

18<sup>th</sup> May 2006

Chairman  
Malta Resources Authority  
2nd Floor  
Aldo Moro Road  
Marsa

Dear Sir,

## **Review of the Fuel Surcharge Mechanism**

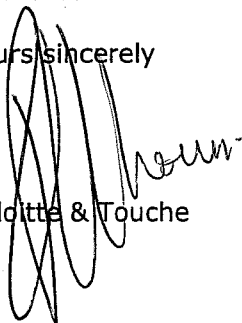
In accordance with our letter of engagement dated 15 March 2006 we have performed an independent review of the fuel surcharge mechanism (the 'Mechanism') used by Enemalta Corporation ('Enemalta' or 'the Corporation') as a basis for calculating the fuel surcharge ('the surcharge') levied on consumers as a result of fluctuations in the cost of imported fuel.

In accordance with our specific terms of reference, the scope of the review is to verify that the fuel surcharge levied to date by Enemalta was limited to cover shifts in the cost of managing the fuel stocks required for the generation of electricity.

Our review was based on information extracted from the Corporation's audited financial statements, management accounts, annual budgets, internally generated management reports and third party reports. The review did not constitute a re-audit of the figures and information provided. In this respect we have relied on the integrity of the information provided and do not assume any responsibility or provide assurance for the accuracy or completeness of the said information.

This report has been prepared for the sole use of the persons to whom it is addressed and for the purpose stated above. We accept no liability or responsibility to any person other than those to whom it is addressed.

Yours sincerely



Deloitte & Touche

## **1. INITIAL FUEL SURCHARGE - 1 JANUARY 2005**

### **1.1 Initial Report – November 2004**

In November 2004, Government engaged PriceWaterhouseCoopers ('PWC') to assess the financial impact of changes in fuel prices on the Electricity Division of Enemalta. The PWC report formed the basis on which Government determined the initial surcharge required to compensate for fuel price increases.

A PWC report entitled 'The effect of fuel input cost on the results of Enemalta's Electricity Division' and dated 15 November 2004 was used as the basis of the original surcharge calculation.

The principal conclusions of the PWC report may be summarised as follows:

- Fuel procurement costs for the financial period ended 30<sup>th</sup> September 1999 were Lm18.7m.
- On the basis of the Corporation's estimates at the time the report was prepared, fuel procurement costs for the year to 30<sup>th</sup> September 2005 were expected to increase to Lm54.3m.
- Over the same six-year period, the volume of electricity generated by the Corporation was calculated to have increased from 1,723,000 MWh in 1999 to 2,157,000 MWh in 2005. Accordingly Lm4.9m of the total increase in the cost of fuel consumed was attributed to the projected increase in volume of electricity generated.
- During 2003, primarily for environmental reasons, Enemalta shifted its fuel consumption mix by using a substantially higher volume of Low Sulphur Fuel Oil ('LSFO') instead of High Sulphur Fuel Oil ('HSFO'). It was estimated that the shift to LSFO would cumulatively have cost the Corporation an additional Lm5.3 m in fuel costs by financial year 2004/05.
- In 1999 the cost of fuel attributable to unbilled generation (referred to as 'throughput losses') was estimated at Lm2.6m. As a result of increased fuel costs the cost of fuel attributable to these throughput losses in 2004/5 was estimated at Lm5.3m. Accordingly, the increase in the cost of fuel attributable to throughput losses between 1999 and 2005 was estimated at Lm2.7m.

- On the basis of the above calculations and estimates the report concluded that the initial surcharge should have be set at 24%.

## 1.2 Subsequent Revision in estimated Fuel Procurement Costs – 2004/5

Subsequent to the finalisation of the PWC report, the Corporation revised its estimated cost of fuel for 2004/5. As a result of this revision, the projected cost of fuel for the year was reduced from Lm54.3 m to Lm47.8m.

On the basis of this revised estimate, fuel procurement cost for 2004/5 were expected to increase by Lm29m between 1999 and 2005 as follows:

Table 1: Fuel Consumption 1999 vs 2004/5

		<b>1999 Actual</b>	<b>2004/05 Estimate</b>
<b>Electricity units generated</b>	<b>MwH</b>	1,723,000	2,156,866
<b>Consumption:</b>			
Fuel Oil	<b>MT</b>	519,663	601,807
Gas Oil	<b>MT</b>	0	53,776
<b>Average prices:</b>			
Fuel Oil	<b>USD</b>	94.33	196.50
Gas Oil	<b>USD</b>	158.47	447.00
<b>ROE - USD:LM</b>		2.5041	2.9800
<b>Average prices:</b>			
Fuel Oil	<b>Lm</b>	37.67	65.94
Gas Oil	<b>Lm</b>	63.28	150.00
<b>Total fuel consumption</b>	<b>Lm</b>	<b>18,689,000</b>	<b>47,749,311</b>

NB: Above prices relate to cost per metric ton

On the basis of the PWC report (as adjusted for the subsequent downward revision in estimated fuel costs for 2004/5) it was concluded that:

- After excluding the impact of the increase in fuel costs attributable to increased generation (Lm4.9m), the shift to LSFO (Lm5.3m) and throughput losses (Lm2.7m), the increase in fuel costs attributable to changes in the cost of fuel between 1999 and 2005 (originally estimated at Lm22.7m) was projected at Lm16.2m as illustrated in Table 2 ;

- Increases in fuel procurement costs above the established 'Baseline' figure of Lm31.6m (1999 cost of fuel of Lm18.7m + increase in fuel costs attributable to increased generation of Lm4.9m + the cost of the shifting to LSFO of Lm5.3m + the additional cost of fuel attributable to throughput losses Lm2.7m) were to be treated as being attributable to adverse price changes and should therefore be recovered through the fuel surcharge mechanism.
- On the basis of the revised estimated fuel procurement cost for 2004/5 of Lm47.8m, the increase in cost of fuel attributable to fuel price increases was established at Lm16.2m.

Table 2: Increase in fuel cost relating to increase in prices:

	<b>2005</b>	<b>2004/05</b>
	<b>PWC report</b>	<b>Revised</b>
	<b>Lm</b>	<b>estimate</b>
		<b>Lm</b>
Estimated Fuel Costs	54,309,000	47,749,000
Non-price related increases in fuel cost		
Increase in volume	(4,888,000)	(4,888,000)
Cost of shift to LSFO	(5,325,000)	(5,325,000)
Fuel cost attributed to throughput losses	(2,672,000)	(2,672,000)
<b>Total non-price related increases in fuel</b>	<b>(12,885,000)</b>	<b>(12,885,000)</b>
<b>Baseline Cost of Fuel</b>	<b>31,574,000</b>	<b>31,574,000</b>
<b>Increase in cost attributable to price changes</b>	<b>22,735,000</b>	<b>16,175,000</b>

## 1.3 Initial Surcharge

In addition to the above computations, the following important decisions were also factored into the computation of the initial surcharge:

1. Government and the Corporation decided that they would absorb 52% of the resultant estimated increase in the cost of fuel. As a result only Lm7.764m of the total increase in fuel cost of Lm16.175 million was to be recovered through the surcharge mechanism (Lm8.411m was to be absorbed by the Corporation / Government)
2. The surcharge would not be payable on :
  - o meter rents (estimated at Lm6.3m);
  - o electricity purchases by Water Services Corporation (estimated at Lm3.9m); and
  - o bills sent to social cases (estimated at Lm1.1m).
3. A surcharge cap of Lm5,000 would be granted on Industrial and Hotel bills (initially estimated gross billing Lm12million).

After taking the above into consideration, the increased fuel costs were to be absorbed by the remaining sales of Lm45.6m resulting in an initial surcharge of 17% as follows:

Table 3: Computation of 17% Surcharge

	<b>Lm</b>
<b>Estimated sales</b>	57,900,000
<b>Exclusions:</b>	
Meter rents	(6,325,168)
Sales to WSC	(3,900,000)
Social cases	(1,102,160)
Capped sales (net)	(12,000,000)
	(23,327,328)
<b>Add backs:</b>	
Water sales	11,000,000
<b>Estimated sales subject to surcharge</b>	<b>45,572,672</b>
<b>Amount to be recovered through 'Surcharge Mechanism'</b>	<b>7,764,149</b>
<b>Required surcharge</b>	<b>17.04%</b>
<b>Actual surcharge</b>	<b>17.00%</b>

The initial surcharge was set at 17%, effective from 1 January 2005 and was to be reviewed in August 2005.

#### 1.4 Subsequent workings

The surcharge of 17% was up for revision in August 2005 and the CFO of Enemalta prepared a memo (dated 8 July 2005), addressed to the chairman of Enemalta explaining the requirement for an adjustment to the fuel surcharge. The CFO's computation was subsequently reviewed by PWC who sent their comments in a letter dated 5 August 2005.

The report concluded that on the basis of the actual fuel costs for the period Jan – May 2005 and estimates for June and July 2005, fuel costs were expected to exceed budget by Lm3.3m and that the surcharge would have to be revised upwards from 17% to 23%.

On the basis of the Corporation's management accounts, the actual cost of fuel consumption for 2004/5 was Lm53.6m. The actual cost was Lm5.8m higher than the revised budget of Lm47.8m. The Corporation absorbed this adverse variance.

Furthermore, in view of the fact that the surcharge was only introduced in January 2005, the Corporation had to absorb a further Lm2.1m of the cost increase.

Taken together these two factors contributed to an under-recovery of Lm7.9 as illustrated in Table 4 below.

Table 4: Under recovery through 17% surcharge:

	<b>Lm</b>
Actual fuel consumption - 2004/5	53,648,004
Fuel consumption - 1999	(18,689,000)
Increase in fuel consumption	34,959,004
<b>Exclusions:</b>	
Increase in volume	(4,888,000)
Shift to LSFO	(5,325,000)
Avoidable throughput losses	(2,672,000)
	(12,885,000)
<b>Price related increases</b>	22,074,004
Absorbed by Government	(8,411,162)
Excess to be recovered	13,662,842
Actually recovered through 17% surcharge	(5,789,066)
Under recovered - Lm	7,873,776

## 2. FUEL SURCHARGE - 2005/06

The Corporation calculated that the fuel surcharge for the year ending 30 September 2006 should be set at 84%. These calculations were based on the following estimates and assumptions:

### 2.1 COST OF FUEL

Fuel procurement costs for the financial year 2005/06 were budgeted at Lm80.7 million as follows:

Table 5: Fuel cost estimate for 2005/06

		1999 Actual	2004/05 Original Estimates *	2005/06 Estimates
Electricity units generated	MwH	1,723,000	2,156,866	2,183,461
Fuel Oil consumed	MT	519,663	601,807	593,769
Gas Oil consumed	MT	-	53,776	56,352
Average prices:				
Fuel Oil (USD)	USD	94.33	196.50	323.50
Gas Oil (USD)	USD	158.47	447.00	599.95
ROE - USD/Lm		2.5041	2.9800	2.80
Average prices:				
Fuel Oil (Lm)	Lm	37.67	65.94	115.54
Gas Oil (Lm)	Lm	63.28	150.00	214.27
<b>Fuel Cost</b>	<b>Lm</b>	<b>18,689,000</b>	<b>47,749,311</b>	<b>80,675,948</b>

\* Original Estimates represent the Corporation's projections for fuel procurement cost in November 2004 when the 17% surcharge was calculated

Due to the increase in the price of fuel oil and gas oil the Corporation expected total fuel cost to increase by a further Lm32.9 million over the actual figures for 2004/5.

## 2.2 Sales subject to surcharge

Sales subject to surcharge for 2005/06 were estimated by the Corporation at Lm48.7m as illustrated in Table 8: 'Total Sales subject to Surcharge'. This figure includes estimated budgeted water and electricity sales but excludes social cases, sales to WSC and meter rent income. The figure also takes into consideration the impact on chargeable billing of 'capping' afforded to industry and hotels.

The revised surcharge was calculated as follows:

### i. Total sales

Budgeted total sales for the FY 2005/06 were estimated at Lm59m using the following assumptions:

- ◆ Average selling price of Lm0.03291 per unit based on the 2004 audited sales figures below:

Table 6: Selling price per unit

	Sales Lm	Units	Price/unit Lm	Price/unit adjusted for VAT Lm
Domestic	19,045,000	623,671,536	0.03054	0.03054
Commercial	21,916,000	592,158,338	0.03701	0.03896
Industrial	13,809,000	505,535,479	0.02732	0.02875
	54,770,000	1,721,365,353	0.03182	0.03291

- ◆ A throuput loss ratio of 17.52%, which was in line with 2004/05 audited results.

Table 7: Throughput loss percentage for 2004/05

Units sold	Kwh	1,721,365,353
Units generated	Kwh	2,087,115,000
Losses	Kwh	365,749,647
Loss %	%	17.52%

- ◆ Total electricity generation was estimated at 2,183,461 units for FY 2005/06.

- ◆ Total estimated sales - Lm59 million [ $2,183,461 \times 0.03291 \times (1-17.52\%)$ ]. It is relevant to point out that the actual sales figure for both 2003/4 and 2004/5 were between 6.5% and 8.5% lower than the assumed sales figures. By adopting this higher assumed figure in its model the Corporation has effectively divided the increase in cost of fuel by an assumed sales figure, which is higher than the actual sales figure. In this way the Corporation is effectively reducing the surcharge to a rate below what it would have been if the actual sales figure were used.

## **ii. Water sales collected on behalf of the Water Services Corporation**

The surcharge would be levied on WSC sales, estimated at Lm11m. The financial statements of Water Services Corporation for the financial year ended 30 September 2004 reported total sales of water equal to Lm11,222,153.

## **iii. Exempt from surcharge**

The surcharge would not be levied on:

- ◆ Meter rents – Estimated at Lm6.3m

This figure was based on a detailed schedule exported from Enemalta's database, which reported income from rent of water meters of Lm3,093K and income from rent of electricity meters of Lm3,290K. Taken together this resulted in income of Lm6,383K not being subject to the fuel surcharge.

- ◆ Electricity sales to Water Services Corporation – Estimated at Lm3.9m

Total sales to WSC included in the model were based on actual figures for 2004/05.

- ◆ Social cases

All customers classified as social cases in Enemalta's database are exempt from the surcharge. These were estimated at Lm1.1 million. A schedule of social cases has been exported from Enemalta's database and totaled Lm1,089,445.

- ◆ Capped revenue from industry and hotels

Enemalta estimated that as a result of the cap introduced by Government to assist industry and hotels, the full fuel surcharge will not be collected on a total of approximately Lm10m sales (down from the original estimate of Lm12m used in the initial surcharge calculation).

The Corporation compiled a detailed schedule, for hotels and industry benefiting from the cap. Assuming an average surcharge for 2005/06 of 62.5% (based on the initial 55% + adjustable increases of 2.42% every 2 months), it was estimated that that a total of Lm6.2m would be saved by industry and hotels as a result of the cap.

The above results in approximately Lm10m (Lm6.2m/62.5%) grossed up sales on which a full surcharge will not be collected.

In line with the above assumptions net sales subject to the fuel surcharge in 2005/06 were estimated at Lm48,710,484 as follows:

Table 8: Total sales subject to surcharge

	<b>2005/6 budget</b>
Electricity generation (Mwh)	2,183,461
Average selling price per Kwh of electricity	0.03291
Budgeted Electricity Sales	59,000,000
Budgeted WSC Sales	11,000,000
Meter Rents	(6,325,168)
WSC Elect Purchases	(3,900,000)
Social Cases	(1,102,160)
	<b>58,672,672</b>
Industrial & Hotels (Capped)	(9,962,188)
	<b>(9,962,188)</b>
<b>TOTAL SALES SUBJECT TO SURCHARGE</b>	<b>48,710,484</b>

## 2.3 Surcharge revisions 2005/6

On the basis of expected fuel costs of Lm80.7m the increase in fuel costs in 2005/6 over 2004/5 were calculated at Lm32.9 million. This projected increase in the cost of fuel was to form the basis of the increased surcharge for 2005/6.

On the basis of the estimated chargeable sales figure of Lm48.7m, the surcharge for 2005/06 should have been increased to 84%.

However, Government decided that the surcharge was to be initially introduced at 55% in November 2005 and to be revised every two months in line with actual fluctuations in fuel prices.

The difference between the introduced surcharge of 55% and the required surcharge of 84% was to be gradually factored into the mechanism by means of bi-monthly increase of 2.42% over a period of 24 months. The effect of this delay was to be absorbed by the Corporation.

The subsequent surcharge revisions for 2005/6 were computed as follows:

Table 9: Surcharge revisions 2005/6

		2004/05 Base (12 mths)	Nov Dec 2 mths	Jan - Feb 2 mths	Mar - Apr 2 mths	May - Jun 2 mths
<b>Consumption:</b>						
Fuel Oil	MT	601,807	98,962	98,962	98,962	98,962
Gas Oil	MT	53,776	9,392	9,392	9,392	9,392
<b>Average prices:</b>						
Fuel Oil	Lm	65.94	115.54	109.29	123.15	118.23
Gas Oil	Lm	150.00	214.27	198.93	197.69	200.78
<b>Fuel Consumption</b>						
Estimated fuel consumption - Base year	Lm	47,749,311	13,445,991	12,683,415	14,043,693	13,586,429
Variance between fuel consumption in base year and current period			(7,958,219)	(7,958,219)	(7,958,219)	(7,958,219)
			5,487,773	4,725,197	6,085,475	5,628,211
Sales subject to surcharge		48,975,855	8,162,643	8,162,643	8,162,643	8,162,643
Required increase in surcharge over initial 17%			67.23%	57.89%	74.55%	68.95%
17% surcharge			17.00%	17.00%	17.00%	17.00%
Total surcharge required			84.23%	74.89%	91.55%	85.95%
Delayed surcharge			-29.00%	-29.00%	-26.58%	-24.17%
Released delayed surcharge			0.00%	2.42%	2.42%	2.42%
			-29.00%	-26.58%	-24.17%	-21.75%
Actual surcharge required			55.23%	48.30%	67.39%	64.20%
Rounded to			55.00%	47.50%	67.50%	64.00%

## 3. ANALYSIS OF FUEL PRICE MOVEMENTS

### 3.1 Fuel price movements

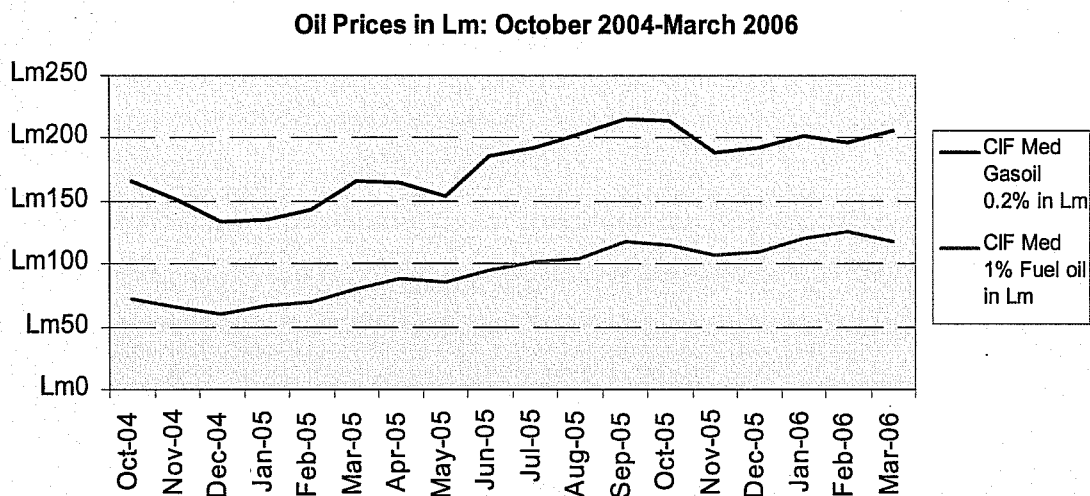
The table below shows the actual average fuel prices quoted by Platts European Marketscan and the middle exchange rate between the Maltese Lira and US Dollar quoted by the Central Bank of Malta for the financial year 2004/05 as well as the period between October 2005 and March 2006:

Table 10: Gas Oil & Fuel Oil Market Prices – Per metric ton

	<b>CIF Med 1% Fuel oil USD</b>	<b>CIF Med 1% Fuel oil Lm</b>	<b>CIF Med Gasoil 0.2% USD</b>	<b>CIF Med Gasoil 0.2% Lm</b>	<b>ROE</b>
<b>1999</b>	<b>94.33</b>	<b>37.67</b>	<b>158.47</b>	<b>63.29</b>	<b>2.504</b>
<b>Average 2004/05</b>	<b>246.08</b>	<b>83.72</b>	<b>492.49</b>	<b>167.36</b>	<b>2.955</b>
Oct-04	209.45	72.07	480.06	165.19	2.906
Nov-04	197.00	65.54	455.16	151.43	3.006
Dec-04	185.89	59.93	413.60	133.33	3.102
Jan-05	203.23	66.91	409.93	134.96	3.037
Feb-05	208.58	68.99	430.69	142.46	3.023
Mar-05	245.74	80.31	505.77	165.28	3.060
Apr-05	266.23	88.43	495.14	164.46	3.011
May-05	251.45	85.00	456.04	154.15	2.958
Jun-05	267.93	94.52	526.01	185.57	2.835
Jul-05	285.07	101.59	538.67	191.97	2.806
Aug-05	296.78	103.71	582.90	203.69	2.862
Sep-05	335.58	117.62	615.91	215.87	2.853
<b>Average 05/06</b>	<b>322.76</b>	<b>115.88</b>	<b>556.76</b>	<b>199.89</b>	<b>2.785</b>
Oct-05	321.85	114.96	597.82	213.53	2.800
Nov-05	294.06	107.04	519.27	189.02	2.747
Dec-05	304.53	110.21	531.73	192.44	2.763
Jan-06	338.85	120.02	571.12	202.29	2.823
Feb-06	349.50	125.61	547.16	196.64	2.783
Mar-06	327.77	117.42	573.44	205.43	2.791

Between October 2004 and March 2006, the market prices of Gas Oil and Fuel Oil increased by 19% and 56% respectively.

This sharp upward movement is shown graphically in the chart below:



The table below highlights the monthly average price paid by Enemalta when purchasing Fuel Oil and shows that Enemalta, on average, paid less than market price for the procurement of Fuel Oil between October 2004 and February 2006.

Table 11: Comparison between fuel oil market prices and actual prices paid by Enemalta

	Platts mthly average price USD	Average price paid USD	Difference	
			USD	%
Oct-04	209.45	207.45	(2.00)	-0.95%
Nov-04	197.00	207.45	10.45	5.31%
Dec-04	185.89	196.75	10.86	5.84%
Jan-05	203.23	203.50	0.27	0.13%
Feb-05	208.58	201.91	(6.67)	-3.20%
Mar-05	245.74	247.06	1.32	0.54%
Apr-05	266.23	261.54	(4.69)	-1.76%
May-05	251.45	259.31	7.86	3.13%
Jun-05	267.93	267.19	(0.74)	-0.28%
Jul-05	285.07	283.23	(1.84)	-0.65%
Aug-05	296.78	293.88	(2.90)	-0.98%
Sep-05	335.58	330.39	(5.19)	-1.55%
Oct-05	321.85	321.09	(0.76)	-0.24%
Nov-05	294.06	300.58	6.52	2.22%
Dec-05	304.53	293.93	(10.60)	-3.48%
Jan-06	338.85	337.58	(1.27)	-0.38%
Feb-06	349.50	348.21	(1.29)	-0.37%
<b>Average</b>	<b>268.34</b>	<b>268.30</b>	<b>(0.04)</b>	<b>-0.01%</b>

The volume of Gas Oil Purchases are much lower. In fact the Corporation's purchase records show that there were only 7 transactions between January 2005 and February 2006. The purchase prices paid compared to the average for the previous 3 months is compared in the table below:

Table 12: Comparison between gas oil market prices and actual prices paid by Enemalta

	Platts average market prices between:		Actual price paid	Difference	
		USD	USD	USD	%
03-Jan-05	29.11.04 - 19.12.04	425.70	425.67	(0.03)	-0.01%
01-Feb-05	21.01.05 - 03.02.05	424.10	424.10	-	0.00%
04-May-05	01.05.05 - 31-05-05	456.04	456.04	(0.00)	0.00%
22-Jul-05	01.07.05 - 19.07.05	548.13	548.14	0.00	0.00%
03-Oct-05	01.10.05 - 31.10.05	597.82	597.82	-	0.00%
20-Dec-05	01.12.05 - 28.02.06	550.00	550.35	0.35	0.06%
21-Dec-05	01.12.05 - 28.02.06	550.00	550.35	0.34	0.06%
<b>Average</b>		<b>507.40</b>	<b>507.49</b>	<b>0.09</b>	<b>0.02%</b>

The prices included in the model used of USD323.5 for Fuel Oil and USD599.95 for Gas Oil under the 2005/06 estimate were based on the actual purchase prices of fuel oil paid by the Corporation during September and October 2005.

The prices for Fuel Oil and Gas Oil for the revised estimate of February 2006 were based on purchases between December 2005 and February 2006 and are USD342.97 for Fuel Oil and USD550.56 for Gas Oil. At the exchange rate of 2.785, these are equivalent to Lm123.15 for Fuel Oil and Lm197.69 for Gas Oil.

Enemalta uses actual average purchases for the previous 2 months when updating the Model since it usually obtains slightly better prices to those quoted on the commodities market as explained above.

### 3.2 Exchange rate

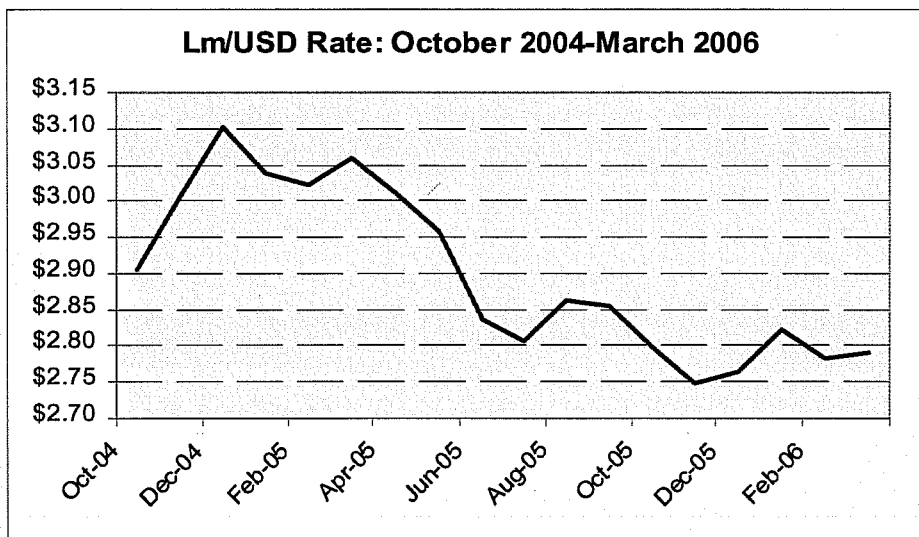
The exchange rates used in the revised Model of February 2006 of 2.785 are based on the actual exchange rate used by the Corporation between December 2005 and February 2006 based on either the forward hedged rate or the actual spot rate paid in purchasing fuel.

The actual average middle exchange rates for the period between October 2004 and March 2006 were as follows:

Average between:	ROE
October 2004 and September 2005	2.9552
January 2005 and March 2006	2.8785
October 2005 and December 2006	2.7702
October 2005 and March 2006	2.7861

*Source: Central Bank of Malta*

The following chart illustrates the significant fluctuations in the US Dollar as compared to the Maltese Lira over the past 18 months. From a rate of USD 2.9061 in October 2004, the dollar has appreciated by just under 4% to USD 2.7914 in March 2006.



The estimates for 2005/06 were based on an assumed rate of 2.80. This was revised to 2.785 in February 2006 in line with the actual rate of exchange paid by the Corporation in its fuel procurement between December 2005 and February 2006.

Even after taking into consideration the positive impact of various currency hedge arrangements made, the strengthening dollar has contributed to further increases in fuel costs, over and above the actual price increases.

## **4. GENERAL ISSUES**

### **4.1 Throughput losses**

The Corporation reported throughput losses of 17.52% for the financial year 2003/04 and 17.77% in 2004/05. The Corporation's estimates for 2005/6 are projecting that these throughput losses will reduce to 14.77%.

For the purpose of calculating the required surcharge, the Corporation has assumed that 5% of the said losses are to be treated as potentially unavoidable. In this respect it would appear reasonable to state that, given the significant number of complex contributory factors leading to these losses, it is very difficult for one to accurately calculate how much of these losses are actually 'billable'.

For the purpose of the surcharge calculations, a decision was taken by Government / the Corporation that all fuel costs (as at 2004/5) attributable to throughput losses in excess of 5% would be absorbed by the Corporation. As a result the Corporation has absorbed a cost of Lm5.3million, based on the losses and fuel costs for 2004/05.

The surcharge mechanism does not specifically cater for the attribution of incremental fuel cost (over the 'Baseline' figure) to throughput losses. However, by adopting an assumed sales figure which exceeds actual sales (vide section 2.2 i) Government / the Corporation has factored in a compensating factor.

### **4.2 Change in fuel consumption mix**

The base model assumes that in order to generate 2,156,866 Mwh of energy, the Corporation requires MT601,807 Fuel Oil and MT53,776 Gas Oil (see Table 5: Fuel cost estimate 2005/06). The Surcharge mechanism for 2005/6 estimates generation of 2,183,461 Mwh of energy using 593,769 MT of Fuel Oil and MT56,352 of Gas Oil.

Consumption is calculated by the Corporation's engineers and a monthly 'System Generation Figures' Report is prepared and forwarded to the CFO. Energy generation is measured by taking readings from the machinery and transformers of the Corporation.

Consumption is measured daily and determined by dipping measures into the oil tanks and reading the differences from the previous reading.

This change in mix between fuel oil and gas oil used resulted in a more efficient consumption and was projected to result in savings of Lm376.7K, as illustrated in the table below:

Table 13: Effect of change in consumption mix

USD rate	ROE	2004/05 consumption at 05/6 prices	2005/6 budget	Difference
		2.80	2.80	
FO	Selling price (\$)	323.50	323.50	
GO	Selling price (\$)	599.95	599.95	
FO	Selling price (Lm)	115.54	115.54	-
GO	Selling price (Lm)	214.27	214.27	-
FO	Metric tonnes	601,807	593,769	(8,038)
GO	Metric tonnes	53,776	56,352	2,576
Electricity generation (Mwh)		2,183,461	2,183,461	
FO	Fuel Cost (Lm)	69,530,202	68,601,526	(928,676)
GO	Fuel Cost (Lm)	11,522,468	12,074,422	551,954
	<b>FUEL COST</b>	<b>81,052,670</b>	<b>80,675,948</b>	<b>(376,722)</b>

This benefit was fully reflected in the surcharge mechanism and transferred in full to consumers.

### 4.3 Shortfall in surcharge collected by Enemalta

As a result of the expected fuel cost increases for 2005/06 the surcharge should have been increased to 84% in order to cover the fuel procurement cost increase over the baseline figure. However, the surcharge was introduced at 55% and is being revised every 2 months. As a result of this phased approach the Corporation is actually absorbing a substantial part of the projected increase for 2005/6, as can be seen from the following table:

Table 14: Shortfall in surcharge collected:

		2004/05 Original Estimates *	2004/05 Management accounts	2005/06 Estimates
Fuel cost	Lm	47,749,311	53,648,004	80,675,948
Baseline (reflecting pure cost of fuel increases up to 2004/05)	Lm	31,574,000	31,574,000	31,574,000
Shortfall	Lm	16,175,311	22,074,004	49,101,948
Surcharge collected *	Lm	-	5,789,066 *	27,110,000 **
<b>Shortfall not recovered via surcharge</b>	Lm	<b>16,175,311</b>	<b>16,284,938</b>	<b>21,991,948</b>

\* Surcharge of 17% for the 9 months (Jan 2005 - Oct 2005)

\*\* Based on a surcharge for 2005/06 of 17% for October, 55% for November & December 2005, adjusted every 2 months

#### 4.4 Other issues

- The current surcharges incorporate the impact of increases in cost of fuel attributable to social cases and capped sectors as follows:
  - i. Social cases - Lm650K .
  - ii. Capped sectors - Lm6.2m .
- In its surcharge calculations, the Corporation uses the average of actual prices paid in the previous 2 months rather than average market price. This results in an immaterial difference since the actual prices paid by the Corporation are in line with Market Prices as discussed above.
- The surcharge calculations are based on a mix of historical and estimated financial information. Our review indicated that at times the financial information varied from one source to another. These differences were not considered material.

## 5. CONCLUSION

From our review, based on the information made available to us, it would appear that the surcharge calculations have been correctly computed on the basis of the shift in fuel procurement costs and do not include the impact of variances in operational costs beyond those relating to the cost of actual fuel purchases.

Increases in fuel costs are being absorbed by all consumers except those who classify as social cases and those who are entitled to some form of capping or exemption as discussed in the relative sections of this report.

By adopting the Baseline mechanism the Corporation is absorbing the cost of fuel relating to throughput losses as at 2004 of Lm5.3 million. Thereafter no additional cost is being attributed to the said losses. This issue is being mitigated by the fact that the surcharge is being calculated on an assumed sales figure which is higher than actual sales levels. And by the Corporations' expectation that throughput losses are projected to decrease to 14.77% in 2005/6.

As a result of the under-estimation of increases in fuel cost for 2004/5, timing differences in the introduction of the surcharge and the decision to phase in the 84% surcharge required in 2005/6, the Corporation has and is still effectively absorbing a substantial part of the fuel price increase burden, which should technically have been passed on to consumers. These include:

- Lm8.411m attributable to 52% of the increases up to 2004/5;
- Lm7.874m under recovery in 2004/5 as a result of delayed introduction of the surcharge and above expectation increases in the cost of fuel; and
- Lm21.991m attributable to the phasing in of increments in 2005/6.