

## Research RES LEGAL – Grid issues

Country: Greece

### 1. Overview

<b>Overview of grid issues</b>	Renewable energy systems are contractually entitled to priority connection to the grid. The grid operator is obliged to enter into these contracts. Furthermore, the system operator is entitled to the purchase of electricity from renewable sources by the grid operator. The terms of the grid connection contract may oblige the grid operator to expand his grid if the grid expansion is necessary to satisfy his obligation to connect a system.
<b>Connection to the grid</b>	The system operators are contractually entitled to connection to the grid by the grid operator. The grid operator is obliged to enter into the connection contracts (Art. 11 Par. 1 Law No. 3468/2006 in conjunction with Art. 300, 301 NC). Entitlement of small-scale systems is laid down in Art. 4 Par. 4 Law No. 3468/2006 in connection with Art. 300, 301 NC.
<b>Use of the grid</b>	The system operators are contractually entitled to the purchase of electricity from renewable sources. The conditions of purchase are regulated in power purchase agreements (PPAs) with the grid operator (Art. 9 Par. 1 in conjunction with Art. 12 Par. 1, Art. 27 Par. 7 Law No. 3468/2006 in conjunction with Art. 316 NC in conjunction with Art. 1 V 1442/2006). The grid operator is obliged to enter into these agreements.
<b>Grid expansion</b>	The plant operator is contractually entitled to a grid expansion by the grid operator. This claim may arise from a connection contract if the expansion is necessary to satisfy a claim for connection to the grid (Art. 11 Par. 1 Law No. 3468/2006 in connection with Art. 301 Par. 1, 306 NC). The grid operator is obliged to enter into connection contracts.
<b>Statutory provisions</b>	<ul style="list-style-type: none"><li>• Law No. 3468/2006 (Law No. 3468/2006 Generation of Electricity using Renewable Energy Sources and High-Efficiency Cogeneration of Electricity and Heat)</li><li>• NC (Grid Control and Power Exchange Code)</li><li>• V 1442/2006 (Decision No. 1442/2006, Form and content of electric power purchase agreements (PPAs) for the supply of electric power into the System)</li><li>• V 2000/2002 (Decision No. 2000/2002 Procedure for issuing installation and operating permits of power generation plants using renewable energy sources)</li></ul>

## 2. Basic information on legal sources

<b>Name of legal source (original language)</b>	Νόμος ΑΠΕ	Κώδικας	Συμβάσεις Πώλησης Δ.Ε.Η.
<b>Name of legal source (full name)</b>	Νόμος 3468/2006 Παραγωγή Ηλεκτρικής Ενέργειας από Ανανεώσιμες Πηγές Ενέργειας και Συμπαράγωγή Ηλεκτρισμού και Θερμότητας Υψηλής Απόδοσης και λοιπές διατάξεις	Κώδικας Διαχείρισης του Συστήματος και Συναλλαγών Ηλεκτρικής Ενέργειας	Τύπος και περιεχόμενο συμβάσεων πώλησης ηλεκτρικής ενέργειας που παράγεται με χρήση Ανανεώσιμων Πηγών Ενέργειας και μέσω Συμπαράγωγής Ηλεκτρισμού και Θερμότητας Υψηλής Απόδοσης στο Σύστημα και το Διασυνδεδεμένο Δίκτυο και στο Δίκτυο των Μη Διασυνδεδεμένων Νήσων, σύμφωνα με τις διατάξεις του άρθρου 12 παρ. 3 του Ν. 3468/2006, όπως ισχύει, πλην ηλιοθερμικών και υβριδικών σταθμών
<b>Name (English)</b>	Law No. 3468/2006 Generation of Electricity using Renewable Energy Sources and High-Efficiency Cogeneration of Electricity and Heat and Miscellaneous Provisions	Grid Control and Power Exchange Code	Decision No. 17149/2010, Form and content of electric power purchase agreements (PPAs) for the supply of electric power into the System and the Interconnected Network in accordance with the provisions of Art. 12, § 3 of Law No. 3468/2006
<b>Abbreviated form</b>	Law No. 3468/2006	NC	FEK 1497/2010
<b>Entry into force</b>	25.12.2006	07.07.2005	06.09.2010
<b>Last amended on</b>	04.06.2010	29.09.2010	
<b>Future amendments</b>			
<b>Purpose</b>	Transposing Directive 2001/77/EC into Greek law and promoting the generation of electricity from renewable sources in the Greek single market.	Detailed regulation of connection to the grid, access to the grid and expansion of the grid.	Provisions concerning the standard form of power purchase agreements between the grid operator and the system operators.
<b>Relation to renewable energy</b>	This law promotes renewable energy only.	The provisions of the grid code regulate the procedures of	Art. 12 Par. 3 Law No. 3468/2006: Standard form of power purchase

		connection to the grid, access to the grid and expansion of the grid with regard to renewable energy systems.	agreements (PPAs) for the producers of electricity from renewable sources.
<b>Link to full text of legal source (original language)</b>	<a href="http://www.ypeka.gr/LinkClick.aspx?fileticket=5B5fuUXA4Ag%3d&amp;tabid=555&amp;language=el-GR">http://www.ypeka.gr/LinkClick.aspx?fileticket=5B5fuUXA4Ag%3d&amp;tabid=555&amp;language=el-GR</a>	<a href="http://www.rae.gr/old/cases/C15/Codification_10-10.pdf">http://www.rae.gr/old/cases/C15/Codification_10-10.pdf</a>	<a href="http://www.ypeka.gr/LinkClick.aspx?fileticket=nCH%2fZqR%2fZ%2fM%3d&amp;tabid=555">http://www.ypeka.gr/LinkClick.aspx?fileticket=nCH%2fZqR%2fZ%2fM%3d&amp;tabid=555</a>
<b>Link to full text of legal source (English)</b>	<a href="http://www.ypeka.gr/LinkClick.aspx?fileticket=qtiW90JJLYs%3d&amp;tabid=37">http://www.ypeka.gr/LinkClick.aspx?fileticket=qtiW90JJLYs%3d&amp;tabid=37</a>	<a href="http://www.rae.gr/en/codes/main.htm">http://www.rae.gr/en/codes/main.htm</a>	gelöscht

<b>Name of legal source (original language)</b>	Νόμος για την απελευθέρωση της αγοράς ενέργειας	Φ/Β στις Στέγες	Α.Π.Ε για Αγρότες
<b>Name of legal source (full name)</b>	Απελευθέρωση της αγοράς ηλεκτρικής ενέργειας- Ρύθμιση θεμάτων ενεργειακής πολιτικής και λοιπές διατάξεις	Ειδικό Πρόγραμμα Ανάπτυξης Φωτοβολταϊκών Συστημάτων σε κτιριακές εγκαταστάσεις και ιδίως σε δώματα και στέγες κτιρίων	Εφαρμογή των διατάξεων του ν.3851/2010 σχετικών με την εξέταση αιτημάτων για την εγκατάσταση σταθμών παραγωγής ηλεκτρικής ενέργειας από Α.Π.Ε. σε γεωργική γη υψηλής παραγωγικότητας, συμπεριλαμβανομένης της κατηγορίας των επαγγελματιών αγροτών
<b>Name (English)</b>	Law on the liberalisation of electricity market	Joint Ministerial Decision - Special Programme "PV on Rooftops"	Ministry of Environment Circular on the Issuing of Licences for RES electricity produced by professional farmers
<b>Abbreviated form</b>	Law No. 2773/1999	FEK 1079/2009	Circular No. 26928
<b>Entry into force</b>	22.12.1999	04.06.2009	16.12.2010
<b>Last amended on</b>	22.12.2005	20.09.2009	
<b>Future amendments</b>			
<b>Purpose</b>	Liberalising the electricity market	Promoting the installation of small PV systems (below 10 kW) on Rooftops	Grid Connection Procedure for RES plants operated by professional farmers

<b>Relation to renewable energy</b>	Provision for grid connection and grid development with regard to RES systems		
<b>Link to full text of legal source (original language)</b>	<a href="http://www.ypeka.gr/LinkClick.aspx?fileticket=VtweJAT%2fbGU%3d&amp;tabid=277&amp;language=el-GR">http://www.ypeka.gr/LinkClick.aspx?fileticket=VtweJAT%2fbGU%3d&amp;tabid=277&amp;language=el-GR</a>	<a href="http://www.ypeka.gr/LinkClick.aspx?fileticket=mz8ssdmgKhg%3d&amp;tabid=541">http://www.ypeka.gr/LinkClick.aspx?fileticket=mz8ssdmgKhg%3d&amp;tabid=541</a>	<a href="http://newsite.desmie.gr/fileadmin/user_upload/Files/adeiodotisi/2010.12.16_YPEKA_EG.26928.pdf">http://newsite.desmie.gr/fileadmin/user_upload/Files/adeiodotisi/2010.12.16_YPEKA_EG.26928.pdf</a>
<b>Link to full text of legal source (English)</b>			

### 3. Further information

Institution (name)	Website	Name of contact person (optional)	Telephone number (head office)	E-mail (optional)
<b>Centre for Renewable Energy Sources (CRES) - energy agency</b>	<a href="http://www.cres.gr/kape/index_eng.htm">http://www.cres.gr/kape/index_eng.htm</a>		+30 210 660 3300	cres(at)cres.gr
<b>Ministry of Development</b>	<a href="http://www.ypan.gr/index_uk_c_cms.htm">http://www.ypan.gr/index_uk_c_cms.htm</a>			service(at)dorg.minenv.gr
<b>Ministry of Environment, Energy and Climate Change</b>	<a href="http://www.ypeka.gr/Default.aspx?tabid=37&amp;locale=en-US&amp;language=el-GR">http://www.ypeka.gr/Default.aspx?tabid=37&amp;locale=en-US&amp;language=el-GR</a>		+30 210 6965902	
<b>Public Power Corporation S.A. (PPC) - electric utility</b>	<a href="http://www.dei.gr/echome.aspx?lang=2">http://www.dei.gr/echome.aspx?lang=2</a>	Dimitris Venetidis	+30 210 523 7718	d.venetidis(at)dei.com.gr
<b>Regulatory Authority for Energy (R.A.E.)</b>	<a href="http://www.rae.gr">http://www.rae.gr</a>		+30 2103727400	Info(at)rae.gr
<b>Hellenic Transmission System Operator S.A. (HTSO) - transmission grid operator</b>	<a href="http://www.desmie.gr/home/index_en.asp">http://www.desmie.gr/home/index_en.asp</a>		+30 210 946 6789	contact(at)desmie.gr

#### 4. Connection to the grid

<p><b>Abbreviated form of legal sources</b></p>	<ul style="list-style-type: none"> <li>• Law No. 3468/2006</li> <li>• NC</li> <li>• FEK 1079/2009</li> <li>• Circular No. 26928</li> </ul>	
<p><b>Overview</b></p>	<p>There is one main grid connection procedure for both the transmission and distribution grid. A system operator is contractually entitled against the grid operator to the priority connection of renewable energy systems to the grid. The grid operator is obliged to enter into the contract (Art. 9 Par. 1, Art. 11 Par. 1 Law No. 3468/2006 in connection with Art. 300, 301 NC).</p> <p>The entitled party is every operator of a renewable energy system who is a contracting party to a connection contract. Contracting parties can be only those producers of electricity from renewable sources that hold an electricity generation licence (Art. 3 Law No. 3468/2006). This licence is issued by the Ministry of Development for a period of 25 years and shall be approved by the regulatory authority (RAE). This period may be extended by an additional 25 years (Art. 3 Par. 4 Law No. 3468/2006).</p> <p>The obligated party is the grid operator in charge (Art. 12 Par. 1 Law No. 3468/2006). The system shall be connected at the economically and technically most suitable connection point.</p> <p>Claims arise at the date of the conclusion of the contract. The contract shall be concluded according to a procedure specified by law and applicable to all applicants for connection (Art. 301 Par. 1, 2 NC).</p>	
<p><b>Procedure</b></p>	<p><b>Procedure</b></p>	<p>For RES plants in the interconnected grid system, the procedure entails the following steps:</p> <ul style="list-style-type: none"> <li>• A production licence is issued (Art. 2 Par. 1 Law No. 3851/2010). The authority responsible for issuing these licences is the Regulatory Authority on Energy (RAE). The production licence has duration of 25 years (Art. 3 Par. 4 Law No. 3851/2010).</li> <li>• An installation licence shall be issued within 30 days from the respective Directorates of the administrative regions (Art. 8 Par. 1 Law No. 3468/2006). At the same time, the interested party shall apply for an Environmental Impact Assessment (EIA). The installation licence has duration of 2 years (Art. 8 Par. 10 Law No. 3468/2006) whereas an EIA has duration of 10 years (Art. 8 Par. 7 Law No. 3468/2010).</li> <li>• Simultaneously the interested party shall also apply to DESMIE (Greek TSO) for a connection offer. If the RES-plant is to be connected to the distribution grid, the application is forwarded to PPC, as it is the DSO. The interested party agrees on the terms of the connection offer and a connection contract is signed (Art. 301 Par.7 NC).</li> <li>• Apart from that, an electricity purchase agreement is signed between DESMIE and the interested investor (Art. 12 Law No. 3468/2006). An operating license is also issued for a duration of 20 years (25 years for solar-thermal stations (Art. 3 Par.11 Law No. 3468/2006).</li> </ul>

		<p>For small RES plants in the interconnected system there is a simplified grid connection procedure. "Small RES Plants" are the following (Art. 4 Law No. 3468/2010):</p> <ul style="list-style-type: none"> <li>• Geothermal stations with an installed capacity smaller than, or equal to 0.5 MW,</li> <li>• Biomass, biogas and biofuel stations with an installed capacity smaller than or equal to one (1) MW,</li> <li>• Solar (photovoltaic) systems or solar-thermal power stations with an installed capacity smaller than or equal to one (1) MWp,</li> <li>• Wind energy facilities with an installed capacity smaller than or equal to one hundred (100) kW,</li> <li>• C.H.P. stations with an installed electrical capacity smaller than or equal to one (1) MWe</li> </ul> <p>Those plants are not obliged to obtain a production licence and an installation licence (Art. 4 Law No. 3468/2006).</p> <p>Apart from that, wind farms of up to 20 kW and PV systems of up to 0.5 MW are also exempt from the obligation of implementing an EIA. PV systems installed on commercial buildings are also exempt from conducting an EIA (Art. 8 Par. 13 Law No. 3468/2006). Except for the first two steps, the procedure is identical with the one described above.</p> <p>In non-interconnected islands the only difference is that the authority responsible for the conclusion of agreements with the system operators is PPC (Art. 10 Law No. 3468/2006).</p> <p>For PV installations operated by professional farmers, the interested party must provide a confirmation by the Greek Payment Agency (O.P.E.K.E.P.E.) that the interested party is a professional farmer. Apart from that, the farmer should submit an application to his Regional Directorate of the Greek Ministry of Agriculture for the classification of his farm. If the farm is classified as "high-yield", the installation of a PV system is possible only if the aggregate surface of installed RES systems does not exceed 1% of the aggregate cultivated fields of the respective prefecture (Circular no. 26928).</p> <p>As far as the installation of small PV of Rooftops (up to 10kWp) is concerned, the beneficiaries are natural persons or legal entities, that come under the definition of "very small enterprises" (Art. 1 FEK 1079). The interested party has to make an application to the regional office of PPC for the PV installation to be connected to the distribution grid (Art. 4 FEK 1079). PPC makes a connection offer and the interested party signs it along with a compensation agreement (Art.</p>
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		4 Par. 5 FEK 1079). This is due to the fact that the interested party is already connected to the distribution grid as a customer. Finally, after these agreements are signed, the interested party can apply for grid connection at the local office of PPC (Art. 4 Par. 6 FEK 1079).
	<b>Deadlines</b>	Production licence: RAE is obliged to issue such a licence within 2 months and may consult the TSO or the DSO (Art. 3 Par. 2 Law No. 3468/2006). Connection Offer: DESMIE is obliged to make a connection offer within 4 months (Art. 8 Par. 4 Law No. 3468/2006). Operating licence: A system operator shall apply for an operating licence which is issued within 20 days. Finally, the date of connection of the system to the grid depends on the contractual terms. The procedure regarding the conclusion of the contract includes various deadlines for the fulfilment of the obligations of the respective contracting parties (Art. 301 Par. 1 NC). For PV on rooftops: After examining the application, PPC shall make a connection offer within 20 days.
	<b>Obligation to provide information</b>	
<b>Priority to renewable energy (qualitative criteria)</b>	( x ) Priority to renewable energy ( ) Non-discrimination	The connection of renewable energy systems shall be given priority unless their connection poses a risk to network security (Art. 9 Par.1, Art. 10 Par. 1 Law No. 3468/2006 in connection with Art. 21 V 1442/2006).
<b>Capacity limits (quantitative criteria)</b>		
<b>Funding</b>	<b>State</b>	
	<b>Consumers</b>	
	<b>Grid operator</b>	
	<b>System operator</b>	The system operator shall bear the costs arising from the connection of his system to the technically and economically most suitable connection point and the costs of necessary metering devices that record the electric power fed in and received (Art. 266 Par. 6 NC).
	<b>Distribution mechanism</b>	

## 5. Use of the grid

<b>Abbreviated form of legal sources</b>	<ul style="list-style-type: none"> <li>• Law No. 3468/2006</li> <li>• NC</li> <li>• FEK 1497/2010</li> </ul>	
<b>Overview</b>	There are a purchase obligation for RES-E and a regime of priority dispatch. As regards grid stability, the NC includes general provisions designed to ensure the stability of the grid and a compensation mechanism.	
<b>Procedure</b>	<b>Procedure</b>	The claim arises at the date of the conclusion of the power purchase agreement (Art. 12 Par. 1 Law No. 3468/2006 in connection with Art. 1 V 1447/2010).
	<b>Deadlines</b>	The claim for purchase and transmission arises at the date of issue of the operation license (Art. 8 Par. 5 Law No. 3468/2006 in connection with Art. 1 FEK 1497/2010). However, this rule does not apply for certain small-scale systems that are subject to the exception specified in Art. 4 paragraph 1 Law No. 3468/2006. The claim of these systems for priority electricity purchase arises after the trial operation period.
	<b>Obligation to provide information</b>	
<b>Priority to renewable energy (qualitative criteria)</b>	<input checked="" type="checkbox"/> Priority to renewable energy <input type="checkbox"/> Non-discrimination	Electricity generated from renewable energy sources is given priority in the interconnected system (Art. 9 Par. 1 Law No. 3468/2006) and on non-interconnected islands (Art. 10 Law No. 3468/2010). As far as hydro-electric systems are concerned, priority is given to systems whose capacity does not exceed 15 MWe (Art. 9 Par.1 a Law No. 3468/2006).
<b>Grid stability</b>	<p>Criterion “N-1” is designed to ensure grid stability. In cases where grid stability is endangered and output curtailment is required, DESMIE shall inform beforehand the RES-E producers on the planned curtailment (Art. 116 NC). There is a special provision for the compensation of wind farm operators in case of output curtailment. At the end of each calendar year, the Greek TSO or DSO pays each Wind Farm Operator additional remuneration. The remuneration is equal to 30% of the energy cuts imposed during the previous calendar year. The above-mentioned percentage is raised every year until the maximum of 100% is reached, so that the total payment a system receives is equal to</p> <p>a) the payment it would receive if it operated for 2,000 equivalent hours, or</p> <p>b) the payment it would receive if it operated without cuts, whichever is smaller (Art. 13 Par. 8 Law No. 3468/2006).</p> <p>With regard to non-interconnected islands, grid curtailment issues are regulated in the grid connection agreements. (FEK 1497/2010)</p>	
<b>Funding</b>	<b>State</b>	
	<b>Consumers</b>	

	<b>Grid operator</b>	The costs arising from the use of the grid are borne by the grid operator, as he is the owner. This rule is not laid down in a specific statutory provision.
	<b>System operator</b>	
	<b>Distribution mechanism</b>	Charging a grid use fee, the grid operator may pass on the costs arising from the grid system to all customers connected to the grid (Art. 308, 309 NC). The operators of renewable energy systems are exempt from grid use charges (Art. 307 Par. 5 C) (2) NC). The extent to which grid users as e.g. electricity suppliers may pass on the grid use fees to the final consumers depends on the general legislation on energy, whose implementation is monitored by the regulatory authority.

**6. Grid expansion**

<b>Abbreviated form of legal source</b>	<ul style="list-style-type: none"> <li>• Law No. 3468/2006</li> <li>• NC</li> <li>• V 1442/2006</li> </ul>	
<b>Overview</b>	<p>A system operator is entitled against the grid operator to the expansion of the grid under the connection contract, if the expansion is necessary to satisfy a claim for connection to the grid (Art. 11 Par. 1 Law No. 3468/2006 in connection with Art. 301 Par. 1, 306 NC).</p> <p>The entitled party is every system operator that is a contracting party to a connection contract and holds a generation licence (Art. 3 Law No. 3468/2006). Certain small-scale systems are exempt from the obligation to apply for a generation licence (Art. 4 of Law No. 3468/2006).</p> <p>The obligated party is the competent grid operator (Art. 12 Par. 1 Law No. 3468/2006). The grid operator is obliged to expand his grid in such a way as to enable the electricity generation systems in planning to be connected to the technically and economically most suitable connection point. Decisions on grid development are the result of central planning. Grid development studies constitute the basis of all related grid development works.</p> <p>After having accepted the connection offer which specifies the necessary expansion works (Art. 301 Par. 6 NC) and after the conclusion of a connection contract (Art. 301 Par. 1 NC), the plant operator is entitled to a grid expansion by the grid operator.</p>	
<b>Procedure</b>	<b>Procedure</b>	After having accepted the connection offer which specifies the necessary expansion works (Art. 301 Par. 6 NC) and after the conclusion of a connection contract (Art. 301 Par. 1 NC), the plant operator is entitled to a grid expansion by the grid operator.
	<b>Enforcement of claims</b>	After having accepted the connection offer which specifies the necessary expansion works (Art. 301 Par. 6 NC) and after the conclusion of a connection contract (Art. 301 Par. 1 NC), the plant operator is entitled to a grid expansion by the grid operator.
	<b>Deadlines</b>	Deadlines regarding a possible expansion of the grid depend on the contractual terms.
	<b>Obligation to provide information</b>	
<b>Incentives for grid expansion</b>		
<b>Funding</b>		
	<b>State</b>	

	<b>Consumers</b>	
	<b>Grid operator</b>	The costs arising from an extension of the grid to the respective grid connection point are borne by the grid operator (Art. 271 Par. 1, 272 NC).
	<b>System operator</b>	
	<b>Distribution mechanism</b>	After the deduction of certain costs, the cost of a grid expansion is passed on in the form of charges for the use of the system to the consumers connected to the grid (Art. 308, 309 Par. 4 NC). Operators of renewable energy systems are exempt from charges for the use of the grid (Art. 307 Par. 5 C) (2) NC). The extent to which grid users as e.g. electricity suppliers may pass on the use of system charges to the final consumers is subject to the general provisions of energy law, whose implementation is monitored by the regulatory authority.
<b>Grid studies</b>	Study for the development of Greek Transmission Grid 2010-2014 (MASM). Available at <a href="http://newsite.desmie.gr/fileadmin/user_upload/Files/masm/masm_2010-2014-RAE.pdf">http://newsite.desmie.gr/fileadmin/user_upload/Files/masm/masm_2010-2014-RAE.pdf</a> (only in greek)	