MALTA RESOURCES AUTHORITY

Review of Proposed Electricity Tariffs

Summary of Review Process and Conclusions

[5th May 2009]

REVIEW OF PROPOSED ELECTRICITY TARIFFS

INTRODUCTION

The Malta Resources Authority ('MRA' or the 'Authority') was requested to approve the proposed electricity retail tariffs ('the proposed tariffs' or 'the proposed second tariff revision') put forward by Enemalta Corporation ('Enemalta' or the 'Corporation') in the updated KPMG report dated 23rd March 2009 (the 'KPMG Report' or the 'KPMG Model') attached herewith as Appendix 1.

The proposed tariffs have been put forward by Enemalta in light of the significant drop in oil prices that occurred in the international market place subsequent to the tariff revision which came into effect on 1st October 2008 ('the first tariff revision').

In addition to the impact of the drop in oil prices, the proposed second tariff revision addresses a number of other issues which came to light during the course of the review of the first tariff revision and the subsequent public consultation process which took place regarding the 'Principles governing the electricity tariffs'.

REVIEW AND APPROVAL PROCESS

As part of its Review and Approval Process the Malta Resources Authority and its consultants:

a) Reviewed and took into consideration a comparative analysis of the main differences / changes that occurred between the first and second tariff revisions prepared by Deloitte (the 'Deloitte Report) which is being attached hereto as Appendix 2;

b) Reviewed and tested the workings and results reflected in the KPMG Report;

c) Reviewed and assessed the principles used as the basis of the proposed second tariff revision and the KPMG Model;

d) Reviewed and analytically tested the information, assumptions and data used as a basis for the preparation of the KPMG Report. In this respect, neither the Authority nor its consultants performed an audit of the information provided to them by third parties;

e) Followed up on a number of open issues identified by the Authority during the course of the first tariff revision process;

f) Reviewed and took into consideration, for the purpose of determining the acceptability or otherwise of the fundamental principles and objectives of the tariff review model, the public feedback received through the consultation process which took place with regards to the 'Principles governing the next electricity tariffs'; and

g) Reviewed and assessed the potential impact of variances that occurred between actual and budgeted figures for the period 1st October 2008 to 31st March 2009, with a view to determining whether there were any material variances which should be incorporated into the current tariff revision model.

FUNDAMENTAL PRINCIPLES AND OBJECTIVES

The proposed second tariff revision Model has been revised in order to incorporate more effectively the following Fundamental Principles and Objectives which are acceptable to the Authority:

Legality

The processes and methodologies adopted must conform to applicable legislation, regulations and directives, including the legal obligation imposed on Enemalta not to operate at a loss.

Sustainability and Profitability

Without addressing past losses the proposed tariffs should enable Enemalta to reverse its historical loss making position and achieve an acceptable rate of return on both its current and future capital employed, which would enable it to service its existing debt obligations and sustain an acceptable fixed asset replacement and upgrade policy.

Non-discrimination

The proposed tariffs must not unjustifiably discriminate between comparable groups of consumers and avoid potential cross-subsidization within the different user groups.

Transparency

The entire tariff revision process should be transparent with consumers being provided with sufficient information to enable them to secure an acceptable understanding of how:

i. The proposed tariffs were computed by Enemalta; and

ii. The Malta Resources Authority's review and approval process.

FULL COST RECOVERY METHOD

The Methodology

As in the case of the first tariff revision process, the proposed second tariff revision has also been computed by Enemalta on the basis of a 'Full Cost Recovery' method.

The 'Full Cost Recovery' method assumes that the proposed tariffs will enable the Corporation to recover all its acceptable costs and earn a reasonable rate of return on its capital employed necessary to enable it to meet its current and future debt servicing obligations as and when they fall due. The 'Full Cost Recovery' method assumes that total variable retail tariffs should be equal to the sum of:

Fuel Costs
Wages
Overheads
Return on Capital Employed ('ROCE')

After making the appropriate deductions and / or add backs in respect of:

Cost of Inefficiencies
Public Service Obligation Recoveries
Fixed Income Charges
Other Services Revenue

Variances accepted by the MRA, between estimates and actual results resulting from previous tariff revisions should also be incorporated into the model.

In principle the 'Full Cost Recovery' method incorporates costs and revenues on the following basis:

Cost / Revenues	Basis of Inclusion
Fuel	Actual costs inclusive of gains or losses arising from hedge and foreign exchange agreements (NB. Losses on hedge agreements have been specifically excluded from this second revision).
Wages	Budget estimates based on the Corporation's audited, management and budgeted accounts.
Overheads	Budget estimates based on the Corporation's audited, management and budgeted accounts.
ROCE	An amount equal to the Corporation's debt servicing obligations for the period under review.
Cost of Inefficiencies	The costs of inefficiencies which fall within the direct and discretionary control of the Corporation are to be borne by the corporation.
Other Revenue Streams	All non-consumption related revenue should be deducted from costs in order to determine total target variable revenue.

MRA's Position and Comments

The MRA believes that:

a) The 'Full Cost Recovery' method is in accordance with the provisions of the Enemalta Act, Chap. 272 which states that,

   '... in prescribing tariffs, Enemalta shall ensure that the prices charged are adequate to provide sufficient revenue to Enemalta in any financial year –

   (a) to cover operating expenses, including taxes, if any, and to make provision for adequate maintenance, for depreciation, for interest payments on borrowings and for other interest payments;

   (b) to meet periodic repayments on long term indebtedness to the extent that any such repayment exceed the provisions for depreciation;

   (c) to create reserves to finance a reasonable part of the cost of future expansion, being expenses, repayments and reserves incurred or made by the Corporation in the exercise of its functions relating to electrical energy; and

   (d) to provide a reasonable return on investment and expenditure ...'

b) The 'Full Cost Recovery' method is in line with generally accepted international practice and is the most appropriate basis to be used in the local context;

c) The basis of inclusion of costs and revenues into the model, listed above are both reasonable and appropriate;

d) Generally, tariff revision model inputs necessarily need to be based on estimated figures as opposed to historical figures, as the said estimates are more reflective of the costs likely to be incurred by the Corporation;

e) In the case where tariff revisions are unavoidably based on estimates, unless otherwise stipulated by the MRA, the financial impact of the variances between actual and estimated figures should be factored into subsequent revisions in order to ensure that the stated target revenue objectives are achieved; and

f) Where it is deemed that adverse variances between budgeted and actual figures fall within what the Authority accepts as being within the discretionary control of the Corporation and could have potentially been avoided, then the impact of these variances should be shouldered by the Corporation.

Target Revenue Workings

The following table summarises the target annual revenue calculations used by the Corporation for the purpose of this proposed second tariff revision process and also highlights how certain figures have changed since the first tariff revision:

	3rd NOVEMBER 2008 REPORT	23rd MARCH 2009 REPORT	MOVEMENT	
FUEL COSTS	Euro 223m	Euro 159.3m	- Euro 63.7m	-29%
+	+	+		
WAGES	Euro 34.4m	Euro 29.8 m	- Euro 4.6m	-13%
+	+	+		
OVERHEADS	Euro 34.3m	Euro 43.1m	+ Euro 8.8m	26%
+	+	+		
ROCE	Euro 24.4m	Euro 29.7m	+ Euro 5.3m	22%
-	-	-		
COST OF INEFFICIENCIES	Euro 3.1m	nil	+ Euro 3.1m	100%
-	-	-		
PSOs	Euro 7.8m	Euro 7.8m	nil	0%
=	=	=		
TARGET REVENUE	Euro 305.2m	Euro 254.1m	- Euro 51.1m	-17%

Cost of Fuel

Basis of inclusion

For the purpose of the first tariff revision process, Enemalta assumed a fuel cost computed on the basis of the Corporation's best estimates at that time. These estimates were clearly extremely subjective as they were made at a time when markets were highly unpredictable and volatile.

For the purpose of the proposed second tariff revision process, fuel costs have been included in the tariff model on the following basis:

Fuel consumed in January and February 2009

- Official market prices for fuel oil and gas oil multiplied by the Corporation's actual product consumption.

Projected fuel consumption for the period March to December 2009

- Estimated average fuel oil and gas oil market prices computed on the basis of estimated market 'forward prices' multiplied by the Corporation's estimated fuel consumption.

MRA's Position and Comments

The MRA agrees with how the Corporation has included the cost of fuel in the tariff revision model and believes that under the circumstances the 'forward price' basis is the most appropriate means of projecting expected future costs.

Clearly if the actual cost of fuel for the year differs from that which is being included in the tariff revision model then the appropriate adjustments would have to be incorporated into future tariff revisions to take into consideration both adverse and favourable variances.

During the course of the review the MRA noted that Enemalta's projected cost of fuel was conservatively estimated and included in the tariff revision model at approximately *Euro 5.66 million* less than the expected projected cost computed in its detailed workings. The MRA also noted that Enemalta has agreed to absorb the full impact of this decision and to pass on the benefit of the reduced cost estimate to consumers in the reduced rates. The Authority took into consideration this position taken by Enemalta when approving the proposed tariffs.

Gains / Losses on Hedge Agreements

Basis of inclusion

Gains and losses on hedge agreements are typically included in a 'Full Cost Recovery' model in the same way as are all other procurement and financing costs.

Notwithstanding this generally acceptable principle, as it had done in the first tariff revision, Enemalta has unilaterally decided to exclude from the costs incorporated in the proposed second tariff revision, the significant impact of both realized and unrealized losses that are expected to arise on the 'long-term' forward hedge agreements which were in place as at 31st December 2008.

On the basis of current market prices, the inclusion of the estimated losses on the said hedge agreements would have had a potentially significant negative impact on the proposed tariff revision and would have materially diluted the tariff reductions.

MRA's Position and Comments

In accordance with generally accepted practice, the Malta Resources Authority agrees with the principle that, gains or losses arising out of hedge agreements should be included as part of the Corporation's cost model for the purpose of computing tariff revisions.

Accordingly, the MRA believes that both realised and unrealised losses on hedge agreements existing as at 31st December 2008 could have justifiably been included in the tariff revision model.

Although the Authority accepts that it is extremely difficult for anybody to predict with certainty the eventual impact of the said hedge agreements, it can reasonably conclude on the basis of current market prices that the losses on the hedge agreements are likely to be material and had they been incorporated in the proposed second tariff revision they would not have permitted the extent of tariff reductions incorporated into the model.

The Authority accepts the position taken by Enemalta, to exclude the impact of the said hedge agreements, as evidence that the Corporation is in no way seeking to negatively impact the tariff revision process and that it is clearly playing its part to reduce the tariffs as much as possible in the best interest of consumers and the general economy.

At this stage the Authority has not excluded the possibility, that once the extent of the losses attributable to the hedge agreements in place as at 31st December 2008 is crystallized, it would be prepared to consider proposals that may be put forward by the Corporation to recoup the same over an extended period of time. Any such proposal would require the prior approval of the Authority.

Wages and Overheads

Bases of inclusion

In accordance with generally accepted practice, the projected cost of wages and overheads have been included in the tariff revision model on the basis of both the Corporation's historical financial statements and its forward looking budgets.

Projected wages were included at *Euro 29.8 million* compared to *Euro 34.4 million* included in the first tariff revision. The difference is mainly attributable to a reclassification of certain costs previously included with wages to overheads.

Projected overheads were included at *Euro 43.1 million* compared to *Euro 34.3 million* included in the first tariff revision. The difference is attributable to:

- The above mentioned reclassification from wages; and
- A more updated figure for depreciation.

MRA's Position and Comments

The MRA believes that the estimated cost of wages and overheads included in the model has been reasonably estimated on the basis of historic and projected figures and that it fairly reflects the Corporation's expected costs for 2009.

The MRA reserves the right to reject any adverse variance adjustments between budgeted and actual figures which it feels should fall within the discretionary control of the Corporation and could thus have been reasonably avoided.

Return on Capital Employed ('ROCE')

Basis of inclusion

In the case of the first tariff revision the ROCE was included on the basis of a pre-determined rate of return based on the Company's estimated capital employed.

The Corporation has now decided to incorporate a ROCE figure which matches the Corporation's total estimated debt servicing obligations for the calendar year to 31st December 2009.

The assumed debt servicing obligations figure is linked to both existing debt and fresh debt which will be drawn down to finance new investments. The impact of extended credit terms and negotiated moratorium periods have also been factored into the expected ROCE calculations.

MRA's Position and Comments

Although the change in the basis of computation of the ROCE has resulted in an increase in the total expected return factored into the tariff model of *Euro 5.3 million*, the MRA believes that both approaches are equally acceptable and that the adoption of the revised basis could actually be less subjective and / or judgmental.

The adopted basis is also within the specific parameters of the provisions of the Enemalta Act, Chap. 272.

Potential Cost of Inefficiencies - Operational Inefficiencies

Basis of inclusion

In the proposed second tariff revision, Enemalta has assumed that all the inefficiencies cited in the MEU Report and deducted in the first tariff revision model have either been addressed or cannot be addressed because they are not within their direct and or discretionary control of the Corporation. In view of this, Enemalta has decided to exclude the add-back of inefficiencies cited in the MEU Report and quantified at *Euro 3.1 million.*

MRA's Position and Comments

Although in principle, the MRA is willing to accept that part or all of these inefficiencies may have might been satisfactorily addressed or are realistically out of the Corporation's direct and discretionary control, it does not accept that the cost of inefficiencies should be excluded from the model and effectively passed on to the consumer before the Corporation clearly demonstrates that the said inefficiencies have been overcome or that some other form of consumer compensatory measure has been put into place.

Potential Cost of Inefficiencies – Unbilled Units

Basis of inclusion

In its latest audited accounts the Corporation reported that unbilled units were equivalent to *13.1%* of electricity transferred to grid. From its review process the Authority believes that the level of technical losses has remained unchanged.

The tariff model computations have assumed that unbilled units will effectively drop to *11%* of electricity transferred to grid. This implies that the tariff Model has assumed that, unless the Corporation succeeds to bring down the percentage of unbilled units it would have to carry the cost of the said inefficiencies itself. In monetary terms this would translate to a potential cost of approximately *Euro 5 million* being borne by the Corporation.

MRA's Position and Comments

The MRA believes that the adopted assumption is reasonable and that the Corporation has effectively borne the cost of a substantial part of what is generally perceived as being the cost of potentially avoidable 'unbilled units'.

As a measure to induce improved efficiency, the Authority is not prepared to accept that any adverse revenue variances arising from the Corporation's inability to effectively reduce 'unbilled units' to at least the targeted levels be passed on to consumers in future tariff revisions. On the other hand any short-term benefits resulting from the Corporation's ability to surpass the said targets would initially be for the credit of the Corporation. In the medium to longer term these efficiency gains should be passed on to the consumers.

Potential Cost of Inefficiencies – Generation Inefficiencies

Basis of inclusion

No adjustment has been made in the tariff revision for any potential generation inefficiencies.

MRA's Position and Comments

The Authority has looked into the issue of whether the Corporation's possible lack of investment in the past may have resulted in additional costs being unreasonably loaded into the 'Full Recovery Cost' model.

The Authority believes that certain capital investments would clearly have contributed to improved generation efficiency and would have resulted in lower costs. However, in view of the following relevant factors the MRA has concluded that it would be inappropriate to make any adjustment to the tariff model:

a) Historic tariffs charged by the Corporation were insufficient to cover total costs incurred, by the Corporation. As a result of these losses, the Corporation has incurred significant losses (before Government subventions) for a number of years and its cash flow position did not permit it to embark on any major capital expenditure projects without additional funding from Government; and

b) Government did not provide the additional financing necessary for these investments and the Corporation was only recently given the green light to proceed with the said major investments.

Public Service Obligations (PSOs)

Basis of inclusion

As was case in the first tariff revision process, the Corporation has deducted from its target revenue requirements the sum of *Euro 7.8 million* recovered from Government in respect of the cost of services provided by the Corporation to Government.

Enemalta has confirmed that a significant part of this PSO recovery relates to the cost of electricity provided for street lighting and other similar related services, and that the recovery adequately covers the costs incurred to provide the said services to Government.

MRA's Position and Comments

The Authority is satisfied that the deduction is appropriate for the purpose of the proposed second tariff revision process.

Fixed Income Charges

Basis of inclusion

As from 1st October 2008, new increased fixed income charges representing meter rentals and installation charges were introduced. The increased charges were based on an internal exercise undertaken prior to the 1st October 2008 revision aimed at apportioning Enemalta's costs base between its core operational activities in a manner which ensures that the distribution between fixed and variable revenue is appropriately apportioned between its distinct operational activities.

The rates used for the computation of fixed revenue have not been changed since the first tariff revision.

The increase in projected fixed revenue of *Euro2.9 million* incorporated into the proposed second revision workings and thus reduced from the target variable revenue figures, is the result of the use of more accurate customer profile assumptions.

MRA's Position and Comments

On the basis of the information provided to the Authority it would appear that the apportionment of costs appears to have been correctly factored into the model and that the total projected fixed income is reasonable and justifiable on the basis of the säid apportionment.

As stated in the Malta Resources Authority Act, Chap. 423, one of the functions of the Authority is to '*... promote the interest of consumers and other users in Malta, particularly vulnerable consumers, especially in respect of the prices charged for , and the quality and variety of the services and, or products regulated ...*'

The Authority is aware that through its social policy Government is providing support to approximately *30,000* beneficiaries aimed at reducing the impact of the increased tariffs on lower income earning families and that the said households do not effectively pay the annual fixed charge themselves.

MRA acknowledges that the increase in fixed income charges introduced in October 2008 was material and a school of thought exists that promotes scaled fixed tariffs to cover the distribution charges.

Whilst appreciating that the scaled tariff structure could be advantageous for lower end consumers, the Authority did not find any compelling reasons why particular households should pay different tariffs for what is effectively the same service.

Variable Revenue

The proposed second tariff revision model was based on updated and more accurate customer profile information relating to both consumption and category classification and incorporates the following changes:

a) Residential accounts are defined as those accounts which have at least one person registered as living in the premises. As a result of this revised definition accounts formerly included under the residential category and comprising non-commercial garages, common parts of apartments and similar premises where no persons are registered as residing there ('NOP=0') have been reclassified as 'domestic accounts'.

b) In line with a Government / Corporation Policy, variable rates charged to customers falling in the above mentioned NOP=0 category have been reclassified as 'domestic accounts'. A decision was taken that this particular category of consumer will not benefit from any reductions in variable revenue in the proposed second tariff revision.

c) Premises that are used for social activities such as churches and clubs together with institutions such as homes for the elderly, homes for persons with special needs, as well as 'not-for-profit' schools and similar premises are being classified as non-residential and will be charged the rates applicable for this particular customer classification.

d) A single rate was charged to all non-residential categories resulting in one set of variable tariffs for this particular category. This policy means that the proposed variable tariffs charged to non-residential accounts, which previously benefited from 'reduced rates', have remained fairly stable whilst other users within the same category registered more significant reductions.

MRA's Position and Comments

After due consideration of the fact that the NOP=0 category will not gain any benefit from the newly proposed tariffs, on the strength of the arguments that this category does not include residential accounts and given that any reduction allotted to the NOP=0 accounts would result in an increase in the tariffs charged to residential customers, the MRA feels that the chosen basis is both commercially and socially viable and acceptable.

The Authority believes that the adoption of a single variable tariff for non-residential accounts is acceptable.

Drop in Consumption

The Corporation has based all its tariff revision workings on the assumption that total electricity consumption would drop by 1% from historic levels.

MRA's Position and Comments

From its review workings the MRA has noted that the actual drop in consumption in the past three months has been significantly higher than the projected 1% incorporated in the Corporation's workings.

The Authority is aware that if the current consumption trends persist the Corporation may not achieve its projected target revenue and that the Corporation would fall short of its targeted results.

The Authority has discussed this matter with Enemalta, which in turn has decided to retain the stated assumption and efficiently pass on the maximum potential gain to consumers.

In this particular circumstance and with a view of incentivizing energy efficient measures it has been agreed that any adverse consumption variances will not automatically be carried forward into future tariffs without the consent of the MRA.

Variances for Period 1st October 2008 to 31st March 2009

During the period 1st October 2008 to 31st March 2009 the Corporation calculated that its actual cost base was *Euro 11.8 million* lower than the original estimates used as the basis of the first tariff revision process.

In line with the principle adopted in the first tariff revision and the proposed second tariff revision, for the purpose of this exercise the cost of fuel was computed on the basis of prevailing market oil prices and not on actual costs (inclusive of the effect of hedge agreements) incurred by the Corporation which were significantly higher.

The Corporation estimates that the drop in consumption / billing for the period was:

- More than 10% when compared to 2008 estimates; and
- Approximately 7% when compared to the estimated consumption figures used in the first tariff revision.

In view of the drop in consumption and the differences in the eco-reduction / reduced rates parameters between the KPMG Report dated 3rd November 2008 and the Legal Notice 330 of 2008, the Corporation estimates that its target variable revenue for the period will be at least *Euro 13 million* lower.

Fixed revenue for the period was estimated at *Euro 1.5 million* higher than originally projected.
Given that at worse, the above variances add up to a negligible favourable difference of *Euro 0.3 million* Enemalta has not made any retrospective adjustment in the proposed second tariff revision.

MRA 's Position and Comments

In light of the above the MRA agrees that no retrospective adjustment is necessary. The Authority has also decided that if it transpires that actual billed consumption for the period October to March 2009 is lower than the current estimates, then no further adjustments should be made.

CONCLUSION

On the basis of its review and after taking into consideration all the issues discussed in this Report the Authority believes that the proposed tariffs put forward by the Corporation are based on what the Authority believes to be an overall acceptable target revenue figure.

Although the Authority does not agree with the Corporation's decision to exclude the add-back for operational inefficiencies it believes that the following issues more than compensate for this factor:

a) The potential understatement of projected fuel costs by *Euro 5.66 million* absorbed by Enemalta; and

b) The conservative assumption adopted by the Corporation with respect to the projected drop in consumption.

The Authority also agreed that the effective date of this tariff revision should be back-dated to 1st April 2009 as proposed by MITC on behalf of Enemalta as this would ensure that the objective of the tariff revision are achieved.

In view of the continued volatility and uncertainty in both the international oil markets and the local economy, the Authority believes that instead of stipulating a specific time-frame for future tariff revisions it should continue to monitor the situation very closely and if necessary intervene in a timely manner to recommend further changes in tariffs if it believes that changes in market conditions dictate such need.