II. Energy Production and Processing

2.1 Import of Petroleum Products

During the first quarter of 2015/16, the total volume of petroleum products imported amounted to 714.1 thousands of metric tons, depicting 14.5 percent increment vis-à-vis the same quarter of last year. This was attributed to higher import of regular gasoline (38.5 percent), jet fuel (26 percent) and gas oil (10.7 percent); despite slow down in fuel oil (29 percent).

Of the total petroleum imports gas oil accounted for 55.8 percent, jet fuel 29.8 percent, regular gasoline 10.1 percent and fuel oil 4.3 percent.

Quarter wise, the volume of petroleum products imported declined by 11.4 percent over the previous quarter, owing to the contraction in the import of gas oil (26.1 percent) and fuel oil (22.8 percent) which outweighed the rise of other types of petroleum products: jet fuel (29.2 percent) and regular gasoline (14.7 percent) (Table 2.1).

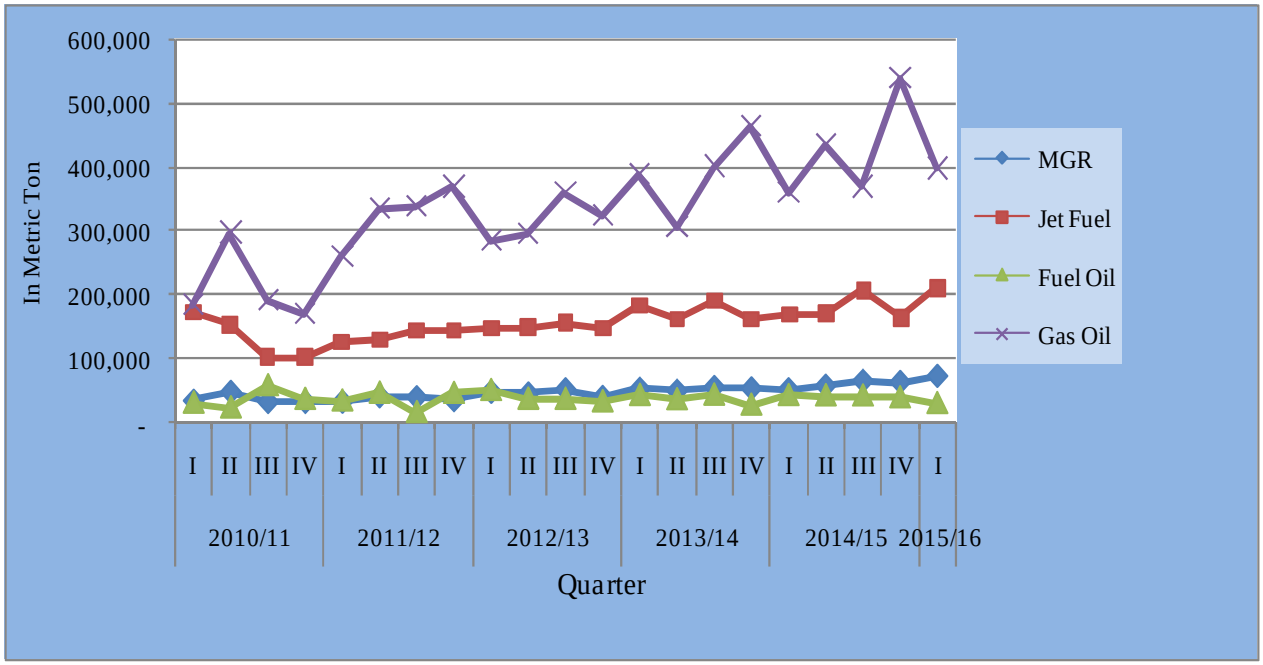
Table 2.1: Volume of Petroleum Products Imported

(In Metric Ton)

Petroleum Products	2014/15				2015/16		Percentage Change	
	Qtr I		Qtr IV		Qtr I			
	A	Share (In %)	B	Share (In %)	C	Share (In %)	C/A	C/B
Regular Gasoline (MGR)	52,223	8.4	63,065	7.8	72,313	10.1	38.5	14.7
Jet Fuel	169,005	27.1	164,823	20.4	213,016	29.8	26.0	29.2
Fuel Oil	43,175	6.9	39,680	4.9	30,650	4.3	-29.0	-22.8
Gas Oil (ADO)	359,514	57.6	538,501	66.8	398,136	55.8	10.7	-26.1
Total	**623,917**	**100.0**	**806,068**	**100.0**	**714,115**	**100.0**	**14.5**	**-11.4**

Source: Ethiopian Petroleum Enterprise

Fig.II.1: Trends in the Volume of Petroleum Products Imported



Source: Ethiopian Petroleum Enterprise

The total import bill of petroleum reached Birr 7.3 billion, showing a 34.7 and 23.4 percent decline as compared with same quarter of last year and the preceding quarter, respectively. The annual reduction was owing to steady decline in international oil price, while quarterly contraction emanated from cut back in the volume and price of petroleum imported. Compared with last year same quarter, the values of all types of petroleum products registered a significant reduction, i.e., fuel oil (60.2 percent), gas oil (40.8 percent), jet fuel (26.4 percent) and regular gasoline (6.5 percent). Compared with the previous quarter, gas oil and fuel oil registered a 38.4 and 37.5 percent decline, while the value of jet fuel and regular gasoline went up by 12 and 2.6 percent, respectively (Table 2.2).

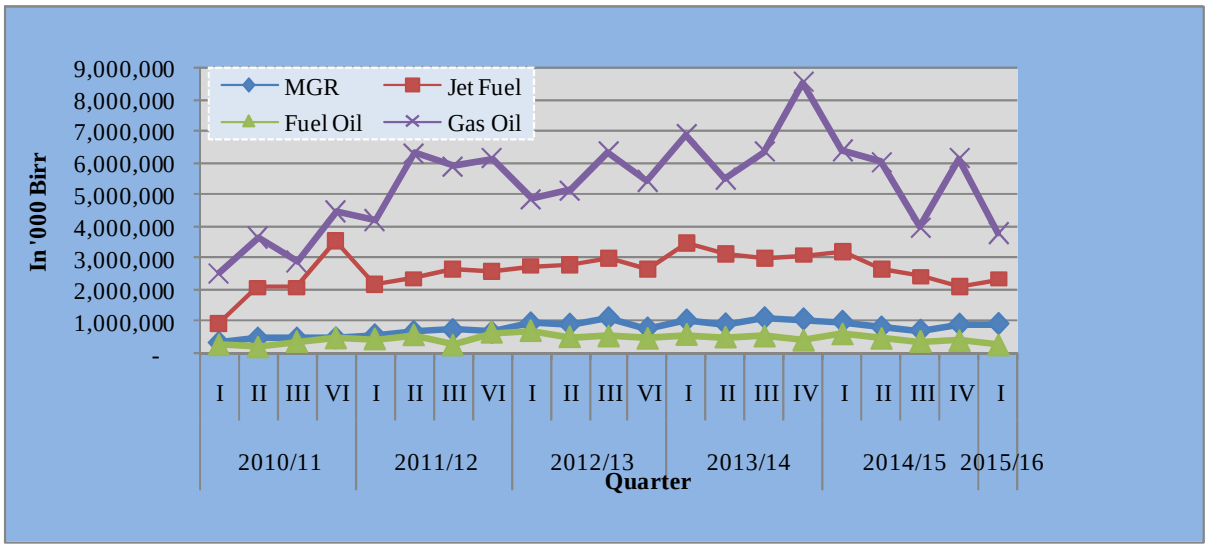
Table 2.2: Value of Petroleum Products Imported

(In '000 Birr)

Petroleum Products	2014/15 Qtr I A	Share (In %)	2014/15 Qtr IV B	Share (In %)	2015/16 Qtr I C	Share (In %)	Percentage Change C/A	C/B
Regular Gasoline (MGR)	980,533	8.8	893,676	9.4	916,488	12.6	-6.5	2.6
Jet Fuel	3,192,513	28.7	2,097,465	22.1	2,349,127	32.3	-26.4	12.0
Fuel Oil	568,476	5.1	362,054	3.8	226,355	3.1	-60.2	-37.5
Gas Oil (ADO)	6,383,797	57.4	6,135,302	64.7	3,777,809	52.0	-40.8	-38.4
Total	**11,125,318**	**100.0**	**9,488,497**	**100.0**	**7,269,778**	**100.0**	**-34.7**	**-23.4**

Source: Ethiopian Petroleum Enterprise

Fig.II.2: Trends in the Value of Petroleum Products Imported



Source: Ethiopian Petroleum Enterprise

The 48.5 percent down turn in the average FOB price of petroleum products against the same quarter of last year was due to of the fall in the FOB prices of all types of petroleum products; namely, fuel oil (56.9 percent), gas oil (50 percent), jet fuel (49.2 percent), and regular gasoline (41.4 percent).

Similarly, the average FOB price of petroleum showed a 20.5 percent decline over the preceding quarter owing to diminish

in all types of petroleum products (Table 2.3).

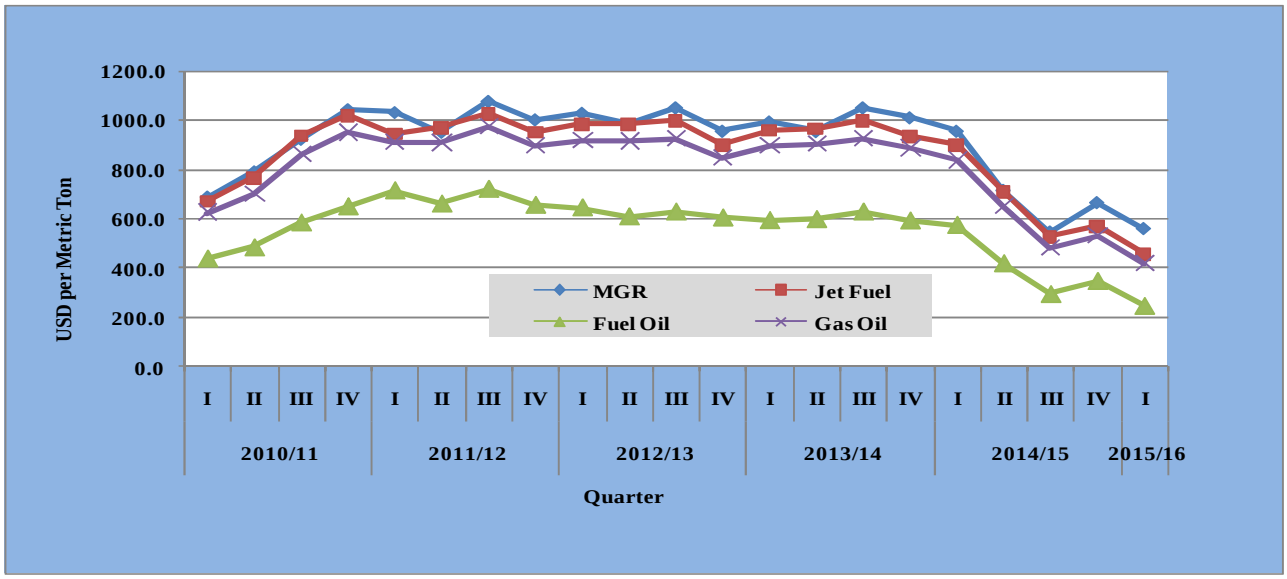
Table 2.3: FOB Price of Petroleum Products Imported

(In USD/ Metric Ton)

Petroleum Products	2014/15		2015/16	Percentage Change	
	Qtr I	Qtr. IV	Qtr I		
	A	B	C	C/A	C/B
Regular Gasoline (MGR)	956.2	665.7	560.2	-41.4	-15.9
Jet Fuel	899.6	572.1	456.9	-49.2	-20.1
Fuel Oil	573.1	347.2	247.0	-56.9	-28.9
Gas Oil (ADO)	838.4	532.6	419.5	-50.0	-21.2
Average	**816.8**	**529.4**	**420.9**	**-48.5**	**-20.5**
Brent Crude Oil (USD/Barrel)	102.1	62.1	50	51	19.4

Source: Ethiopian Petroleum Enterprise

Fig.II.3: Trends in the FOB Price of Imported Petroleum Products



Source: Ethiopian Petroleum Enterprise

During the first quarter of 2015/16, the average price of Brent crude oil, used as a point of reference for international oil price, declined by 51 percent and reached USD 50 per barrel compared with USD 102.1 recorded a year ago. Similarly, the average price of Brent oil showed a 19.4 percent contraction compared with the previous quarter (Table 2.3).

In line with the movements in the international oil prices and other factors, domestic retail prices were adjusted downwards. Accordingly, the average retail price of fuel products in Addis Ababa were reduced by 17.8 percent to Birr 15.6 per liter from Birr 18.97 per liter in the same quarter of last year.

In contrast to the previous quarter, however, the retail prices rose by 1.1 percent as the prices of regular gasoline and jet fuel tended to increase while that of other petroleum products remained constant (Table 2.4).

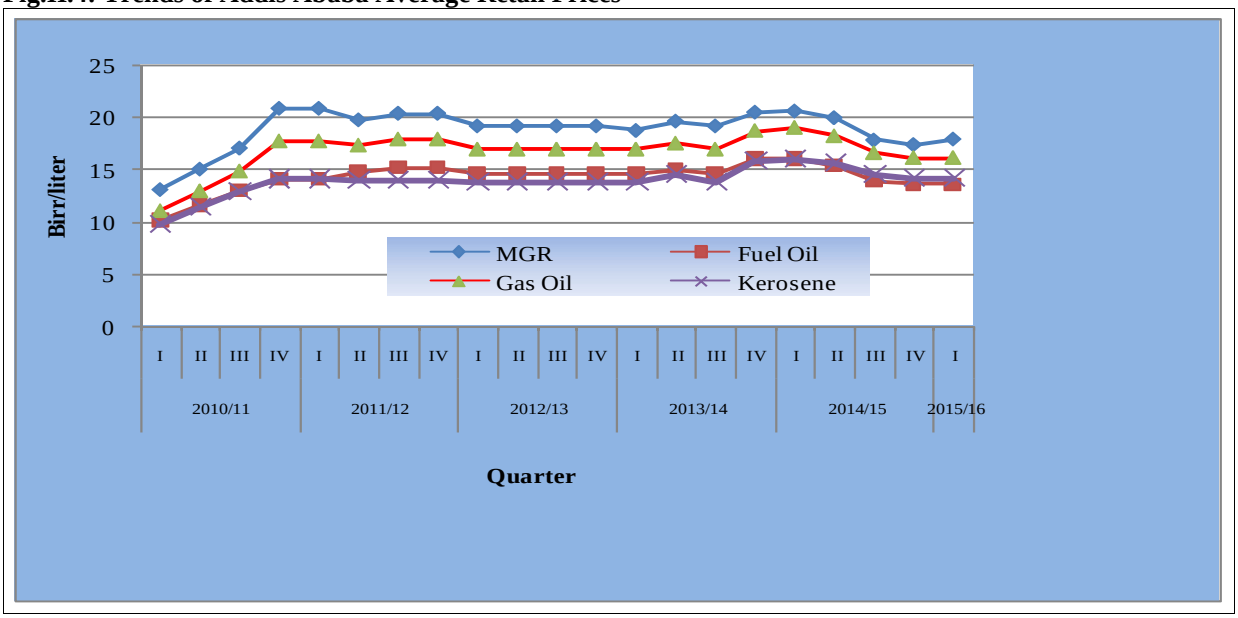
Table 2.4: Addis Ababa Average Retail Prices of Fuel

(Birr/Liter)

Petroleum Products	2014/15 Qtr I A	2014/15 Qtr IV B	2015/16 Qtr I C	Percentage Change C/A	Percentage Change C/B
Regular Gasoline (MGR)	20.64	17.43	17.96	-13.0	3.0
Fuel Oil	16.13	13.59	13.59	-15.7	0.0
Gas Oil (ADO)	19.00	16.10	16.10	-15.3	0.0
Kerosene	16.00	14.13	14.13	-11.7	0.0
Jet fuel	23.09	15.89	16.23	-29.7	2.1
Average	**18.97**	**15.43**	**15.60**	**-17.8**	**1.1**

Source: Ministry of Trade

Fig.II.4: Trends of Addis Ababa Average Retail Prices



Source: Ministry of Trade

2.2. Electric Power Generation

The total electricity generated during the first quarter of 2015/16 reached 2.5 billion KWH; registering 62.8 percent growth over the same quarter of last year due to an improvement in wind power generation (86.6 percent), hydropower (61.8 percent) and thermal power (52 percent).

Of the total energy generated during the review period, about 95.3 percent was produced from hydropower and 4.7 percent from wind power. The contribution of thermal power was insignificant and there was no energy production from geothermal sources (Table 2.5).

By system generation, almost 100 percent of the electric power was produced through inter connected system (ICS[1]) while self contained system (SCS[2]) had minimal share (Table 2.6).

[1] Generates power by connecting to other systems
[2] Generates power independently

Table 2.5: Electricity Generation by Sources

(In '000 of K.W.H)

Power Source	2014/15 Qtr I A	Share (In %)	2014/15 Qtr IV B	Share (In %)	2015/16 Qtr I C	Share (In %)	Percentage Change C/A	C/B
Hydropower	1,502,337.9	95.9	2,198,682.6	94.2	2,431,312.9	95.3	61.8	10.6
Thermal Power	1,399.6	0.1	4,368.2	0.2	2,127.4	0.1	52.0	-51.3
Geothermal	-	0.0	-	0.0	-	-	0.0	0.0
wind	63,617.3	4.1	130,238.4	5.6	118,680.8	4.7	86.6	-8.9
Total	**1,567,354.84**	**100.0**	**2,333,289.28**	**100.0**	**2,552,120.99**	**100.0**	**62.8**	**9.4**

Source: Ethiopian Electric Power

Table 2.6: Generation of Electricity Power in the Interconnected System (ICS) and Self Contained System (SCS)

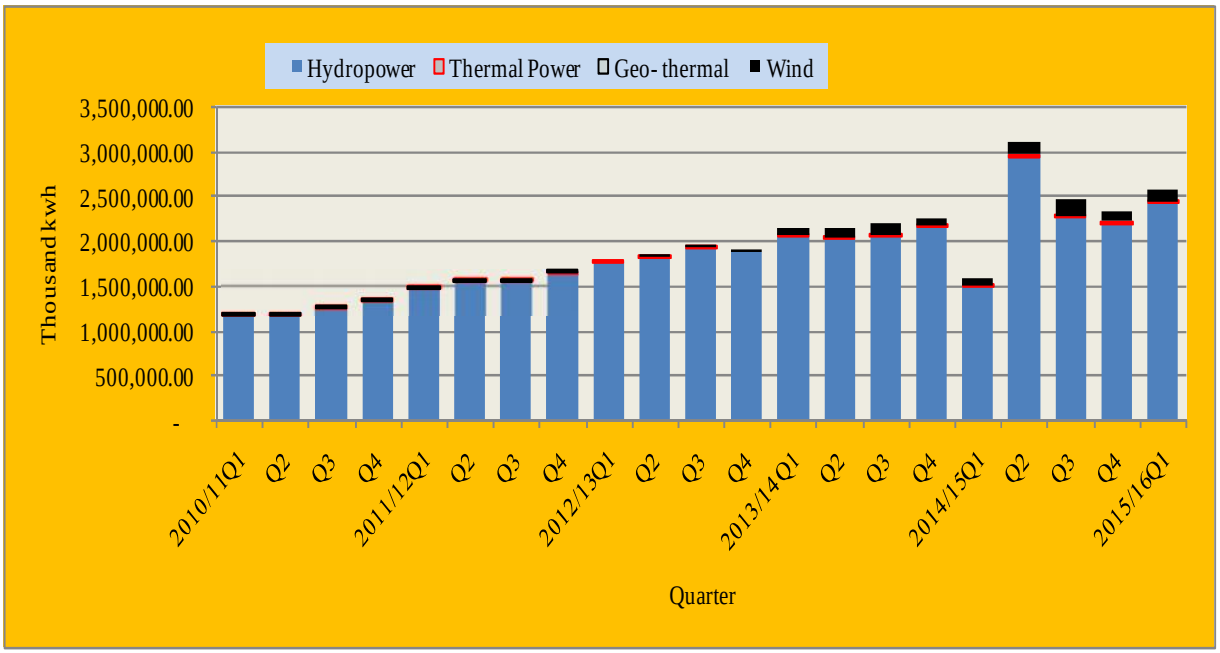
(In '000 of K.W.H)

System of Power Supply	2014/15 Qtr I A	Share (In %)	2014/15 Qtr IV B	Share (In %)	2015/16 Qtr I C	Share (In %)	Percentage Change C/A	C/B
ICS								
Hydro Power	1,502,337.9	95.9	2,198,682.6	94.2	2,431,312.9	95.3	61.8	10.6
Thermal Power	-	0.0	3,023.9	0.1	928.6	0.0		-69.3
Geothermal	-	0.0	-	0.0	-	-		
Wind	63,617.3	4.1	130,238.4	5.6	118,680.8	4.7	86.6	-8.9
Sub-Total	1,565,955.2	99.9	2,331,945.0	99.9	2,550,922.2	100.0	62.9	9.4
SCS*		0.0		0.0		-		
Hydro Power	-	0.0	-	0.0	-	-		
Thermal Power	1,399.6	0.1	1,344.3	0.1	1,198.8	0.0	-14.3	-10.8
Geothermal	-	0.0	-	0.0	-	-		
wind	-	0.0	-	0.0	-	-		
Sub-Total	***1,399.6***	0.1	1,344.3	0.1	1,198.8	0.0	-14.3	-10.8
Grand Total	**1,567,354.8**	**100.0**	**2,333,289.3**	**100.0**	**2,552,121.0**	**100.0**	**62.8**	**9.4**

Source: Ethiopian Electric Power

*scs includes estimated value

Fig.II.5: Volume of Electricity Production by Type



Source: Ethiopian Electric Power