UNOFFICIAL TRANSLATION FROM GREEK

22.11.2012

From: HAIPP

To: RAE

Subject: HAIPP's positions on RAE's public consultation (2nd round) regarding the reform of the Greek Electricity Market

Dear Sirs,

First of all, I would like to thank you for the invitation addressed to HAIPP for participating in the workshop of November, 15th 2012. Both the presentation of the proposed electricity market reform as well as the discussion that followed the presentation was very interesting and constructive.

HAIPP supports this initiative of RAE and we have faith that this will result in a fully deregulated electricity market. As we have repeatedly stated, only a fully deregulated market of electricity retail sales could result in the maximum benefit for the final consumer. The fundamental prerequisite for the achievement of that goal is the full deregulation of the electricity production sector by means of primary, direct and equivalent access of all the producers to the main domestic energy sources, i.e. lignite and hydro power.

We fully realize that, in order to achieve the abovementioned full electricity market deregulation, transitional regulatory measures are required such as the indirect access to cheap electricity production through mechanisms as the hybrid NOME model. However, we underline that these mechanisms can only be transitional, without causing any delay to the achievement of the final goal. We also underline that, a) these mechanisms and their impact shall be thoroughly investigated so as to have a clear understanding of how do they work and of their consequences and b) until their full functional development is established, there should be very careful changes in the existing transitional mechanisms, which balance the existing market asymmetries and structural distortions and which allow our, real demand covering, investments to survive.

Finally and with a high priority, there should be taken measures towards market's financial liquidity with substantial interventions in everything that affects the financial liquidity of Market Operator (LAGIE) and TSO (ADMIE) such as the deficits in the RES' Special Account, the unilateral allocation of the burden of this deficit (and of other deficits as well) to the companies-members of our Association as well as the payment delays to ADMIE which are also transferred as a whole to the members of our Association. The eventual continuation of the current situation will promptly cause the economic collapse of the companies of our Association, which suffer from the lack of financial liquidity and from the burden of overdue interest to DEPA without having any responsibility for that overdue. It is obvious that, besides

the impact on DEPA itself and on DEPA's privatization process, the eventual collapse of the companies of our Association will also mark the definite ending of any chance for competition development in the electricity market.

We submit as attachment the detailed positions of our Association on the specific issues of the current public consultation.

Yours sincerely,

Anastasios Kallitsantsis

President

Subject: HAIPP's positions on the 2nd round of RAE's public consultation regarding the reform of the Greek Electricity Market

A) Adoption of hybrid NOME type model

General remarks:

HAIPP, as stated in its 1st round's positions, is in line with RAE's proposal to apply a model similar to the one applied in France (NOME), provided that it will be adjusted to the Greek energy market specificities.

In the course of the proposed electricity market reform, RAE has set a series of targets. A NOME type regulation will address only part of the pending issues, i.e.:

- To give the market participants access to lignite and hydro power production, in an equivalent way, so as to create equivalent generation portfolios of the same range of supply cost corresponding to the amount of energy channeled to the retail market
- To create the necessary conditions towards the development of competition and consequently the retention of the final consumer tariffs

It needs to be clear that a NOME type regulation can only constitute a transitional arrangement until the primary access to lignite and hydro power is finalized, which will enable the development of substantial competition both in generation and supply of electricity.

According to the worldwide experience, a mature competitive Greek electricity market should be characterized by:

- Healthy competition in the power generation sector, with at least three market participants and a generation share of up to 50% for each one of them
- Healthy competition in the supply of electricity, with at least three market participants and a share on the supply of up to 50% each
- Vertically integrated market participants with access to comparable energy portfolios
- Competitive pricing system for the final customer, which will reflect the actual electricity production cost of the Greek System

- Security of supply with sufficient reliable installed capacity to cover the medium term electricity demand and to secure the operation of the System with a significantly high RES penetration

HAIPP would like to stress that a NOME type regulation as well as any other regulatory intervention on the market, should be consistent with some basic principles:

- Security of supply and energy adequacy for the country
- Feasibility under the constraints imposed by the current financial and regulatory framework
- Contribution towards the establishment of the final goal of a liberalized and competitive electricity market
- Ensure both reasonable customer tariffs (for households and businesses) and the viability of the electricity market participants.
- Simplicity, especially in the case of transitional regulations such as the hybrid NOME type model proposed by RAE

Taking into account the abovementioned principles, HAIPP has to point out the following regarding the implementation parameters of the NOME type model in Greece as described in RAE's workshop held on November 15, 2012.

Special remarks on the implementation of the hybrid NOME type model:

The energy acquired through the model should be exclusively directed to the retail market. Export or sale of the specific energy in the wholesale market should not be allowed for the purpose of:

- Ensuring that the benefits of the relatively low cost domestic energy production (lignites and hydro) are enjoyed by the domestic consumers and that are not directed to other markets or as excessive margin to the companies which already have or will acquire access to lignite and hydro electricity production
- Creating the conditions for the development of competition in the supply market, which shall not be feasible if the NOME energy is exported or is sold in the wholesale market

Participation in the process of the hybrid NOME type model should be restricted to vertically integrated companies of the Greek power market, which already possess long term rights on domestic gas-fired generation capacity. Such a restriction would result in:

- Development of long term sustainable competition in the power supply sector, without the negative effect of players who are not long-term committed to the market and thus could focus on the short term profit and then disappear in the long-term as already happened in other European countries
- Creating the conditions, through long-term sustainable competition, for retention of future increases of the retail tariffs

It would also be legitimate that the large electricity customers (energy intensive industry) have access to the procedures of the hybrid NOME type model too because they plan on long-term horizon their power supply policy. This access should be realized despite the fact that the large electricity customers' participation does not contribute in the substantial retail market liberalization but they do contribute in the domestic added value.

The Day Ahead Scheduling (DAS) should remain the sole operation mechanism of the market. The energy acquired through the hybrid NOME type model as well as all the remaining energy quantities should be exclusively disposed through DAS. This would:

- Ensure the liquidity of DAS while avoiding the unforeseen consequences that a possible shrinkage could have (if the NOME quantities were supplied through physical bilateral contracts)
- Avoid the establishment of two parallel markets (DAS and physical bilateral contracts), with different supply-demand and price dynamics, which would lead to a de facto bisection of the electricity market

In any case, before any change of the electricity market operation mechanism is implemented, an in-depth impact (on DAS and market participants) assessment is required, since the consequences could be significant and non-reversible.

The energy products of the hybrid NOME type model **should reflect a "basket" of both lignite-fired and hydro power units.** This is necessary in order to:

- Create for the participants, "energy portfolios" with characteristics and cost similar to the one owed by the dominant company, for the purpose of enabling the development of competition in the supply on equal terms.
- Ensure lower prices for the consumers through healthy competition on the basis of equivalent "energy portfolios"

The share of lignite and hydro power generation in the products made available through this model should reflect the share of the system's lignite and hydro production over the last years.

The offered products should indicatively have the following characteristics:

- Forward baseload electricity contracts
- Contracts with yearly duration as well as with shorter duration (e.g. quarterly) and with various future start dates. This would enable the participants to cover their gradually increasing needs, based on their growing customers' base. The shorter duration contracts as well as the future start dates would enable the participants to be flexible, which is crucial when trying to develop a customer base from scratch
- Contracts with flexibility on the quantity, of the purchased product, that will be used at the end, taking into consideration that the participants will have to develop a customer base from scratch. In this course, an advance payment or a purchase commitment for certain quantities would be unreasonable during this customer portfolio development period

The complement of the resulting "energy portfolios" with medium and peak load energy, since the baseload demand of the customers will be covered by NOME products, should be done with energy produced from not PPC owned gas-fired units. This term is vital for the successful and efficient implementation of the hybrid NOME type model procedures, since it will lead to "energy portfolios" with cost similar to the PPC's current supply cost.

The model mechanism should allow the participants to ask for the energy quantities they deem necessary for the development of their customers' base and if the available from the model quantities are not enough, there should be a pro-rata distribution based on the requests. The auctions should be often (e.g. every three months) so that the participants can adjust their quantity requests to their growing needs.

A crucial factor for the opening of the retail market is to give the players the possibility to compete starting from the same point. For this to be viable, the participants should have "energy portfolios" of similar cost.

The cost of the resulting "energy portfolios" depends on 3 parameters:

1. The quantities of lignite and hydro energy production which will be offered to the market through the hybrid NOME type model

2. The percentage of the customer base demand to be covered through NOME quantities in comparison to the percentage to be covered, additionally to the NOME quantities, through energy produced by gas-fired units (non PPC units).
3. The hybrid NOME type model offered price

These three parameters as above cannot be treated separately, since their interaction determines the cost of the resulting "energy portfolios" of the participants.

Provided that the aim of giving access to lignite and hydro production to third parties is the development of a competitive retail market, with no dominant player (market shares up to 50%), then 35%-45% of the lignite and hydro energy production should be offered through the hybrid NOME type model. Furthermore, regarding the resulting "energy portfolios", the percentage to be covered with NOME quantities should be in the range of 65%-70%, taking into account the contribution of lignite and hydro production in the energy mix of the interconnected system during the last six years.

Considering all the above, if the offered price of the products of the hybrid NOME type model is determined through auction, it could settle at a price far higher than the actual production cost which would then lead to "energy portfolios" with significantly higher cost than that of PPC's respective portfolio. Consequently, the ability of the participants to compete the dominant company under equal terms will be practically annulled. Consequently, the offered price of the NOME products should be predetermined in a regulated way and uniform for products with various durations.

A predetermined and uniform offered price would have additional benefits:

- Development of price stability conditions, where the market participants would be able to plan their long term development strategy
- Ensure that the benefit of the low cost lignite and hydro production continues to be enjoyed by the end customers and that this benefit will not be shared between the final consumer and the dominant company based on the NOME products' varying price

HAIPP would like to note that beyond the determination of the hybrid NOME type model parameters, the implementation of this regulation imposes certain risks with the most significant one being the risk that the dominant player will use its current position in the market to prevent the development of competition in the electricity retail market. In this context, additional restrictions should be imposed for the dominant player, so that the development of the retail market competition is ensured (e.g. specific rules in regard to

potential counteroffers from the dominant player towards customers which switched to a market participant who has got access to NOME lignite and hydro power production).

The introduction of additional constraints is a crucial factor for the successful opening of the retail market or else the dominant player will be in the position to "cancel" the implementation of the hybrid NOME type model and the regulation will prove insufficient to create competitive electricity retail market.

B) Transitional mechanisms-changes in the wholesale market

It is undisputable that the transitional mechanisms were imposed due to the need for intervention in a wholesale market with significant distortions (overstatement of lignite units, mandatory hydro management, lack of pricing rules for the hydros, reserves provision from non-priced injections, lack of balancing market, etc.), which lead to artificially low SMP and Imbalances price and therefore significantly limit the ability of independent producers to recover their cost through the revenues from the sale of energy, capacity and ancillary services in the wholesale market. In this course, these mechanisms are not the cause; instead they constitute the regulatory intervention against the market distortions resulting from the dominant player's behavior in the wholesale and retail markets. Besides, the introduction of the transitional mechanisms aims at the successful transition from the current market conditions towards new ones, which will be characterized by the equal access of vertically integrated companies to all energy sources and healthy competition between the market players will be promoted.

It becomes obvious that with PPC's current market power and without the withdrawal of the market distortions through the establishment of healthy and competitive of wholesale and reserves market, the Cost Recovery and the regulated Capacity Assurance mechanisms cannot be removed.

More specifically, the Capacity Assurance mechanism should be reformed to meet current and future needs of electricity systems characterized by high RES penetration. For this reason, HAIPP is in line with RAE's proposal to establish an additional mechanism (Reserves Assurance Mechanism) for the support of those flexible gas-fired units, which are in the position to cover the RES load fluctuations. RES installed capacity grows fast reshaping and affecting the electricity market.

Additionally, ADMIE should proceed with the prompt withdrawal from the Capacity Assurance Ticket Registry of all inactive units such as Lavrio 1&2, Aliveri 3&4, Agios Georgios 8&9 and

Liptol, so that the current Mechanism compensates only for units which actually cover part of the demand.

Moreover, it is deemed necessary to apply the provisions of the Greek law concerning the withdrawal of equivalent installed capacity following the introduction of new PPC's units in the System. The abovementioned withdrawal corresponding to part of the installed capacity of Lavrio 5 is still pending, while a timely planning for the capacity withdrawal related to the new unit Aliveri 5 is required and should be announced. Also, the withdrawal plan of Ptolemaida 2 is expected to be materialized.

In regard to RAE's proposed changes on the Cost Recovery Mechanism, they will result in losses for the independent power producers, who already operate under marginally conditions of covering the fixed and variable cost. The market conditions have definitely not changed for the best, in terms of competition, since the establishment of the Cost Recovery Mechanism parameters in 2010. Therefore, the amendment of these parameters to the expense of the independent power producers will deteriorate their financial conditions and thus enhance dominant company's market power.

The upcoming decades will be worldwide characterized by the coexistence of RES and flexible gas-fired units. In this course, Greece, at the current difficult financial conditions, should not lead to the devaluation of significant investments which have been made on gas-fired units the operation of which shall be crucial in the coming years for the adequacy and reliability of the Greek System.

Finally, we would like to mention that the interconnection of the islands will significantly contribute towards the decrease of final customer cost, which is ultimately RAE's main incentive for the market reform. Especially the interconnection of Crete is a project with favorable perspectives since the consumers already pay 350 million € every year for Public Service Obligations related to the higher electricity production cost in Crete coming from oil-fired units with high emissions. It is therefore necessary in the forthcoming months to determine and begin the implementation of a strategic plan for the interconnection of Crete with the mainland's System.

C) Full retail tariff deregulation as of 01.07.2013

It is already known that as of 01.07.2013 there will be full deregulation of retail tariffs for all final customers. According to RAE's original plan, this is the same date that the third parties shall start having access to the lignite and hydro power products.

This fact imposes a business uncertainty for the buyers of these products regarding the difficulties they will face to sell these products to the final customers. Thus, it is necessary to establish full clarity regarding customer approach in general regarding competition between PPC and the other suppliers. Moreover, it is necessary to impose proper regulatory measures that will avert unfair competition practices from the dominant company, at least as long as it controls the largest share electricity production based on cheap fuel, and will also avert the blockage of third party penetration in the retail market.

Otherwise, if PPV will be granted the flexibility to give competitive offers to every single customer in comparison to the offers of the other suppliers, then no competition will be developed nor the corresponding lignite and hydro power products will be sold.