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European Commission
DG Energy and Transport
B – 1049 Brussels

Athens, 4 February 2013

Subject: The new tax levy on the turnover of RES generators in Greece

Dear Sirs,

We refer to the recently introduced tax levy on the turnover of renewable electricity generators in Greece and the complaint submitted by Dr. Antonis Metaxas and Prof. Phedon Nicolaides on behalf of their clients. This new tax amounts to 25 – 30% for solar photovoltaic and 10% for all renewable installations including wind energy.

Within the above we would like to comment the following:

1) The new tax undermines the economic viability of wind energy projects (current and future) as it fundamentally alters the economics behind their financing model. Further, it creates an unfair economic burden and it affects in a non analogous way the expected economic return of the investments in wind energy. It should be underlined that the Greek feed-in tariff for wind energy, 89 € per MWh, is commensurate with the levels adopted by other EU Member States.

2) Renewable electricity producers benefit from support paid out of an ad hoc account managed by the market operator (the so called RES special account). However, structural design distortions contribute to destabilizing the financing mechanism for renewables.

   More specifically the RES special account is fed mainly by two revenue streams: the wholesale electricity price and an additional special levy paid by the end-consumers. This special RES levy is meant to cover the difference between the Feed-in tariff and the contribution to the mandatory pool paid by electricity suppliers (based on the wholesale electricity price) for each RES mega-watt-hour.

These two revenue streams are currently insufficient to compensate renewable energy producers however. This is mainly due to the fact that the mandatory pool price is distorted and it remains artificially at unfair low levels. Thus, it does neither represent the actual generation cost nor the avoided cost due to renewables. This distortion leads to a hidden value in favor of suppliers whom cost is subsidized through the special RES levy,

3) Furthermore, in order to be protected by the pool price distortion, the conventional producers are also remunerated with capacity payments and regulated prices on top of the pool price. As an example, the pool and the additional payment mechanisms (i.e. capacity payments and regulated prices) leads to an almost guaranteed price for gas-powered electricity which amounted to 101.5 € per MWh for the first semester of 2012, significantly higher than the wind feed in tariff. By this way, the deficit created due to the distorted wholesale electricity price is transposed exclusively to a deficit in the RES special account.

In the attached note you may find a short analysis of the above arguments which support the above mentioned Complaint and the incompatibility of the newly introduced taw with the internal market rules and the European legislation.

Yours faithfully,

Panagiotis Papastamatiou, Ph.D

President of Board

Attachment: Note for the new tax levy on the turnover of RES generators in Greece

NOTE

for the new tax levy on the turnover of RES generators in Greece

The fundamentals of the Greek electricity market organization

A] The electricity market in Greece is currently organized based on a mandatory wholesale pool model. At any given time in the Greek system, all conventional power producers should inject their production in the pool and be remunerated according to the System Marginal Price SMP. The SMP is defined each hour based on quotations submitted to the Market Operator (LAGIE) by the conventional electricity producers during the day ahead. The quotations should reflect at least the units variable cost and so the SMP theoretically reflects the most expensive conventional unit needed to be dispatched to meet power demand. It is worth to mention that when a unit is planned to operate at its technical limit, its cost does not participate in the definition of the SMP.

Furthermore, electricity produced by RES is absorbed in priority according to EU directives 2009/28 and 2009/72 (priority during dispatching).

B] Apart from the mandatory wholesale pool, conventional electricity producers from natural gas are remunerated through additional mechanisms i.e. a Capacity Payment Mechanism CPM and the so called Variable Cost Recovery Mechanism VCRM. Both these mechanisms are regulated and thus the relevant amounts paid to the conventional electricity producers are administratively defined by the Regulator and the Ministry.

Especially, the VCRM for gas power producers acts as an almost guaranteed feed-in tariff scheme. Hence, at any given time all gas power producers remain always in the system, operating most of the time at their technical minimum limits and remunerated due to VCRM not only with SMP but with a total standard income of €100-110 per megawatt hour, while SMP remains distorted showing an artificial level of €30-60 per megawatt hour at the same time [1].

C] The retail clients are served by the suppliers. The suppliers pay the SMP and the cost for CPM and VCRM, which all are –thus- part of their cost.

D] Public Power Corporation PPC holds a dominant position in both the generation and the retail markets. At generation level, PPC operates a quite diversified portfolio of power plants including lignite, natural gas and large hydro while its competitors have been permitted to invest only to gas power plants. At retail level, PPC is virtually the only supplier since small private suppliers hold only insignificant market share.

Due to the peculation of PPC's dominant position at generation level and its diversified portfolio, the SMP remains at artificially low levels, totally distorted and without reflecting the actual cost of conventional electricity absorbed by the system.

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[1] According to the official data presented the Hellenic Association of IPPs, during the 1st semester of 2012, the average payment received by the natural gas IPPs has been 101,5 €/MWh (62,3% from SMP, 29,6% from VCRM and 8,1% from CPM) http://haipp.gr/category/news/press_releases

The funding system of the RES support mechanism

RES remuneration (feed in tariff, FIT) is paid to the RES producers through the Special RES Account which has been established by article 40 of Law 2773/1999 and is managed by the Market Operator (LAGIE). While the outflows of the Account is the RES FIT payments, its main inflows are the following:

- The amounts paid by the suppliers for each RES electricity megawatt-hour fed in the system at the SMP.
- The Special RES Levy which covers the remaining needed amount and is paid directly by the final consumers. The Levy is defined by the Regulatory Authority for Energy[2].

In other words, the actual cost for the suppliers of each RES electricity megawatt-hour fed in the system is SMP and the Special RES Levy is virtually the difference of FIT minus the SMP.

Discussion

A] There is a payments deficit from the suppliers which harms all the producers

For the reasons roughly presented before, the SMP is distorted and artificially low.

Thus the amounts paid through the wholesale mandatory pool (i.e. the SMP) by the suppliers for the electricity absorbed by them, are not adequate to cover the actual generation cost of the producers who are feeding electricity in the system. More generally, keeping artificially low the SMP harms the entities which inject electricity i.e. the conventional IPPs, the importers and the RES IPPs. In other words, the distortion of the SMP leads to unfairly reduced payments from the supply level to the generation level ("payments deficit").

This payments deficit affects both conventional IPPs and the RES producers. Thus, if this payments deficit is to be covered by electricity producers, then all the IPPs, conventional and RES ones –as well as importers - should undertake their proportional burden.

However, the conventional IPPs have been adequately protected through the introduction of the VCRM. This mechanism secures the payments for the gas power producers and makes them indifferent for the SMP which remains distorted. In contradiction RES producers remain unprotected from the deficit of the payments of the suppliers to the producers through the mandatory pool.

What is virtually happens, is that the suppliers (i.e. PPC mostly) pay – on top of the wholesale price SMP - several amounts through the VCRM as a compromization of the above mentioned payments deficit due to the distorted SMP. Although these additional amounts should equally and fairly cover the payments deficit faced by all producers, they allotted only in favor of the conventional IPPs which cover –in such way- the entire payments deficit which refers to their

[2] The Regulator became responsible for the Special RES Levy definition with Law 4001/2011. Up that, the responsible was the Minister of Energy after an opinion from RAE.

production. On the other hand RES producers face the entire payments deficit which refers to their green production. This is turned to be an increased deficit in the Special RES Account of the Market Operator, due to the unfairly reduced payments of the suppliers to this Account at the distorted SMP.

It is not fair that the Government selected to partially cover the increased deficit in the Special RES Account by imposing a tax on the turnover of only the RES producers, since –as explained- this deficit is attributable to all producers and importers.

B] The deficit of the RES Special Account is not attributable only to RES but to the value gained by the suppliers

As told, the actual cost of the suppliers for each RES electricity megawatt-hour fed in the system is SMP and the Special RES Levy is virtually the difference of FIT minus the SMP.

However, SMP does not represent the cost which is avoided in favor of the suppliers due to each RES electricity megawatt-hour which substitutes a conventional electricity megawatt-hour. There are three main reasons for which the avoided cost is higher than the SMP:

- the merit order effect i.e. the reduction of the SMP due to the priority penetration of RES,
- the value created to the market due to the RES capacity credit which, for the Greek electricity system, has been calculated to be around 20%. Thus, the relevant value is the 20% of the CPM,
- the distortion of the SMP which keeps it at artificially low level.

Such been the case, the Special RES Levy (the difference of FIT minus the SMP), can be splited as the sum of two separate differences i.e.

- the difference of FIT minus the Avoided Cost, and
- the difference of the Avoided Cost minus SMP [3]

From the above amounts, the first one (FIT – Avoided Cost) represents the actual additional cost of RES while the latter (Avoided Cost – SMP) represents the value gained in favor of the suppliers due to RES penetration. Thus, high RES penetration reduces the suppliers cost. At the same time the Special Levy for RES is overestimated and there is a need for its further increase due to the fact that it includes this value to suppliers. In other words the Special Levy for RES subsidies the suppliers cost.

There have been at least two serious studies which have calculated this value created by RES for the suppliers.

- A study elaborated on April 2011 by the Energy-Economics-Environment Laboratory E3MLab of National Technical University of Athens (Professor Pantelis Capros) [4] achieved the result that

[3] FIT – SMP = [FIT – Avoided Cost] – [Avoided Cost – SMP]

[4] http://www.eletaen.gr/drupal/considerations/339

during the period 2009-2011, there has been the need for an artificial additional increase of the Special RES Levy by 45%-51%.

- A study elaborated on June 2011 by the Foundation for Economic and Industrial Research (IOVE) [5] achieved the result that RES contribute by only 40,8% in the total Special RES Levy while the remaining part represent cost which is avoided due to RES.

Based on the outturn results for 2009-2010 as included in the above study elaborated by E3MLab-NTUA, the total subsidization of the suppliers cost from RES during this 2-years period has been 114,1 million Euros [6]. The same phenomenon occurred during the following years. Since the Special RES Levy has been kept low for political reasons, the above subsidization has turned to be a deficit in the Special Account for RES.

From the above short analysis and the results of the two studies mentioned before, it is obvious that the deficit of the Special Account for RES is not attributable only to RES but, at a significant extend, it is also attributable to the subsidization of the suppliers cost from the Special RES Levy paid by the consumers. This is due to the fact that suppliers pay to the Special RES Account only the SMP for each RES electricity megawatt-hour and not their actual Avoided Cost. In other words, a significant part of the deficit of the Special Account for RES is due to the unfairly reduced payments from the supply level to the generation level (i.e. the "payments deficit" mentioned before).

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5 http://www.eletaen.gr/drupal/company/476

6 Presentation of Hellenic Wind Energy Association at the Ministry of EECC, 7.10.2011 http://www.eletaen.gr/drupal/company/474