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## HEADING TO A NEW RES SUPPORT FRAMEWORK IN GREECE

**European Directive 2009/28/EC and European Union's roadmap on meeting mandatory and indicative national targets for RES production for all Member States until 2020 were the first binding European regulatory texts stipulating specific obligations and incentives leading to the elaboration of various RES legislative policies and measures. Aiming at the simultaneous fulfillment of the "20-20-20" obligations and the acceleration and growth of the Greek economy through new investment opportunities, various RES plans and projects for "green" development started in Greece, opening up the RES market share in Greece and increasing RES energy balance of the country.**

In 2010, ambitious national RES targets were set to the country (imposing 20% on final energy consumption, 2% above the previous mandatory level of 18%), in order to foster the Greek economy, maximize the profitable energy sector returns, based on national energy competitive advantages, and exploit the overall energy potential of the country. In light of the above, numerous RES support mechanisms were adopted by the current legal and regulatory regime (such as considerable "attractive" feed-in tariffs for the payment of RES producers), initially intending to incentivize and promote RES projects. However, today it is evident that further development of RES in Greece has been hindered and delayed given high prices and payments due to producers, legal complexities, administrative/judicial barriers and other substantial impediments.

### Regulatory evolution

In particular, the current payment method regime of Feed-in tariffs has been the following until today:

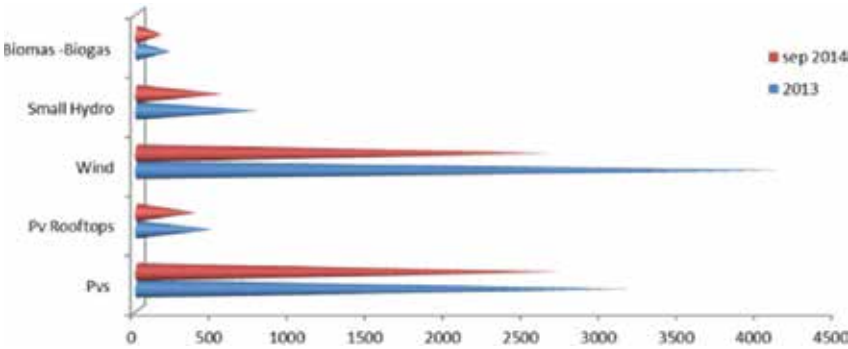
Certain mechanisms and Feed-in payment methods, as well as specific

tariffs for the payment of RES power producers have been introduced by statute 2244/1994 for the first time, setting fixed tariffs at 90% of PPC's medium-voltage retail tariff for RES electricity sold into the country's interconnected system and at 90% of the PPC's low-voltage retail tariff for RES electricity sold into the country's non-interconnected islands. In either case, Public Power Company (PPC) was obliged to buy such electricity under 10 year contracts with RES producers. Moreover, RES projects were generously supported by investment laws and start up initiatives, which provided grants and subsidies amounting to as high as 60% of the project budget. This led to the establishment of the first private wind farms in 1998.

Later on, statutes 2773/1999 and 3468/2006 expanded the Feed-in tariffs regime, introduced more generous Feed-in Tariffs and enforced tariffs indexing via ministerial decision on the basis of averaged weighted adjustment of PPC retail tariffs defined by the Minister of Energy and Environment. Statute 3468/2006 introduced tariffs indexing

## Energy produced by RES technologies the last 2 years in Greece

	Energy production by RES technologies (GWh)	
	2013	Sep. 2014
Pvs	3168	2714
Pv Rooftops	480	375
Wind	4139	2659
Small Hydro	772	542
Biomass-Biogas	210	157



Source: "Keeping Track of Renewable Energy Targets towards 2020", Chapter Greece, "Barriers to RES deployment", p. 53, processed by the European Forum for Renewable Energy, accessible at: [www.eufores.org](http://www.eufores.org)

in case of complete market liberalization (indexing to 80% of the consumer price index) and in parallel provided methodologies for the remuneration of energy produced by hybrid stations installed in non-interconnected islands. Feed-in tariffs were guaranteed through 10 years duration of power purchase agreements, providing extension by 10 more years upon a unilateral declaration addressed to the responsible operator.

Reconsidering the above, statute 3734/2009 introduced a more rationalized Feed-in tariffs mechanism for energy produced by RES, offering more financially sustainable solution of yearly decrease (around 11%) of tariffs for new photovoltaic installations. It also regulated the automatic indexing of photovoltaic tariff to 25% of inflation rate. Finally, the above topics were last treated by statutes 3851/2010 and 4001/2011, which simplified licensing procedures and decreased Feed-in tariffs gradually even for already contracted projects. They also regulated in a more defining way issues relating to the Power Purchase Agreements within the RES market and the corresponding Feed-in tariffs.

Furthermore, from February 2012 onwards, an ITO model (as opposed

to an ISO) was adopted for the Greek wholesale power market and this implied the restructuring of the former TSO into two discrete entities:

- The Market Operator (LAGIE), which solves the day-ahead market, conducts its clearing, and enters into contracts with renewable producers.
- The Transmission System Operator (ADMIE), which owns the network, as a subsidiary of the PPC, conducts the real time dispatch, the clearing of the imbalance market and the settlement of all other charges or payments.

### The New Deal

Early in 2014, statute 4254/2014 (New Deal) was introduced in order to mediate the distortions of the RES market and rationalize the previous inconsistent and inefficient regime. It stipulates a new decrease of Feed-in Tariffs on a retroactive basis. Thus, small hydroelectric plants were subjected to an average decrease of 5.4% regarding Feed-in tariffs, wind plants to an average decrease of 5.6%, and photovoltaic plants to an average decrease of 29.9%. The said statute is still in force and until new legislative initiatives are adopted, its main provisions are outlined as follows:

(a) Feed-in Tariffs reduction for existing RES projects,

- (b) Power Purchase Agreements extension for 7 years,
- (c) Issue of credit invoices to the market operator (LAGIE) for the electricity produced in 2013,
- (d) Removal of special provisional "tax" imposed on RES producers, which was in effect until early 2014,
- (e) New Feed-in tariffs for new RES projects,
- (f) Different Feed-in tariffs for projects, which have received subsidies,
- (g) End of suspension of new photovoltaic parks applications.

To conclude the two main and most significant changes adopted by the "New Deal" were the following:

- (a) certain reductions were introduced to existing Feed-in tariffs. Specifically, regarding the solar photovoltaic installations, reference prices went through a reduction of approximately 30% on average in relation to the initial tariffs. For the said reductions a number of factors have been taken into account, such as the technology used, the time of project development, the cost of the installation, the location, and whether a project has received any additional form of State aid,
- (b) new producers were obliged to contribute 20% to 37,5% of their 2013 income in the form of discount to the market operator (LAGIE), depending on the date of electrification of the projects. The latest Feed-in tariffs set by the New Deal were and still are as they appear on the table above.

### The European requirements

Taking all the above into account, it is worth mentioning that the high speed

RES Project	FIT (€/ MWh) No Grants	FIT (€/ MWh) With Grants
Wind Parks < 5 MW (Interconnected system)	105	85
Wind Parks > 5 MW (Interconnected system)	105	82
Wind Parks (Non Interconnected system)	110	90
Small Hydro <1 MW	105	85
Small Hydro between 1 MW and 5 MW	105	83
Small Hydro between 5 MW and 15 MW	100	80
PVs >100 kWp (Interconnected system)	1,1 *(Average marginal price of previous year) Starting in 2015	
PVs >10 kWp, ≤100 kWp (Interconnected system)	1,2 *(Average marginal price of previous year) Starting in 2015	
PVs >10 kWp (Non - Interconnected Islands)	1,1 *(Average marginal price of previous year) Starting in 2015	
PVs rooftops ≤10 kWp	0,120 (-4,35% for the period of January 2015- July 2017)	
Geothermal energy low temperature (<90° C)	143	130
Geothermal energy low temperature (>90° C)	110	100
CSP no storage	260	200
CSP with 2 hours storage	280	220
Biomass ≤1 MW	198	180
Biomass between 1 MW and 5 MW	170	155
Biomass > 5 MW	148	135
Landfill gas ≤ 2MW	131	114
Landfill gas > 2MW	108	94
Agriculture waste biogas ≤3 MW	230	209
Agriculture waste biogas >3 MW	209	190
Rest of RES	90	80



Source: "Keeping Track of Renewable Energy Targets towards 2020", Chapter Greece, "Barriers to RES deployment", p. 53, processed by the European Forum for Renewable Energy, accessible at: [www.eufores.org](http://www.eufores.org)

and pace of RES penetration into the Greek energy mix, as analyzed above, caused an equally high pressure of liquidity demands regarding compensation for RES producers. The liquidity gaps coupled with delay of relevant payments created a considerable deficit regarding special accounts for RES held by the market operator (LAGIE). Most recent LAGIE figures announced showed a deficit reduction in June to 209.44 million Euros from 213.92 million Euros in May. However, the deficit had managed to drop deeper to 198 million Euros in April. LAGIE most recently published a deficit reduction to 146.04 million Euros by the end of 2014. Further, a deficit reduction was noted from 110.13 million Euros in October to 82.69 million Euros in November.

Given that the RES special account held by the market operator is expected to close with a deficit of 15 million Euros at the end of 2015 and to be widened to 50 million Euros by the end of 2016, the Greek government was recently forced to apply new measures in light of the third bailout agreement (August 2015). Under this agreement, the Greek State

committed itself to ratify a new RES support framework in accordance with the guidelines on state aid for environmental protection and energy 2014-2020. The Greek government was expected to have this new RES support framework ready until July 2015. However, the deadline was extended until the end of this year. In light of the said commitment, a working group was assembled in early December by the Ministry of Energy and Environment to set up this project, to essentially revise payment methods and amounts for RES producers supplying the grid.

The way to the new support framework was paved by the RAE board, the Regulatory Authority for Energy, which decided in December 2015 to reduce the RES sector-supporting surcharge imposed on electricity bills (ETMEAR) by an average of 8.1% for household and industrial consumers. In parallel, the Minister of Energy and Environment, in order to keep the RES special account held by the market operator balanced, decided to inject the entire amount collected from CO<sub>2</sub> emission right auctions into RES account throughout 2016.

### Basic guidelines

The new RES support framework includes setting Feed-in tariffs for new small photovoltaic systems, up to 500 KW, in order to support the investments and reinvigorate the market without overheating it. Furthermore, the new framework's tend is to combine the application of Feed-in premiums for wind energy facilities and large-scale photovoltaic units with a competitive bidding process in the supply of "green electricity". It should be noted that the objectives, except for the basic guidelines, should also be aligned to the target of 40% for RES in 2020, as part of general EU targets for climate change and energy sustainability.

As regards the new investment tool of Feed-in premiums system for large-scale producers, electricity from the RES will be sold on the electricity spot market and RES producers will receive a premium on top of the market price of their electricity production. Alternatively, Feed-in premiums could also be fixed, though combined in such



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case, with predetermined minimum and maximum price levels due to the risk of overcompensation in the case of high market prices and of undercompensation in the case of low market prices.

Concerning the competitive bidding process of the RES projects as already successfully implemented by other Member States, it is expected to serve as a cost-efficient way of promoting RES, triggering competition between different operators, locations and technologies. RES bidding schemes could be combined with other RES support schemes such as Feed-in tariffs or Feed-in premiums and thus ensure safer RES investments.

### State aid

The Union's targets of ambitious climate change and energy sustainability as part of its 2020 strategy have as a result several Union legislative acts, such as the Union Emissions Trading System, Directive 2009/28/EC and the Directive 2009/30/EC. However, the simple implementation of the said directives by the Member States could not produce the most efficient results without State aid policies and the necessary guidelines. In our case, specific guidelines on State aid for environmental protection and energy 2014/C200/01 already apply for the period up to 2020 aiming at properly preparing the ground for achieving the Union's objectives in the 2030 framework. Given the above, investment subsidies and exemptions from balancing responsibilities should be eliminated in view of their complete

phasing out, provided that in the period 2020 to 2030 the RES will become grid-competitive. However, these guidelines allow Member States to carry out technology specific tenders, on the basis of the longer-term potential technological development of renewable energy technologies.

According to paragraph 124 of the guidelines 2014/C200/01, it is important for beneficiaries to sell their electricity directly in the market and be subject to market obligations. Pursuing this goal, the following apply:

As of January 1<sup>st</sup> 2016, all new aid schemes and measures should accord the following conditions:

“(a) aid is granted as a premium in addition to the market price (premium) whereby the generators sell its electricity directly in the market, (b) beneficiaries are subject to standard balancing responsibilities, unless no liquid intra-day markets exist and (c) measures are put in place to ensure that generators have no incentive to generate electricity under negative prices”.

These conditions intend to support the market integration of electricity from renewable sources and apply to installations with an installed electricity capacity of more than 500 KW or demonstration projects produced electricity from wind energy where an installed electricity capacity of 3 MW or 3 generation units applies.

In the transitional period between the years 2015 and 2016, aid for at least 5% of the scheduled electricity production

from renewable energy sources should be granted in a competitive bidding process following clear, transparent and non-discriminatory criteria.

As of January 1<sup>st</sup> 2017, aid will be granted only within a competitive bidding process, unless member states prove that (a) only one or a very limited number of projects or sites could be eligible, (b) competitive bidding process would lead to higher support levels in order to avoid strategic bidding or (c) that competitive bidding process would result in low project realization rates avoiding underbidding. Furthermore, the bidding process is not obligatory in the case of installations with an installed electricity capacity of less than 1 MW, or demonstration projects with the exception of wind farms with installed capacity of more than 6 MW or with more than 6 generation units, to which bidding process applies as well.

Finally, even though the deadline to comply with the EU directives and guidelines and the provisions of the third bailout agreement has been extended until the end of 2015, it appears that more favorable time schedules and further deadline extensions will be requested by the government, so as to adequately proceed and submit the new RES support framework. Meanwhile, the current payment regime for the RES producers will continue to apply, which could be viewed as a form of illegal state aid as of 2016.

