



HELLENIC ASSOCIATION OF PHOTOVOLTAIC COMPANIES

NEW SUPPORT SCHEME FOR RENEWABLE ENERGY SOURCES POWER PLANTS AND HIGH EFFICIENCY COMBINED HEAT AND POWER PLANTS IN GREECE

The purpose of this law (L.4414/2016) is to develop a new support scheme for renewable energy sources (RES) power plants and High Efficiency Combined Heat and Power Plants (HECHP), consistent with the Guidelines on State aid for environmental protection and energy 2014-2020 (Official Journal of the European Union 2014/C 200/01). The provisions of this law reform the support scheme of power generation from RES or HECHP plants, in order to achieve their gradual integration and participation in the electricity market, in an optimal manner for the society on a cost-benefit level.

As from 1 January 2016, all RES and HECHP power plants that commence (commercial or trial) operation in the Interconnected System or the Grid shall participate in the electricity market.

As from 1 January 2016, all RES and HECHP power plants that commence (commercial or trial) operation in the Interconnected System or the Grid shall be included in a support scheme in the form of Operating Aid, on the basis of a Differential Compensation Price (Sliding Premium), for the power they generate and is absorbed by the Interconnected System and the Grid. The Sliding Premium shall be expressed in a monetary value per measurement unit of the generated power that is injected, and which is cleared, billed and its transactions are settled on a monthly basis.

The Sliding Premium shall be calculated on a monthly basis, as the difference between the Special Reference Market Price for the specific RES or HECHP technology, the calculation method of which is described in Article 6, and the Reference Value applicable for the “Sliding Premium Operating Aid Contract”(SEDP) for the power generated from RES and HECHP plants under Article 10, and which is defined per RES and HECHP power plant technology and category, in accordance with the following Table or per RES or HECHP power plant, in case this results from the conduct of competitive processes, in euro per megawatt hour (€/MWh).

The Operating Aid to RES and HECHP power plants that meet one of the following conditions:

- a) wind farms with installed capacity or Maximum Generation Power that does not exceed 3 MW;
- b) other RES and HECHP plants with installed capacity or Maximum Generation Power that does not exceed 500 kW;
- c) demonstration projects, installed by CRES, university or research foundations or institutes, in the context of demonstration or similar projects, for the duration of the project;

shall be paid in the form of a Fixed Price, which is equal to the Reference Value applicable for the “Fixed Price Operating Aid Contract”(SEST) for the power generated from RES or HECHP. The Reference Value shall be determined per plant category, in accordance with the following Table 1, or per project, in case this results from the conduct of competitive processes, with the exception of photovoltaic installations.

RES and HECHP power plants owners who have signed a Power Purchase Agreement, as described in Article 12 of Law 3468/2006, by 31 December 2015, and:

- a) for wind, micro hydroelectric plants and biomass or biogas plants that have been or will be commissioned (in commercial or trial operation) by 30 June 2018;
- b) for other RES and HECHP power plants that have been or will be commissioned (in commercial or trial operation) by 31 December 2017;

shall not receive the Operating Aid of this Article and shall not be subject to the implementation of Article 5 (participation in the electricity market), but shall be compensated with the feed-in-tariffs (as per PPA), unless they choose otherwise.

RES and HECHP power plants for which a Power Purchase Agreement has been signed, as such is described in Article 12 of Law 3468/2006, by 31 December 2015, which have not been or are not commissioned (in commercial or trial operation)

- a) for wind, micro hydroelectric plants and biomass or biogas plants by 30 June 2018;
 - b) for other RES and HECHP power plants, by 31 December 2017;
- shall mandatorily be switched in an Operating Aid status.

These power plants are exempted from the obligation to participate in competitive bidding processes, provided they are commissioned (in commercial or trial operation until 31 December 2018).

Reference Values for the compensation of RES and HECHP power plants

The Reference Value (RV), on the basis of which the Operating Aid is calculated monthly, in the form of Sliding Premium or Fixed Price compensation, for power generated by RES and HECHP power plants, is defined per plant category in Table 1.

Table 1: Reference Values per RES and HECHP power plants category

a/a	Plant Category	RV (€/MWh)
1	Wind power exploited in land-based installations	98
2	Wind power exploited in land-based installations on the Non-Interconnected Islands	98
3	Water power exploited in micro hydroelectric power plants with an installed capacity of ≤ 3 MWe	100
4	Water power exploited in micro hydroelectric power plants with an installed capacity ranging from 3 MWe to 15 MWe	97
5	Biomass (or bioliquids) utilised through thermal processes (incineration, pyrolysis), with the exception of gasification, by plants with an installed capacity of ≤ 1 MW (excluding the biodegradable fraction of municipal waste)	184

6	Biomass (or bioliquids) utilised through gasification process by plants with an installed capacity of ≤ 1 MW (excluding the biodegradable fraction of municipal waste)	193
7	Biomass (or bioliquids) exploited through thermal processes (incineration, gasification, pyrolysis) by plants with an installed capacity ranging from 1 to ≤ 5 MW (excluding the biodegradable fraction of municipal waste)	162
8	Biomass (or bioliquids) exploited through thermal processes (incineration, gasification, pyrolysis) by power plants with an installed capacity of > 5 MW (excluding the biodegradable fraction of municipal waste)	140
9	Gases released from landfills and sewage treatment plants, biogas from the anaerobic digestion of the biodegradable waste fraction and organic sludge/sewage treatment sludge exploited in stations with an installed capacity of ≤ 2 MW	129
10	Gases released from landfills and sewage treatment plants, biogas from the anaerobic digestion of the biodegradable waste fraction and organic sludge/sewage treatment sludge exploited in stations with an installed capacity of > 2 MW	106
11	Biogas from the anaerobic digestion of biomass (energy crops, green fodder silage agricultural crops, livestock and agro-industrial organic residues and waste, waste from edible oils and fats, expired food) exploited by power plants with an installed capacity of ≤ 3 MW	225
12	Biogas from the anaerobic digestion of biomass (energy crops, green fodder silage agricultural crops, livestock and agro-industrial organic residues and waste, waste from edible oils and fats, expired food) exploited by power plants with an installed capacity of > 3 MW	204
13	Solar energy exploited by solar thermal power plants without storage system	257
14	Solar energy exploited by solar thermal power plants with a storage system which ensures that the nominal load operates for a minimum of 2 hours	278
15	Geothermal energy exploited by power plants with an installed capacity of ≤ 5 MWe	139
16	Geothermal energy exploited by power plants with an installed capacity of > 5 MWe	108
17	Other RES (including plants for the energy utilisation of the biodegradable fraction of municipal waste not included in any other category of the table, which meet the standards of European legislation, as applicable)	90

Conduct of competitive bidding processes for RES and HECHP power plants

1. As from 1 January 2017, a RES and HECHP power plants support scheme through competitive bidding process shall become effective.
2. The RES and HECHP power plant technologies and/or categories included in the competitive bidding process under paragraph 1, the annual number of competitive bidding processes, the classification of the competitive bidding processes as “technology neutral” or not, the methodology and power-sharing procedure for the participation of RES plants installed in countries within the European Economic Area, as well as any other issue relating to the planning and conduct of the competitive bidding process shall be determined by means of a Decision by the Minister for Environment and Energy, following an opinion by the Regulatory Authority for Energy (RAE). The first RAE opinion shall be submitted to the Minister for Environment and Energy by 30.11.2016.
3. The installed capacity, per RES and HECHP power plant technology and/or category, which is auctioned through the competitive bidding processes, including plants installed in countries within the European Economic Area during the current calendar year or the following years after the issue of such Decision, the minimum number of Tenders per Year, as well as the maximum and/or minimum allowable bid value for each competitive bidding process shall be determined by means of a Decision by the Minister for Environment and Energy (which may be modified per year) after RAE’s Opinion.
4. The RES and HECHP power plants selected through the competitive bidding process shall be included in the support scheme, in the form of Operating Aid for RES and HECHP power generation, and shall conclude SEDP or SEST, which shall be subject to the Reference Value resulting from the submission of bids in the context of the competitive bidding process.
5. RAE assumes the responsibility to organise, conduct and finalise the competitive bidding processes.
6. By means of a Decision by RAE, a Notice (Announcement) shall be issued for (one or more) competitive bidding process for RES and HECHP power plants, which shall determine the eligibility and evaluation criteria, the geographical or other spatial restrictions, the construction and operation timeline of the selected plants, the letters of guarantee, any reduction in RV resulting in a competitive bidding process for RES and HECHP in an NII in case of interconnection with the Interconnected System and any special clauses and any other necessary detail related to the conduct of the competitive process.
7. The payment of a participation fee, in favour of RAE, which shall be set at the Notice, shall be a condition for participation in the competitive bidding process. RAE, by means of a decision, may allocate a percentage of the said fee to the special RES Special Account referred to Article 143 of Law 4001/2011.
8. RAE, upon completion of the competitive bidding process, shall issue and post on its website a table of results, including the weighted average RV for each power plant category.
9. Especially for the year 2016, RAE shall issue within three (3) months from the entry in force hereof, a Notice to a competitive bidding process for new photovoltaic power plants, on the basis of the provisions of paragraph 6 of this Article, which shall be conducted within 2016, hereinafter referred to as the pilot competitive bidding process. Especially for this bidding process, the participation fee of paragraph 7 is 500€ for each participant.
10. The following shall apply for the **pilot competitive bidding process**:

- a) The auctioned power shall be 40 MW, or more, as determined in the Decision by RAE of paragraph 9 of this Article.
- b) The auctioned power may be shared between photovoltaic installations that must have a Generation Permit and photovoltaic installations that are Exempt from the obligation to obtain a Generation Permit, in accordance with Articles 3 and 4 of Law 3468/2006. The exact division of the auctioned power is described in the Decision of RAE of this paragraph, and the auctioned power for photovoltaic installations which are excluded from the obligation of Generation Permit in accordance with Article 4 of Law. 3468/2006 may not exceed to 20% of the total auctioned power. It is allowed to allocate undisposed power distribution between the two categories of photovoltaic installations, under the provisions of the Decision of paragraph 9 of this Article without the above mentioned percentile restriction referred to in the previous subparagraph.
- c) The **maximum allowable bidding price**, in the context of the pilot competitive bidding process, is set at 94 €/MWh for photovoltaic installations subject to obtainment of a Generation Permit (>1 MWp), and at 104 €/MWh for the ones that are exempted from this obligation (<1 MWp).
- d) The maximum allowable power per bid submitted is set at 10 MWp.
- e) For PV installations to be selected via the pilot competitive process, the connection activation (in commercial or trial operation) should take place at:
 - i. 18 months after the final award for photovoltaic installations with a capacity ≤1MWp
 - ii. 24 months after the final award for photovoltaic installations with a capacity > 1MWp

These deadlines do not apply if after the final award shall be suspended by courts order any necessary permit for the legitimate implementation of the project. In this case the deadlines are increased for as long as there is a suspension.

The Decision of paragraph 9, describes also the process to be followed if the above reference deadlines for the activation of the connection will not meet.

- 11. Condition for the participation in the pilot competitive bidding process is the existence of a Connection Contract into force, or a Final Connection Offer valid on condition that the letter of guarantee of Law 4152/2013 (GG, Issue A No. 107) or Law 4062/2012 (GG, Issue A No. 70) at the time of the request to participate.

RES and HECHP power plants at Non-Interconnected Islands

Until the required infrastructure is completed and the daily electricity markets are fully functional on the Non-Interconnected Islands (NIIs), all RES and HECHP power plants which start to operate (commercial or trial operation) on or after 1 January 2016 on the NIIs shall be included in the support scheme in the form of Operating Aid, on the basis of a **Fixed Price**, and the owners of those plants shall conclude SESTs with HEDNO SA as NII Operator.

Transitional accurate forecasting mechanism

RES and HECHP projects to be integrated in the new operating aid support scheme will be subject to specific obligations when participating in the market, which upon completion of the new electricity market model will relate to standard balancing obligations. During the transition phase, it is foreseen to implement a mechanism in order to optimize the hourly day-ahead generation forecasts of these RES and HECHP plants. This is considered taking into account the absence of an intra-day market, but

also the need to gradually prepare these units for their future balancing obligations and to overall reduce the balancing services and costs provided by the other electricity market participants.

Transitional management premium mechanism

RES and high efficiency CHP producers that participate in the electricity market are proposed to be eligible for receiving an additional management premium during the transitory period until the establishment of the new electricity market model and the existence of a liquid intraday electricity market.

The management premium is proposed to be set at 3 €/MWh for wind installations up to 10 MW and at 2 €/MWh for all other RES and HECHP installations. The management premium is considered necessary in order to incorporate the additional variable management costs of the participation of RES and HECHP projects in the electricity market, especially in the initial period where mainly higher administration costs are to be expected.

RES projects that are selected through a competitive bidding process have to integrate this cost in their bids and are not going to be eligible for obtaining this management premium.

RES Operators scheme

In order to facilitate the participation of all liable RES and HECHP producers in the market, a special framework for operating agents (i.e. RES Operators-Aggregators) will be introduced and developed. These bodies will undertake on behalf of RES producers, obligations with respect to their participation in the market, as these will be determined in the respective bilateral contract between RES operators and- RES / HECHP Producer.

Last resort RES Operator

For cases of the above Operators' temporary inability to provide such services or for the case of an inability of a RES producer to contract the required services, a representative body (last resort RES Operator-Aggregator) will be established with specific obligations and mode of operation. This body for the initial stage of the new support scheme can operate representing a significant number of producers, in the framework of specific and escalating charges, but is gradually and until the implementation of the new market model planned to undertake specific services only for emergency purposes and with time-limited duration per producer. For the above reasons, specific disincentives will be gradually implemented, so that it is not used by RES and HECHP producers as a typical provider of these services.

Duration of the operating aid

The duration of the operating follows the general accounting rules regarding the period of full depreciation of RES and HECHP power plants and is set to 20 yrs or 25 yrs on the basis of the plant's technology.

In particular, the duration of the operating aid is 20 years for all RES and HECHP technologies, apart from small rooftop PV installations up to 10 kW and CSP installations for which the duration is set to 25 years.

PV systems with a capacity of 10-500 kWp are now in theory eligible for a feed-in-tariff. However, current FiTs are quite low (57 €/MWh) and do not guarantee viable investments. The Greek government is going to present new FiTs for small scale PV in early 2017.

Virtual net metering

The country's new renewable energies law also approves virtual net metering for specific investors. Thus, city and regional councils, schools, universities, farmers and farming associations will be allowed to develop solar PV projects up to 500 kWp (and other renewable projects) a considerable distance away from the place of the actual power consumption.

RES Fund restructured

Last but not least, the new law alters the sources that comprise Greece's fund for renewable energies. It obliges electricity suppliers to contribute to the country's renewable energy fund. The rationale is that renewable energy decreases the wholesale market electricity price, which results in suppliers paying less money for electricity than in a system comprising exclusively of fossil fuels.

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