43	183.53	2.92	237.51	1,274.39
Apr	784.60	216.16	2.30	218.13	1,221.19
May	801.09	213.94	2.87	240.05	1,257.95
Jun	825.66	152.27	2.19	192.01	1,172.14
Jul	846.98	119.95	2.57	223.74	1,193.25
Aug	875.61	184.93	2.35	225.83	1,288.73
Sep	880.55	178.15	1.90	215.24	1,275.85
Oct	914.05	201.83	2.60	220.71	1,339.18
Nov	963.69	153.65	2.90	193.48	1,313.72
Dec	1,007.04	194.38	3.04	266.80	1,471.26
YTD	**10,362.38**	**2,074.86**	**29.97**	**2,667.02**	**15,134.22**

2013					
Month	Natural Gas (NG)	Coal	Oil	Renewable Energy	Total
Jan	1,047.02	175.27	3.02	292.92	1,518.23
Feb	981.51	107.21	2.73	268.49	1,359.95
Mar	1,324.02	181.24	2.82	297.71	1,805.80
Apr	1,334.90	176.96	2.93	294.05	1,808.83
May	1,430.00	190.62	2.96	298.18	1,921.75
Jun	1,400.88	183.16	2.82	268.25	1,855.11
Jul	1,544.70	180.29	2.61	283.40	2,011.00
Aug	1,595.49	188.61	2.97	292.75	2,079.82
Sep	1,595.90	175.91	2.71	199.90	1,974.42
Oct	1,624.99	82.74	1.52	277.86	1,987.11
Nov	1,690.04	146.19	0.99	260.31	2,097.53
Dec	1,667.22	156.51	0.00	359.44	2,183.18
YTD	**17,236.67**	**1,944.71**	**28.08**	**3,393.25**	**22,602.71**

Source : EGAT

Compiled by : Energy Policy and Planning Office (EPPO)

Table 5.1-5M
EGAT Purchased from IPP

Unit : GWh

2009			
Month	Natural Gas (NG)	Coal	Total
Jan	3,124.89	896.07	4,020.96
Feb	4,240.18	858.71	5,098.89
Mar	4,493.39	950.61	5,444.00
Apr	4,070.42	900.48	4,970.90
May	4,572.15	951.12	5,523.27
Jun	4,896.15	897.52	5,793.66
Jul	4,956.94	950.12	5,907.06
Aug	5,317.50	965.86	6,283.36
Sep	5,115.03	924.63	6,039.66
Oct	5,174.85	680.14	5,854.99
Nov	4,617.35	554.19	5,171.54
Dec	4,243.75	488.67	4,732.42
YTD	**54,822.58**	**10,018.13**	**64,840.71**

2010			
Month	Natural Gas (NG)	Coal	Total
Jan	4,593.17	961.25	5,554.42
Feb	4,832.24	870.22	5,702.46
Mar	4,489.85	977.01	5,466.86
Apr	4,944.75	931.45	5,876.21
May	5,442.01	918.41	6,360.43
Jun	5,342.58	932.80	6,275.38
Jul	5,416.59	955.56	6,372.14
Aug	4,585.56	964.04	5,549.61
Sep	4,756.48	935.16	5,691.64
Oct	4,632.33	717.76	5,350.09
Nov	4,307.55	559.35	4,866.91
Dec	4,397.09	312.76	4,709.85
YTD	**57,740.20**	**10,035.79**	**67,775.99**

2011			
Month	Natural Gas (NG)	Coal	Total
Jan	3,675.62	915.08	4,590.69
Feb	3,538.19	878.59	4,416.78
Mar	4,428.74	962.51	5,391.26
Apr	4,403.76	913.82	5,317.58
May	4,879.39	959.19	5,838.58
Jun	4,958.44	956.04	5,914.48
Jul	4,795.21	993.38	5,788.59
Aug	5,005.48	958.13	5,963.61
Sep	4,324.25	963.61	5,287.86
Oct	3,921.17	956.02	4,877.19
Nov	3,931.49	669.36	4,600.85
Dec	3,959.72	678.79	4,638.50
YTD	**51,821.45**	**10,804.51**	**62,625.97**

Table 5.1-5M (Cont.)
EGAT Purchased from IPP

Unit : GWh

2012			
Month	Natural Gas (NG)	Coal	Total
Jan	3,992.28	1,091.58	5,083.86
Feb	4,301.03	1,000.24	5,301.27
Mar	4,725.42	1,149.90	5,875.32
Apr	4,187.98	1,269.08	5,457.06
May	5,059.57	1,132.09	6,191.67
Jun	4,939.86	1,066.95	6,006.80
Jul	5,160.52	1,118.60	6,279.12
Aug	4,985.55	1,125.00	6,110.55
Sep	4,425.50	1,341.06	5,766.57
Oct	5,090.08	1,375.81	6,465.89
Nov	4,959.33	1,039.37	5,998.70
Dec	4,610.17	996.06	5,606.23
YTD	**56,437.30**	**13,705.74**	**70,143.04**

2013			
Month	Natural Gas (NG)	Coal	Total
Jan	3,983.42	1,355.57	5,338.99
Feb	4,032.61	1,218.66	5,251.27
Mar	4,960.68	1,387.84	6,348.52
Apr	4,214.38	1,334.98	5,549.36
May	4,817.85	1,246.49	6,064.33
Jun	4,261.62	839.29	5,100.91
Jul	4,101.65	1,276.46	5,378.12
Aug	4,459.10	1,233.47	5,692.57
Sep	4,207.52	1,313.45	5,520.97
Oct	4,700.74	1,089.37	5,790.11
Nov	4,524.61	1,061.34	5,585.95
Dec	3,514.93	952.59	4,467.52
YTD	**51,779.12**	**14,309.51**	**66,088.62**

Source : EGAT

Compiled by : Energy Policy and Planning Office (EPPO)

Table 5.2-1M
Electricity Consumption in MEA Service Areas (Classified by Tariff)

Unit : GWh

Month	Residential			Small General Service	Medium General Service	Large General Service	Specific Business	Government and Non-Profit	Agriculture Pumping	Temporary	Stand By Rate	Interruptible Rate	Free of Charge	Total
	< 150 kWh	> 150 kWh	Total											
2009														
Jan	27.15	555.09	595.56	427.39	528.53	1,049.35	125.85	81.93	0.00	0.00	0.00	0.00	20.51	2,829.12
Feb	36.88	706.22	759.95	505.98	586.21	1,098.76	138.58	98.38	0.00	0.00	0.00	0.00	18.91	3,206.77
Mar	44.54	816.57	877.06	569.92	671.74	1,238.38	162.63	111.58	0.00	0.00	0.00	0.00	21.37	3,652.68
Apr	47.22	851.24	920.31	544.84	587.89	1,106.23	151.46	94.50	0.00	0.00	0.00	0.00	21.81	3,427.04
May	41.43	816.05	878.82	556.50	657.24	1,234.67	154.70	109.12	0.00	0.00	0.00	0.00	22.27	3,613.31
Jun	34.89	798.27	849.78	549.11	663.21	1,245.42	151.88	116.47	0.00	0.00	0.00	0.00	22.00	3,597.87
Jul	32.97	779.64	834.35	541.43	674.88	1,273.30	153.58	115.76	0.00	0.00	0.00	0.00	23.21	3,616.52
Aug	34.07	824.89	877.83	561.05	677.67	1,296.83	160.97	117.81	0.00	0.00	0.00	0.00	23.69	3,715.85
Sep	33.76	813.30	866.66	554.51	663.66	1,255.85	151.46	116.93	0.00	0.00	0.00	0.00	23.40	3,632.47
Oct	32.83	762.08	812.69	535.06	668.56	1,318.33	155.18	120.31	0.00	0.00	0.00	0.00	24.69	3,634.82
Nov	31.25	737.57	784.09	519.36	642.83	1,245.18	140.58	106.61	0.00	0.00	0.00	0.00	24.39	3,463.03
Dec	29.40	675.68	722.16	514.50	596.89	1,242.76	142.94	98.85	0.00	0.00	0.00	0.00	25.73	3,343.82
YTD	**426.38**	**9,136.60**	**9,779.26**	**6,379.67**	**7,619.31**	**14,605.04**	**1,789.81**	**1,288.25**	**0.00**	**0.00**	**0.00**	**0.00**	**271.96**	**41,733.30**
2010														
Jan	32.10	725.69	776.32	523.86	609.93	1,272.82	147.22	104.82	0.00	0.00	0.00	0.00	26.23	3,461.18
Feb	35.17	783.12	836.16	559.48	603.95	1,271.27	145.57	108.85	0.00	0.00	0.00	0.00	23.73	3,549.02
Mar	39.28	865.74	925.56	585.78	678.58	1,432.43	164.48	110.19	0.00	0.00	0.00	0.00	26.32	3,923.33
Apr	43.53	960.17	1,026.50	598.13	615.76	1,260.79	156.04	105.70	0.00	0.00	0.00	0.00	26.37	3,789.30
May	44.27	1,015.32	1,082.18	624.80	658.62	1,368.39	150.06	107.04	0.00	0.00	0.00	0.00	26.38	4,017.47
Jun	37.92	942.92	1,003.40	613.49	680.63	1,418.06	152.60	127.41	0.00	0.00	0.00	0.00	25.56	4,021.16
Jul	32.65	879.08	930.91	592.56	668.85	1,443.33	159.40	125.18	0.00	0.00	0.00	0.00	26.47	3,946.69
Aug	30.25	827.78	876.83	569.51	644.83	1,403.22	149.56	124.77	0.00	0.00	0.00	0.00	26.54	3,795.27
Sep	30.47	824.46	873.47	574.41	656.37	1,411.03	148.84	123.86	0.00	0.00	0.00	0.00	25.73	3,813.71
Oct	30.44	773.87	820.60	550.39	636.84	1,393.15	145.94	110.04	0.00	0.00	0.00	0.00	26.70	3,683.66
Nov	30.01	742.14	787.33	532.06	617.34	1,351.20	138.39	102.75	0.00	0.00	0.00	0.00	25.88	3,554.94
Dec	30.26	729.33	776.67	534.71	614.24	1,300.25	144.48	107.29	0.00	0.00	0.00	0.00	26.80	3,504.43
YTD	**416.35**	**10,069.61**	**10,715.93**	**6,859.18**	**7,685.95**	**16,325.93**	**1,802.57**	**1,357.89**	**0.00**	**0.00**	**0.00**	**0.00**	**312.71**	**45,060.16**

Table 5.2-1M (Cont.)
Electricity Consumption in MEA Service Areas (Classified by Tariff)

Unit : GWh

Month	Residential			Small General Service	Medium General Service	Large General Service	Specific Business	Government and Non-Profit	Agriculture Pumping	Temporary	Stand By Rate	Interruptible Rate	Free of Charge	Total
	< 150 kWh	> 150 kWh	Total											
2011														
Jan	29.71	663.93	707.16	498.90	583.64	1,309.63	132.00	92.43	0.00	0.00	0.00	0.00	26.89	3,350.67
Feb	33.96	737.31	787.29	530.59	588.33	1,287.57	135.96	96.08	0.00	0.00	0.00	0.00	24.33	3,450.16
Mar	36.46	753.44	806.64	538.21	662.42	1,442.64	144.34	102.51	0.00	0.00	0.00	0.00	34.18	3,730.94
Apr	40.42	806.94	864.57	537.41	581.44	1,286.64	144.54	89.44	0.00	0.00	0.00	0.00	28.50	3,532.55
May	43.30	906.08	968.86	604.87	666.01	1,439.54	159.02	111.92	0.00	0.00	0.00	0.00	29.51	3,979.73
Jun	40.20	874.62	933.59	603.06	675.93	1,455.54	155.18	124.64	0.00	0.00	0.00	0.00	28.93	3,976.87
Jul	36.80	857.37	912.80	588.44	667.96	1,446.47	154.97	120.96	0.00	0.02	0.00	0.00	29.76	3,921.37
Aug	34.71	850.28	902.59	588.27	663.96	1,436.96	157.18	122.02	0.00	1.68	0.00	0.00	29.75	3,902.41
Sep	34.00	834.69	886.08	579.71	672.01	1,478.78	154.98	118.62	0.00	6.88	0.00	0.00	26.28	3,923.33
Oct	32.53	782.30	832.37	556.17	609.59	1,370.48	154.38	111.21	0.00	9.30	0.00	0.00	29.80	3,673.29
Nov	32.23	770.58	819.79	530.21	550.44	1,246.33	150.63	107.93	0.00	10.88	0.00	0.00	29.23	3,445.43
Dec	28.16	661.06	703.06	488.58	572.82	1,268.36	136.52	95.48	0.00	13.34	0.00	0.00	29.84	3,308.00
YTD	**422.47**	**9,498.61**	**10,124.80**	**6,644.43**	**7,494.56**	**16,468.94**	**1,779.70**	**1,293.24**	**0.00**	**42.08**	**0.00**	**0.00**	**346.99**	**44,194.74**
2012														
Jan	35.18	760.94	811.41	535.07	605.30	1,365.00	150.45	97.64	0.00	15.77502	0.00	0.00	29.76	3,610.40
Feb	39.69	837.25	894.11	575.33	642.64	1,408.48	155.80	112.33	0.00	15.105825	0.00	0.00	27.42	3,831.23
Mar	45.22	933.49	998.37	625.01	716.83	1,581.12	178.36	122.27	0.00	19.780506	0.00	0.00	30.45	4,272.19
Apr	45.33	1,007.31	1,073.15	615.46	620.54	1,384.77	171.52	99.16	0.00	21.365139	0.00	0.00	29.27	4,015.24
May	42.72	1,037.16	1,102.28	653.03	711.92	1,557.05	178.51	120.35	0.00	23.679308	0.00	0.00	30.54	4,377.36
Jun	35.50	936.99	991.19	618.10	679.23	1,506.30	165.36	117.31	0.00	24.211218	0.00	0.00	29.63	4,131.32
Jul	32.02	891.77	940.89	595.56	677.14	1,554.80	168.12	123.06	0.00	27.31	0.00	0.00	30.62	4,117.51
Aug	30.91	876.12	924.96	590.41	660.34	1,484.46	165.52	117.24	0.00	29.37	0.00	0.00	30.49	4,002.79
Sep	30.75	851.07	898.31	579.35	652.19	1,489.73	154.28	117.34	0.00	31.04	0.00	0.00	29.66	3,951.92
Oct	32.78	878.00	928.83	607.42	726.08	1,533.47	164.27	3.55	0.00	32.23	0.00	0.00	30.67	4,026.52
Nov	32.73	892.87	942.51	621.73	742.67	1,513.02	165.51	8.56	0.00	30.04	0.00	0.00	29.72	4,053.75
Dec	31.53	845.67	892.91	593.92	697.95	1,429.64	166.68	10.30	0.00	31.77	0.00	0.00	30.60	3,853.78
YTD	**434.35**	**10,748.63**	**11,398.92**	**7,210.42**	**8,132.84**	**17,807.83**	**1,984.38**	**1,049.10**	**0.00**	**301.68**	**0.00**	**0.00**	**358.83**	**48,244.00**

Table 5.2-1M (Cont.)
Electricity Consumption in MEA Service Areas (Classified by Tariff)

Unit : GWh

Month	Residential			Small General Service	Medium General Service	Large General Service	Specific Business	Government and Non-Profit	Agriculture Pumping	Temporary	Stand By Rate	Interruptible Rate	Free of Charge	Total
	< 150 kWh	> 150 kWh	Total											
2013														
Jan	29.79	805.00	852.06	579.79	693.27	1,460.87	158.88	10.00	0.00	28.291435	0.00	0.00	30.67	3,813.82
Feb	31.82	863.20	911.83	593.43	687.05	1,383.15	157.13	8.89	0.00	29.741667	0.00	0.00	27.90	3,799.14
Mar	35.96	952.47	1,005.16	639.95	780.08	1,579.30	182.87	7.30	0.00	32.888555	0.00	0.00	31.12	4,258.65
Apr	40.47	1,042.08	1,103.35	645.74	687.29	1,397.80	176.16	7.26	0.00	30.316733	0.00	0.00	29.78	4,077.70
May	41.21	1,094.14	1,157.14	698.51	789.89	1,583.95	189.89	8.42	0.00	34.743642	0.00	0.00	31.14	4,493.68
Jun	34.14	957.37	1,010.03	647.08	750.43	1,521.48	169.20	7.96	0.00	34.447251	0.00	0.00	30.36	4,170.97
Jul	29.94	899.22	945.28	620.22	732.27	1,510.63	168.02	7.60	0.00	34.10	0.00	0.00	31.13	4,049.24
Aug	29.72	915.36	963.32	630.36	751.00	1,528.59	172.05	7.76	0.00	35.65	0.00	0.00	31.14	4,119.86
Sep	29.55	869.34	914.39	610.92	722.93	1,460.37	162.60	7.64	0.00	35.27	0.00	0.00	30.53	3,944.66
Oct	30.93	876.87	923.91	609.61	717.41	1,500.50	164.33	7.71	0.00	36.43	0.00	0.00	31.28	3,991.17
Nov	30.27	856.77	903.05	602.03	724.58	1,467.92	163.07	7.67	0.00	34.08	0.00	0.00	30.47	3,932.87
Dec	26.03	692.38	730.90	509.00	602.74	1,285.18	137.46	6.55	0.00	29.81	0.00	0.00	30.71	3,332.35
YTD	**389.84**	**10,824.21**	**11,420.40**	**7,386.65**	**8,638.93**	**17,679.74**	**2,001.67**	**94.75**	**0.00**	**395.76**	**0.00**	**0.00**	**366.23**	**47,984.12**

Source : MEA

Remark : Since October 2012, electricity consumption of Government sector has been counted into Small/Medium/Large General Service due to a restructuring of electricity-tariff category.

Table 5.2-2M
Electricity Consumption in PEA Service Areas (Classified by Tariff)

Unit : GWh

Month	Residential			Small General Service	Medium General Service	Large General Service	Specific Business	Government and Non-Profit	Agriculture Pumping	Temporary	Stand By Rate	Interruptible Rate	Free of Charge	Total
	< 150 kWh	> 150 kWh	Total											
2009														
Jan	565.98	857.77	1,423.76	559.00	1,012.74	2,645.18	185.16	217.87	38.06	52.57	7.02	136.52	137.20	6,415.08
Feb	582.13	868.02	1,450.14	572.53	1,073.55	2,696.21	197.70	241.22	44.72	56.96	12.35	134.47	125.39	6,605.24
Mar	741.10	1,071.14	1,812.24	697.72	1,252.51	3,169.72	229.80	296.80	45.88	59.31	5.92	148.03	136.79	7,854.73
Apr	759.14	1,087.27	1,846.41	688.93	1,172.86	2,861.58	230.68	253.39	33.13	55.00	24.27	144.00	130.01	7,440.26
May	757.00	1,104.30	1,861.30	705.17	1,287.67	3,242.55	218.46	281.66	20.17	57.35	3.03	153.43	132.08	7,962.87
Jun	659.89	1,081.07	1,740.96	673.76	1,232.23	3,327.83	209.67	311.00	18.99	57.40	3.85	128.82	129.38	7,833.90
Jul	663.72	1,111.74	1,775.46	685.09	1,263.37	3,392.40	219.89	296.08	24.07	55.27	9.80	129.98	132.07	7,983.46
Aug	672.80	1,150.15	1,822.95	704.73	1,311.17	3,430.48	228.57	318.80	26.00	57.67	3.96	131.21	135.60	8,171.14
Sep	657.39	1,101.44	1,758.83	688.93	1,279.43	3,384.41	213.14	351.11	16.94	55.77	7.08	124.32	89.61	7,969.59
Oct	671.01	1,117.39	1,788.40	690.54	1,288.38	3,565.09	222.62	288.76	10.16	56.67	6.23	122.97	140.57	8,180.39
Nov	612.56	1,041.81	1,654.37	661.27	1,245.02	3,350.52	210.11	279.23	12.21	54.05	5.52	126.28	139.67	7,738.24
Dec	573.93	968.47	1,542.41	634.95	1,246.36	3,292.63	223.61	252.45	27.52	52.98	4.03	145.80	142.77	7,565.51
YTD	**7,916.66**	**12,560.58**	**20,477.24**	**7,962.63**	**14,665.28**	**38,358.60**	**2,589.40**	**3,388.37**	**317.86**	**670.99**	**93.07**	**1,625.82**	**1,571.14**	**91,720.40**
2010														
Jan	624.57	1,026.87	1,651.43	665.04	1,222.39	3,392.13	236.31	266.29	43.65	55.68	4.70	145.29	147.91	7,830.84
Feb	616.07	1,012.34	1,628.41	654.38	1,216.95	3,352.76	239.13	282.31	48.48	55.05	2.39	130.20	135.89	7,745.96
Mar	738.03	1,209.03	1,947.06	761.76	1,414.30	3,806.29	267.67	306.24	55.49	63.27	4.23	142.72	144.42	8,913.45
Apr	800.67	1,307.21	2,107.89	783.30	1,333.73	3,436.32	272.36	293.57	42.42	64.02	3.06	133.67	139.74	8,610.07
May	817.98	1,404.17	2,222.15	827.12	1,450.94	3,806.40	268.27	333.12	27.34	80.89	4.01	150.84	140.92	9,311.98
Jun	702.40	1,301.50	2,003.90	765.09	1,391.45	3,670.77	239.25	348.73	27.45	75.17	3.62	142.81	136.22	8,804.45
Jul	679.60	1,296.09	1,975.69	759.76	1,402.83	3,799.91	247.79	347.09	30.43	61.61	10.53	147.38	145.65	8,928.66
Aug	649.42	1,235.31	1,884.73	726.55	1,374.60	3,786.53	242.97	316.43	11.57	59.38	6.70	136.65	144.50	8,690.60
Sep	633.15	1,195.15	1,828.31	707.14	1,367.99	3,723.77	233.82	340.64	8.52	60.04	4.63	120.52	133.62	8,529.01
Oct	663.11	1,226.26	1,889.38	731.38	1,332.42	3,890.23	239.97	305.52	9.46	62.61	7.90	133.92	152.73	8,755.54
Nov	587.22	1,062.04	1,649.26	655.85	1,276.93	3,691.60	220.43	271.30	9.62	59.19	19.69	127.60	145.47	8,126.95
Dec	607.74	1,104.63	1,712.37	689.29	1,276.79	3,643.38	239.39	280.24	20.87	64.93	10.64	130.78	153.89	8,222.58
YTD	**8,119.97**	**14,380.59**	**22,500.56**	**8,726.67**	**16,061.32**	**44,000.09**	**2,947.36**	**3,691.49**	**335.29**	**761.84**	**82.09**	**1,642.39**	**1,720.98**	**102,470.08**

Table 5.2-2M (Cont.)
Electricity Consumption in PEA Service Areas (Classified by Tariff)

Unit : GWh

Month	Residential			Small General Service	Medium General Service	Large General Service	Specific Business	Government and Non-Profit	Agriculture Pumping	Temporary	Stand By Rate	Interruptible Rate	Free of Charge	Total
	< 150 kWh	> 150 kWh	Total											
2011														
Jan	597.69	1,035.20	1,632.88	658.04	1,211.71	3,649.61	235.92	255.47	46.87	62.00	2.77	137.36	156.60	8,049.24
Feb	586.59	986.34	1,572.93	632.33	1,192.51	3,585.07	240.14	258.04	54.53	60.46	7.22	125.21	141.63	7,870.06
Mar	710.54	1,180.22	1,890.76	746.45	1,366.54	3,982.76	255.78	290.16	47.47	70.04	4.73	151.37	152.71	8,958.77
Apr	725.02	1,151.77	1,876.79	713.83	1,271.10	3,541.98	257.08	258.76	36.92	64.37	4.93	132.20	146.62	8,304.58
May	779.03	1,297.68	2,076.71	791.58	1,434.36	3,870.56	267.18	301.58	14.96	70.77	6.54	138.87	148.14	9,121.26
Jun	716.39	1,262.89	1,979.28	772.28	1,414.95	3,855.72	250.29	342.71	14.23	71.74	3.13	132.55	141.72	8,978.61
Jul	723.39	1,296.71	2,020.10	781.81	1,400.91	3,989.61	264.80	340.16	20.69	70.71	8.60	141.53	146.56	9,185.49
Aug	693.09	1,305.64	1,998.73	773.07	1,408.80	3,994.37	264.13	334.40	10.78	68.90	11.07	139.21	151.45	9,154.90
Sep	676.93	1,276.45	1,953.37	747.48	1,345.59	4,007.53	248.17	378.03	5.74	66.06	6.02	130.33	153.17	9,041.50
Oct	686.50	1,280.28	1,966.78	744.66	1,254.46	3,595.73	249.61	286.16	5.62	65.08	8.03	131.43	150.49	8,458.06
Nov	659.23	1,226.20	1,885.43	721.99	1,151.44	3,203.12	249.15	281.71	10.92	62.34	3.85	124.32	163.56	7,857.84
Dec	624.49	1,196.40	1,820.88	718.25	1,169.54	3,354.68	237.35	267.81	27.98	66.07	1.67	134.11	168.74	7,967.08
YTD	**8,178.87**	**14,495.78**	**22,674.65**	**8,801.77**	**15,621.92**	**44,630.74**	**3,019.61**	**3,594.99**	**296.71**	**798.54**	**68.57**	**1,618.49**	**1,821.40**	**102,947.38**
2012														
Jan	639.83	1,189.36	1,829.18	710.46	1,197.92	3,605.48	266.99	253.38	46.33	67.10	9.15	138.05	161.17	8,285.21
Feb	643.18	1,208.18	1,851.36	725.07	1,260.63	3,797.18	271.65	279.84	50.42	67.89	41.84	134.68	150.61	8,631.17
Mar	763.01	1,426.35	2,189.35	831.86	1,412.78	4,185.25	302.54	308.74	50.92	74.44	49.47	150.47	155.86	9,711.70
Apr	772.63	1,455.78	2,228.40	817.06	1,309.37	3,769.50	302.34	272.14	38.24	70.47	54.48	133.61	147.99	9,143.62
May	802.38	1,563.99	2,366.37	870.69	1,439.62	4,259.26	295.13	310.72	22.67	74.74	62.03	129.55	149.41	9,980.20
Jun	680.04	1,398.26	2,078.30	784.94	1,368.90	4,136.86	277.07	326.16	20.76	74.10	53.78	125.29	141.64	9,387.78
Jul	677.96	1,426.57	2,104.53	799.93	1,400.14	4,248.16	283.65	333.63	32.41	72.97	60.08	148.26	146.69	9,630.44
Aug	662.44	1,417.99	2,080.43	789.87	1,368.21	4,155.74	292.00	307.71	32.86	73.24	64.83	145.11	149.55	9,459.54
Sep	646.03	1,342.33	1,988.37	763.34	1,350.03	4,118.23	264.89	343.18	11.51	70.56	58.62	142.77	140.93	9,252.41
Oct	684.87	1,416.15	2,101.03	899.48	1,566.41	4,216.74	282.19	5.16	23.50	72.61	55.69	149.06	158.40	9,530.27
Nov	683.90	1,445.29	2,129.20	906.35	1,571.76	4,169.55	286.70	4.45	18.99	75.24	39.55	142.70	162.12	9,506.59
Dec	682.43	1,419.34	2,101.77	903.84	1,511.53	3,933.30	294.96	4.57	28.51	77.02	36.47	138.96	168.20	9,199.13
YTD	**8,338.69**	**16,709.60**	**25,048.29**	**9,802.87**	**16,757.28**	**48,595.25**	**3,420.12**	**2,749.69**	**377.11**	**870.38**	**586.00**	**1,678.51**	**1,832.56**	**111,718.05**

Table 5.2-2M (Cont.)
Electricity Consumption in PEA Service Areas (Classified by Tariff)

Unit : GWh

Month	Residential			Small General Service	Medium General Service	Large General Service	Specific Business	Government and Non-Profit	Agriculture Pumping	Temporary	Stand By Rate	Interruptible Rate	Free of Charge	Total
	< 150 kWh	> 150 kWh	Total											
2013														
Jan	632.31	1,320.38	1,952.69	849.94	1,443.52	4,042.53	289.77	3.98	48.24	72.49	5.58	133.30	167.29	9,009.32
Feb	592.50	1,259.76	1,852.27	807.26	1,422.30	3,889.71	287.44	4.09	44.52	70.96	5.57	125.09	153.94	8,663.15
Mar	717.78	1,534.17	2,251.95	948.77	1,642.15	4,502.80	337.19	4.64	47.37	81.89	3.55	145.98	165.35	10,131.63
Apr	789.70	1,672.68	2,462.38	975.97	1,504.32	3,911.22	327.52	4.52	38.24	79.77	1.84	123.72	157.90	9,587.39
May	808.57	1,742.13	2,550.69	1,009.86	1,667.27	4,397.41	329.86	4.92	24.64	85.13	1.93	135.84	158.91	10,366.44
Jun	703.08	1,582.48	2,285.55	947.90	1,599.42	4,266.68	293.93	4.59	22.62	81.36	5.82	145.21	157.34	9,810.43
Jul	685.04	1,580.96	2,266.00	947.67	1,594.97	4,263.56	298.24	4.85	31.41	80.84	5.08	138.37	170.08	9,801.08
Aug	667.05	1,556.66	2,223.70	924.35	1,611.19	4,311.83	305.15	4.78	26.52	80.51	6.61	139.09	188.40	9,822.13
Sep	650.79	1,512.66	2,163.45	933.56	1,585.41	4,250.65	283.36	4.49	17.65	79.90	4.03	140.42	158.76	9,621.69
Oct	666.87	1,522.48	2,189.35	918.94	1,554.68	4,294.18	283.57	4.55	12.85	80.91	4.56	139.16	177.26	9,660.00
Nov	633.09	1,447.46	2,080.55	878.89	1,558.92	4,211.37	286.50	4.47	13.33	79.74	4.88	135.36	175.16	9,429.17
Dec	612.53	1,345.85	1,958.38	844.39	1,396.07	3,824.25	262.43	4.23	26.23	77.08	2.34	139.30	182.23	8,716.94
YTD	**8,159.31**	**18,077.66**	**26,236.98**	**10,987.50**	**18,580.22**	**50,166.20**	**3,584.95**	**54.10**	**353.62**	**950.58**	**51.77**	**1,640.84**	**2,012.61**	**114,619.38**

Source : PEA

Remark : Since October 2012, electricity consumption of Government sector has been counted into Small/Medium/Large General Service due to a restructuring of electricity-tariff category.

Table 5.2-3M
Electricity Consumption for the Whole Country (Classified by Tariff)

Unit : GWh

Month	Residential			Small General Service	Medium General Service	Large General Service	Specific Business	Government and Non-Profit	Agriculture Pumping	Temporary	Stand By Rate	Interruptible Rate	Free of Charge	Total	Direct Customer	Grand Total
	< 150 kWh	> 150 kWh	Total													
2009																
Jan	593.13	1,412.86	2,019.32	986.39	1,541.27	3,694.52	311.01	299.81	38.06	52.57	7.02	136.52	157.71	9,244.20	144.61	9,388.82
Feb	619.00	1,574.24	2,210.10	1,078.51	1,659.76	3,794.96	336.27	339.61	44.72	56.96	12.35	134.47	144.29	9,812.01	142.33	9,954.34
Mar	785.64	1,887.71	2,689.30	1,267.64	1,924.25	4,408.10	392.43	408.38	45.88	59.31	5.92	148.03	158.16	11,507.41	143.81	11,651.21
Apr	806.36	1,938.51	2,766.73	1,233.77	1,760.75	3,967.80	382.13	347.89	33.13	55.00	24.27	144.00	151.82	10,867.30	136.95	11,004.25
May	798.43	1,920.35	2,740.12	1,261.67	1,944.91	4,477.22	373.16	390.78	20.17	57.35	3.03	153.43	154.34	11,576.18	172.27	11,748.45
Jun	694.78	1,879.33	2,590.73	1,222.87	1,895.44	4,573.25	361.55	427.48	18.99	57.40	3.85	128.82	151.38	11,431.76	137.33	11,569.10
Jul	696.69	1,891.39	2,609.81	1,226.53	1,938.25	4,665.70	373.47	411.85	24.07	55.27	9.80	129.98	155.27	11,599.98	149.99	11,749.97
Aug	706.87	1,975.04	2,700.78	1,265.79	1,988.84	4,727.31	389.54	436.60	26.00	57.67	3.96	131.21	159.29	11,886.99	151.50	12,038.48
Sep	691.15	1,914.74	2,625.49	1,243.44	1,943.09	4,640.26	364.60	468.04	16.94	55.77	7.08	124.32	113.02	11,602.06	138.06	11,740.12
Oct	703.85	1,879.47	2,601.09	1,225.61	1,956.94	4,883.42	377.80	409.07	10.16	56.67	6.23	122.97	165.26	11,815.21	134.36	11,949.57
Nov	643.81	1,779.38	2,438.46	1,180.63	1,887.84	4,595.70	350.69	385.84	12.21	54.05	5.52	126.28	164.05	11,201.27	136.61	11,337.88
Dec	603.33	1,644.15	2,264.57	1,149.45	1,843.25	4,535.39	366.54	351.30	27.52	52.98	4.03	145.80	168.50	10,909.33	139.32	11,048.65
YTD	**8,343.04**	**21,697.18**	**30,256.50**	**14,342.30**	**22,284.59**	**52,963.64**	**4,379.21**	**4,676.62**	**317.86**	**670.99**	**93.07**	**1,625.82**	**1,843.11**	**133,453.70**	**1,727.13**	**135,180.83**
2010																
Jan	656.66	1,752.56	2,427.75	1,188.89	1,832.32	4,664.95	383.53	371.12	43.65	55.68	4.70	145.29	174.14	11,292.02	141.19	11,433.21
Feb	651.24	1,795.46	2,464.57	1,213.87	1,820.90	4,624.03	384.71	391.16	48.48	55.05	2.39	130.20	159.62	11,294.98	135.14	11,430.12
Mar	777.31	2,074.77	2,872.62	1,347.54	2,092.88	5,238.71	432.15	416.43	55.49	63.27	4.23	142.72	170.74	12,836.78	138.63	12,975.41
Apr	844.20	2,267.38	3,134.39	1,381.43	1,949.49	4,697.12	428.39	399.27	42.42	64.02	3.06	133.67	166.10	12,399.37	148.36	12,547.72
May	862.25	2,419.49	3,304.33	1,451.91	2,109.56	5,174.79	418.33	440.15	27.34	80.89	4.01	150.84	167.30	13,329.45	149.31	13,478.76
Jun	740.32	2,244.42	3,007.30	1,378.59	2,072.08	5,088.83	391.84	476.14	27.45	75.17	3.62	142.81	161.78	12,825.61	142.64	12,968.25
Jul	712.25	2,175.16	2,906.59	1,352.32	2,071.68	5,243.23	407.20	472.27	30.43	61.61	10.53	147.38	172.12	12,875.35	190.60	13,065.95
Aug	679.67	2,063.09	2,761.56	1,296.06	2,019.43	5,189.75	392.53	441.20	11.57	59.38	6.70	136.65	171.05	12,485.87	145.97	12,631.84
Sep	663.63	2,019.61	2,701.78	1,281.55	2,024.36	5,134.80	382.66	464.50	8.52	60.04	4.63	120.52	159.35	12,342.72	152.03	12,494.74
Oct	693.55	2,000.14	2,709.98	1,281.78	1,969.26	5,283.38	385.91	415.56	9.46	62.61	7.90	133.92	179.44	12,439.20	143.62	12,582.82
Nov	617.23	1,804.18	2,436.59	1,187.91	1,894.27	5,042.80	358.82	374.05	9.62	59.19	19.69	127.60	171.35	11,681.89	141.78	11,823.67
Dec	638.00	1,833.96	2,489.04	1,224.00	1,891.03	4,943.63	383.87	387.53	20.87	64.93	10.64	130.78	180.69	11,727.01	141.64	11,868.64
YTD	**8,536.32**	**24,450.21**	**33,216.49**	**15,585.85**	**23,747.26**	**60,326.02**	**4,749.93**	**5,049.39**	**335.29**	**761.84**	**82.09**	**1,642.39**	**2,033.69**	**147,530.24**	**1,770.89**	**149,301.13**

Table 5.2-3M (Cont.)
Electricity Consumption for the Whole Country (Classified by Tariff)

Unit : GWh

Month	Residential			Small General Service	Medium General Service	Large General Service	Specific Business	Government and Non-Profit	Agriculture Pumping	Temporary	Stand By Rate	Interruptible Rate	Free of Charge	Total	Direct Customer	Grand Total
	< 150 kWh	> 150 kWh	Total													
2011																
Jan	627.40	1,699.12	2,340.05	1,156.94	1,795.35	4,959.24	367.93	347.90	46.87	62.00	2.77	137.36	183.49	11,399.91	144.46	11,544.37
Feb	620.56	1,723.65	2,360.22	1,162.93	1,780.84	4,872.64	376.10	354.11	54.53	60.46	7.22	125.21	165.96	11,320.22	129.72	11,449.94
Mar	747.01	1,933.66	2,697.40	1,284.66	2,028.97	5,425.40	400.12	392.67	47.47	70.04	4.73	151.37	186.89	12,689.71	132.97	12,822.68
Apr	765.44	1,958.71	2,741.36	1,251.24	1,852.54	4,828.62	401.62	348.20	36.92	64.37	4.93	132.20	175.12	11,837.13	140.27	11,977.40
May	822.32	2,203.76	3,045.57	1,396.44	2,100.38	5,310.10	426.20	413.51	14.96	70.77	6.54	138.87	177.65	13,100.99	150.85	13,251.84
Jun	756.60	2,137.51	2,912.87	1,375.34	2,090.88	5,311.26	405.47	467.35	14.23	71.74	3.13	132.55	170.65	12,955.48	134.45	13,089.93
Jul	760.19	2,154.08	2,932.90	1,370.25	2,068.87	5,436.08	419.76	461.11	20.69	70.73	8.60	141.53	176.32	13,106.86	148.36	13,255.21
Aug	727.80	2,155.92	2,901.32	1,361.35	2,072.76	5,431.33	421.30	456.42	10.78	70.57	11.07	139.21	181.20	13,057.31	154.13	13,211.44
Sep	710.92	2,111.14	2,839.45	1,327.19	2,017.60	5,486.31	403.15	496.65	5.74	72.94	6.02	130.33	179.45	12,964.83	148.06	13,112.89
Oct	719.02	2,062.58	2,799.15	1,300.83	1,864.04	4,966.21	403.99	397.37	5.62	74.38	8.03	131.43	180.29	12,131.34	146.05	12,277.39
Nov	691.46	1,996.78	2,705.22	1,252.19	1,701.89	4,449.46	399.78	389.63	10.92	73.22	3.85	124.32	192.79	11,303.27	137.30	11,440.57
Dec	652.65	1,857.46	2,523.94	1,206.83	1,742.35	4,623.05	373.87	363.29	27.98	79.41	1.67	134.11	198.58	11,275.08	146.74	11,421.82
YTD	**8,601.35**	**23,994.39**	**32,799.46**	**15,446.19**	**23,116.47**	**61,099.69**	**4,799.31**	**4,888.22**	**296.71**	**840.63**	**68.57**	**1,618.49**	**2,168.39**	**147,142.13**	**1,713.36**	**148,855.49**
2012																
Jan	675.01	1,950.29	2,640.59	1,245.53	1,803.22	4,970.48	417.44	351.02	46.33	82.88	9.15	138.05	190.93	11,895.61	147.94	12,043.55
Feb	682.86	2,045.43	2,745.48	1,300.40	1,903.27	5,205.66	427.45	392.17	50.42	83.00	41.84	134.68	178.03	12,462.40	147.00	12,609.40
Mar	808.22	2,359.84	3,187.72	1,456.88	2,129.61	5,766.37	480.90	431.01	50.92	94.22	49.47	150.47	186.31	13,983.89	153.60	14,137.49
Apr	817.96	2,463.08	3,301.55	1,432.53	1,929.91	5,154.27	473.86	371.30	38.24	91.83	54.48	133.61	177.27	13,158.86	146.27	13,305.12
May	845.11	2,601.14	3,468.65	1,523.73	2,151.54	5,816.32	473.64	431.07	22.67	98.42	62.03	129.55	179.95	14,357.57	153.91	14,511.48
Jun	715.54	2,335.25	3,069.48	1,403.04	2,048.12	5,643.16	442.43	443.47	20.76	98.31	53.78	125.29	171.26	13,519.11	173.84	13,692.94
Jul	709.97	2,318.34	3,045.42	1,395.49	2,077.28	5,802.96	451.77	456.69	32.41	100.28	60.08	148.26	177.30	13,747.95	157.31	13,905.26
Aug	693.35	2,294.11	3,005.39	1,380.27	2,028.55	5,640.20	457.52	424.95	32.86	102.61	64.83	145.11	180.04	13,462.32	160.06	13,622.38
Sep	676.78	2,193.40	2,886.68	1,342.69	2,002.22	5,607.96	419.17	460.52	11.51	101.60	58.62	142.77	170.59	13,204.32	146.54	13,350.86
Oct	717.65	2,294.15	3,029.85	1,506.90	2,292.49	5,750.21	446.46	8.71	23.50	104.85	55.69	149.06	189.07	13,556.78	146.92	13,703.71
Nov	716.63	2,338.16	3,071.71	1,528.08	2,314.42	5,682.57	452.20	13.01	18.99	105.27	39.55	142.70	191.83	13,560.34	140.73	13,701.07
Dec	713.95	2,265.01	2,994.68	1,497.76	2,209.48	5,362.94	461.65	14.87	28.51	108.79	36.47	138.96	198.80	13,052.91	142.81	13,195.72
YTD	**8,773.03**	**27,458.23**	**36,447.21**	**17,013.29**	**24,890.12**	**66,403.08**	**5,404.50**	**3,798.79**	**377.11**	**1,172.06**	**586.00**	**1,678.51**	**2,191.39**	**159,962.05**	**1,816.93**	**161,778.98**

Table 5.2-3M (Cont.)
Electricity Consumption for the Whole Country (Classified by Tariff)

Unit : GWh

Month	Residential			Small General Service	Medium General Service	Large General Service	Specific Business	Government and Non-Profit	Agriculture Pumping	Temporary	Stand By Rate	Interruptible Rate	Free of Charge	Total	Direct Customer	Grand Total
	< 150 kWh	> 150 kWh	Total													
								2013								
Jan	662.10	2,125.38	2,804.74	1,429.73	2,136.78	5,503.40	448.65	13.98	48.24	100.79	5.58	133.30	197.96	12,823.14	135.78	12,958.92
Feb	624.32	2,122.97	2,764.10	1,400.70	2,109.35	5,272.87	444.58	12.98	44.52	100.70	5.57	125.09	181.85	12,462.29	133.96	12,596.25
Mar	753.74	2,486.63	3,257.11	1,588.71	2,422.23	6,082.09	520.06	11.94	47.37	114.78	3.55	145.98	196.46	14,390.29	141.69	14,531.98
Apr	830.17	2,714.76	3,565.73	1,621.70	2,191.61	5,309.03	503.68	11.78	38.24	110.08	1.84	123.72	187.68	13,665.09	146.43	13,811.52
May	849.78	2,836.26	3,707.83	1,708.37	2,457.16	5,981.35	519.75	13.34	24.64	119.87	1.93	135.84	190.05	14,860.13	148.50	15,008.63
Jun	737.22	2,539.85	3,295.58	1,594.99	2,349.85	5,788.16	463.13	12.54	22.62	115.80	5.82	145.21	187.70	13,981.41	146.65	14,128.06
Jul	714.99	2,480.18	3,211.28	1,567.89	2,327.24	5,774.19	466.25	12.45	31.41	114.94	5.08	138.37	201.21	13,850.32	151.03	14,001.35
Aug	696.77	2,472.02	3,187.02	1,554.71	2,362.18	5,840.43	477.20	12.54	26.52	116.15	6.61	139.09	219.54	13,942.00	151.44	14,093.44
Sep	680.34	2,382.00	3,077.84	1,544.48	2,308.35	5,711.02	445.96	12.13	17.65	115.18	4.03	140.42	189.29	13,566.35	146.06	13,712.41
Oct	697.80	2,399.35	3,113.26	1,528.55	2,272.09	5,794.67	447.90	12.26	12.85	117.34	4.56	139.16	208.54	13,651.17	149.83	13,801.00
Nov	663.36	2,304.23	2,983.61	1,480.92	2,283.50	5,679.29	449.57	12.13	13.33	113.82	4.88	135.36	205.63	13,362.04	140.86	13,502.89
Dec	638.57	2,038.23	2,689.28	1,353.39	1,998.81	5,109.44	399.89	10.78	26.23	106.89	2.34	139.30	212.94	12,049.29	145.36	12,194.66
YTD	**8,549.16**	**28,901.87**	**37,657.38**	**18,374.15**	**27,219.15**	**67,845.94**	**5,586.62**	**148.85**	**353.62**	**1,346.34**	**51.77**	**1,640.84**	**2,378.84**	**162,603.50**	**1,737.62**	**164,341.12**

Source : MEA, PEA and EGAT

Remark : Since October 2012, electricity consumption of Government sector has been counted into Small/Medium/Large General Service due to a restructuring of electricity-tariff category.

Table 5.2-4M
Electricity Consumption in MEA Service Areas (Classified by Sector)

Unit : GWh

Month	Residential	Small General Service	Business	Industrial	Government and Non-Profit	Agriculture	Other	Total	Free of Charge	Grand Total
2009										
Jan	595.56	427.39	797.04	862.17	81.93	0.00	44.51	2,808.61	20.51	2,829.12
Feb	759.95	505.98	850.11	931.05	98.38	0.00	42.39	3,187.87	18.91	3,206.77
Mar	877.06	569.92	975.28	1,046.66	111.58	0.00	50.81	3,631.31	21.37	3,652.68
Apr	920.31	544.84	900.10	896.18	94.50	0.00	49.29	3,405.23	21.81	3,427.04
May	878.82	556.50	934.15	1,056.79	109.12	0.00	55.67	3,591.05	22.27	3,613.31
Jun	849.78	549.11	937.64	1,066.48	116.47	0.00	56.38	3,575.87	22.00	3,597.87
Jul	834.35	541.43	938.57	1,089.65	115.76	0.00	73.54	3,593.31	23.21	3,616.52
Aug	877.83	561.05	966.30	1,087.06	117.81	0.00	82.11	3,692.16	23.69	3,715.85
Sep	866.66	554.51	937.32	1,090.80	116.93	0.00	42.85	3,609.07	23.40	3,632.47
Oct	812.69	535.06	940.11	1,130.40	120.31	0.00	71.55	3,610.13	24.69	3,634.82
Nov	784.09	519.36	880.28	1,074.75	106.61	0.00	73.56	3,438.64	24.39	3,463.03
Dec	722.16	514.50	894.18	1,037.37	98.85	0.00	51.04	3,318.09	25.73	3,343.82
YTD	**9,779.26**	**6,379.67**	**10,951.08**	**12,369.37**	**1,288.25**	**0.00**	**693.71**	**41,461.34**	**271.96**	**41,733.30**
2010										
Jan	776.32	523.86	918.08	1,061.24	104.82	0.00	50.64	3,434.95	26.23	3,461.18
Feb	836.16	559.48	937.16	1,077.50	108.85	0.00	6.14	3,525.29	23.73	3,549.02
Mar	925.56	585.78	997.54	1,226.47	110.19	0.00	51.48	3,897.01	26.32	3,923.33
Apr	1,026.50	598.13	942.45	1,041.62	105.70	0.00	48.53	3,762.93	26.37	3,789.30
May	1,082.18	624.80	937.07	1,197.73	107.04	0.00	42.28	3,991.09	26.38	4,017.47
Jun	1,003.40	613.49	993.15	1,208.76	127.41	0.00	49.38	3,995.59	25.56	4,021.16
Jul	930.91	592.56	1,015.46	1,209.74	125.18	0.00	46.38	3,920.22	26.47	3,946.69
Aug	876.83	569.51	972.26	1,177.79	124.77	0.00	47.56	3,768.73	26.54	3,795.27
Sep	873.47	574.41	984.88	1,185.27	123.86	0.00	46.09	3,787.97	25.73	3,813.71
Oct	820.60	550.39	943.68	1,178.85	110.04	0.00	53.40	3,656.96	26.70	3,683.66
Nov	787.33	532.06	913.76	1,141.66	102.75	0.00	51.51	3,529.06	25.88	3,554.94
Dec	776.67	534.71	933.69	1,072.14	107.29	0.00	53.13	3,477.63	26.80	3,504.43
YTD	**10,715.93**	**6,859.18**	**11,489.17**	**13,778.76**	**1,357.89**	**0.00**	**546.51**	**44,747.45**	**312.71**	**45,060.16**

Table 5.2-4M (Cont.)
Electricity Consumption in MEA Service Areas (Classified by Sector)

Unit : GWh

Month	Residential	Small General Service	Business	Industrial	Government and Non-Profit	Agriculture	Other	Total	Free of Charge	Grand Total
					2011					
Jan	707.16	498.90	878.78	1,097.08	92.43	0.00	49.41	3,323.77	26.89	3,350.67
Feb	787.29	530.59	878.02	1,083.01	96.08	0.00	50.83	3,425.83	24.33	3,450.16
Mar	806.64	538.21	970.61	1,235.00	102.51	0.00	43.80	3,696.77	34.18	3,730.94
Apr	864.57	537.41	943.69	1,034.12	89.44	0.00	34.81	3,504.05	28.50	3,532.55
May	968.86	604.87	1,039.92	1,188.73	111.92	0.00	35.92	3,950.22	29.51	3,979.73
Jun	933.59	603.06	1,044.31	1,206.34	124.64	0.00	36.01	3,947.94	28.93	3,976.87
Jul	912.80	588.44	1,023.41	1,190.74	120.96	0.00	55.26	3,891.61	29.76	3,921.37
Aug	902.59	588.27	1,025.24	1,178.77	122.02	0.00	55.76	3,872.66	29.75	3,902.41
Sep	886.08	579.71	1,034.63	1,219.19	118.62	0.00	58.82	3,897.05	26.28	3,923.33
Oct	832.37	556.17	1,008.51	1,097.21	111.21	0.00	38.01	3,643.49	29.80	3,673.29
Nov	819.79	530.21	928.87	1,017.35	107.93	0.00	12.07	3,416.20	29.23	3,445.43
Dec	703.06	488.58	907.87	1,027.18	95.48	0.00	56.00	3,278.16	29.84	3,308.00
YTD	**10,124.80**	**6,644.43**	**11,683.86**	**13,574.72**	**1,293.24**	**0.00**	**526.71**	**43,847.75**	**346.99**	**44,194.74**
					2012					
Jan	811.41	535.07	974.92	1,091.96	97.64	0.00	69.65	3,580.64	29.76	3,610.40
Feb	894.11	575.33	981.02	1,172.89	112.33	0.00	68.13	3,803.81	27.42	3,831.23
Mar	998.37	625.01	1,074.87	1,282.36	122.27	0.00	138.86	4,241.73	30.45	4,272.19
Apr	1,073.15	615.46	1,046.34	1,072.26	99.16	0.00	79.60	3,985.97	29.27	4,015.24
May	1,102.28	653.03	1,124.00	1,261.91	120.35	0.00	85.25	4,346.83	30.54	4,377.36
Jun	991.19	618.10	1,069.92	1,223.02	117.31	0.00	82.16	4,101.69	29.63	4,131.32
Jul	940.89	595.56	1,108.50	1,247.92	123.06	0.00	70.95	4,086.89	30.62	4,117.51
Aug	924.96	590.41	1,049.76	1,193.25	117.24	0.00	96.68	3,972.29	30.49	4,002.79
Sep	898.31	579.35	1,044.78	1,196.04	117.34	0.00	86.42	3,922.25	29.66	3,951.92
Oct	928.83	607.42	1,158.11	1,229.85	3.55	0.00	68.08	3,995.85	30.67	4,026.52
Nov	942.51	621.73	1,159.34	1,223.65	8.56	0.00	68.23	4,024.03	29.72	4,053.75
Dec	892.91	593.92	1,118.78	1,114.28	10.30	0.00	92.98	3,823.18	30.60	3,853.78
YTD	**11,398.92**	**7,210.42**	**12,910.34**	**14,309.39**	**1,049.10**	**0.00**	**1,007.00**	**47,885.17**	**358.83**	**48,244.00**

Table 5.2-4M (Cont.)
Electricity Consumption in MEA Service Areas (Classified by Sector)

Unit : GWh

Month	Residential	Small General Service	Business	Industrial	Government and Non-Profit	Agriculture	Other	Total	Free of Charge	Grand Total
					2013					
Jan	852.06	579.79	1,106.25	1,152.66	10.00	0.00	82.40	3,783.15	30.67	3,813.82
Feb	911.83	593.43	1,067.96	1,101.79	8.89	0.00	87.33	3,771.24	27.90	3,799.14
Mar	1,005.16	639.95	1,194.78	1,276.36	7.30	0.00	103.99	4,227.54	31.12	4,258.65
Apr	1,103.35	645.74	1,146.40	1,052.67	7.26	0.00	92.50	4,047.92	29.78	4,077.70
May	1,157.14	698.51	1,249.92	1,241.50	8.42	0.00	107.06	4,462.55	31.14	4,493.68
Jun	1,010.03	647.08	1,172.00	1,200.06	7.96	0.00	103.50	4,140.62	30.36	4,170.97
Jul	945.28	620.22	1,174.04	1,183.25	7.60	0.00	87.73	4,018.12	31.13	4,049.24
Aug	963.32	630.36	1,211.54	1,188.31	7.76	0.00	87.43	4,088.72	31.14	4,119.86
Sep	914.39	610.92	1,148.50	1,145.84	7.64	0.00	86.83	3,914.12	30.53	3,944.66
Oct	923.91	609.61	1,162.87	1,155.22	7.71	0.00	100.58	3,959.89	31.28	3,991.17
Nov	903.05	602.03	1,150.96	1,143.68	7.67	0.00	95.01	3,902.40	30.47	3,932.87
Dec	730.90	509.00	977.07	1,001.37	6.55	0.00	76.76	3,301.64	30.71	3,332.35
YTD	**11,420.40**	**7,386.65**	**13,762.28**	**13,842.71**	**94.75**	**0.00**	**1,111.11**	**47,617.89**	**366.23**	**47,984.12**

Source : MEA

Remark : Since October 2012, electricity consumption of Government sector has been counted into Small/Medium/Large General Service due to a restructuring of electricity-tariff category.

Table 5.2-5M
Electricity Consumption in PEA Service Areas (Classified by Sector)

Unit : GWh

Month	Residential	Small General Service	Business	Industrial	Government and Non-Profit	Agriculture	Other	Total	Free of Charge	Grand Total
					2009					
Jan	1,423.76	559.00	699.36	3,260.19	217.87	38.06	79.64	6,277.88	137.20	6,415.08
Feb	1,450.14	572.53	736.54	3,357.86	241.22	44.72	76.83	6,479.85	125.39	6,605.24
Mar	1,812.24	697.72	855.07	3,942.25	296.80	45.88	67.98	7,717.94	136.79	7,854.73
Apr	1,846.41	688.93	832.01	3,585.08	253.39	33.13	71.28	7,310.24	130.01	7,440.26
May	1,861.30	705.17	854.21	4,048.15	281.66	20.17	60.13	7,830.79	132.08	7,962.87
Jun	1,740.96	673.76	857.81	4,036.65	311.00	18.99	65.35	7,704.51	129.38	7,833.90
Jul	1,775.46	685.09	868.80	4,131.93	296.08	24.07	69.95	7,851.40	132.07	7,983.46
Aug	1,822.95	704.73	894.87	4,205.95	318.80	26.00	62.23	8,035.53	135.60	8,171.14
Sep	1,758.83	688.93	854.41	4,143.98	351.11	16.94	65.77	7,879.97	89.61	7,969.59
Oct	1,788.40	690.54	865.96	4,326.99	288.76	10.16	69.01	8,039.82	140.57	8,180.39
Nov	1,654.37	661.27	817.71	4,113.87	279.23	12.21	59.92	7,598.58	139.67	7,738.24
Dec	1,542.41	634.95	842.16	4,047.97	252.45	27.52	75.28	7,422.74	142.77	7,565.51
YTD	**20,477.24**	**7,962.63**	**9,978.89**	**47,200.89**	**3,388.37**	**317.86**	**823.37**	**90,149.26**	**1,571.14**	**91,720.40**
					2010					
Jan	1,651.43	665.04	852.99	4,076.12	266.29	43.65	127.39	7,682.92	147.91	7,830.84
Feb	1,628.41	654.38	848.29	4,015.62	282.31	48.48	132.58	7,610.07	135.89	7,745.96
Mar	1,947.06	761.76	954.92	4,658.80	306.24	55.49	84.76	8,769.03	144.42	8,913.45
Apr	2,107.89	783.30	963.46	4,198.44	293.57	42.42	81.25	8,470.33	139.74	8,610.07
May	2,222.15	827.12	992.58	4,621.07	333.12	27.34	147.69	9,171.06	140.92	9,311.98
Jun	2,003.90	765.09	947.37	4,409.59	348.73	27.45	166.10	8,668.23	136.22	8,804.45
Jul	1,975.69	759.76	1,032.42	4,573.95	347.09	30.43	63.68	8,783.01	145.65	8,928.66
Aug	1,884.73	726.55	941.16	4,510.99	316.43	11.57	154.68	8,546.10	144.50	8,690.60
Sep	1,828.31	707.14	935.83	4,448.08	340.64	8.52	126.87	8,395.39	133.62	8,529.01
Oct	1,889.38	731.38	914.12	4,623.81	305.52	9.46	129.13	8,602.80	152.73	8,755.54
Nov	1,649.26	655.85	865.75	4,378.91	271.30	9.62	150.78	7,981.48	145.47	8,126.95
Dec	1,712.37	689.29	899.02	4,332.29	280.24	20.87	134.60	8,068.68	153.89	8,222.58
YTD	**22,500.56**	**8,726.67**	**11,147.91**	**52,847.67**	**3,691.49**	**335.29**	**1,499.51**	**100,749.10**	**1,720.98**	**102,470.08**

Table 5.2-5M (Cont.)
Electricity Consumption in PEA Service Areas (Classified by Sector)

Unit : GWh

Month	Residential	Small General Service	Business	Industrial	Government and Non-Profit	Agriculture	Other	Total	Free of Charge	Grand Total
2011										
Jan	1,632.88	658.04	867.35	4,289.64	255.47	46.87	142.40	7,892.64	156.60	8,049.24
Feb	1,572.93	632.33	870.61	4,233.80	258.04	54.53	106.19	7,728.44	141.63	7,870.06
Mar	1,890.76	746.45	959.86	4,749.92	290.16	47.47	121.45	8,806.06	152.71	8,958.77
Apr	1,876.79	713.83	937.71	4,237.49	258.76	36.92	96.46	8,157.96	146.62	8,304.58
May	2,076.71	791.58	1,035.72	4,674.68	301.58	14.96	77.89	8,973.12	148.14	9,121.26
Jun	1,979.28	772.28	1,022.46	4,626.07	342.71	14.23	79.85	8,836.89	141.72	8,978.61
Jul	2,020.10	781.81	1,024.64	4,764.98	340.16	20.69	86.54	9,038.92	146.56	9,185.49
Aug	1,998.73	773.07	1,031.05	4,763.46	334.40	10.78	91.96	9,003.45	151.45	9,154.90
Sep	1,953.37	747.48	1,004.56	4,718.29	378.03	5.74	80.85	8,888.33	153.17	9,041.50
Oct	1,966.78	744.66	1,009.69	4,213.26	286.16	5.62	81.40	8,307.57	150.49	8,458.06
Nov	1,885.43	721.99	934.86	3,778.28	281.71	10.92	81.09	7,694.28	163.56	7,857.84
Dec	1,820.88	718.25	916.75	3,964.75	267.81	27.98	81.91	7,798.34	168.74	7,967.08
YTD	**22,674.65**	**8,801.77**	**11,615.26**	**53,014.62**	**3,594.99**	**296.71**	**1,127.99**	**101,125.99**	**1,821.40**	**102,947.38**
2012										
Jan	1,829.18	710.46	982.51	4,176.70	253.38	46.33	125.47	8,124.04	161.17	8,285.21
Feb	1,851.36	725.07	1,004.13	4,444.61	279.84	50.42	125.14	8,480.57	150.61	8,631.17
Mar	2,189.35	831.86	1,155.55	4,890.31	308.74	50.92	129.10	9,555.84	155.86	9,711.70
Apr	2,228.40	817.06	1,091.81	4,417.93	272.14	38.24	130.02	8,995.62	147.99	9,143.62
May	2,366.37	870.69	1,147.95	4,973.81	310.72	22.67	138.58	9,830.79	149.41	9,980.20
Jun	2,078.30	784.94	1,107.57	4,803.74	326.16	20.76	124.69	9,246.15	141.64	9,387.78
Jul	2,104.53	799.93	1,141.03	4,955.84	333.63	32.41	116.38	9,483.75	146.69	9,630.44
Aug	2,080.43	789.87	1,124.28	4,832.71	307.71	32.86	142.14	9,309.99	149.55	9,459.54
Sep	1,988.37	763.34	1,082.50	4,798.87	343.18	11.51	123.71	9,111.47	140.93	9,252.41
Oct	2,101.03	899.48	1,310.37	4,910.50	5.16	23.50	121.82	9,371.86	158.40	9,530.27
Nov	2,129.20	906.35	1,333.95	4,829.17	4.45	18.99	122.37	9,344.48	162.12	9,506.59
Dec	2,101.77	903.84	1,298.87	4,573.16	4.57	28.51	120.22	9,030.93	168.20	9,199.13
YTD	**25,048.29**	**9,802.87**	**13,780.54**	**56,607.34**	**2,749.69**	**377.11**	**1,519.65**	**109,885.49**	**1,832.56**	**111,718.05**

Table 5.2-5M (Cont.)
Electricity Consumption in PEA Service Areas (Classified by Sector)

Unit : GWh

Month	Residential	Small General Service	Business	Industrial	Government and Non-Profit	Agriculture	Other	Total	Free of Charge	Grand Total
					2013					
Jan	1,952.69	849.94	1,256.71	4,623.87	3.98	48.24	106.61	8,842.03	167.29	9,009.32
Feb	1,852.27	807.26	1,243.81	4,460.47	4.09	44.52	96.79	8,509.21	153.94	8,663.15
Mar	2,251.95	948.77	1,435.12	5,168.79	4.64	47.37	109.65	9,966.28	165.35	10,131.63
Apr	2,462.38	975.97	1,386.98	4,446.69	4.52	38.24	114.71	9,429.50	157.90	9,587.39
May	2,550.69	1,009.86	1,477.46	5,005.42	4.92	24.64	134.55	10,207.54	158.91	10,366.44
Jun	2,285.55	947.90	1,400.77	4,870.66	4.59	22.62	121.01	9,653.09	157.34	9,810.43
Jul	2,266.00	947.67	1,400.85	4,863.83	4.85	31.41	116.37	9,630.99	170.08	9,801.08
Aug	2,223.70	924.35	1,413.08	4,923.12	4.78	26.52	118.17	9,633.73	188.40	9,822.13
Sep	2,163.45	933.56	1,366.38	4,865.60	4.49	17.65	111.81	9,462.93	158.76	9,621.69
Oct	2,189.35	918.94	1,335.22	4,905.53	4.55	12.85	116.30	9,482.74	177.26	9,660.00
Nov	2,080.55	878.89	1,339.35	4,820.36	4.47	13.33	117.07	9,254.01	175.16	9,429.17
Dec	1,958.38	844.39	1,198.17	4,398.12	4.23	26.23	105.19	8,534.71	182.23	8,716.94
YTD	**26,236.98**	**10,987.50**	**16,253.89**	**57,352.45**	**54.10**	**353.62**	**1,368.22**	**112,606.77**	**2,012.61**	**114,619.38**

Source : PEA

Remark : Since October 2012, electricity consumption of Government sector has been counted into Small/Medium/Large General Service due to a restructuring of electricity-tariff category.



Table 5.2-6M
Electricity Consumption for the Whole Country (Classified by Sector)

Unit : GWh

Month	Residential	Small General Service	Business	Industrial	Government and Non-Profit	Agriculture	Other	Total	Free of Charge	Grand Total
2009										
Jan	2,019.32	986.39	1,539.47	4,223.91	299.81	38.06	124.15	9,231.11	157.71	9,388.82
Feb	2,210.10	1,078.51	1,630.29	4,387.59	339.61	44.72	119.22	9,810.05	144.29	9,954.34
Mar	2,689.30	1,267.64	1,872.76	5,090.32	408.38	45.88	118.78	11,493.05	158.16	11,651.21
Apr	2,766.73	1,233.77	1,768.32	4,582.00	347.89	33.13	120.58	10,852.42	151.82	11,004.25
May	2,740.12	1,261.67	1,824.41	5,241.16	390.78	20.17	115.80	11,594.11	154.34	11,748.45
Jun	2,590.73	1,222.87	1,830.19	5,205.72	427.48	18.99	121.73	11,417.72	151.38	11,569.10
Jul	2,609.81	1,226.53	1,841.47	5,337.48	411.85	24.07	143.49	11,594.69	155.27	11,749.97
Aug	2,700.78	1,265.79	1,896.21	5,409.47	436.60	26.00	144.34	11,879.19	159.29	12,038.48
Sep	2,625.49	1,243.44	1,820.72	5,343.85	468.04	16.94	108.62	11,627.10	113.02	11,740.12
Oct	2,601.09	1,225.61	1,834.32	5,563.51	409.07	10.16	140.56	11,784.31	165.26	11,949.57
Nov	2,438.46	1,180.63	1,724.97	5,298.23	385.84	12.21	133.48	11,173.83	164.05	11,337.88
Dec	2,264.57	1,149.45	1,763.96	5,197.04	351.30	27.52	126.32	10,880.15	168.50	11,048.65
YTD	**30,256.50**	**14,342.30**	**21,347.09**	**60,880.27**	**4,676.62**	**317.86**	**1,517.08**	**133,337.73**	**1,843.11**	**135,180.83**
2010										
Jan	2,427.75	1,188.89	1,799.34	5,250.28	371.12	43.65	178.04	11,259.07	174.14	11,433.21
Feb	2,464.57	1,213.87	1,812.60	5,201.10	391.16	48.48	138.72	11,270.50	159.62	11,430.12
Mar	2,872.62	1,347.54	1,983.63	5,992.72	416.43	55.49	136.24	12,804.67	170.74	12,975.41
Apr	3,134.39	1,381.43	1,937.75	5,356.57	399.27	42.42	129.78	12,381.62	166.10	12,547.72
May	3,304.33	1,451.91	1,963.63	5,934.12	440.15	27.34	189.97	13,311.45	167.30	13,478.76
Jun	3,007.30	1,378.59	1,971.92	5,729.60	476.14	27.45	215.48	12,806.47	161.78	12,968.25
Jul	2,906.59	1,352.32	2,078.71	5,943.46	472.27	30.43	110.06	12,893.83	172.12	13,065.95
Aug	2,761.56	1,296.06	1,943.32	5,804.85	441.20	11.57	202.24	12,460.79	171.05	12,631.84
Sep	2,701.78	1,281.55	1,950.22	5,755.87	464.50	8.52	172.95	12,335.39	159.35	12,494.74
Oct	2,709.98	1,281.78	1,886.98	5,917.09	415.56	9.46	182.53	12,403.39	179.44	12,582.82
Nov	2,436.59	1,187.91	1,807.05	5,634.80	374.05	9.62	202.29	11,652.32	171.35	11,823.67
Dec	2,489.04	1,224.00	1,860.45	5,518.33	387.53	20.87	187.73	11,687.95	180.69	11,868.64
YTD	**33,216.49**	**15,585.85**	**22,995.61**	**68,038.79**	**5,049.39**	**335.29**	**2,046.02**	**147,267.44**	**2,033.69**	**149,301.13**

Table 5.2-6M (Cont.)
Electricity Consumption for the Whole Country (Classified by Sector)

Unit : GWh

Month	Residential	Small General Service	Business	Industrial	Government and Non-Profit	Agriculture	Other	Total	Free of Charge	Grand Total
2011										
Jan	2,340.05	1,156.94	1,773.37	5,503.94	347.90	46.87	191.80	11,360.88	183.49	11,544.37
Feb	2,360.22	1,162.93	1,775.22	5,419.94	354.11	54.53	157.02	11,283.98	165.96	11,449.94
Mar	2,697.40	1,284.66	1,958.60	6,089.75	392.67	47.47	165.25	12,635.79	186.89	12,822.68
Apr	2,741.36	1,251.24	1,910.74	5,382.54	348.20	36.92	131.27	11,802.28	175.12	11,977.40
May	3,045.57	1,396.44	2,108.69	5,981.21	413.51	14.96	113.82	13,074.19	177.65	13,251.84
Jun	2,912.87	1,375.34	2,097.69	5,935.94	467.35	14.23	115.86	12,919.28	170.65	13,089.93
Jul	2,932.90	1,370.25	2,079.73	6,072.40	461.11	20.69	141.80	13,078.89	176.32	13,255.21
Aug	2,901.32	1,361.35	2,087.83	6,064.82	456.42	10.78	147.72	13,030.24	181.20	13,211.44
Sep	2,839.45	1,327.19	2,069.89	6,054.84	496.65	5.74	139.67	12,933.44	179.45	13,112.89
Oct	2,799.15	1,300.83	2,049.64	5,425.08	397.37	5.62	119.41	12,097.11	180.29	12,277.39
Nov	2,705.22	1,252.19	1,895.98	4,900.67	389.63	10.92	93.16	11,247.78	192.79	11,440.57
Dec	2,523.94	1,206.83	1,852.50	5,110.79	363.29	27.98	137.91	11,223.24	198.58	11,421.82
YTD	**32,799.46**	**15,446.19**	**23,659.90**	**67,941.92**	**4,888.22**	**296.71**	**1,654.70**	**146,687.10**	**2,168.39**	**148,855.49**
2012										
Jan	2,640.59	1,245.53	1,987.26	5,386.77	351.02	46.33	195.12	11,852.62	190.93	12,043.55
Feb	2,745.48	1,300.40	2,015.25	5,734.39	392.17	50.42	193.27	12,431.37	178.03	12,609.40
Mar	3,187.72	1,456.88	2,264.88	6,291.81	431.01	50.92	267.96	13,951.18	186.31	14,137.49
Apr	3,301.55	1,432.53	2,172.69	5,601.92	371.30	38.24	209.62	13,127.85	177.27	13,305.12
May	3,468.65	1,523.73	2,307.96	6,353.63	431.07	22.67	223.83	14,331.53	179.95	14,511.48
Jun	3,069.48	1,403.04	2,211.37	6,166.71	443.47	20.76	206.85	13,521.68	171.26	13,692.94
Jul	3,045.42	1,395.49	2,284.80	6,325.81	456.69	32.41	187.34	13,727.95	177.30	13,905.26
Aug	3,005.39	1,380.27	2,208.57	6,151.49	424.95	32.86	238.82	13,442.34	180.04	13,622.38
Sep	2,886.68	1,342.69	2,159.12	6,109.61	460.52	11.51	210.14	13,180.27	170.59	13,350.86
Oct	3,029.85	1,506.90	2,501.31	6,254.45	8.71	23.50	189.91	13,514.64	189.07	13,703.71
Nov	3,071.71	1,528.08	2,525.01	6,161.83	13.01	18.99	190.60	13,509.24	191.83	13,701.07
Dec	2,994.68	1,497.76	2,450.04	5,797.86	14.87	28.51	213.20	12,996.92	198.80	13,195.72
YTD	**36,447.21**	**17,013.29**	**27,088.26**	**72,336.28**	**3,798.79**	**377.11**	**2,526.65**	**159,587.59**	**2,191.39**	**161,778.98**

Table 5.2-6M (Cont.)
Electricity Consumption for the Whole Country (Classified by Sector)

Unit : GWh

Month	Residential	Small General Service	Business	Industrial	Government and Non-Profit	Agriculture	Other	Total	Free of Charge	Grand Total
					2013					
Jan	2,804.74	1,429.73	2,393.81	5,881.46	13.98	48.24	189.00	12,760.96	197.96	12,958.92
Feb	2,764.10	1,400.70	2,341.61	5,666.39	12.98	44.52	184.12	12,414.41	181.85	12,596.25
Mar	3,257.11	1,588.71	2,665.41	6,551.35	11.94	47.37	213.63	14,335.51	196.46	14,531.98
Apr	3,565.73	1,621.70	2,568.18	5,611.00	11.78	38.24	207.21	13,623.85	187.68	13,811.52
May	3,707.83	1,708.37	2,766.12	6,356.68	13.34	24.64	241.61	14,818.58	190.05	15,008.63
Jun	3,295.58	1,594.99	2,607.05	6,183.08	12.54	22.62	224.51	13,940.36	187.70	14,128.06
Jul	3,211.28	1,567.89	2,609.12	6,163.88	12.45	31.41	204.10	13,800.14	201.21	14,001.35
Aug	3,187.02	1,554.71	2,659.42	6,228.07	12.54	26.52	205.61	13,873.89	219.54	14,093.44
Sep	3,077.84	1,544.48	2,547.41	6,124.96	12.13	17.65	198.64	13,523.12	189.29	13,712.41
Oct	3,113.26	1,528.55	2,530.40	6,178.27	12.26	12.85	216.88	13,592.47	208.54	13,801.00
Nov	2,983.61	1,480.92	2,521.77	6,073.43	12.13	13.33	212.07	13,297.26	205.63	13,502.89
Dec	2,689.28	1,353.39	2,202.87	5,517.21	10.78	26.23	181.95	11,981.71	212.94	12,194.66
YTD	**37,657.38**	**18,374.15**	**30,413.17**	**72,535.78**	**148.85**	**353.62**	**2,479.33**	**161,962.28**	**2,378.84**	**164,341.12**

Source : MEA, PEA and EGAT

Remark : Since October 2012, electricity consumption of Government sector has been counted into Small/Medium/Large General Service due to a restructuring of electricity-tariff category.

Table 5.3-1M
EGAT Fuel Consumption in Power Generation

2009

Fuel Type	Unit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Diesel	M.Litres	0.6	0.4	3.2	1.8	2.0	0.4	0.6	0.2	0.9	0.6	1.0	1.3	12.9
Fuel Oil	M.Litres	8.1	0.0	0.0	0.0	0.4	1.8	0.5	36.8	1.2	44.7	7.6	10.0	111.0
Natural Gas	MMSCF	34,264.8	40,718.7	48,342.7	47,123.1	49,910.8	48,557.0	46,058.1	49,007.3	50,027.5	52,541.7	49,417.7	46,394.8	562,364.2
Lignite	1,000 Tons	1,461.5	1,144.9	1,255.1	1,313.5	1,370.3	1,463.2	1,451.5	1,304.1	1,243.9	1,287.7	1,227.4	1,295.2	15,818.3

2010

Fuel Type	Unit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Diesel	M.Litres	0.8	1.0	1.8	1.1	0.8	0.8	2.5	0.5	0.7	0.7	0.8	1.0	12.4
Fuel Oil	M.Litres	4.1	0.7	39.0	5.1	12.7	6.1	41.0	13.7	9.6	2.0	0.0	6.0	140.1
Natural Gas	MMSCF	46,907.1	49,609.5	60,629.3	54,999.0	61,699.7	62,726.2	59,237.1	57,000.7	58,308.2	61,853.9	56,067.8	56,899.9	685,938.3
Lignite	1,000 Tons	1,363.2	1,161.7	1,370.2	1,427.2	1,482.3	1,257.5	1,278.1	1,370.7	1,219.7	1,340.6	1,357.2	1,375.8	16,004.2

2011

Fuel Type	Unit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Diesel	M.Litres	0.4	0.4	0.6	0.6	0.4	2.3	2.0	1.0	0.5	0.9	0.4	1.7	11.1
Fuel Oil	M.Litres	7.3	7.9	0.0	25.9	24.0	54.7	68.4	31.3	64.5	15.8	9.8	4.8	314.4
Natural Gas	MMSCF	45,545.5	48,152.4	51,638.5	46,356.2	53,092.3	49,834.7	49,592.2	51,522.2	48,171.2	46,163.4	46,573.3	43,922.7	580,564.4
Lignite	1,000 Tons	1,491.9	1,350.2	1,524.4	1,453.6	1,552.5	1,490.7	1,537.6	1,393.3	1,344.1	1,391.1	1,277.8	1,354.1	17,161.2

2012

Fuel Type	Unit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Diesel	M.Litres	0.4	0.8	2.2	0.7	1.7	0.7	2.7	1.1	4.5	1.2	1.8	1.3	19.1
Fuel Oil	M.Litres	3.6	16.4	3.0	94.1	94.4	28.3	14.6	27.7	9.5	20.7	6.9	0.0	319.3
Natural Gas	MMSCF	47,447.9	49,049.6	60,494.9	50,435.9	57,343.4	58,911.2	62,099.3	52,996.8	43,348.9	57,165.5	59,464.1	56,153.8	654,911.3
Lignite	1,000 Tons	1,422.0	1,305.3	1,396.4	1,423.1	1,487.2	1,464.7	1,329.9	1,518.3	1,325.2	1,305.3	1,440.2	1,336.7	16,754.3

2013

Fuel Type	Unit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Diesel	M.Litres	1.4	0.7	2.4	13.7	21.0	5.5	2.3	3.0	3.6	3.0	1.8	1.9	60.3
Fuel Oil	M.Litres	29.9	24.5	15.1	55.6	5.4	28.9	31.5	29.3	20.0	25.9	28.1	22.605	316.7
Natural Gas	MMSCF	51,524.6	52,157.6	61,707.4	50,512.3	57,881.9	56,498.3	50,519.1	47,933.2	46,958.5	45,970.3	49,508.1	46,501.0	617,672.2
Lignite	1,000 Tons	1,478.4	1,300.4	1,292.6	1,435.9	1,575.6	1,461.2	1,392.0	1,494.9	1,295.7	1,442.7	1,318.5	1,396.9	16,884.9

Source : EGAT

Compiled by : Energy Policy and Planning Office (EPPO)

Table 5.4-1M
Import of Electricity

Unit : GWh

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
1989	19.48	17.30	17.43	16.83	20.10	32.86	44.45	54.88	83.36	72.97	59.03	51.85	490.54
1990	60.18	46.72	43.27	30.06	23.14	41.15	53.97	62.17	56.26	65.95	56.41	60.21	599.50
1991	40.98	42.69	41.99	55.24	35.24	40.22	69.66	85.75	56.57	50.27	49.49	25.00	593.11
1992	23.44	35.23	21.03	29.11	34.38	46.55	69.72	75.39	50.58	47.08	27.64	19.73	479.88
1993	22.76	15.83	20.70	24.69	31.91	45.45	77.84	116.29	120.09	82.62	37.28	49.06	644.51
1994	47.31	42.80	47.61	42.14	50.38	60.65	103.99	116.49	120.69	113.87	64.51	60.39	870.82
1995	44.81	46.85	40.29	38.78	39.00	41.04	54.34	93.07	104.83	83.30	57.68	55.13	699.12
1996	40.48	43.77	35.38	33.81	38.92	54.63	64.62	99.19	114.07	113.68	81.43	85.64	805.61
1997	45.76	40.48	32.41	43.66	44.02	42.26	69.28	99.79	104.66	105.17	66.29	51.87	745.63
1998	71.99	102.90	87.18	92.21	101.40	181.12	197.53	151.91	191.39	174.34	130.02	140.71	1,622.71
1999	102.68	63.18	61.91	76.95	177.15	199.06	241.72	258.48	277.66	283.14	262.92	250.83	2,255.66
2000	176.64	137.87	167.36	192.37	294.32	267.33	301.01	320.31	336.51	298.65	246.17	227.72	2,966.26
2001	206.11	158.36	171.13	138.52	205.79	279.94	318.69	316.53	312.74	302.73	257.96	213.27	2,881.76
2002	190.30	149.19	146.50	163.46	221.70	271.79	301.33	313.36	289.41	300.72	241.30	223.12	2,812.18
2003	189.80	140.37	146.97	114.73	174.74	223.71	237.11	259.51	284.30	298.83	221.68	181.65	2,473.41
2004	151.66	182.15	148.30	310.09	216.58	282.33	361.39	382.18	362.98	373.34	352.36	254.50	3,377.85
2005	234.07	193.96	304.44	311.02	282.50	409.15	434.85	489.89	493.78	376.64	440.68	400.93	4,371.89
2006	377.46	366.69	449.86	409.01	294.49	437.64	496.20	511.43	505.99	434.09	478.72	390.29	5,151.85
2007	335.50	278.82	386.01	365.28	400.04	333.76	422.92	335.66	273.48	502.59	435.95	418.37	4,488.36
2008	342.25	170.17	152.48	260.32	167.29	227.36	275.81	271.39	327.00	268.45	183.03	138.02	2,783.57
2009	171.11	106.10	130.43	108.28	147.45	182.69	245.53	275.08	205.88	273.76	336.01	277.76	2,460.09
2010	164.14	143.13	568.33	741.43	791.99	789.05	801.08	768.50	780.25	795.42	486.99	423.47	7,253.78
2011	412.36	638.01	789.54	1,019.12	1,075.41	1,072.22	1,315.34	792.65	1,120.57	1,164.63	909.59	464.96	10,774.41
2012	484.49	799.21	1,163.71	1,135.51	1,076.04	937.38	946.70	1,114.62	1,140.62	797.11	519.16	412.89	10,527.43
2013	362.23	555.80	818.24	1,140.10	1,310.01	1,268.21	1,297.32	1,515.48	1,596.69	1,341.60	1,044.41	321.70	12,571.79

Source : EGAT

Compiled by : Energy Policy and Planning Office (EPPO)

Table 5.4-2M
Export of Electricity

Unit : GWh

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
1989	1.77	1.63	1.89	1.98	2.05	1.95	2.01	2.04	1.99	2.01	1.87	1.91	23.10
1990	2.10	1.98	2.35	3.61	2.39	2.29	2.36	2.44	2.41	2.41	2.25	2.33	28.92
1991	2.58	2.42	3.04	2.98	3.17	3.05	3.17	2.95	3.09	3.02	2.71	2.95	35.13
1992	3.05	3.16	4.11	4.12	3.98	3.41	3.31	3.32	3.33	3.19	3.05	3.34	41.36
1993	3.62	3.28	5.36	4.56	3.79	3.76	4.01	3.79	3.94	3.90	3.80	3.91	47.73
1994	4.15	4.31	5.54	6.14	5.41	4.44	4.47	4.50	4.51	4.53	4.47	4.97	57.44
1995	5.93	6.22	8.48	9.02	7.57	5.83	5.59	5.69	5.55	5.58	5.24	6.13	76.83
1996	7.21	7.06	9.30	8.19	7.12	6.99	7.13	6.91	6.00	6.38	5.92	6.25	84.47
1997	7.41	7.48	10.40	9.26	9.42	7.89	7.64	7.50	7.39	7.40	7.06	9.04	97.88
1998	12.21	11.87	15.46	14.10	12.18	10.31	9.59	9.39	9.15	10.69	9.96	12.68	137.60
1999	17.25	18.09	28.29	20.05	11.22	9.65	10.64	10.75	9.62	9.76	9.15	10.36	164.83
2000	13.75	15.18	19.22	14.82	11.51	10.63	10.88	10.96	9.82	10.45	10.29	12.41	149.92
2001	16.41	16.79	20.48	19.11	14.96	11.57	11.56	11.55	10.98	11.31	10.02	12.78	167.52
2002	16.36	18.48	24.94	21.08	18.76	13.09	13.62	11.91	11.47	11.98	11.36	14.78	187.84
2003	16.43	19.47	24.85	23.10	21.49	15.26	14.92	13.39	12.62	13.33	13.57	17.68	206.11
2004	22.95	23.16	33.08	28.07	30.52	17.10	14.39	14.10	13.73	14.29	17.27	24.40	253.06
2005	36.51	34.36	42.76	42.95	69.57	57.23	33.56	32.48	36.37	35.66	37.04	42.62	501.09
2006	50.87	48.47	55.40	53.06	53.01	46.33	42.03	42.10	43.64	40.36	53.19	57.67	586.13
2007	59.71	51.68	78.82	74.27	59.42	76.20	55.76	53.49	52.72	45.91	50.28	86.42	744.68
2008	86.76	79.18	100.63	103.29	79.93	63.47	71.02	73.23	65.09	69.34	72.64	96.50	961.09
2009	87.53	100.78	130.01	130.82	119.69	92.48	78.21	77.67	85.32	131.56	130.21	141.22	1,305.50
2010	151.42	150.09	155.92	156.38	160.84	143.20	108.20	53.00	56.19	51.50	57.56	69.34	1,313.65
2011	86.12	95.02	201.96	154.79	195.55	138.33	62.58	48.50	45.47	51.25	125.14	130.62	1,335.34
2012	93.50	100.51	164.03	173.11	159.91	118.78	99.11	86.92	80.30	143.84	165.84	149.28	1,535.14
2013	113.41	132.63	186.02	196.23	228.74	158.48	78.93	49.03	19.14	23.94	91.81	96.39	1,374.75

Source : EGAT

Compiled by : Energy Policy and Planning Office (EPPO)



Appendix I
Chapter 6

Energy Value



Table 6.1-1M
Expenditure on Final Energy Consumption

Unit: Million Bahts

2009													
Energy Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Petroleum Products	68,983	64,208	75,035	75,012	80,106	79,160	83,034	85,565	82,280	82,138	87,209	97,338	960,067
Electricity	30,115	32,004	37,511	35,035	37,032	37,301	37,077	38,161	37,553	37,754	36,468	35,156	431,165
Natural Gas	3,398	3,131	3,682	3,426	3,559	3,852	4,066	4,356	4,755	5,081	5,011	4,955	49,272
Lignite/Coal	2,045	1,996	2,314	2,620	2,539	2,727	2,448	2,339	2,577	2,220	2,298	2,487	28,611
Renewable Energy	10,957	10,743	10,053	9,237	8,984	8,889	8,882	8,894	8,880	8,974	10,045	10,729	115,267
Total	**115,499**	**112,082**	**128,595**	**125,329**	**132,220**	**131,929**	**135,507**	**139,315**	**136,044**	**136,166**	**141,030**	**150,665**	**1,584,383**

2010													
Energy Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Petroleum Products	93,437	90,051	100,285	93,967	91,845	87,615	89,470	88,970	84,473	88,691	95,265	102,599	1,106,668
Electricity	36,065	36,632	41,356	40,092	42,849	41,551	41,509	39,909	39,819	39,902	37,599	37,389	474,671
Natural Gas	5,261	5,361	6,141	5,387	5,745	5,875	5,821	5,869	5,778	5,610	5,732	6,143	68,724
Lignite/Coal	2,023	1,955	2,592	2,763	2,666	2,595	2,741	2,384	2,771	2,450	2,612	2,187	29,738
Renewable Energy	12,102	11,811	11,224	10,331	10,238	10,138	10,107	10,106	10,122	10,145	11,068	11,980	129,370
Total	**148,887**	**145,810**	**161,597**	**152,541**	**153,343**	**147,773**	**149,647**	**147,238**	**142,962**	**146,798**	**152,276**	**160,297**	**1,809,170**

2011													
Energy Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Petroleum Products	104,096	97,899	109,791	106,274	105,085	102,503	103,455	102,145	94,120	94,253	94,166	106,796	1,220,582
Electricity	36,107	35,503	39,976	37,156	42,923	42,505	41,706	41,938	42,002	39,992	35,458	36,340	471,604
Natural Gas	6,263	6,077	7,736	7,558	8,455	8,677	8,856	8,989	9,178	8,857	8,162	8,857	97,666
Lignite/Coal	2,386	2,411	2,835	2,583	2,537	3,113	2,523	2,848	2,513	2,383	2,623	2,517	31,273
Renewable Energy	10,878	10,684	10,707	10,314	9,683	9,270	8,793	9,219	9,251	9,276	10,352	11,246	119,673
Total	**159,730**	**152,574**	**171,046**	**163,884**	**168,682**	**166,068**	**165,333**	**165,139**	**157,064**	**154,761**	**150,761**	**165,755**	**1,940,797**

Energy Value

Table 6.1-1M (Cont.)
Expenditure on Final Energy Consumption

Unit: Million Bahts

2012													
Energy Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Petroleum Products	108,932	109,624	119,759	112,437	113,342	103,923	104,246	106,528	99,891	106,928	109,909	115,509	1,311,027
Electricity	38,333	41,523	44,882	43,257	47,214	44,296	44,695	44,258	43,222	44,586	45,041	43,087	524,392
Natural Gas	9,597	9,560	10,239	10,406	11,102	10,566	10,455	10,130	10,069	10,388	10,249	9,749	122,509
Lignite/Coal	2,781	2,398	2,448	2,722	2,945	2,748	2,725	2,623	2,644	2,632	2,583	2,358	31,607
Renewable Energy	10,997	10,925	10,867	9,776	9,237	9,150	9,140	9,162	9,151	9,152	9,725	10,994	118,275
Total	**170,639**	**174,030**	**188,196**	**178,597**	**183,839**	**170,684**	**171,261**	**172,701**	**164,976**	**173,685**	**177,506**	**181,697**	**2,107,811**

2013													
Energy Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Petroleum Products	110,286	107,122	118,868	110,615	114,251	105,124	110,389	108,543	102,059	108,743	112,029	117,868	1,325,898
Electricity	42,328	41,230	47,161	45,916	49,395	46,022	45,631	45,963	44,950	45,081	44,159	39,858	537,695
Natural Gas	9,920	9,043	10,111	9,491	9,900	9,641	10,818	10,403	10,542	10,682	10,101	10,354	121,005
Lignite/Coal	1,955	1,634	1,698	1,978	2,084	2,333	2,304	2,449	2,366	2,649	2,408	2,241	26,096
Renewable Energy	11,398	11,288	11,193	9,766	9,100	9,006	8,998	9,015	9,008	9,009	9,519	11,229	118,529
Total	**175,886**	**170,317**	**189,030**	**177,766**	**184,729**	**172,126**	**178,141**	**176,374**	**168,926**	**176,163**	**178,216**	**181,549**	**2,129,223**

Source : PTT, EGAT, DOEB and DEDE

Compiled by : Energy Policy and Planning Office (EPPO)

Table 6.1-2M
Expenditure on Petroleum Products Consumption

Unit: Million Bahts

2009

Energy Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Gasoline	12,922	13,888	16,600	17,277	18,515	18,506	19,440	20,432	20,131	16,239	19,365	21,518	214,832
- Regular	7,706	8,186	9,634	10,000	10,726	10,768	11,406	11,961	11,505	8,064	11,408	12,681	124,046
- Premium	5,216	5,702	6,966	7,277	7,789	7,737	8,034	8,471	8,627	8,175	7,956	8,837	90,786
Kerosene	39	50	64	45	50	51	50	53	63	63	60	69	657
Diesel	31,105	27,349	32,381	34,424	37,164	36,828	37,629	39,456	36,478	38,329	40,621	46,314	438,079
J.P.	14,703	13,552	15,037	12,800	12,977	11,967	13,241	13,516	12,909	14,082	14,574	15,540	164,897
Fuel Oil	3,709	3,625	3,668	3,468	4,027	4,384	4,550	4,067	4,911	5,394	4,767	5,531	52,101
LPG	6,505	5,744	7,285	6,998	7,372	7,424	8,125	8,041	7,788	8,030	7,823	8,365	89,501
Total	**68,983**	**64,208**	**75,035**	**75,012**	**80,106**	**79,160**	**83,034**	**85,564**	**82,280**	**82,138**	**87,209**	**97,338**	**960,067**

2010

Energy Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Gasoline	20,402	20,173	21,596	21,328	20,277	20,264	20,863	20,381	19,357	20,176	21,191	23,028	249,036
- Regular	12,040	12,232	13,344	13,142	12,644	12,676	13,019	12,706	12,179	12,688	13,401	14,550	154,621
- Premium	8,362	7,941	8,251	8,186	7,632	7,588	7,844	7,675	7,178	7,488	7,790	8,478	94,415
Kerosene	68	53	56	40	70	43	39	35	40	44	41	43	572
Diesel	43,058	42,407	47,995	45,189	45,625	41,772	42,118	40,262	38,359	40,345	45,633	49,413	522,176
J.P.	16,187	14,881	16,321	14,395	12,828	12,759	13,675	14,889	13,844	14,979	15,304	16,674	176,736
Fuel Oil	4,654	4,821	5,600	4,765	4,686	4,310	4,548	4,376	4,053	4,176	4,441	4,071	54,500
LPG	9,067	7,716	8,719	8,251	8,360	8,468	8,226	9,026	8,820	8,971	8,655	9,369	103,648
Total	**93,437**	**90,051**	**100,285**	**93,967**	**91,845**	**87,615**	**89,470**	**88,970**	**84,473**	**88,691**	**95,265**	**102,599**	**1,106,668**

2011

Energy Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Gasoline	22,626	21,969	23,663	24,479	24,008	24,057	23,972	23,997	21,300	20,227	19,011	22,182	271,490
- Regular	14,433	14,095	15,231	15,743	15,517	15,719	15,539	16,139	15,793	15,438	14,602	16,058	184,308
- Premium	8,193	7,874	8,432	8,736	8,491	8,337	8,433	7,857	5,507	4,788	4,408	6,124	87,182
Kerosene	39	39	42	38	34	39	47	45	47	42	43	40	496
Diesel	48,505	44,942	51,121	49,776	50,564	48,142	45,589	45,321	41,993	41,640	45,388	52,102	565,081
J.P.	18,212	16,481	18,127	16,280	14,873	14,680	15,716	15,950	15,192	15,612	15,722	17,071	193,917
Fuel Oil	4,128	5,124	5,446	4,417	4,102	4,619	5,883	4,840	4,373	5,410	3,918	4,795	57,057
LPG	10,586	9,345	11,392	11,283	11,504	10,965	12,248	11,991	11,215	11,322	10,085	10,605	132,542
Total	**104,096**	**97,899**	**109,791**	**106,274**	**105,085**	**102,503**	**103,455**	**102,145**	**94,120**	**94,253**	**94,166**	**106,796**	**1,220,582**

Energy Value

Table 6.1-2M (Cont.)
Expenditure on Petroleum Products Consumption

Unit: Million Bahts

2012													
Energy Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Gasoline	23,072	23,353	25,764	25,174	24,858	23,791	24,421	25,547	23,115	25,474	25,773	28,145	298,487
- Regular	16,581	16,709	18,515	17,900	17,796	17,018	17,290	17,802	15,839	17,727	17,828	19,011	210,016
- Premium	6,492	6,644	7,249	7,273	7,062	6,773	7,131	7,745	7,276	7,747	7,946	9,134	88,470
Kerosene	40	51	51	47	46	37	36	30	32	36	42	36	484
Diesel	51,604	53,075	58,698	55,215	55,115	50,273	48,977	49,465	46,394	49,593	52,191	54,659	625,259
J.P.	16,713	16,920	17,832	15,224	13,935	13,496	14,028	14,417	13,653	14,635	15,505	16,717	183,075
Fuel Oil	5,520	4,622	5,153	4,434	7,043	5,244	5,367	4,543	4,507	4,821	4,663	4,151	60,069
LPG	11,982	11,602	12,262	12,343	12,345	11,081	11,416	12,526	12,190	12,368	11,735	11,802	143,653
Total	**108,932**	**109,624**	**119,759**	**112,437**	**113,342**	**103,923**	**104,246**	**106,528**	**99,891**	**106,928**	**109,909**	**115,509**	**1,311,027**

2013													
Energy Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Gasoline	21,831	23,751	26,784	25,201	25,707	25,200	27,062	27,199	24,152	25,355	25,416	26,793	304,451
- Regular	8,877	9,232	10,490	9,846	10,039	9,972	10,857	10,984	9,905	10,305	10,379	10,951	121,836
- Premium	12,955	14,519	16,294	15,356	15,669	15,228	16,204	16,215	14,247	15,050	15,037	15,842	182,615
Kerosene	39	31	35	30	30	29	34	36	27	32	34	33	390
Diesel	54,832	50,487	57,088	53,007	56,517	49,970	51,125	48,730	45,762	49,792	52,159	54,744	624,213
J.P.	17,513	16,521	17,642	15,784	15,840	14,450	15,678	16,261	15,605	16,291	17,526	18,133	197,243
Fuel Oil	3,943	4,425	4,896	4,963	3,880	3,507	4,011	4,273	4,086	3,851	3,825	4,472	50,131
LPG	12,129	11,907	12,424	11,630	12,276	11,968	12,480	12,044	12,427	13,422	13,069	13,693	149,470
Total	**110,286**	**107,122**	**118,868**	**110,615**	**114,251**	**105,124**	**110,389**	**108,543**	**102,059**	**108,743**	**112,029**	**117,868**	**1,325,898**

Table 6.1-3M
Value of Energy Import

Unit: Million Bahts

2009													
Energy Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Crude Oil	36,462	28,368	49,271	44,718	48,364	60,146	55,053	56,159	64,510	58,875	65,035	56,061	623,024
Petroleum Products	1,725	2,244	3,926	906	2,494	1,042	1,911	1,950	2,825	2,841	3,543	3,711	29,116
Natural Gas	3,442	7,319	7,278	7,639	8,708	8,554	7,302	8,005	7,613	7,142	6,666	4,539	84,208
Coal	2,011	2,451	3,468	3,588	3,364	2,769	3,394	3,267	3,754	4,601	1,816	2,452	36,935
Electricity	308	183	228	177	242	292	384	422	396	344	332	315	3,623
Total	43,948	40,565	64,171	57,029	63,172	72,803	68,044	69,802	79,099	73,803	77,392	67,078	776,906

2010													
Energy Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Crude Oil	61,323	60,116	58,100	76,338	60,066	63,314	59,100	61,968	56,355	56,070	63,825	74,891	751,467
Petroleum Products	3,762	3,108	7,158	5,882	7,275	6,796	4,552	5,277	5,626	7,009	4,169	6,222	66,835
Natural Gas	6,026	6,990	5,239	7,436	7,968	7,202	8,073	7,469	7,616	7,116	6,403	6,942	84,481
Coal	2,702	3,087	3,282	4,953	3,209	2,860	2,643	2,272	3,783	3,579	3,076	3,914	39,361
Electricity	223	186	739	932	207	993	1,019	1,004	1,108	512	664	571	8,157
Total	74,037	73,487	74,518	95,541	78,725	81,165	75,387	77,989	74,488	74,285	78,137	92,539	950,300

2011													
Energy Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Crude Oil	69,178	62,257	80,347	92,784	98,123	80,322	88,088	95,282	75,827	75,010	79,582	80,574	977,374
Petroleum Products	6,608	9,149	7,955	6,435	9,518	6,700	8,344	7,760	8,591	8,177	8,723	6,318	94,279
Natural Gas	5,413	6,251	7,244	7,557	8,623	8,428	9,389	9,010	9,175	7,940	7,679	6,785	93,493
Coal	3,678	4,064	3,518	3,624	3,876	4,548	2,927	2,721	4,266	2,617	3,645	2,852	42,336
Electricity	717	725	1,002	1,251	1,394	1,415	1,851	129	1,459	1,374	990	1,553	13,860
LNG					1,037	2,385	3,204	4,119	1,974	1,391	1,884		15,993
Total	85,594	82,446	100,066	111,650	122,571	103,798	113,804	119,020	101,292	96,509	102,504	98,081	1,237,336

Table 6.1-3M (Cont.)
Value of Energy Import

Unit: Million Bahts

2012													
Energy Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Crude Oil	100,430	103,967	113,320	105,288	97,639	88,560	79,694	83,469	80,533	95,358	79,659	91,421	1,119,338
Petroleum Products	7,161	13,104	12,417	15,761	10,367	6,457	8,569	13,411	9,859	9,349	10,027	7,689	124,171
Natural Gas	6,984	8,595	10,532	6,666	10,168	11,239	10,544	10,717	9,116	11,126	10,649	9,988	116,325
Coal	3,590	4,065	3,714	5,238	4,164	3,215	3,589	4,619	4,096	5,222	3,062	2,128	46,702
Electricity	1,074	1,060	1,688	1,709	1,569	1,422	1,390	1,521	1,531	1,130	779	568	15,440
LNG	2,132	1,523	3,144		2,048	4,074	3,289	1,754	1,750	1,245	1,209	1,855	24,023
Total	**121,371**	**132,313**	**144,816**	**134,661**	**125,955**	**114,967**	**107,075**	**115,491**	**106,885**	**123,430**	**105,385**	**113,649**	**1,445,999**

2013													
Energy Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Crude Oil	96,652	84,696	97,538	86,333	77,259	77,382	78,590	102,302	82,365	97,287	99,672	92,144	1,072,221
Petroleum Products	11,448	10,674	12,748	8,746	13,173	12,976	11,956	12,472	11,677	14,752	7,722	10,157	138,501
Natural Gas	9,318	7,456	10,180	6,322	9,736	9,289	9,475	10,097	10,213	10,423	10,378	9,026	111,911
Coal	3,773	2,337	1,252	2,173	3,666	4,995	3,491	4,258	2,971	3,965	3,003	3,830	39,714
Electricity	496	852	1,268	1,772	2,048	1,948	1,874	2,223	2,223	1,908	1,457	478	18,546
LNG	1,914	2,225	4,358	5,013	1,653	4,151	4,827	1,448	1,601	3,690	1,450	2,496	34,827
Total	**123,602**	**108,240**	**127,343**	**110,360**	**107,535**	**110,741**	**110,213**	**132,800**	**111,049**	**132,025**	**123,682**	**118,132**	**1,415,720**

Source : PTT, EGAT, DOEB and DEDE

Compiled by : Energy Policy and Planning Office (EPPO)

Table 6.1-4M
Value of Energy Export

Unit: Million Bahts

2009													
Energy Type	Jan	Feb	Mar	Apr.	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Crude Oil	2,356	1,549	1,528	2,298	2,374	1,549	4,211	2,609	1,392	1,960	2,806	2,778	27,410
Electricity	276	317	411	406	369	293	241	241	267	407	404	438	4,068
Petroleum Products	12,770	8,455	10,737	14,032	17,315	22,274	18,479	21,369	19,108	21,846	17,668	21,234	205,286
Total Export	**15,402**	**10,321**	**12,676**	**16,736**	**20,057**	**24,116**	**22,930**	**24,219**	**20,767**	**24,213**	**20,878**	**24,450**	**236,764**

2010													
Energy Type	Jan	Feb	Mar	Apr.	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Crude Oil	2,661	503	2,701	2,135	2,287	1,830	3,287	2,239	3,115	1,197	2,173	1,980	26,107
Electricity	466	470	486	488	500	448	337	164	175	160	179	213	4,087
Petroleum Products	11,853	12,517	15,746	20,187	18,105	22,101	21,961	22,949	24,654	21,183	20,828	19,781	231,864
Total Export	**14,980**	**13,490**	**18,933**	**22,811**	**20,892**	**24,379**	**25,585**	**25,351**	**27,944**	**22,540**	**23,180**	**21,974**	**262,058**

2011													
Energy Type	Jan	Feb	Mar	Apr.	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Crude Oil	2,609	2,887	2,676	5,398	2,798	3,528	1,012	4,417	3,079	4,127	3,508	2,887	38,926
Electricity	264	288	616	469	614	441	193	151	143	166	374	421	4,140
Petroleum Products	18,005	9,289	17,678	23,563	25,812	20,426	29,667	35,017	30,245	19,536	19,266	29,753	278,257
Total Export	**20,878**	**12,464**	**20,970**	**29,431**	**29,223**	**24,395**	**30,872**	**39,585**	**33,467**	**23,828**	**23,148**	**33,061**	**321,322**

2012													
Energy Type	Jan	Feb	Mar	Apr.	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Crude Oil	7,326	6,668	2,769	5,407	5,971	3,122	5,482	3,418	2,656	2,452	3,683	2,578	51,531
Electricity	289	327	508	549	510	412	341	304	294	529	607	552	5,223
Petroleum Products	27,732	29,065	30,872	31,619	28,991	31,202	23,896	24,369	32,258	28,999	29,974	25,407	344,384
Total Export	**35,347**	**36,060**	**34,150**	**37,574**	**35,472**	**34,736**	**29,719**	**28,091**	**35,208**	**31,980**	**34,264**	**28,537**	**401,138**

2013													
Energy Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Crude Oil	3,340	3,382	4,796	1,749	2,126	2,190	2,786	2,712		3,919	1,281	833	29,115
Electricity	364	426	592	642	741	506	253	157	62	77	295	311	4,424
Petroleum Products	22,463	24,654	29,331	25,872	21,156	19,302	28,275	37,078	33,652	30,944	34,138	35,342	342,208
Total Export	**26,168**	**28,462**	**34,718**	**28,263**	**24,023**	**21,998**	**31,314**	**39,947**	**33,714**	**34,940**	**35,714**	**36,487**	**375,747**

Energy Value



Appendix I
Chapter 7

Petroleum Prices

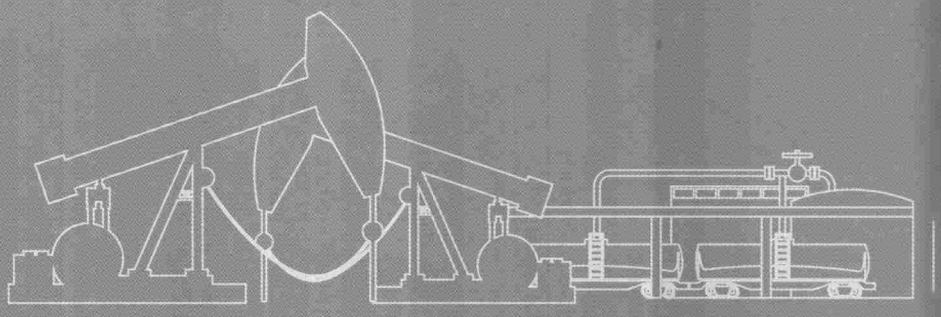


Table 7.1-1M
Ex-Refinery Prices of Petroleum Products in Thailand

Unit : Baht/Litre

	Ex-Refinery Prices														
	ULG 95	UGR 91	Gasohol 95 (E10)	Gasohol 95 (E20)	Gasohol 95 (E85)	Gasohol 91	Kerosene	HSD 0.035%S	HSD B5	LSD	FO 1500	Low Income Household	LPG (Baht/kg) Cooking	LPG (Baht/kg) Industry	LPG (Baht/kg) Automobile
2009															
Jan	11.85	11.39	12.58	13.21		12.39	13.39	13.50	13.84	12.86	9.29		11.00		
Feb	13.29	12.86	13.88	14.37	16.60	13.69	12.09	11.81	12.21	11.15	9.52		11.00		
Mar	12.61	12.17	13.27	13.83	16.49	13.08	12.35	12.61	13.05	11.96	9.26		11.00		
Apr	13.91	13.48	14.44	14.87	16.69	14.25	13.57	13.82	14.16	13.23	10.66		11.00		
May	15.17	14.74	15.71	16.15	18.08	15.52	14.30	14.81	15.27	14.15	12.20		11.00		
Jun	16.91	16.49	17.43	17.84	19.62	17.24	16.78	17.20	17.62	16.56	13.85		11.00		
Jul	15.90	15.48	16.57	17.15	19.98	16.39	15.85	16.01	16.37	15.40	13.84		11.00		
Aug	18.34	17.42	18.83	19.22	20.85	18.20	17.17	17.62	17.92	17.05	14.93		11.00		
Sep	17.10	16.18	17.60	18.01	19.74	16.97	16.33	16.77	17.11	16.17	14.57		11.37		
Oct	17.00	16.09	17.52	17.94	19.78	16.89	17.04	17.27	17.52	16.75	14.78		11.30		
Nov	17.96	17.06	18.85	19.65	23.92	18.22	18.16	18.32	18.58	17.78	15.67		11.16		
Dec	17.88	16.97	18.79	19.60	23.97	18.16	17.73	17.75	18.12	17.14	15.57		11.12		
AVG	**15.66**	**15.03**	**16.29**	**16.82**	**19.61**	**15.92**	**15.40**	**15.62**	**15.98**	**15.02**	**12.85**		**11.08**		
2010															
Jan	19.09	18.18	19.80	20.42	23.54	19.17	18.31	18.37	18.77	17.74	16.13		11.10		
Feb	18.48	18.03	18.92	19.27	20.63	18.70	17.49	17.91	18.26	17.30	15.38		11.04		
Mar	19.04	18.59	19.34	19.55	19.99	19.12	18.23	18.68	19.04	18.08	15.32		11.08		
Apr	19.54	19.09	19.92	20.22	21.27	19.71	19.52	19.85	20.16	19.29	15.78		10.86		
May	18.00	17.55	18.68	19.27	22.23	18.46	18.48	18.81	19.15	18.23	15.05		10.79		
Jun	17.50	17.05	18.26	18.92	22.38	18.04	18.06	18.37	18.61	17.66	14.39		10.83		
Jul	17.25	16.80	17.88	18.43	21.08	17.67	17.72	18.05	18.26	17.37	14.45		10.85		
Aug	17.04	16.70	17.87	18.50	21.74	17.65	17.94	18.41	18.63	17.71	14.60		10.80		
Sep	16.43	16.01	17.25	17.98	21.90	17.04	17.36	17.72	17.98	16.99	13.81		10.61		
Oct	17.29	16.87	18.39	19.40	25.19	18.18	18.10	18.37	18.66	17.61	14.23		10.31		
Nov	17.94	17.53	18.97	19.91	25.22	18.76	18.77	19.20	19.60	18.28	14.82		10.02		
Dec	19.67	19.26	20.59	21.42	26.01	20.39	19.94	20.54	21.02	19.49	15.37		9.99		
AVG	**18.11**	**17.64**	**18.82**	**19.44**	**22.60**	**18.57**	**18.33**	**18.69**	**19.01**	**17.98**	**14.94**		**10.69**		
2011															
Jan	20.79	20.37	21.65	22.42	26.58	21.44	21.35	22.13	22.77	20.80	16.21		10.07		
Feb	21.90	21.47	22.55	23.13	26.00	22.34	23.43	24.15	24.91	22.61	18.36		10.22		
Mar	23.49	23.06	24.00	24.42	26.36	23.78	25.58	25.70	26.23	24.96	19.34		10.27		
Apr	24.80	24.38	24.83	24.78	23.62	24.62	26.51	26.69	26.99	26.09	20.19		10.15		
May	24.42	23.99	24.57	24.64	24.27	24.36	25.02	25.29		24.47	19.51		10.05		
Jun	23.57	23.13	23.90	24.16	24.97	23.69	24.82	25.13		24.33	19.83		10.11		
Jul	24.24	23.81	24.41	24.50	24.27	24.20	24.84	25.12		24.40	19.89		10.20	4.61	
Aug	23.39	23.00	23.58	23.70	23.61	23.40	23.84	24.04		23.18	19.25		10.06	10.06	
Sep	24.31	23.89	24.36	24.32	23.26	24.15	24.12	24.44		23.65	19.76		9.99	9.99	
Oct	24.05	23.61	24.25	24.36	24.25	24.03	24.27	24.30		23.61	20.02		10.17	10.17	
Nov	22.48	22.05	22.54	22.51	21.47	22.32	25.33	25.64		24.99	21.03		10.32	10.32	
Dec	22.66	22.24	22.68	22.62	21.37	22.48	24.53	25.16		24.35	20.61		10.35	10.35	
AVG	**23.34**	**22.92**	**23.61**	**23.80**	**24.17**	**23.40**	**24.47**	**24.82**	**25.23**	**23.95**	**19.50**		**10.16**	**9.25**	

Table 7.1-1M (Cont.)
Ex-Refinery Prices of Petroleum Products in Thailand

Unit : Baht/Litre

	Ex-Refinery Prices													
	ULG 95	UGR 91	Gasohol 95 (E10)	Gasohol 95 (E20)	Gasohol 95 (E85)	Gasohol 91	Kerosene	HSD 0.035%S	HSD B5	LSD	FO 1500	Low Income Household	LPG (Baht/kg) Cooking	LPG (Baht/kg) Industry	LPG (Baht/kg) Automobile
2012															
Jan	25.03	24.58	24.94	24.77	22.75	24.78	25.49	26.41		25.49	22.33		10.43	10.43	10.43
Feb	26.66	26.21	26.46	26.17	23.41	26.24	26.83	27.77		26.62	22.86		10.92	10.92	10.92
Mar	27.05	26.61	26.73	26.33	22.87	26.51	26.67	27.64		26.32	22.50		10.27	10.27	10.27
Apr	27.18	26.71	26.67	26.07	21.32	26.42	26.36	27.38		25.97	22.22		10.26	10.26	10.26
May	25.16	24.66	24.86	24.48	21.15	24.60	24.90	25.87		24.46	21.13		10.33	10.33	10.33
Jun	22.03	21.53	22.02	21.93	20.44	21.75	22.50	23.53		22.10	18.87		10.47	10.47	10.47
Jul	23.28	22.82	23.20	23.03	21.03	22.96	23.67	24.69		23.28	19.38		10.58	10.58	10.58
Aug	26.01	25.57	25.63	25.17	21.28	25.41	25.86	26.64		25.51	20.78		10.58	10.58	10.58
Sep	25.37	24.93	25.09	24.72	21.46	24.87	26.29	26.65		25.59	20.92		10.51	10.51	10.51
Oct	24.84	24.40	24.52	24.13	20.70	24.31	25.55	25.68		24.74	19.73		10.36	10.36	10.36
Nov	23.91	23.48	23.69	23.38	20.54	23.47	24.61	25.04		24.02	18.69		10.26	10.26	10.26
Dec	23.80	23.36	23.63	23.37	20.86	23.41	24.47	24.82		23.93	18.55		10.26	10.26	10.26
AVG	**25.03**	**24.57**	**24.79**	**24.46**	**21.48**	**24.56**	**25.27**	**26.01**		**24.84**	**20.66**		**10.44**	**10.44**	**10.44**
2013															
Jan	24.01	23.58	23.92	23.74	21.78	23.71	24.60	24.86		24.08	18.79		10.24	10.24	10.24
Feb	25.83	25.41	25.78	25.64	23.93	25.57	25.58	25.81		24.93	19.21		12.12	12.12	12.12
Mar	23.97	13.12	24.08	24.10	23.45	23.87	23.42	24.04		22.96	18.58		9.97	9.97	9.97
Apr	21.79		22.09	22.31	22.92	21.89	21.70	22.46		21.34	17.77		9.87	9.87	9.87
May	22.25		22.82	23.30	25.60	22.61	21.92	22.70		21.68	18.01		9.72	9.72	9.72
Jun	23.68		23.85	23.93	23.61	23.63	22.97	24.05		22.96	18.90		9.96	9.96	9.96
Jul	24.77		25.09	25.33	26.02	24.87	24.09	25.01		24.01	18.64		10.30	10.30	10.30
Aug	24.08		24.77	25.37	28.41	24.55	25.05	25.41		24.48	18.90		10.40	10.40	10.40
Sep	24.41		24.84	25.17	26.48	24.61	25.21	25.64		24.62	19.16	10.56	10.56	10.56	10.56
Oct	23.40		23.93	24.38	26.42	23.71	24.55	25.27		24.25	19.03	10.60	10.60	10.60	10.60
Nov	23.71		24.25	24.71	26.80	24.03	24.73	25.50		24.36	18.94	10.43	10.43	10.43	10.43
Dec	25.06		25.45	25.76	26.85	25.23	26.18	26.96		25.62	19.64	10.57	10.57	10.57	10.57
AVG	**23.91**	**20.70**	**24.24**	**24.48**	**25.19**	**24.02**	**24.17**	**24.81**		**23.77**	**18.80**	**10.54**	**10.40**	**10.40**	**10.40**

Remark : gasoline octane 91 had been no longer for sale in the market since April 2013.

Table 7.1-2M
Oil Fund Levied on Petroleum Products in Thailand

Unit : Baht/Litre

	Ex-Refinery														
	ULG	UGR	Gasohol 95			Gasohol	Kerosene	HSD	HSD	LSD	FO 1500	Low Income	LPG (Baht/kg)		
	95	91	(E10)	(E20)	(E85)	91		0.035%S	B5			Household	Cooking	Industry	Automobile
2009	**6.94**	**5.31**	**1.78**	**-0.80**	**-7.88**	**1.17**	**0.10**	**0.78**	**-0.95**	**1.20**	**0.06**		**0.22**		
Jan	7.00	4.00	2.35	-0.30		1.75	0.10	1.70	-0.20	1.20	0.06		0.30		
Feb	7.00	4.00	-0.49	-2.59	-6.50	-1.09	0.10	0.07	-0.63	1.20	0.06		0.30		
Mar	7.00	5.17	1.91	-0.51	-5.70	1.31	0.10	0.75	-0.20	1.20	0.06		0.30		
Apr	7.00	5.70	2.35	-0.30	-5.70	1.75	0.10	1.70	-0.20	1.20	0.06		0.30		
May	5.93	4.63	1.41	-1.12	-7.91	0.81	0.10	0.59	-1.85	1.20	0.06		0.30		
Jun	5.36	4.06	0.86	-1.57	-7.84	0.10	0.10	-0.01	-2.70	1.20	0.06		0.30		
Jul	6.65	5.35	1.67	-0.94	-7.22	1.07	0.10	1.14	-1.18	1.20	0.06		0.30		
Aug	7.29	5.99	2.27	-0.46	-7.13	1.67	0.10	1.02	-0.57	1.20	0.06		0.30		
Sep	7.50	6.20	2.27	-0.46	-7.76	1.67	0.10	0.84	-1.43	1.20	0.06		-0.07		
Oct	7.50	6.20	2.27	-0.46	-10.30	1.67	0.10	0.53	-0.81	1.20	0.06		0.00		
Nov	7.50	6.20	2.27	-0.46	-10.30	1.67	0.10	0.53	-0.81	1.20	0.06		0.14		
Dec	7.50	6.20	2.27	-0.46	-10.30	1.67	0.10	0.53	-0.81	1.20	0.06		0.18		
2010	**7.50**	**6.65**	**2.74**	**-0.41**	**-10.93**	**1.43**	**0.10**	**0.66**	**-0.65**	**1.20**	**0.06**		**0.61**		
Jan	7.50	6.20	2.27	-0.46	-10.30	1.67	0.10	0.53	-0.81	1.20	0.06		0.19		
Feb	7.50	6.56	2.65	-0.42	-10.80	1.48	0.10	0.85	-0.80	1.20	0.06		0.26		
Mar	7.50	6.70	2.80	-0.40	-11.00	1.40	0.10	0.85	-0.80	1.20	0.06		0.22		
Apr	7.50	6.70	2.80	-0.40	-11.00	1.40	0.10	0.85	-0.80	1.20	0.06		0.43		
May	7.50	6.70	2.80	-0.40	-11.00	1.40	0.10	0.85	-0.80	1.20	0.06		0.51		
Jun	7.50	6.70	2.80	-0.40	-11.00	1.40	0.10	0.65	-0.50	1.20	0.06		0.47		
Jul	7.50	6.70	2.80	-0.40	-11.00	1.40	0.10	0.65	-0.50	1.20	0.06		0.45		
Aug	7.50	6.70	2.80	-0.40	-11.00	1.40	0.10	0.65	-0.50	1.20	0.06		0.50		
Sep	7.50	6.70	2.80	-0.40	-11.00	1.40	0.10	0.65	-0.50	1.20	0.06		0.69		
Oct	7.50	6.70	2.80	-0.40	-11.00	1.40	0.10	0.65	-0.50	1.20	0.06		0.99		
Nov	7.50	6.70	2.80	-0.40	-11.00	1.40	0.10	0.65	-0.50	1.20	0.06		1.28		
Dec	7.50	6.70	2.80	-0.40	-11.00	1.40	0.10	0.04	-0.74	1.20	0.06		1.31		
2011	**4.90**	**4.38**	**1.87**	**-1.80**	**-13.50**	**-0.40**	**0.10**	**-0.60**	**-3.01**	**1.20**	**0.06**		**1.14**		
Jan	7.50	6.70	2.40	-1.30	-13.50	0.10	0.10	-1.30	-2.00	1.20	0.06		1.23		
Feb	7.50	6.70	2.40	-1.30	-13.50	0.10	0.10	-3.29	-3.77	1.20	0.06		1.08		
Mar	7.50	6.70	2.40	-1.30	-13.50	0.10	0.10	-4.92	-4.05	1.20	0.06		1.03		
Apr	7.50	6.70	2.40	-1.30	-13.50	0.10	0.10	-3.97	-2.20	1.20	0.06		1.15		
May	7.50	6.70	2.40	-1.30	-13.50	0.10	0.10	1.27		1.20	0.06		1.25		
Jun	7.50	6.70	2.40	-1.30	-13.50	0.10	0.10	1.38		1.20	0.06		1.19		
Jul	7.50	6.70	2.40	-1.30	-13.50	0.10	0.10	1.55		1.20	0.06		1.10	2.37	
Aug	6.29	5.62	2.37	-1.35	-13.50	0.05	0.10	2.06		1.20	0.06		1.24	4.05	
Sep	0.00	0.00	1.40	-2.80	-13.50	-1.40	0.10	0.00		1.20	0.06		1.31	4.11	
Oct	0.00	0.00	1.40	-2.80	-13.50	-1.40	0.10	0.00		1.20	0.06		1.13	6.74	
Nov	0.00	0.00	0.32	-2.80	-13.50	-1.40	0.10	0.00		1.20	0.06		0.98	6.58	
Dec	0.00	0.00	0.20	-2.80	-13.50	-1.40	0.10	0.00		1.20	0.06		0.95	6.56	

Table 7.1-2M (Cont.)
Oil Fund Levied on Petroleum Products in Thailand

Unit : Baht/Litre

	Ex-Refinery													
	ULG 95	UGR 91	Gasohol 95 (E10)	Gasohol 95 (E20)	Gasohol 95 (E85)	Gasohol 91	Kerosene	HSD 0.035%S	HSD B5	LSD	FO 1500	Low Income Household	LPG (Baht/kg) Cooking	LPG (Baht/kg) Industry	LPG (Baht/kg) Automobile
2012	**5.23**	**4.73**	**2.03**	**-1.30**	**-12.40**	**0.16**	**0.10**	**0.69**		**1.20**	**0.06**		**0.89**	**10.55**	**3.34**
Jan	0.52	0.52	0.77	-2.28	-13.55	-0.88	0.10	0.31		1.20	0.06		0.87	9.28	1.23
Feb	1.48	1.48	1.68	-1.32	-13.12	0.08	0.10	0.60		1.20	0.06		0.75	9.16	1.79
Mar	2.52	2.52	2.20	-0.80	-12.60	0.60	0.10	0.60		1.20	0.06		1.03	9.44	2.79
Apr	3.53	3.53	2.20	-0.80	-12.60	0.60	0.10	0.60		1.20	0.06		1.04	9.45	3.52
May	4.11	4.03	2.20	-0.80	-12.60	0.60	0.10	0.67		1.20	0.06		0.97	12.19	3.78
Jun	6.21	6.21	2.82	-0.46	-12.26	1.22	0.10	2.03		1.20	0.06		0.83	9.95	3.63
Jul	7.10	7.10	3.03	-0.20	-12.00	1.43	0.10	1.46		1.20	0.06		0.72	7.01	3.52
Aug	6.55	5.77	1.50	-1.48	-12.50	-0.48	0.10	-0.12		1.20	0.06		0.72	11.40	3.64
Sep	6.99	5.69	1.29	-1.31	-12.21	-1.01	0.10	-0.42		1.20	0.06		0.79	12.01	3.83
Oct	7.46	6.16	1.76	-1.84	-11.80	-0.54	0.10	0.25		1.20	0.06		0.94	12.16	4.19
Nov	8.00	6.70	2.30	-2.30	-11.80	0.00	0.10	1.07		1.20	0.06		1.04	12.26	4.08
Dec	8.32	7.02	2.62	-1.98	-11.80	0.32	0.10	1.22		1.20	0.06		1.03	12.25	4.07
2013	**9.57**	**6.42**	**3.41**	**-1.08**	**-11.43**	**1.27**	**0.10**	**1.49**		**1.20**	**0.06**	**0.76**	**1.47**	**11.92**	**4.11**
Jan	8.50	7.20	2.80	-1.80	-11.80	0.50	0.10	1.20		1.20	0.06		1.06	12.28	4.10
Feb	8.81	7.51	3.11	-1.48	-11.49	0.81	0.10	0.58		1.20	0.06		1.25	12.47	4.29
Mar	9.33	4.54	3.94	-0.34	-10.93	1.76	0.10	1.94		1.20	0.06		1.33	12.55	4.37
Apr	9.42		4.19	-0.01	-10.90	2.09	0.10	3.69		1.20	0.06		1.43	12.14	4.47
May	9.70		3.77	-0.40	-10.95	1.67	0.10	3.56		1.20	0.06		1.58	10.78	4.62
Jun	9.70		3.50	-0.90	-11.40	1.40	0.10	2.34		1.20	0.06		1.34	10.94	4.38
Jul	9.70		3.50	-0.90	-11.40	1.40	0.10	1.43		1.20	0.06		0.99	11.82	4.03
Aug	9.90		3.42	-1.31	-11.48	1.32	0.10	1.02		1.20	0.06		0.90	12.12	3.93
Sep	9.81		2.81	-1.88	-11.98	0.71	0.10	0.54		1.20	0.06	0.74	1.21	11.96	3.78
Oct	10.00		3.23	-1.35	-11.60	1.13	0.10	1.03		1.20	0.06	0.70	1.64	11.92	3.74
Nov	10.00		3.30	-1.30	-11.60	1.20	0.10	0.97		1.20	0.06	0.87	2.27	12.09	3.90
Dec	10.00		3.30	-1.30	-11.60	1.20	0.10	-0.47		1.20	0.06	0.73	2.60	11.95	3.77

Remark : gasoline octane 91 had been no longer for sale in the market since April 2013.

Table 7.1-3M
Retail Prices of Petroleum Products in Bangkok

Unit : Baht/Litre

Products	1. Gasoline						2. Kerosene	3. Diesel			4. Fuel Oil		5. LPG				
	ULG 95	UGR 91	Gasohol 95 (E10)	Gasohol 95 (E20)	Gasohol 95 (E85)	Gasohol 91		HSD	B5	LSD	600 (2%S)	1500 (2%S)	Low Income Household (Baht/kg)	Cooking (Baht/kg)	Industry (Baht/kg)	Automobile (Baht/kg)	Automobile (Baht/L)
2009 (MIN)	37.23	31.32	27.49	25.39	18.77	26.65	26.20	24.75	22.71	27.04	18.10	16.39		18.13		18.13	9.79
(WT.AVG)	37.47	31.34	27.50	25.39	18.87	26.69	37.21	24.77	22.71	27.04	21.18	19.83		18.13		18.13	9.79
(MAX)	38.29	31.36	27.53	25.39	18.96	26.74	39.88	24.79	22.73	27.04	27.28	25.90		18.13		18.13	9.79
-Jan (MIN)	29.28	21.99	17.44	16.14	15.97	16.64	25.76	18.61	17.11	27.04	14.22	12.51		18.13		18.13	9.79
(WT.AVG)	30.00	22.07	17.53	16.16	17.13	16.70	37.11	18.63	17.14	27.04	18.10	16.99		18.13		18.13	9.79
(MAX)	30.59	22.24	17.69	16.18	18.29	16.89	39.88	18.73	17.23	27.04	27.28	25.90		18.13		18.13	9.79
-Feb (MIN)	33.85	26.23	21.70	20.40	14.69	20.58	25.76	19.59	18.09	27.04	14.34	12.63		18.13		18.13	9.79
(WT.AVG)	34.41	26.24	21.71	20.40	14.69	20.89	37.16	19.59	18.09	27.04	18.19	17.08		18.13		18.13	9.79
(MAX)	34.85	26.25	21.73	20.40	14.69	20.93	39.88	19.59	18.09	27.04	27.28	25.90		18.13		18.13	9.79
-Mar (MIN)	34.22	27.34	23.38	21.53	15.48	22.58	25.76	20.78	18.45	27.04	14.39	12.68		18.13		18.13	9.79
(WT.AVG)	34.44	27.36	23.39	21.53	15.48	22.58	37.16	20.99	18.48	27.04	18.24	17.12		18.13		18.13	9.79
(MAX)	35.84	27.41	23.45	21.53	15.48	22.65	39.88	21.07	18.50	27.04	27.28	25.90		18.13		18.13	9.79
-Apr (MIN)	36.05	29.45	25.65	23.35	19.95	24.85	25.76	23.05	20.05	27.04	15.29	13.58		18.13		18.13	9.79
(WT.AVG)	36.20	29.45	25.65	23.35	19.95	24.85	37.16	23.05	20.05	27.04	18.95	17.78		18.13		18.13	9.79
(MAX)	37.23	29.45	25.65	23.35	19.95	24.85	39.88	23.05	20.05	27.04	27.28	25.90		18.13		18.13	9.79
-May (MIN)	37.26	30.64	26.84	24.54	18.33	25.93	25.76	23.82	20.82	27.04	16.65	14.94		18.13		18.13	9.79
(WT.AVG)	37.40	30.66	26.86	24.54	18.33	26.02	37.16	23.84	20.84	27.04	20.03	18.77		18.13		18.13	9.79
(MAX)	38.26	30.66	26.86	24.54	18.33	26.06	39.88	23.84	20.84	27.04	27.28	25.90		18.13		18.13	9.79
-Jun (MIN)	38.82	32.72	28.92	26.62	19.62	28.12	25.76	26.68	23.81	27.04	18.88	17.17		18.13		18.13	9.79
(WT.AVG)	38.93	32.72	28.92	26.62	19.62	28.12	37.16	26.68	23.81	27.04	21.80	20.40		18.13		18.13	9.79
(MAX)	39.94	32.72	28.92	26.62	19.62	28.12	39.88	26.68	23.83	27.04	27.28	25.90		18.13		18.13	9.79
-Jul (MIN)	38.30	33.00	29.39	27.09	20.63	28.59	25.76	26.96	24.16	27.04	19.48	17.77		18.13		18.13	9.79
(WT.AVG)	38.46	33.00	29.39	27.09	20.63	28.59	37.16	26.96	24.16	27.04	22.27	20.84		18.13		18.13	9.79
(MAX)	39.17	33.00	29.39	27.09	20.63	28.59	39.88	26.96	24.16	27.04	27.28	25.90		18.13		18.13	9.79
-Aug (MIN)	40.20	35.38	31.78	29.48	22.49	30.98	26.43	28.17	26.30	27.04	20.64	18.93		18.13		18.13	9.79
(WT.AVG)	40.39	35.40	31.80	29.48	22.49	30.99	37.24	28.18	26.31	27.04	23.19	21.68		18.13		18.13	9.79
(MAX)	41.20	35.43	31.83	29.48	22.49	31.03	39.88	28.19	26.35	27.04	27.28	25.90		18.13		18.13	9.79
-Sep (MIN)	39.50	34.70	31.10	28.78	21.92	30.30	26.56	26.83	25.40	27.04	20.27	18.56		18.13		18.13	9.79
(WT.AVG)	39.68	34.70	31.10	28.78	21.92	30.33	37.25	26.83	25.40	27.04	22.90	21.42		18.13		18.13	9.79
(MAX)	40.50	34.70	31.10	28.78	21.92	30.38	39.88	26.83	25.40	27.04	27.28	25.90		18.13		18.13	9.79
-Oct (MIN)	38.91	34.08	30.48	28.18	18.72	29.68	26.75	26.66	25.26	27.04	20.43	18.72		18.13		18.13	9.79
(WT.AVG)	39.09	34.08	30.48	28.18	18.72	29.68	37.28	26.67	25.26	27.04	23.02	21.53		18.13		18.13	9.79
(MAX)	39.88	34.08	30.48	28.18	18.72	29.68	39.88	26.69	25.29	27.04	27.28	25.90		18.13		18.13	9.79
-Nov (MIN)	40.34	35.34	31.74	29.44	18.72	30.94	27.16	28.19	26.79	27.04	21.29	19.58		18.13		18.13	9.79
(WT.AVG)	40.48	35.34	31.74	29.44	18.72	30.94	37.33	28.19	26.79	27.04	23.71	22.16		18.13		18.13	9.79
(MAX)	41.14	35.34	31.74	29.44	18.72	30.94	39.88	28.19	26.79	27.04	27.28	25.90		18.13		18.13	9.79
-Dec (MIN)	40.02	35.02	31.42	29.12	18.72	30.62	27.16	27.63	26.23	27.04	21.28	19.57		18.13		18.13	9.79
(WT.AVG)	40.16	35.03	31.42	29.12	18.72	30.63	37.33	27.63	26.23	27.04	23.70	22.15		18.13		18.13	9.79
(MAX)	40.82	35.07	31.47	29.12	18.72	30.74	39.88	27.67	26.27	27.04	27.28	25.90		18.13		18.13	9.79

Table 7.1-3M (Cont.)
Retail Prices of Petroleum Products in Bangkok

Unit : Baht/Litre

Products	1. Gasoline						2. Kerosene	3. Diesel			4. Fuel Oil		5. LPG				
	ULG 95	UGR 91	Gasohol 95 (E10)	Gasohol 95 (E20)	Gasohol 95 (E85)	Gasohol 91		HSD	B5	LSD	600 (2%S)	1500 (2%S)	Low Income Household (Baht/kg)	Cooking (Baht/kg)	Industry (Baht/kg)	Automobile (Baht/kg)	Automobile (Baht/L)
2010 (MIN)	41.12	36.08	32.30	29.96	19.21	30.84	28.68	28.64	27.50	27.04	21.06	19.35		18.13		18.13	9.79
(WT.AVG)	41.26	36.10	32.35	29.96	19.21	30.85	37.51	28.69	27.55	27.04	23.59	22.04		18.13		18.13	9.79
(MAX)	41.90	36.13	32.40	29.96	19.21	30.90	39.88	28.72	27.58	27.04	27.28	25.90		18.13		18.13	9.79
-Jan (MIN)	40.92	35.92	32.32	30.02	18.72	31.52	27.16	28.09	26.75	27.04	21.86	20.15		18.13		18.13	9.79
(WT.AVG)	41.06	35.92	32.32	30.02	18.72	31.52	37.33	28.09	26.76	27.04	24.16	22.58		18.13		18.13	9.79
(MAX)	41.72	35.92	32.34	30.02	18.72	31.54	39.88	28.09	26.78	27.04	27.28	25.90		18.13		18.13	9.79
-Feb (MIN)	41.38	36.38	32.78	30.48	18.72	31.44	27.59	27.93	26.73	27.04	21.12	19.41		18.13		18.13	9.79
(WT.AVG)	41.51	36.38	32.78	30.48	18.72	31.47	37.38	27.93	26.73	27.04	23.57	22.04		18.13		18.13	9.79
(MAX)	42.14	36.38	32.78	30.48	18.72	31.48	39.88	27.93	26.73	27.04	27.28	25.90		18.13		18.13	9.79
-Mar (MIN)	42.15	37.15	33.55	31.25	19.07	32.05	28.01	28.94	27.74	27.04	21.21	19.50		18.13		18.13	9.79
(WT.AVG)	42.29	37.15	33.55	31.25	19.07	32.05	37.43	28.94	27.74	27.04	23.64	22.10		18.13		18.13	9.79
(MAX)	42.89	37.15	33.55	31.25	19.07	32.05	39.88	28.94	27.74	27.04	27.28	25.90		18.13		18.13	9.79
-Apr (MIN)	42.59	37.53	33.87	31.57	20.07	32.37	29.01	29.64	28.44	27.04	21.47	19.76		18.13		18.13	9.79
(WT.AVG)	42.72	37.56	33.90	31.57	20.07	32.39	37.55	29.67	28.47	27.04	23.85	22.29		18.13		18.13	9.79
(MAX)	43.37	37.61	33.95	31.57	20.07	32.45	39.88	29.72	28.52	27.04	27.28	25.90		18.13		18.13	9.79
-May (MIN)	41.40	36.40	32.60	30.30	20.06	31.10	28.73	29.20	28.00	27.04	21.32	19.60		18.13		18.13	9.79
(WT.AVG)	41.51	36.40	32.60	30.30	20.06	31.10	37.51	29.20	28.00	27.04	23.77	22.21		18.13		18.13	9.79
(MAX)	42.20	36.40	32.60	30.30	20.06	31.10	39.88	29.20	28.00	27.04	27.28	25.90		18.13		18.13	9.79
-Jun (MIN)	40.46	35.42	31.24	29.32	19.42	30.12	28.24	27.69	26.79	27.04	20.34	18.63		18.13		18.13	9.79
(WT.AVG)	40.57	35.44	31.58	29.34	19.42	30.14	37.46	28.06	27.12	27.04	23.07	21.54		18.13		18.13	9.79
(MAX)	41.26	35.46	31.66	29.36	19.42	30.16	39.88	28.11	27.21	27.04	27.28	25.90		18.13		18.13	9.79
-Jul (MIN)	40.37	35.37	31.49	29.27	19.11	30.07	28.19	28.16	27.04	27.04	20.51	18.80		18.13		18.13	9.79
(WT.AVG)	40.52	35.37	31.56	29.27	19.11	30.07	37.45	28.24	27.11	27.04	23.20	21.67		18.13		18.13	9.79
(MAX)	41.17	35.37	31.59	29.27	19.11	30.09	39.88	28.24	27.14	27.04	27.28	25.90		18.13		18.13	9.79
-Aug (MIN)	40.52	35.52	31.72	29.42	19.01	30.22	28.65	28.58	27.38	27.04	20.86	19.14		18.13		18.13	9.79
(WT.AVG)	40.68	35.52	31.72	29.42	19.01	30.22	37.51	28.58	27.38	27.04	23.48	21.92		18.13		18.13	9.79
(MAX)	41.32	35.52	31.72	29.42	19.01	30.22	39.88	28.58	27.38	27.04	27.28	25.90		18.13		18.13	9.79
-Sep (MIN)	39.44	34.44	30.64	28.34	18.42	29.14	28.46	27.79	26.59	27.04	20.22	18.51		18.13		18.13	9.79
(WT.AVG)	39.60	34.44	30.64	28.34	18.42	29.14	37.48	27.79	26.59	27.04	22.97	21.46		18.13		18.13	9.79
(MAX)	40.24	34.44	30.64	28.34	18.42	29.14	39.88	27.79	26.59	27.04	27.28	25.90		18.13		18.13	9.79
-Oct (MIN)	40.38	35.33	31.53	29.23	18.87	30.03	29.23	28.56	27.36	27.04	20.68	18.96		18.13		18.13	9.79
(WT.AVG)	40.54	35.35	31.57	29.23	18.87	30.05	37.57	28.58	27.38	27.04	23.34	21.79		18.13		18.13	9.79
(MAX)	41.19	35.40	31.64	29.23	18.87	30.14	39.88	28.62	27.42	27.04	27.28	25.90		18.13		18.13	9.79
-Nov (MIN)	41.21	36.06	32.26	29.96	19.23	30.76	29.93	29.26	28.06	27.04	21.25	19.54		18.13		18.13	9.79
(WT.AVG)	41.34	36.08	32.31	29.96	19.23	30.79	37.66	29.28	28.07	27.04	23.78	22.20		18.13		18.13	9.79
(MAX)	41.89	36.21	32.47	29.96	19.23	30.97	39.88	29.34	28.14	27.04	27.28	25.90		18.13		18.13	9.79
-Dec (MIN)	42.60	37.45	33.63	30.30	19.82	31.20	30.98	29.89	29.14	27.04	21.85	20.14		18.13		18.13	9.79
(WT.AVG)	42.75	37.55	33.70	30.30	19.82	31.23	37.78	29.93	29.21	27.04	24.26	22.64		18.13		18.13	9.79
(MAX)	43.39	37.68	33.84	30.30	19.82	31.50	39.88	30.10	29.35	27.04	27.28	25.90		18.13		18.13	9.79

Table 7.1-3M (Cont.)
Retail Prices of Petroleum Products in Bangkok

Unit : Baht/Litre

Products	1. Gasoline						2. Kerosene	3. Diesel			4. Fuel Oil		5. LPG				
	ULG 95	UGR 91	Gasohol 95 (E10)	Gasohol 95 (E20)	Gasohol 95 (E85)	Gasohol 91		HSD	B5	LSD	600 (2%S)	1500 (2%S)	Low Income Household (Baht/kg)	Cooking (Baht/kg)	Industry (Baht/kg)	Automobile (Baht/kg)	Automobile (Baht/L)
2011 (MIN)	44.51	39.68	36.48	32.94	21.75	33.94	32.11	29.40	29.65	27.04	26.69	25.19		18.13	20.38	18.13	9.79
(WT.AVG)	44.64	39.72	36.52	32.94	21.75	33.96	38.21	29.45	29.95	27.04	28.58	26.68		18.13	20.38	18.13	9.79
(MAX)	45.31	39.80	36.65	32.94	21.75	34.12	39.88	29.54	30.17	27.04	30.98	29.76		18.13	20.38	18.13	9.79
-Jan (MIN)	43.88	39.05	34.75	31.36	20.54	32.25	31.59	29.99	29.57	27.04	22.80	21.09		18.13	18.13	18.13	9.79
(WT.AVG)	44.04	39.06	34.79	31.36	20.54	32.28	37.86	30.01	29.61	27.04	25.02	23.34		18.13	18.13	18.13	9.79
(MAX)	44.88	39.08	34.91	31.36	20.54	32.42	39.88	30.10	29.72	27.04	27.28	25.90		18.13	18.13	18.13	9.79
-Feb (MIN)	44.92	40.13	35.77	32.37	21.11	33.27	31.76	29.99	29.99	27.04	25.26	23.55		18.13	18.13	18.13	9.79
(WT.AVG)	45.10	40.16	35.80	32.38	21.11	33.29	37.88	30.10	30.10	27.04	26.97	25.30		18.13	18.13	18.13	9.79
(MAX)	45.97	40.20	35.84	32.39	21.12	33.34	39.88	30.38	30.38	27.04	28.91	28.29		18.13	18.13	18.13	9.79
-Mar (MIN)	47.19	42.11	37.30	33.91	22.02	34.80	32.16	29.96	29.55	27.04	26.85	25.14		18.13	18.13	18.13	9.79
(WT.AVG)	47.29	42.15	37.34	33.91	22.02	34.82	38.03	30.00	30.05	27.04	28.24	26.30		18.13	18.13	18.13	9.79
(MAX)	47.96	42.29	37.47	33.91	22.02	34.95	39.88	30.12	30.30	27.04	30.50	29.17		18.13	18.13	18.13	9.79
-Apr (MIN)	48.62	43.41	38.51	35.11	22.68	36.01	32.20	29.99	29.49	27.04	27.25	25.81		18.13	18.13	18.13	9.79
(WT.AVG)	48.71	43.44	38.54	35.12	22.68	36.03	38.24	30.03	30.04	27.04	28.97	26.98		18.13	18.13	18.13	9.79
(MAX)	49.22	43.51	38.62	35.12	22.69	36.12	39.88	30.22	30.29	27.04	31.43	30.09		18.13	18.13	18.13	9.79
-May (MIN)	48.48	43.09	38.19	34.79	22.47	35.69	32.20	29.99		27.04	27.20	25.64		18.13	18.13	18.13	9.79
(WT.AVG)	48.61	43.12	38.21	34.79	22.47	35.70	38.37	29.99		27.04	28.70	26.73		18.13	18.13	18.13	9.79
(MAX)	49.22	43.29	38.33	34.79	22.47	35.83	39.88	30.00		27.04	31.09	29.76		18.13	18.13	18.13	9.79
-Jun (MIN)	47.81	42.41	37.51	34.11	22.22	35.01	32.20	29.99		27.04	27.27	25.84		18.13	18.13	18.13	9.79
(WT.AVG)	47.97	42.41	37.51	34.11	22.22	35.01	38.37	30.01		27.04	28.92	26.92		18.13	18.13	18.13	9.79
(MAX)	48.61	42.41	37.53	34.11	22.22	35.03	39.88	30.10		27.04	31.39	30.06		18.13	18.13	18.13	9.79
-Jul (MIN)	48.43	43.02	38.12	34.68	22.52	35.62	32.20	29.99		27.04	27.27	25.90		18.13	21.13	18.13	9.79
(WT.AVG)	48.59	43.03	38.12	34.68	22.52	35.62	38.35	30.02		27.04	28.91	27.39		18.13	21.13	18.13	9.79
(MAX)	49.22	43.06	38.16	34.68	22.52	35.66	39.88	30.08		27.04	31.38	30.67		18.13	21.13	18.13	9.79
-Aug (MIN)	46.16	40.90	37.07	33.05	21.95	34.55	32.20	29.51		27.04	27.22	25.68		18.13	21.13	18.13	9.79
(WT.AVG)	46.33	40.92	37.09	33.05	21.95	34.56	38.29	29.52		27.04	28.76	26.79		18.13	21.13	18.13	9.79
(MAX)	46.90	40.94	37.16	33.05	21.95	34.66	39.88	29.58		27.04	31.16	29.83		18.13	21.13	18.13	9.79
-Sep (MIN)	40.24	36.18	36.23	32.06	21.81	33.24	32.20	27.96		27.04	27.28	25.90		18.13	21.13	18.13	9.79
(WT.AVG)	40.39	36.28	36.35	32.06	21.81	33.30	38.30	28.00		27.04	29.22	27.21		18.13	21.13	18.13	9.79
(MAX)	41.06	36.34	36.50	32.06	21.81	33.47	39.88	28.05		27.04	31.75	30.41		18.13	21.13	18.13	9.79
-Oct (MIN)	40.00	35.97	35.97	31.95	21.69	32.94	32.20	27.57		27.04	27.28	25.90		18.13	24.13	18.13	9.79
(WT.AVG)	40.14	36.01	36.08	31.95	21.69	33.00	38.19	27.79		27.04	29.44	27.41		18.13	24.13	18.13	9.79
(MAX)	40.90	36.06	36.30	31.95	21.69	33.27	39.88	27.83		27.04	32.00	30.66		18.13	24.13	18.13	9.79
-Nov (MIN)	39.40	35.25	34.09	31.23	21.18	32.22	32.20	28.70		27.04	27.28	25.90		18.13	24.13	18.13	9.79
(WT.AVG)	39.51	35.29	34.13	31.23	21.18	32.24	38.29	28.86		27.04	29.99	27.97		18.13	24.13	18.13	9.79
(MAX)	40.21	35.49	34.43	31.23	21.18	32.63	39.88	28.95		27.04	32.38	31.04		18.13	24.13	18.13	9.79
-Dec (MIN)	38.93	34.69	34.20	30.66	20.78	31.66	32.20	29.12		27.04	27.28	25.90		18.13	24.13	18.13	9.79
(WT.AVG)	39.02	34.73	34.23	30.66	20.78	31.67	38.33	29.12		27.04	29.86	27.80		18.13	24.13	18.13	9.79
(MAX)	39.61	34.98	34.52	30.66	20.78	32.03	39.88	29.12		27.04	32.52	31.19		18.13	24.13	18.13	9.79

Table 7.1-3M (Cont.)
Retail Prices of Petroleum Products in Bangkok

Unit : Baht/Litre

Products	1. Gasoline						2. Kerosene	3. Diesel			4. Fuel Oil		5. LPG				
	ULG 95	UGR 91	Gasohol 95 (E10)	Gasohol 95 (E20)	Gasohol 95 (E85)	Gasohol 91		HSD	B5	LSD	600 (2%S)	1500 (2%S)	Low Income Household (Baht/kg)	Cooking (Baht/kg)	Industry (Baht/kg)	Automobile (Baht/kg)	Automobile (Baht/L)
2012 (MIN)	46.27	41.94	37.94	34.34	22.22	35.88	36.15	30.41		27.04	29.72	28.12		18.13	28.71	20.65	11.15
(WT.AVG)	46.42	41.96	37.96	34.35	22.23	35.94	36.15	30.42		27.04	31.33	29.41		18.13	28.71	20.76	11.21
(MAX)	47.19	42.01	38.01	34.36	22.23	36.00	36.15	30.51		27.04	33.33	32.10		18.13	28.71	20.86	11.26
-Jan (MIN)	41.65	37.62	36.34	33.59	22.02	34.59	36.39	30.45		27.04	30.53	28.81		18.13	27.13	18.88	10.20
(WT.AVG)	41.79	37.65	36.36	33.59	22.02	34.60	36.39	30.46		27.04	32.00	30.01		18.13	27.13	18.88	10.20
(MAX)	42.54	37.72	36.44	33.59	22.02	34.74	36.39	30.51		27.04	33.83	32.50		18.13	27.13	18.88	10.20
-Feb (MIN)	43.79	39.80	38.52	35.77	22.85	36.77	36.94	31.31		27.04	31.04	29.33		18.13	27.13	18.88	10.20
(WT.AVG)	43.94	39.81	38.53	35.77	22.85	36.78	36.94	31.31		27.04	32.67	30.63		18.13	27.13	19.26	10.40
(MAX)	44.72	39.84	38.56	35.77	22.85	36.81	36.94	31.31		27.04	34.69	33.35		18.13	27.13	19.63	10.60
-Mar (MIN)	45.82	41.85	40.02	37.27	23.87	38.27	37.75	32.12		27.04	31.45	29.73		18.13	27.13	19.63	10.60
(WT.AVG)	45.97	41.85	40.02	37.27	23.87	38.27	37.75	32.12		27.04	33.08	31.04		18.13	27.13	20.00	10.80
(MAX)	46.77	41.87	40.04	37.27	23.87	38.29	37.75	32.14		27.04	35.09	33.76		18.13	27.13	20.38	11.00
-Apr (MIN)	47.16	43.21	40.33	37.58	23.98	38.14	37.62	31.99		27.04	31.44	29.72		18.13	30.13	20.38	11.01
(WT.AVG)	47.31	43.21	40.33	37.58	23.98	38.56	37.62	32.06		27.04	33.07	31.03		18.13	30.13	20.76	11.21
(MAX)	48.13	43.21	40.33	37.58	23.98	38.58	37.62	32.43		27.04	35.08	33.75		18.13	30.13	21.13	11.41
-May (MIN)	45.85	41.90	38.40	35.49	22.73	36.47	36.49	30.51		27.04	30.38	28.67		18.13	30.13	21.13	11.41
(WT.AVG)	46.00	41.90	38.40	35.49	22.73	36.64	36.49	30.54		27.04	32.01	29.97		18.13	30.13	21.13	11.41
(MAX)	46.82	41.96	38.47	35.49	22.73	36.72	36.49	30.70		27.04	34.03	32.70		18.13	30.13	21.13	11.41
-Jun (MIN)	44.34	40.39	36.32	32.95	20.72	34.63	35.80	29.58		27.04	28.52	26.88		18.13	27.89	21.13	11.41
(WT.AVG)	44.50	40.39	36.37	32.95	20.72	34.63	35.80	29.58		27.04	30.15	28.16		18.13	27.89	21.13	11.41
(MAX)	45.31	40.39	36.38	32.95	20.72	34.63	35.80	29.75		27.04	32.18	30.85		18.13	27.89	21.13	11.41
-Jul (MIN)	45.90	41.81	37.11	33.46	21.36	35.36	35.46	29.74		27.04	28.48	26.77		18.13	24.86	21.13	11.41
(WT.AVG)	46.03	41.86	37.14	33.46	21.36	35.38	35.46	29.74		27.04	30.11	28.07		18.13	24.86	21.13	11.41
(MAX)	46.75	41.99	37.25	33.46	21.36	35.50	35.46	29.86		27.04	32.12	30.79		18.13	24.86	21.13	11.41
-Aug (MIN)	48.08	43.45	38.25	34.71	22.47	36.11	35.46	29.89		27.04	29.81	28.06		18.13	29.56	21.13	11.41
(WT.AVG)	48.22	43.53	38.31	34.74	22.50	36.16	35.46	29.89		27.04	31.44	29.37		18.13	29.56	21.26	11.48
(MAX)	48.95	43.67	38.40	34.77	22.53	36.27	35.46	30.07		27.04	33.47	32.10		18.13	29.56	21.38	11.55
-Sep (MIN)	47.94	43.07	37.63	34.20	21.99	35.18	35.46	29.93		27.04	30.27	28.56		18.13	30.13	21.38	11.55
(WT.AVG)	48.09	43.08	37.67	34.21	21.99	35.21	35.46	29.95		27.04	31.90	29.86		18.13	30.13	21.38	11.55
(MAX)	48.89	43.14	37.72	34.22	21.99	35.27	35.46	29.99		27.04	33.92	32.59		18.13	30.13	21.38	11.55
-Oct (MIN)	48.22	43.35	37.71	33.27	21.88	35.26	35.46	29.79		27.04	29.15	27.44		18.13	30.13	21.38	11.55
(WT.AVG)	48.37	43.36	37.71	33.35	21.89	35.26	35.46	29.79		27.04	30.75	28.72		18.13	30.13	21.38	11.55
(MAX)	49.19	43.37	37.72	33.43	21.89	35.27	35.46	29.81		27.04	32.72	31.39		18.13	30.13	21.38	11.55
-Nov (MIN)	47.96	43.37	37.14	31.69	21.30	34.69	35.46	29.79		27.04	27.80	27.46		18.13	30.13	21.38	11.55
(WT.AVG)	48.11	43.38	37.16	31.69	21.30	34.70	35.46	29.79		27.04	29.42	28.75		18.13	30.13	21.38	11.55
(MAX)	48.91	43.39	37.19	31.69	21.30	34.74	35.46	29.79		27.04	31.44	31.43		18.13	30.13	21.38	11.55
-Dec (MIN)	48.48	43.46	37.54	32.09	21.51	35.09	35.46	29.79		27.04	27.71	26.00		18.13	30.13	21.38	11.55
(WT.AVG)	48.67	43.47	37.55	32.09	21.51	35.10	35.46	29.79		27.04	29.34	27.31		18.13	30.13	21.38	11.55
(MAX)	49.32	43.51	37.59	32.09	21.51	35.14	35.46	29.79		27.04	31.36	30.03		18.13	30.13	21.38	11.55

Table 7.1-3M (Cont.)
Retail Prices of Petroleum Products in Bangkok

Unit : Baht/Litre

Products	1. Gasoline						2. Kerosene	3. Diesel			4. Fuel Oil		5. LPG				
	ULG 95	UGR 91	Gasohol 95 (E10)	Gasohol 95 (E20)	Gasohol 95 (E85)	Gasohol 91		HSD	B5	LSD	600 (2%S)	1500 (2%S)	Low income Household (Baht/kg)	Cooking (Baht/kg)	Industry (Baht/kg)	Automobile (Baht/kg)	Automobile (Baht/L)
2013 (MIN)	46.41	45.07	38.80	33.79	22.73	36.33	35.46	29.97		27.04	27.62	25.94	18.13	18.40	29.70	21.38	11.55
(WT.AVG)	46.66	45.19	38.89	33.82	22.74	36.43	35.46	29.97		27.04	29.25	27.24	18.13	18.40	29.70	21.38	11.55
(MAX)	46.91	45.66	38.95	33.87	22.74	36.50	35.46	30.01		27.04	31.27	29.95	18.13	18.40	29.70	21.38	11.55
-Jan (MIN)	46.27	43.99	38.07	32.62	21.83	35.62	35.46	29.79		27.04	27.72	26.01		18.13	30.13	21.38	11.55
(WT.AVG)	47.03	44.06	38.10	32.62	21.83	35.64	35.46	29.79		27.04	29.38	27.34		18.13	30.13	21.38	11.55
(MAX)	48.27	44.25	38.18	32.62	21.83	35.73	35.46	29.82		27.04	31.44	30.10		18.13	30.13	21.38	11.55
-Feb (MIN)	48.20	45.70	39.78	34.33	22.76	37.07	35.46	29.95		27.04	28.14	26.43		18.13	30.13	21.38	11.55
(WT.AVG)	48.41	45.76	39.83	34.33	22.84	37.34	35.46	29.95		27.04	29.76	27.73		18.13	30.13	21.38	11.55
(MAX)	48.64	46.23	39.96	34.33	22.89	37.51	35.46	29.98		27.04	31.77	30.43		18.13	30.13	21.38	11.55
-Mar (MIN)	47.33	45.53	39.61	34.46	22.91	37.16	35.46	29.99		27.04	27.52	25.79		18.13	30.13	21.38	11.55
(WT.AVG)	47.33	45.74	39.61	34.46	22.91	37.16	35.46	29.99		27.04	29.14	27.09		18.13	30.13	21.38	11.55
(MAX)	47.33	46.49	39.61	34.46	22.91	37.16	35.46	29.99		27.04	31.15	29.81		18.13	30.13	21.38	11.55
-Apr (MIN)	45.03		37.81	32.86	21.88	35.36	35.46	29.99		27.04	26.90	25.19		18.13	29.59	21.38	11.55
(WT.AVG)	45.05		37.83	32.86	21.88	35.37	35.46	29.99		27.04	28.49	26.47		18.13	29.59	21.38	11.55
(MAX)	45.16		37.94	32.86	21.88	35.45	35.46	30.06		27.04	30.46	29.13		18.13	29.59	21.38	11.55
-May (MIN)	44.79		37.57	32.62	21.82	35.12	35.46	29.99		27.04	26.69	24.98		18.13	28.07	21.38	11.55
(WT.AVG)	44.82		37.58	32.62	21.82	35.13	35.46	29.99		27.04	28.32	26.28		18.13	28.07	21.38	11.55
(MAX)	44.88		37.63	32.68	21.82	35.18	35.46	30.07		27.04	30.34	29.00		18.13	28.07	21.38	11.55
-Jun (MIN)	45.91		38.65	33.70	22.66	36.20	35.46	29.99		27.04	27.71	26.00		18.13	28.40	21.38	11.55
(WT.AVG)	46.02		38.67	33.71	22.66	36.21	35.46	29.99		27.04	29.34	27.31		18.13	28.40	21.38	11.55
(MAX)	46.14		38.75	33.82	22.66	36.30	35.46	30.10		27.04	31.36	30.03		18.13	28.40	21.38	11.55
-Jul (MIN)	47.40		39.88	35.12	23.57	37.43	35.46	29.99		27.04	27.53	25.82		18.13	29.72	21.38	11.55
(WT.AVG)	47.62		40.09	35.12	23.57	37.63	35.46	29.99		27.04	29.16	27.12		18.13	29.72	21.38	11.55
(MAX)	47.68		40.16	35.21	23.57	37.71	35.46	30.02		27.04	31.18	29.84		18.13	29.72	21.38	11.55
-Aug (MIN)	46.94		39.42	34.47	23.19	36.97	35.46	29.99		27.04	27.49	25.78		18.13	30.13	21.38	11.55
(WT.AVG)	46.98		39.45	34.50	23.19	36.99	35.46	29.99		27.04	29.11	27.08		18.13	30.13	21.38	11.55
(MAX)	47.05		39.58	34.73	23.19	37.13	35.46	30.04		27.04	31.12	29.78		18.13	30.13	21.38	11.55
-Sep (MIN)	46.58		39.06	34.11	23.27	36.61	35.46	29.99		27.04	28.14	26.43	18.13	18.63	30.13	21.38	11.55
(WT.AVG)	47.06		39.25	34.34	23.27	36.84	35.46	29.99		27.04	29.77	27.74	18.13	18.63	30.13	21.38	11.55
(MAX)	47.38		39.30	34.35	23.27	36.85	35.46	30.03		27.04	31.79	30.46	18.13	18.63	30.13	21.38	11.55
-Oct (MIN)	46.09		38.57	33.62	22.98	36.12	35.46	29.99		27.04	28.14	26.43	18.13	19.13	30.13	21.38	11.55
(WT.AVG)	46.40		38.57	33.62	22.98	36.12	35.46	29.99		27.04	29.77	27.74	18.13	19.13	30.13	21.38	11.55
(MAX)	46.60		38.58	33.63	22.98	36.13	35.46	29.99		27.04	31.79	30.46	18.13	19.13	30.13	21.38	11.55
-Nov (MIN)	45.95		38.43	33.83	23.19	35.98	35.46	29.99		27.04	27.89	26.43	18.13	19.63	30.13	21.38	11.54
(WT.AVG)	46.55		38.78	33.83	23.19	36.33	35.46	29.99		27.04	29.53	27.74	18.13	19.63	30.13	21.38	11.55
(MAX)	46.83		38.81	33.86	23.19	36.36	35.46	30.06		27.04	31.54	30.46	18.13	19.63	30.13	21.38	11.55
-Dec (MIN)	47.26		39.74	34.79	23.78	37.29	35.46	29.99		27.04	28.28	26.57	18.13	20.13	30.13	21.38	11.54
(WT.AVG)	47.65		39.76	34.80	23.78	37.30	35.46	29.99		27.04	29.91	27.87	18.13	20.13	30.13	21.38	11.55
(MAX)	47.83		39.81	34.86	23.78	37.36	35.46	30.04		27.04	31.93	30.60	18.13	20.13	30.13	21.38	11.55

Remark : gasoline octane 91 had been no longer for sale in the market since April 2013.

Table 7.1-4M
Retail Prices of Premium Gasoline and High Speed Diesel

Unit : Baht/Litre

2012	Retail Price of Premium Gasoline															
	Thailand	Vietnam	Cambodia	Laos	Philippine	Malaysia	Singapore	Indonesia	Hong Kong	Belguim	France	Germany	Italy	Netherlands	U.K.	U.S.A
Jan	37.26	N/A	43.29	39.98	41.89	19.60	53.04	34.12	72.21	68.35	67.12	64.65	70.00	71.64	67.53	27.02
Feb	39.63	31.95	44.66	41.00	41.79	19.55	53.20	33.04	72.02	68.13	63.80	66.25	73.57	72.91	70.87	31.44
Mar	40.23	35.10	44.66	42.90	41.81	19.53	54.08	32.11	71.88	70.21	67.65	67.25	73.94	73.94	67.61	33.11
Apr	40.03	36.45	44.28	42.90	42.64	19.48	55.01	37.52	72.93	72.99	72.21	69.91	77.87	75.86	71.38	34.34
May	37.23	34.80	44.07	44.00	40.13	19.42	52.71	36.65	72.70	67.45	68.13	65.69	72.40	71.72	67.77	30.98
Jun	35.43	32.55	41.34	42.24	37.76	19.26	49.56	34.19	64.80	66.21	67.82	63.28	70.28	70.88	66.30	29.80
Jul	37.73	32.25	40.95	44.00	38.92	19.32	52.36	33.07	72.34	65.68	65.92	65.45	68.90	69.83	66.54	31.08
Aug	38.13	36.23	42.35	42.74	42.01	19.35	54.48	35.83	74.56	69.82	68.36	68.48	72.58	72.89	68.48	32.52
Sep	37.63	36.23	42.94	41.77	41.66	19.42	53.92	36.74	69.41	70.95	66.28	70.27	76.03	75.67	71.28	34.02
Oct	37.13	36.23	43.51	41.30	41.41	19.40	52.81	35.72	68.36	68.29	68.45	66.16	74.85	74.29	68.65	33.73
Nov	37.13	35.48	42.74	41.11	39.98	19.34	52.85	32.94	66.83	65.92	64.85	64.53	70.07	72.21	66.55	31.05
Dec	37.83	35.48	41.97	40.56	39.49	19.27	52.89	33.60	66.91	66.85	67.34	64.36	72.08	72.94	66.52	29.79
2012	Retail Price of High Speed Diesel															
	Thailand	Vietnam	Cambodia	Laos	Philippine	Malaysia	Singapore	Indonesia	Hong Kong	Belguim	France	Germany	Italy	Netherlands	U.K.	U.S.A
Jan	31.13	N/A	39.00	36.54	34.60	18.57	40.78	36.78	49.55	61.35	60.53	60.12	68.35	60.12	71.23	32.03
Feb	31.73	30.60	40.04	36.18	34.23	18.52	41.13	35.61	48.21	62.50	56.74	62.70	70.87	60.50	71.61	32.21
Mar	32.33	32.10	40.04	37.95	35.04	18.50	42.04	34.60	49.71	62.70	60.27	61.69	70.33	60.92	71.47	33.48
Apr	32.03	32.85	39.66	41.26	35.03	18.45	42.76	38.06	49.73	63.17	64.28	63.09	72.70	61.44	74.14	33.88
May	29.83	31.80	39.39	40.00	32.91	18.40	40.41	37.55	48.97	60.05	61.81	58.74	68.85	58.74	70.64	32.90
Jun	29.53	30.15	37.44	37.64	30.97	18.25	37.24	36.35	46.50	58.37	60.38	56.43	65.81	56.84	69.68	31.49
Jul	29.83	30.45	37.44	43.32	31.91	18.30	40.16	34.33	48.68	59.01	59.79	57.15	64.36	57.58	69.29	31.17
Aug	29.83	32.78	38.50	35.57	34.64	18.34	41.61	36.18	50.31	61.39	63.04	61.15	68.32	60.09	70.77	32.02
Sep	29.99	32.78	39.14	37.83	34.32	18.40	40.95	37.79	49.39	61.85	60.40	63.34	70.91	61.57	72.85	33.94
Oct	29.79	32.78	39.66	37.36	33.25	18.38	39.86	36.74	49.77	63.34	60.97	61.41	70.06	62.01	71.23	33.40
Nov	29.79	32.78	39.66	36.74	31.22	18.33	37.93	35.35	48.68	60.66	57.45	59.78	61.33	60.18	69.95	32.68
Dec	29.79	32.85	39.27	36.19	31.25	18.26	39.99	34.96	48.74	60.97	60.84	59.90	69.67	60.97	70.57	32.47

Compiled by : Energy Policy and Planning Office (EPPO)

Table 7.1-4M (Cont.)
Retail Prices of Premium Gasoline and High Speed Diesel

Unit : Baht/Litre

2013	Retail Price of Premium Gasoline																	
	Thailand	Vietnam	Cambodia	Laos	Philippine	Malaysia	Singapore	Indonesia	Japan	Korea	Hong Kong	Belguim	France	Germany	Italy	Netherlands	U.K.	U.S.A.
Jan	37.83	33.11	42.18	39.52	39.00	18.98	53.15	33.06	N/A	N/A	69.75	67.89	68.46	64.80	71.58	73.25	63.02	26.55
Feb	40.53	33.11	42.00	41.08	40.38	18.58	54.50	33.55	50.70	55.02	71.64	67.64	67.95	64.26	72.63	72.55	62.25	29.99
Mar	39.53	33.11	41.44	40.33	37.56	18.22	51.81	34.47	48.80	52.18	67.66	62.48	64.21	60.71	64.21	68.32	60.82	28.57
Apr	37.13	33.80	41.81	42.62	35.20	18.68	49.73	33.79	46.08	51.01	66.68	62.50	65.76	62.00	67.11	68.26	61.42	27.49
May	37.93	33.36	40.66	43.91	35.92	19.01	50.67	33.31	45.06	50.83	68.17	62.50	64.69	63.83	67.11	69.78	60.99	28.96
Jun	38.83	36.38	40.66	44.64	38.19	18.83	52.95	34.38	48.74	51.59	71.46	67.00	65.90	66.55	71.24	73.20	64.51	29.53
Jul	39.93	37.61	41.73	45.68	38.91	18.68	54.74	34.70	50.45	54.80	72.73	70.62	70.95	70.03	75.41	76.49	66.45	30.15
Aug	39.33	37.16	42.27	45.84	37.93	18.67	54.08	34.95	53.20	56.35	70.10	72.30	71.70	72.00	78.82	79.34	69.59	30.32
Sep	38.63	37.16	41.34	44.72	38.46	20.59	52.69	34.41	52.10	56.27	68.05	68.52	71.21	69.20	76.84	76.54	70.44	28.53
Oct	38.43	36.57	41.34	44.28	40.79	21.13	54.99	35.77	51.50	55.66	66.78	69.62	63.62	68.88	76.17	75.48	66.29	27.17
Nov	39.43	36.20	42.93	43.60	39.79	21.20	55.89	34.87	50.08	56.66	68.58	70.08	64.12	69.39	75.31	76.22	67.51	27.89
Dec	40.53	39.54	43.99	46.17	40.96	21.24	57.46	36.03	49.94	58.61	71.29	72.06	66.85	68.66	80.04	79.50	70.52	28.47

2013	Retail Price of High Speed Diesel																	
	Thailand	Vietnam	Cambodia	Laos	Philippine	Malaysia	Singapore	Indonesia	Japan	Korea	Hong Kong	Belguim	France	Germany	Italy	Netherlands	U.K.	U.S.A.
Jan	29.79	30.17	38.76	35.26	30.87	17.98	40.66	33.39	N/A	N/A	48.16	60.63	61.96	59.08	68.62	61.27	66.71	31.01
Feb	29.99	30.17	38.25	36.52	31.89	17.60	42.09	33.55	43.95	49.58	49.19	60.13	60.72	57.58	69.13	60.13	65.32	32.96
Mar	29.99	30.17	37.00	34.78	29.09	17.26	39.69	35.11	42.34	46.79	46.45	56.27	58.68	54.27	64.59	55.93	64.02	31.11
Apr	29.99	29.89	38.11	33.34	27.42	17.69	37.54	32.84	40.01	45.66	45.55	55.04	57.46	54.23	62.84	55.89	63.27	30.22
May	29.99	29.75	33.44	34.13	28.76	18.01	38.48	32.03	39.18	45.45	47.54	56.09	56.64	55.74	63.25	57.49	63.17	30.83
Jun	29.99	32.21	33.44	34.64	30.64	17.84	40.83	33.40	42.36	46.15	50.23	59.41	59.33	57.82	66.39	59.37	67.04	31.68
Jul	29.99	33.47	34.32	35.64	31.57	17.70	41.55	33.75	43.64	49.00	50.73	61.95	61.65	61.15	70.28	61.95	68.49	32.38
Aug	29.99	33.47	34.76	36.53	32.32	17.69	41.29	34.79	45.83	50.47	52.35	64.50	64.75	63.42	72.99	64.71	71.83	33.41
Sep	29.99	33.47	38.22	35.64	31.97	19.61	40.01	34.99	44.91	50.46	51.33	63.10	63.91	62.50	71.68	62.97	73.04	32.65
Oct	29.99	33.47	38.22	35.24	31.82	20.12	41.56	36.07	44.58	50.01	50.83	61.89	58.66	59.00	72.38	62.80	70.00	31.92
Nov	29.99	33.47	39.69	35.64	32.45	20.19	42.24	36.05	43.67	51.04	51.79	62.90	57.89	59.94	71.39	62.81	71.17	32.56
Dec	29.99	36.74	40.67	37.72	33.77	20.23	44.66	36.60	43.84	52.97	54.17	66.71	59.60	61.64	75.78	66.22	74.51	33.72

Compiled by : Energy Policy and Planning Office (EPPO)



Appendix I
Chapter 8

Air Pollution Emission in The Energy Sector

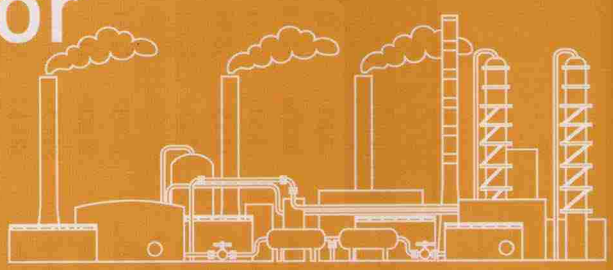


Table 8.1-1M
CO_2 Emission by Energy Type

Unit : 1,000 Tons

	Oil	Coal/Lignite	Natural Gas	Total
2009				
Jan	7,181	4,972	4,384	16,537
Feb	6,149	4,502	4,804	15,456
Mar	6,916	4,948	5,637	17,501
Apr	6,667	5,606	5,204	17,477
May	6,960	5,451	5,688	18,099
Jun	6,350	5,804	5,680	17,833
Jul	6,498	5,636	5,629	17,763
Aug	6,433	5,266	5,787	17,485
Sep	6,234	5,307	5,831	17,373
Oct	6,619	4,732	6,031	17,383
Nov	6,436	4,929	5,772	17,137
Dec	7,313	5,248	5,597	18,158
YTD	**79,756**	**62,401**	**66,045**	**208,202**
2010				
Jan	6,745	5,122	5,655	17,522
Feb	6,616	4,652	5,764	17,032
Mar	7,239	5,776	6,382	19,397
Apr	6,667	5,680	6,139	18,485
May	6,781	5,728	6,659	19,168
Jun	6,597	5,495	6,629	18,721
Jul	6,764	5,345	6,494	18,603
Aug	6,468	5,397	6,437	18,302
Sep	6,320	5,245	6,458	18,024
Oct	6,437	5,250	6,560	18,248
Nov	6,871	5,378	6,284	18,532
Dec	7,189	4,788	6,372	18,348
YTD	**80,694**	**63,856**	**75,833**	**220,383**
2011				
Jan	7,066	5,652	5,846	18,564
Feb	6,615	5,248	5,747	17,610
Mar	7,369	5,887	6,532	19,788
Apr	7,150	5,615	6,046	18,811
May	7,243	5,761	6,755	19,759
Jun	7,129	5,553	6,597	19,279
Jul	7,024	5,664	6,479	19,167
Aug	7,030	5,704	6,731	19,465
Sep	6,846	5,526	6,291	18,662
Oct	6,706	5,469	5,878	18,053
Nov	6,659	4,684	5,715	17,057
Dec	7,693	4,573	5,903	18,170
YTD	**84,531**	**65,334**	**74,520**	**224,385**

Table 8.1-1M (Cont.)
CO_2 Emission by Energy Type

Unit : 1,000 Tons

	Oil	Coal/Lignite	Natural Gas	Total
2012				
Jan	7,471	5,168	6,165	18,803
Feb	7,318	4,785	6,311	18,414
Mar	7,840	5,422	6,987	20,250
Apr	7,562	5,862	6,261	19,685
May	8,070	5,842	7,008	20,920
Jun	7,522	5,363	7,000	19,885
Jul	7,410	5,612	7,229	20,251
Aug	7,421	5,941	6,930	20,292
Sep	6,973	5,863	6,794	19,630
Oct	7,477	6,166	7,216	20,858
Nov	7,667	5,806	7,250	20,723
Dec	8,011	5,793	6,981	20,784
YTD	**90,739**	**67,623**	**82,132**	**240,495**
2013				
Jan	7,942	5,334	6,694	19,970
Feb	7,307	4,807	6,591	18,704
Mar	8,170	5,304	7,634	21,109
Apr	7,825	5,583	6,648	20,056
May	8,065	5,818	7,499	21,382
Jun	7,362	5,275	7,147	19,784
Jul	7,581	5,768	7,159	20,509
Aug	7,458	5,805	7,000	20,262
Sep	6,910	5,533	6,828	19,271
Oct	7,391	5,416	7,079	19,885
Nov	7,578	5,346	7,046	19,970
Dec	7,925	5,380	6,509	19,814
YTD	**91,513**	**65,369**	**83,835**	**240,717**
Growth Rate (%)				
2009	1.7	0.4	5.5	2.5
2010	1.2	2.3	14.8	5.9
2011	4.8	2.3	-1.7	1.8
2012	7.3	3.5	10.2	7.2
2013	0.9	-3.3	2.1	0.1

Remarks : 1. CO_2 Emission Factors Reference from IPCC 2006

2. Emission Estimation Excluded Bunker Oil for Oversea, Jet Oil for International Flight and Renewable Energy

Table 8.1-2M
CO_2 Emission from Energy Consumption by Sector

Unit : 1,000 Tons

	Power Generation	Transport	Industry	Other	Total
2009					
Jan	6,169	5,059	3,712	1,598	16,537
Feb	6,128	4,331	3,631	1,365	15,456
Mar	7,155	4,927	3,893	1,526	17,501
Apr	6,909	4,742	4,351	1,476	17,477
May	7,294	4,950	4,314	1,540	18,099
Jun	7,353	4,488	4,563	1,429	17,833
Jul	7,335	4,601	4,358	1,469	17,763
Aug	7,191	4,550	4,283	1,461	17,485
Sep	7,175	4,388	4,386	1,424	17,373
Oct	7,143	4,615	4,132	1,493	17,383
Nov	6,755	4,554	4,358	1,470	17,137
Dec	6,624	5,175	4,705	1,655	18,158
YTD	**83,231**	**56,380**	**50,685**	**17,906**	**208,202**
2010					
Jan	7,190	4,786	3,990	1,557	17,522
Feb	6,911	4,707	3,907	1,508	17,032
Mar	7,796	5,101	4,852	1,647	19,397
Apr	7,639	4,743	4,578	1,526	18,485
May	8,130	4,825	4,653	1,560	19,168
Jun	7,740	4,726	4,732	1,524	18,721
Jul	7,521	4,789	4,729	1,563	18,603
Aug	7,657	4,610	4,527	1,509	18,302
Sep	7,372	4,535	4,642	1,476	18,024
Oct	7,698	4,629	4,411	1,510	18,248
Nov	7,262	4,943	4,728	1,599	18,532
Dec	7,051	5,192	4,425	1,681	18,348
YTD	**89,965**	**57,587**	**54,173**	**18,658**	**220,383**
2011					
Jan	7,293	4,992	4,625	1,653	18,564
Feb	6,855	4,665	4,570	1,520	17,610
Mar	7,755	5,208	5,106	1,718	19,788
Apr	7,301	5,037	4,806	1,667	18,811
May	8,018	5,148	4,898	1,695	19,759
Jun	7,621	5,010	5,002	1,647	19,279
Jul	7,785	4,821	4,935	1,626	19,167
Aug	7,688	4,902	5,205	1,671	19,465
Sep	7,236	4,751	5,055	1,620	18,662
Oct	7,065	4,644	4,737	1,608	18,053
Nov	6,668	4,664	4,121	1,605	17,057
Dec	6,433	5,406	4,486	1,845	18,170
YTD	**87,719**	**59,246**	**57,547**	**19,873**	**224,385**

Table 8.1-2M (Cont.)
CO_2 Emission from Energy Consumption by Sector

Unit : 1,000 Tons

	Power Generation	Transport	Industry	Other	Total
2012					
Jan	7,332	5,050	4,692	1,729	18,803
Feb	7,062	4,979	4,681	1,692	18,414
Mar	8,138	5,334	4,930	1,848	20,250
Apr	7,892	4,999	5,031	1,763	19,685
May	8,397	5,252	5,422	1,849	20,920
Jun	8,062	5,040	5,017	1,766	19,885
Jul	8,019	4,959	5,515	1,758	20,251
Aug	8,087	5,000	5,414	1,791	20,292
Sep	8,031	4,725	5,181	1,693	19,630
Oct	8,526	5,042	5,492	1,799	20,858
Nov	8,309	5,222	5,372	1,819	20,723
Dec	8,141	5,469	5,267	1,907	20,784
YTD	**95,996**	**61,071**	**62,015**	**21,414**	**240,495**
2013					
Jan	8,021	5,400	4,710	1,838	19,970
Feb	7,591	4,955	4,568	1,591	18,704
Mar	8,782	5,579	5,038	1,710	21,109
Apr	8,119	5,231	5,093	1,613	20,056
May	8,839	5,569	5,267	1,708	21,382
Jun	7,964	5,076	5,195	1,550	19,784
Jul	8,206	5,176	5,521	1,606	20,509
Aug	8,164	5,081	5,424	1,594	20,262
Sep	7,848	4,720	5,228	1,475	19,271
Oct	7,744	5,061	5,498	1,582	19,885
Nov	7,841	5,195	5,324	1,610	19,970
Dec	7,296	5,388	5,447	1,684	19,814
YTD	**96,414**	**62,430**	**62,313**	**19,561**	**240,717**
Growth Rate (%)					
2009	-2.3	7.3	5.5	2.7	2.5
2010	8.1	2.1	6.9	4.2	5.9
2011	-2.5	2.9	6.2	6.5	1.8
2012	9.4	3.1	7.8	7.8	7.2
2013	0.4	2.2	0.5	-8.7	0.1

Remarks : 1. CO_2 Emission Factors Reference from IPCC 2006

2. Emission Estimation Excluded Bunker Oil for Oversea, Jet Oil for International Flight and Renewable Energy

Table 8.1-3M
CO_2 Emission in Power Generation by Energy Type

Unit : 1,000 Tons

	Oil	Coal/Lignite	Natural Gas	Total
2009				
Jan	46	2,776	3,347	6,169
Feb	42	2,295	3,791	6,128
Mar	43	2,649	4,464	7,155
Apr	40	2,740	4,129	6,909
May	43	2,718	4,533	7,294
Jun	43	2,829	4,481	7,353
Jul	44	2,850	4,442	7,335
Aug	44	2,579	4,568	7,191
Sep	45	2,558	4,571	7,175
Oct	57	2,394	4,692	7,143
Nov	44	2,249	4,462	6,755
Dec	52	2,296	4,277	6,624
YTD	**543**	**30,932**	**51,757**	**83,231**
2010				
Jan	67	2,796	4,326	7,190
Feb	70	2,407	4,433	6,911
Mar	91	2,857	4,848	7,796
Apr	70	2,792	4,777	7,639
May	71	2,840	5,218	8,130
Jun	66	2,527	5,146	7,740
Jul	79	2,447	4,995	7,521
Aug	68	2,692	4,897	7,657
Sep	63	2,398	4,911	7,372
Oct	62	2,624	5,012	7,698
Nov	65	2,486	4,711	7,262
Dec	61	2,275	4,714	7,051
YTD	**833**	**31,143**	**57,989**	**89,965**
2011				
Jan	107	2,965	4,221	7,293
Feb	121	2,553	4,181	6,855
Mar	120	2,976	4,659	7,755
Apr	110	2,879	4,312	7,301
May	103	3,046	4,869	8,018
Jun	130	2,809	4,682	7,621
Jul	162	3,085	4,538	7,785
Aug	122	2,813	4,753	7,688
Sep	129	2,778	4,329	7,236
Oct	123	2,913	4,029	7,065
Nov	88	2,537	4,043	6,668
Dec	104	2,329	4,000	6,433
YTD	**1,420**	**33,683**	**52,616**	**87,719**

Table 8.1-3M (Cont.)
CO_2 Emission in Power Generation by Energy Type

Unit : 1,000 Tons

	Oil	Coal/Lignite	Natural Gas	Total
2012				
Jan	133	3,053	4,147	7,332
Feb	119	2,622	4,321	7,062
Mar	121	3,120	4,897	8,138
Apr	165	3,476	4,251	7,892
May	225	3,314	4,858	8,397
Jun	150	2,993	4,919	8,062
Jul	144	2,780	5,095	8,019
Aug	129	3,206	4,752	8,087
Sep	114	3,260	4,658	8,031
Oct	133	3,370	5,023	8,526
Nov	121	3,088	5,100	8,309
Dec	110	3,138	4,892	8,141
YTD	**1,665**	**37,419**	**56,912**	**95,996**
2013				
Jan	125	3,377	4,520	8,021
Feb	130	2,900	4,561	7,591
Mar	139	3,252	5,391	8,782
Apr	169	3,393	4,558	8,119
May	111	3,460	5,267	8,839
Jun	113	2,835	5,015	7,964
Jul	127	3,246	4,832	8,206
Aug	132	3,337	4,695	8,164
Sep	118	3,153	4,577	7,848
Oct	117	2,854	4,772	7,744
Nov	119	2,890	4,832	7,841
Dec	130	2,901	4,264	7,296
YTD	**1,531**	**37,598**	**57,284**	**96,414**
Growth Rate (%)				
2009	-55.1	-4.3	0.2	-2.3
2010	53.3	0.7	12.0	8.1
2011	70.5	8.2	-9.3	-2.5
2012	17.2	11.1	8.2	9.4
2013	-8.0	0.5	0.7	0.4

Remarks : 1. CO_2 Emission Factors Reference from IPCC 2006

2. Emission Estimation Excluded Bunker Oil for Oversea, Jet Oil for International Flight and Renewable Energy

Table 8.1-4M
CO_2 Emission in Transport by Energy Type

Unit : 1,000 Tons

	Oil	Coal/Lignite	Natural Gas	Total
2009				
Jan	4,848		211	5,059
Feb	4,115		216	4,331
Mar	4,678		249	4,927
Apr	4,522		220	4,742
May	4,709		241	4,950
Jun	4,241		247	4,488
Jul	4,344		257	4,601
Aug	4,280		270	4,550
Sep	4,125		263	4,388
Oct	4,337		278	4,615
Nov	4,276		278	4,554
Dec	4,872		302	5,175
YTD	**53,347**		**3,033**	**56,380**
2010				
Jan	4,508		278	4,786
Feb	4,428		279	4,707
Mar	4,784		317	5,101
Apr	4,455		288	4,743
May	4,524		302	4,825
Jun	4,411		316	4,726
Jul	4,466		324	4,789
Aug	4,284		326	4,610
Sep	4,203		332	4,535
Oct	4,281		348	4,629
Nov	4,586		357	4,943
Dec	4,812		379	5,192
YTD	**53,742**		**3,845**	**57,587**
2011				
Jan	4,617		374	4,992
Feb	4,290		375	4,665
Mar	4,792		417	5,208
Apr	4,660		376	5,037
May	4,719		429	5,148
Jun	4,580		430	5,010
Jul	4,384		437	4,821
Aug	4,455		447	4,902
Sep	4,317		434	4,751
Oct	4,244		400	4,644
Nov	4,319		344	4,664
Dec	4,967		439	5,406
YTD	**54,345**		**4,901**	**59,246**

Table 8.1-4M (Cont.)
CO_2 Emission in Transport by Energy Type

Unit : 1,000 Tons

	Oil	Coal/Lignite	Natural Gas	Total
2012				
Jan	4,568		482	5,050
Feb	4,513		466	4,979
Mar	4,831		503	5,334
Apr	4,545		454	4,999
May	4,750		502	5,252
Jun	4,551		489	5,040
Jul	4,469		490	4,959
Aug	4,490		510	5,000
Sep	4,228		496	4,725
Oct	4,528		514	5,042
Nov	4,713		510	5,222
Dec	4,966		503	5,469
YTD	**55,152**		**5,919**	**61,071**
2013				
Jan	4,877		523	5,400
Feb	4,450		505	4,955
Mar	5,020		559	5,579
Apr	4,723		508	5,231
May	5,002		567	5,569
Jun	4,535		541	5,076
Jul	4,621		554	5,176
Aug	4,508		573	5,081
Sep	4,178		542	4,720
Oct	4,504		557	5,061
Nov	4,647		548	5,195
Dec	4,841		547	5,388
YTD	**55,906**		**6,524**	**62,430**
Growth Rate (%)				
2009	4.8		84.2	7.3
2010	0.7		26.8	2.1
2011	1.1		27.5	2.9
2012	1.5		20.8	3.1
2013	1.4		10.2	2.2

Remarks : 1. CO_2 Emission Factors Reference from IPCC 2006

2. Emission Estimation Excluded Bunker Oil for Oversea, Jet Oil for International Flight and Renewable Energy

Table 8.1-5M
CO_2 Emission in Industry by Energy Type

Unit : 1,000 Tons

	Oil	Coal/Lignite	Natural Gas	Total
2009				
Jan	689	2,196	827	3,712
Feb	626	2,207	798	3,631
Mar	669	2,300	924	3,893
Apr	630	2,866	855	4,351
May	667	2,733	914	4,314
Jun	636	2,975	951	4,563
Jul	642	2,787	930	4,358
Aug	648	2,687	949	4,283
Sep	640	2,749	997	4,386
Oct	733	2,338	1,061	4,132
Nov	646	2,680	1,032	4,358
Dec	734	2,952	1,018	4,705
YTD	**7,960**	**31,469**	**11,256**	**50,685**
2010				
Jan	613	2,326	1,051	3,990
Feb	611	2,245	1,051	3,907
Mar	716	2,919	1,217	4,852
Apr	616	2,888	1,074	4,578
May	626	2,888	1,139	4,653
Jun	597	2,968	1,167	4,732
Jul	657	2,897	1,175	4,729
Aug	607	2,705	1,214	4,527
Sep	578	2,847	1,216	4,642
Oct	584	2,627	1,200	4,411
Nov	621	2,892	1,215	4,728
Dec	634	2,512	1,278	4,425
YTD	**7,462**	**32,713**	**13,998**	**54,173**
2011				
Jan	688	2,687	1,251	4,625
Feb	684	2,695	1,192	4,570
Mar	739	2,911	1,456	5,106
Apr	713	2,736	1,357	4,806
May	726	2,715	1,457	4,898
Jun	772	2,744	1,486	5,002
Jul	852	2,579	1,504	4,935
Aug	783	2,891	1,532	5,205
Sep	779	2,748	1,528	5,055
Oct	732	2,556	1,449	4,737
Nov	646	2,147	1,327	4,121
Dec	778	2,244	1,464	4,486
YTD	**8,893**	**31,652**	**17,003**	**57,547**

Table 8.1-5M (Cont.)
CO_2 Emission in Industry by Energy Type

Unit : 1,000 Tons

	Oil	Coal/Lignite	Natural Gas	Total
2012				
Jan	1,041	2,115	1,536	4,692
Feb	994	2,163	1,524	4,681
Mar	1,040	2,303	1,587	4,930
Apr	1,089	2,385	1,557	5,031
May	1,246	2,528	1,648	5,422
Jun	1,055	2,371	1,592	5,017
Jul	1,039	2,832	1,644	5,515
Aug	1,011	2,735	1,668	5,414
Sep	938	2,604	1,640	5,181
Oct	1,017	2,796	1,679	5,492
Nov	1,014	2,718	1,641	5,372
Dec	1,027	2,654	1,586	5,267
YTD	**12,509**	**30,204**	**19,301**	**62,015**
2013				
Jan	1,102	1,957	1,651	4,710
Feb	1,136	1,907	1,525	4,568
Mar	1,301	2,052	1,685	5,038
Apr	1,320	2,191	1,582	5,093
May	1,244	2,358	1,665	5,267
Jun	1,164	2,439	1,591	5,195
Jul	1,227	2,522	1,773	5,521
Aug	1,225	2,468	1,732	5,424
Sep	1,138	2,380	1,710	5,228
Oct	1,187	2,562	1,749	5,498
Nov	1,202	2,456	1,666	5,324
Dec	1,270	2,479	1,698	5,447
YTD	**14,515**	**27,771**	**20,026**	**62,313**
Growth Rate (%)				
2009	-10.3	5.4	20.5	5.5
2010	-6.3	4.0	24.4	6.9
2011	19.2	-3.2	21.5	6.2
2012	40.7	-4.6	13.5	7.8
2013	16.0	-8.1	3.8	0.5

Remarks : 1. CO_2 Emission Factors Reference from IPCC 2006

2. Emission Estimation Excluded Bunker Oil for Oversea, Jet Oil for International Flight and Renewable Energy

Table 8.1-6M
CO_2 Emission in Other Economics Sectors by Energy Type

Unit : 1,000 Tons

	Oil	Coal/Lignite	Natural Gas	Total
2009				
Jan	1,598			1,598
Feb	1,365			1,365
Mar	1,526			1,526
Apr	1,476			1,476
May	1,540			1,540
Jun	1,429			1,429
Jul	1,469			1,469
Aug	1,461			1,461
Sep	1,424			1,424
Oct	1,493			1,493
Nov	1,470			1,470
Dec	1,655			1,655
YTD	**17,906**			**17,906**
2010				
Jan	1,557			1,557
Feb	1,508			1,508
Mar	1,647			1,647
Apr	1,526			1,526
May	1,560			1,560
Jun	1,524			1,524
Jul	1,563			1,563
Aug	1,509			1,509
Sep	1,476			1,476
Oct	1,510			1,510
Nov	1,599			1,599
Dec	1,681			1,681
YTD	**18,658**			**18,658**
2011				
Jan	1,653			1,653
Feb	1,520			1,520
Mar	1,718			1,718
Apr	1,667			1,667
May	1,695			1,695
Jun	1,647			1,647
Jul	1,626			1,626
Aug	1,671			1,671
Sep	1,620			1,620
Oct	1,608			1,608
Nov	1,605			1,605
Dec	1,845			1,845
YTD	**19,873**			**19,873**

Table 8.1-6M (Cont.)
CO_2 Emission in Other Economics Sectors by Energy Type

Unit : 1,000 Tons

	Oil	Coal/Lignite	Natural Gas	Total
2012				
Jan	1,729			1,729
Feb	1,692			1,692
Mar	1,848			1,848
Apr	1,763			1,763
May	1,849			1,849
Jun	1,766			1,766
Jul	1,758			1,758
Aug	1,791			1,791
Sep	1,693			1,693
Oct	1,799			1,799
Nov	1,819			1,819
Dec	1,907			1,907
YTD	**21,414**			**21,414**
2013				
Jan	1,838			1,838
Feb	1,591			1,591
Mar	1,710			1,710
Apr	1,613			1,613
May	1,708			1,708
Jun	1,550			1,550
Jul	1,606			1,606
Aug	1,594			1,594
Sep	1,475			1,475
Oct	1,582			1,582
Nov	1,610			1,610
Dec	1,684			1,684
YTD	**19,561**			**19,561**
Growth Rate (%)				
2009	2.7			2.7
2010	4.2			4.2
2011	6.5			6.5
2012	7.8			7.8
2013	-8.7			-8.7

Remarks : 1. CO_2 Emission Factors Reference from IPCC 2006

2. Emission Estimation Excluded Bunker Oil for Oversea, Jet Oil for International Flight and Renewable Energy



Appendix II

ค่าการแปลงหน่วย CONVERSION FACTORS
ปริมาณพลังงานของเชื้อเพลิง (ค่าความร้อนสุทธิ)
ENERGY CONTENT OF FUEL (NET CALORIFIC VALUE)

ประเภท (หน่วย)	กิโลแคลอรี/หน่วย kcal/UNIT	ตันเทียบเท่าน้ำมันดิบ/ล้านหน่วย toe/10^6UNIT	เมกะจูล/หน่วย MJ/UNIT	พันบีทียู/หน่วย 10^3Btu/UNIT	TYPE (UNIT)
พลังงานเชิงพาณิชย์					COMMERCIAL ENERGY
1. น้ำมันดิบ (ลิตร)	8680	860.00	36.33	34.44	1. CRUDE OIL (litre)
2. คอนเดนเสท (ลิตร)	7900	782.72	33.07	31.35	2. CONDENSATE (litre)
3. ก๊าซธรรมชาติ					3. NATURAL GAS
3.1 ชื้น (ลูกบาศก์ฟุต)	248	24.57	1.04	0.98	3.1 WET (scf.)
3.2 แห้ง (ลูกบาศก์ฟุต)	244	24.18	1.02	0.97	3.2 DRY (scf.)
4. ผลิตภัณฑ์ปิโตรเลียม					4. PETROLEUM PRODUCTS
4.1 ก๊าซปิโตรเลียมเหลว (ลิตร)	6360	630.14	26.62	25.24	4.1 LPG (litre)
4.2 น้ำมันเบนซิน (ลิตร)	7520	745.07	31.48	29.84	4.2 GASOLINE (litre)
4.3 น้ำมันเครื่องบิน (ลิตร)	8250	817.40	34.53	32.74	4.3 JET FUEL (litre)
4.4 น้ำมันก๊าด (ลิตร)	8250	817.40	34.53	32.74	4.4 KEROSENE (litre)
4.5 น้ำมันดีเซล (ลิตร)	8700	861.98	36.42	34.52	4.5 DIESEL (litre)
4.6 น้ำมันเตา (ลิตร)	9500	941.24	39.77	37.70	4.6 FUEL OIL (litre)
4.7 ยางมะตอย (ลิตร)	9840	974.93	41.19	39.05	4.7 BITUMEN (litre)
4.8 ปิโตรเลียมโค้ก (กก.)	8400	832.26	35.16	33.33	4.8 PETROLEUM COKE (litre)
5. ไฟฟ้า (กิโลวัตต์ชั่วโมง)	860	85.21	3.60	3.41	5. ELECTRICITY (kWh)
6. ไฟฟ้าพลังน้ำ (กิโลวัตต์ชั่วโมง)	2236	221.54	9.36	8.87	6. HYDROELECTRIC (kWh)
7. พลังงานความร้อนใต้พิภพ (กิโลวัตต์ชั่วโมง)	9500	941.24	39.77	37.70	7. GEOTHERMAL (kWh)
8. ถ่านหินนำเข้า (กก.)	6300	624.19	26.37	25.00	8. COAL IMPORT (kg.)
9. ถ่านโค้ก (กก.)	6600	653.92	27.63	26.19	9. COKE (kg.)
10. แอนทราไซต์ (กก.)	7500	743.09	31.40	29.76	10. ANTHRACITE (kg.)
11. อีเทน (กก.)	11203	1110.05	46.89	44.45	11. ETHANE (kg.)
12. โปรเพน (กก.)	11256	1115.34	47.11	44.67	12. PROPANE (kg.)
13. ลิกไนต์					13. LIGNITE
13.1 ลี้ (กก.)	4400	435.94	18.42	17.46	13.1 LI (kg.)
13.2 กระบี่ (กก.)	2600	257.60	10.88	10.32	13.2 KRABI (kg.)
13.3 แม่เมาะ (กก.)	2500	247.70	10.47	9.92	13.3 MAE MOH (kg.)
13.4 แจ้คอน (กก.)	3610	357.67	15.11	14.32	13.4 CHAE KHON (kg.)

ค่าการแปลงหน่วย CONVERSION FACTORS
ปริมาณพลังงานของเชื้อเพลิง (ค่าความร้อนสุทธิ)
ENERGY CONTENT OF FUEL (NET CALORIFIC VALUE)

ประเภท (หน่วย)	กิโลแคลอรี/หน่วย kcal/UNIT	ตันเทียบเท่าน้ำมันดิบ/ล้านหน่วย toe/10^6UNIT	เมกะจูล/หน่วย MJ/UNIT	พันบีทียู/หน่วย 10^3Btu/UNIT	TYPE (UNIT)
พลังงานใหม่และหมุนเวียน					NEW & RENEWABLE ENERGY
1. ฟืน (กก.)	3820	378.48	15.99	15.16	1. FUEL WOOD (kg.)
2. ถ่าน (กก.)	6900	683.64	28.88	27.38	2. CHARCOAL (kg.)
3. แกลบ (กก.)	3440	340.83	14.40	13.65	3. PADDY HUSK (kg.)
4. กากอ้อย (กก.)	1800	178.34	7.53	7.14	4. BAGASSE (kg.)
5. ขยะ (กก.)	1160	114.93	4.86	4.60	5. GARBAGE (kg.)
6. ขี้เลื่อย (กก.)	2600	257.60	10.88	10.32	6. SAW DUST (kg.)
7. วัสดุเหลือใช้ทางการเกษตร (กก.)	3030	300.21	12.68	12.02	7. AGRICULTURAL WASTE (kg.)
8. ก๊าซชีวภาพ (ลูกบาศก์เมตร)	5000	495.39	20.93	19.84	8. BIOGAS (m^3)

หน่วยทั่วไป GENERAL		
1 กิโลแคลอรี (kcal)	= 4186	จูล (joules)
	= 3.968	บีทียู (Btu)
1 ตันเทียบเท่าน้ำมันดิบ (toe)	= 10.093	จิกะแคลอรี (Gcal)
	= 42.244	จิกะจูล (GJ)
	= 40.047×10^6	บีทียู (Btu)
1 บาร์เรล (barrel)	= 158.99	ลิตร (litres)
1 ลูกบาศก์เมตรของไม้ (cu.m. of solid wood)	= 600	กิโลกรัม (kg.)
1 ลูกบาศก์เมตรของถ่าน (kg. of charcoal)	= 250	กิโลกรัม (kg.)
5 กิโลกรัมของฟืน (kg. of fuel wood)	= 1 กิโลกรัมของถ่าน (kg. of charcoal product)	
1 ลิตรของก๊าซปิโตรเลียมเหลว (litre of LPG)	= 0.54	กิโลกรัม (kg.)

ที่มา : รายงานพลังงานของประเทศไทยรายปี กรมพัฒนาพลังงานทดแทนและอนุรักษ์พลังงาน



A tics

Abbreviation	Full Name	ชื่อไทย
%S	Percentage of Sulphur Contain	ร้อยละของกำมะถัน
AVG	Average	เฉลี่ย
BBL/D	Barrels per Day	บาร์เรลต่อวัน
BCP	Bangchak Petroleum Public Company Limited	บริษัทบางจากปิโตรเลียม จำกัด (มหาชน)
CNG	Compressed Natural Gas	ก๊าซธรรมชาติที่ใช้เป็นเชื้อเพลิงสำหรับยานยนต์
DEDP	Small Hydro From Kere Tan	โรงไฟฟ้าพลังน้ำคีรีธาร
DEDE	Department of Alternative Energy Development and Efficiency	กรมพัฒนาพลังงานทดแทนและอนุรักษ์พลังงาน
DMF	Department of Mineral Fuels	กรมเชื้อเพลิงธรรมชาติ
DOEB	Department of Energy Business	กรมธุรกิจพลังงาน
EGAT	Electricity Generating Authority of Thailand	การไฟฟ้าฝ่ายผลิตแห่งประเทศไทย
ELEC.	Electricity	ไฟฟ้า
EPPO	Energy Policy and Planning Office	สำนักงานนโยบายและแผนพลังงาน
ESSO	Esso (Thailand) Public Company Limited	บริษัทเอสโซ่ (ประเทศไทย) จำกัด (มหาชน)
FO	Fuel Oil	น้ำมันเตา
GSP	Gas Separation Plant	โรงแยกก๊าซ
GWh	Gigawatt-hours	ล้านกิโลวัตต์ชั่วโมง
HSD	High Speed Diesel	ดีเซลหมุนเร็ว
IPP	Independent Power Producers	ผู้ผลิตไฟฟ้าเอกชนรายใหญ่
IRPC	Integrated Refinery & Petrochemical Complex Public Company Limited	บริษัท ไออาร์พีซี จำกัด (มหาชน)
J.P.	Jet Fuel	น้ำมันเครื่องบิน
JDA	Joint Development Area	พื้นที่พัฒนาร่วมระหว่างไทยกับมาเลเซีย
KBD	1,000 Barrels/Day	พันบาร์เรลต่อวัน
ktoe	1,000 Tons of Crude Oil Equivalent	พันตันเทียบเท่าน้ำมันดิบ
kWh	Kilowatt-hours	กิโลวัตต์ชั่วโมง
LPG	Liquefied Petroleum Gas	ก๊าซปิโตรเลียมเหลว
LPG (Car)	Liquefied Petroleum Gas for Automobiles	ก๊าซปิโตรเลียมเหลวที่ใช้ในรถยนต์
LSD	Low Speed Diesel	ดีเซลหมุนช้า
M.Litres	Million litres	ล้านลิตร
MEA	Metropolitan Electricity Authority	การไฟฟ้านครหลวง
MMscfd	Million Standard Cubic Feet per Day	ล้านลูกบาศก์ฟุตต่อวัน
MW	Mega Watt	เมกะวัตต์
NAP	Naptha	แนฟทา
Nap.& Oths	Naphtha and Others	น้ำมันแนฟทาและอื่นๆ
NG	Natural Gas	ก๊าซธรรมชาติ
NGL	Natural Gas Liquid	ก๊าซโซลีนธรรมชาติ
NGV	Natural Gas for Vehicles	ก๊าซธรรมชาติสำหรับยานยนต์
PEA	Provincial Electricity Authority	การไฟฟ้าส่วนภูมิภาค
Pet.	Petroleum	น้ำมันสำเร็จรูป
PTTAR	PTT Aromatics and Refining Public Company Limited	บริษัท ปตท. อะโรเมติกส์และการกลั่น จำกัด (มหาชน)
PTTGC	PTT Global Chemical Public Company Limited	บริษัท พีทีที โกลบอล เคมิคอล จำกัด (มหาชน)
REGCO	Rayong Electricity Generating Company Limited	บริษัท ผลิตไฟฟ้าระยอง จำกัด
RPC	Rayong Purifier Public Company Limited	บริษัทระยองเพียวริฟายเออร์ จำกัด (มหาชน)
SPP	Small Power Producers	ผู้ผลิตไฟฟ้าเอกชนรายเล็ก
SPRC	Star Petroleum Refining Company Limited	บริษัทสตาร์ ปิโตรเลียม รีไฟน์นิ่ง จำกัด
TOC	Thai Oil Public Company Limited	บริษัทไทยออยล์ จำกัด (มหาชน)
IRPC	IRPC Public Company Limited	บริษัทไออาร์พีซี จำกัด (มหาชน)
UGR91	Regular Gasoline 91	เบนซินธรรมดา 91
ULG95	Premium Gasoline 95	เบนซินพิเศษ 95
VAT	Value Added Tax	ภาษีมูลค่าเพิ่ม
WT.AVG	Weighted Average	ค่าเฉลี่ยถ่วงน้ำหนัก
YTD	Year to Date	ข้อมูลตั้งแต่วันที่ 1 มกราคมปีนั้นๆ ถึงวันที่ออกรายงาน

รายชื่อผู้จัดทำรายงานสถิติพลังงานปี 2557

Energy Statistics of Thailand 2014

Prepared by Energy Policy and Planning Office (EPPO), Ministry of Energy

ที่ปรึกษา

นายชวลิต	พิชาลัย	ผู้อำนวยการ สำนักงานนโยบายและแผนพลังงาน
นายสุชาลี	สุมามาลย์	รองผู้อำนวยการ สำนักงานนโยบายและแผนพลังงาน
นายประพนธ์	วงษ์ท่าเรือ	รองผู้อำนวยการ สำนักงานนโยบายและแผนพลังงาน

Honorary Advisors:

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เลขที่ 121/1-2 ถนนเพชรบุรี แขว
โทร. 0 2612 1555 โทรสาร 0 26

ing Office, Ministry of Energy
ad, Ratchathewi, Bangkok 10400, Thailand
Tel. +66 2612 1555 Fax. +66 2612 1364
www.eppo.go.th

พิมพ์ที่

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สำนักงานนโยบาย
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โทร. 0 2612 1555 โทรสาร 0 2612 1364

ENERGY POLICY AND PLANNING OFFICE, MINISTRY OF ENERGY
121/1-2 Phetchaburi Road, Ratchathewi, Bangkok 10400, Thailand
Tel. +66 2612 1555 Fax +66 2612 1364

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