

Residential Prosumers in the European Energy Union

EAHC/2013/CP/04

Mapping the legal and regulatory framework in the 28 Member States, Iceland and Norway

Greece



This study is part of the mapping of the legal and regulatory framework for residential prosumers in the 28 Member States, Iceland and Norway, within the project on Residential Prosumers in the European Energy Union EAHG/2013/CP/04, and carried out by Milieu Ltd (Belgium), Chaussée de Charleroi, 112, B-1060 Brussels, tel: +32 (0)2 506 1000; web address: www.milieu.be

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Disclaimer: The information and views set out in this study are those of the authors and do not necessarily represent the official views of the Commission.

National report on the regulatory framework for residential prosumers: Greece

General Description of the national legal and regulatory framework

General

The electricity market

The particular geomorphology of Greece influences its energy market. A distinction is made between, on the one hand, the mainland and the islands connected to the mainland grid and, on the other, the islands not connected to the mainland grid. All islands that are not electrified through interconnection to the mainland grid (non-interconnected islands - **NIIs**) depend on free standing island grids mostly supplied by small fuel-oil fired power plants and a medium voltage radial distribution network¹. There are 32 autonomous electrical systems supporting 60 islands in the Aegean Sea (only two are in the Ionian Sea)². On August 2014, the European Commission granted Greece a derogation from the provisions of Chapters III and VIII of Directive 2009/72/EC for the NIIs. Pursuant to Commission's Decision 2014/536/EC, all NIIs are recognized as micro isolated systems and Crete as a small isolated system³.

The gross inland energy consumption in 2012 was 27.04 Mtoe, a decrease of 2.9% compared to 2011. Regarding the fuel mix, crude oil and petroleum products accounted for 46.2%. Solid fuels represented 30.1%, natural gas 14.1% and renewable energies provided 9.6% of gross inland energy consumption. In 2012, the renewables share in gross final energy consumption reached 15.1%, and thus Greece was showing good progress towards achieving its 2020 Renewable Energy Sources (RES) target of 18%. The increase of electricity generation in 2012 came mainly from renewables, which increased its share by 23% compared to 2011 levels, due to the additional solar photovoltaics installed in the year. Cogeneration of heat and power represented 4.5% of gross electricity generation in 2011⁴. However, more than half of the electricity continued to be generated from indigenous lignite, followed by natural gas, and crude oil and petroleum products.

In 2012, Greece faced a risk of collapse of its energy sector, due to excessive liabilities, high cumulative deficits and, subsequently, lack of liquidity on behalf of the Public Power Corporation (PPC), triggered by the ongoing economic crisis and structural shortcomings of the electricity market⁵.

The overall electricity consumption noted a decrease in 2014 of 18%, resulting from years of economic recession which has caused an overall decline of about 7% in the period from 2010 to 2014. In 2014, there was also a sharp decrease of gas-fired electricity production and a surge of net imports. The contribution of RES amounted to 17.9% of the total energy but there was a drastic drop of the rate of building new RES capacity, due to several and subsequent changes in the legal

¹ Hellenic Ministry of Environment, Energy and Climate Change 2010, *National Renewable Energy Action Plan in the Scope of Directive 2009/28/EC*, viewed 17 January 2017, <http://www.vpeka.gr/LinkClick.aspx?fileticket=CEYdUkQ719k%3D&tabid=37>, p.55.

² RAE, December 2014, 2014 National Report to the European Commission (Covering the period 01.01.2013 – 31.12.2013), viewed 17 January 2017, http://www.rae.gr/site/file/system/docs/ActionReports/national_2014.jsessionid=d14dbddf8dc43a0873a94f90ac2d513d7fc7075649405976b67596b0b822c45f.e38OchqPa34Na40LbhaRax4Mb3aOe6fznA5Pp7ftolbGmkTy, p.53.

³ RAE, October 2015, 2015 National Report to the European Commission (Covering the period 01.01.2014 – 31.12.2014), viewed 17 January 2017, http://www.ceer.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/NATIONAL_REPORTS/National_Reporting_2015/NR_En/C15_NR_Greece-EN.pdf, p.47.

⁴ European Commission, DG Energy 2014, *EU Energy Markets in 2014*, viewed 17 January 2017, http://ec.europa.eu/energy/sites/ener/files/documents/2014_energy_market_en.pdf, p.65.

⁵ European Commission, July 2014, C(2014)5837 final – SA.36323 (2013/NN) Greece 'Liquidity support in the energy sector: PPC', viewed 17 January 2017, http://ec.europa.eu/competition/state_aid/cases/247956/247956_1580409_79_2.pdf, pp.2-6.

framework in 2013 and 2014⁶. Finally, in 2014, the installed capacity of solar photovoltaic (PV) units reached 2,603 MW, of which approximately 15% were installed in the residential sector producing 3.856 TWh of solar electricity, equal to 7.6% of gross electricity consumption, higher than the EU average⁷.

According to 2015 data, the national Grid amounts to 236,290 km (111,130 Medium Voltage and 125,160 Low Voltage) and 7,438,455 customers (11,444 Medium Voltage and 7,427,011 Low Voltage)⁸.

Market Operators

The activities of generation, supply, purchase, transport and distribution of electricity within the Greek territory are activities of general interest, subject to State supervision⁹. The PPC was founded in 1950 to carry out exclusively the abovementioned activities¹⁰. The former monopoly and current dominant position of the PPC is the main feature of the Greek electricity market. Since 2000 there have been several initiatives to reform its structural profile and allow the opening of competition. The country's wholesale electricity market is organised as a pure mandatory pool since 2005 and the PPC remains dominant in both the generation and retail sectors relying on exclusive access to cheap lignite and hydro resources¹¹.

The unbundling and privatisation of PPC as well as granting access to competitors to its lignite-fired generation capacity and hydro reserves has been steadily included and firmly required by the Economic Adjustment Programmes between Greece and the joint European Commission-European Central Bank (ECB)-IMF mission (the so called 'Troika').

In the generation sector two new Independent Power Producers (IPPs) entered into commercial operation for the first time in 2010. At the end of 2014, eight IPP gas plants were active in the wholesale market¹²:

- Enthess (389 MW) and Thisvi (410 MW), both Combined Cycle Gas Turbine (CCGT) plants, owned by Elpedison S.A.
- Heron II (422 MW, CCGT) and Heron I (147.5 MW, Open Cycle Gas Turbine - OCGT), owned by Heron Thermoelectric S.A. (GEK Terna - Gdf Suez).
- Protergia (433 MW, CCGT), Korinthos Power (434 MW, CCGT) and Alouminion (334MW, large-scale CHP), owned by the Mytilinaios Group.

⁶ RAE, October 2015, 2015 National Report to the European Commission (Covering the period 01.01.2014 – 31.12.2014), viewed 17 January 2017,

http://www.ceer.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/NATIONAL_REPORTS/National_Reporting_2015/NR_En/C15_NR_Greece-EN.pdf, pp.7, 39.

⁷ BEUC, January 2016, 'Current practices in consumer-driven renewable electricity markets', viewed 17 January 2017, http://www.beuc.eu/publications/beuc-x-2016-003_jmu_current_practices_in_consumer_driven_renewable_electricity_markets.pdf, pp.82-83.

⁸ Website of the Hellenic Electric Distribution Network Operator, viewed 17 January 2017, <http://www.deddie.gr/el/to-diktuo-ilektrismou/vasika-megethi-tou-diktuou-ilektrismou>.

⁹ Law 2773/1999 (OJ A'286/22.12.1999) 'Liberalisation of the electricity market – regulating energy policy issues and other provisions' [Νόμος 2773/1999 (ΦΕΚ Α'286/22.12.1999) «Απελευθέρωση της αγοράς ηλεκτρικής ενέργειας - Ρύθμιση θεμάτων ενεργειακής πολιτικής και λοιπές διατάξεις»], as amended and in force on 17 January 2017, Article 1; Law 4001/2011 (OJ A' 179 A'/22.08.2011) 'For the operation of Energy Markets, Electricity Power and Gas, for Research, Production and transmission networks of Hydrocarbons and other provisions' [Νόμος 4001/2011 (ΦΕΚ Α' 179 A'/22.08.2011) «Για τη Λειτουργία Ενεργειακών Αγορών, Ηλεκτρισμού και Φυσικού Αερίου, για Έρευνα, Παραγωγή και δίκτυα μεταφοράς Υδρογονανθράκων και άλλες ρυθμίσεις»] as amended and in force on 17 January 2017, Article 1.

¹⁰ PPC web-portal, <https://www.dei.gr/el/i-dei/i-etairia/omilos-dei-ae/dei-ae>, viewed 17 January 2017.

¹¹ RAE, October 2015, 2015 National Report to the European Commission (Covering the period 01.01.2014 – 31.12.2014), viewed 17 January 2017,

http://www.ceer.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/NATIONAL_REPORTS/National_Reporting_2015/NR_En/C15_NR_Greece-EN.pdf, p.21.

¹² RAE, October 2015, 2015 National Report to the European Commission (Covering the period 01.01.2014 – 31.12.2014), viewed 17 January 2017:

http://www.ceer.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/NATIONAL_REPORTS/National_Reporting_2015/NR_En/C15_NR_Greece-EN.pdf, p.28.

- A cogeneration unit of 2 MW net capacity, with very limited activity in 2013, owned by the Motor Oil refinery.

At the end of 2014, seven electricity suppliers, other than PPC, were active in the retail market¹³:

- ELPEDISON ENERGY S.A.
- WATT & VOLT S.A.
- HERON THERMOELECTRIC S.A.
- GREEK ENVIRONMENTAL & ENERGY NETWORK S.A.
- VOLTERRA S.A.
- PROTERGIA THERMOELECTRIC AGIOS NIKOLAOS S.A.
- NRG TRADING HOUSE S.A.

1. What types of residential prosumers are there in your country on the basis of type of RES used and size of the installation?

Answer:

Law 2773/1999¹⁴ sets a general definition of ‘self-producer’ (*αυτοπαραγωγός*) referring to ‘the producer who generates electricity power mainly for his own use’.

Law 3468/2006¹⁵ specified the above definition within its scope of application, i.e. as regards generation of electricity from RES and High-Efficiency Cogeneration of Heat and Power (HECHP). ‘Self-producer of electricity power from RES or HECHP’ is the producer who generates power from RES or HECHP units, mainly for his own use, and channels any surplus of the above power into the System of the Grid.

Law 3468/2006, as most recently amended in 2016¹⁶ now also includes definitions of ‘energy offsetting’ (*ενεργειακός συμψηφισμός*) and virtual energy offsetting (*εικονικός ενεργειακός συμψηφισμός*) to regulate the netting of electricity generated from a RES or HECHP installation of a self-producer with the power that is being consumed by others.

While the definitions of Law 3468/2006 apply to all forms of RES (wind, solar, aerothermal, geothermal, hydrothermal and marine energy, hydroelectric, biomass, landfill and waste treatment installation gas and biogas)¹⁷, the law encompasses a specific provision (Article 14A) on small

¹³ RAE, October 2015, 2015 National Report to the European Commission (Covering the period 01.01.2014 – 31.12.2014), viewed 17 January 2017:

http://www.ceer.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/NATIONAL_REPORTS/National_Reporting_2015/NR_En/C15_NR_Greece-EN.pdf, p.40.

¹⁴ Law 2773/1999 (OJ A'286/22.12.1999) ‘Liberalisation of the electricity market – regulating energy policy issues kai other provisions’ [Νόμος 2773/1999 (ΦΕΚ Α'286/22.12.1999) «Απελευθέρωση της αγοράς ηλεκτρικής ενέργειας - Ρύθμιση θεμάτων ενεργειακής πολιτικής και λοιπές διατάξεις»], as amended and in force on 17 January 2017, Article 2.

¹⁵ Law 3468/2006 (OJ A'129/27.06.2006) ‘Production of Electricity from Renewable Energy Sources and High-Efficiency Cogeneration of Heat and Power and other provisions’ [Νόμος 3468/2006 (ΦΕΚ Α'129/27.06.2006) «Παραγωγή Ηλεκτρικής Ενέργειας από Ανανεώσιμες Πηγές Ενέργειας και Συμπαράγωγή Ηλεκτρισμού και Θερμότητας Υψηλής Απόδοσης και λοιπές διατάξεις»], as amended and in force on 17 January 2017, Article 2(6).

¹⁶ Law 4414/2016 (OJ A'149/09.08.2016) ‘New support regime for power plants using Renewable Energy Sources and High-Efficiency Cogeneration of Heat and Power - Provisions for legal and functional separation of the supply and distribution chains in the natural gas market and other provisions’ [Νόμος 4414/2016 (ΦΕΚ Α'149/09.08.2016) «Νέο καθεστώς στήριξης των σταθμών παραγωγής ηλεκτρικής ενέργειας από Ανανεώσιμες Πηγές Ενέργειας και Συμπαράγωγή Ηλεκτρισμού και Θερμότητας Υψηλής Απόδοσης - Διατάξεις για το νομικό και λειτουργικό διαχωρισμό των κλάδων προμήθειας και διανομής στην αγορά του φυσικού αερίου και άλλες διατάξεις»].

¹⁷ Article 2(2) of Law 3468/2006 as amended by Law 4062/2012 (OJ A'28/2012) ‘Approval of the Plans for Credit Facilitation Agreements between the European Financial Stability Facility (EFSF), the Hellenic Republic and the Bank of Greece, the Draft Memorandum of Understanding between the Hellenic Republic, the European Commission and the Bank of Greece and other urgent provisions for reduction of public debt and recovery of the national economy’ [Νόμος 4062/2012 (ΦΕΚ Α'28/2012) «Εγκριση των Σχεδίων Συμβάσεων Χρηματοδοτικής Διευκόλυνσης μεταξύ του Ευρωπαϊκού Ταμείου Χρηματοπιστωτικής Σταθερότητας (Ε.Τ.Χ.Σ.), της Ελληνικής Δημοκρατίας και της Τράπεζας της Ελλάδος, του Σχεδίου

PV plants and small wind power plants, biomass/biogass/bioliquid plants and small hydroelectric plants and HECHP plants installed by self-producers for the coverage of their own needs.

Under Law 3468/2006, wind power plants of up to 50kW connected to the mainland grid are eligible for the **net metering scheme**. Furthermore, upon the legal authorization (delegation of legislative power) provided in Article 14A, a detailed Ministerial Decision (MD)¹⁸ lays down all the specifications for the installation of PV plants of **up to 20kWp** for the mainland and Crete and of **up to 10kWp** for the NIIs by self-producers and sets the framework for the net metering scheme for PVs. MD 24461/2014 specifies that the scheme may be used by all natural persons and all legal persons governed by public or private law who hold legal entitlements (ownership or right of use) and also foresees the development of PV installations in shared or jointly owned spaces¹⁹. It is applicable to fixed PV systems which are installed in the same or adjacent space as the consuming installations they supply. The PV plants may be installed on buildings or on land or on other installations, including in the primary sector, e.g. farm warehouses, farms. A similar MD has not been identified as regards small wind turbine plants installed by self-producers, despite the fact that Article 14A of Law 3468/2006 mentions them in its title.

Small PV plants of **up to 10 kWp** for the mainland, the Interconnected Islands and Crete and of **up to 5kWp** for the NIIs were separately regulated already since 2009 through the Special Program for the Development of PV Systems on buildings and especially on lofts and rooftops²⁰. MD 1079/2009 supports electricity generation by fixed PV systems of up to 10 kWp installed on the roof or loft of a building, on awnings, façades and auxiliary spaces such as warehouses and parking areas, through a guaranteed feed-in tariff. The program is applicable to non-professionals natural persons, i.e. private individuals (*φυσικά πρόσωπα μη επιτηδευματίες*) as well as to natural or legal persons who act as professionals, i.e. small enterprises. It also foresees the development of PV installations in shared or jointly owned spaces.

The latest ‘energy package’, Law 4001/2011, also defines ‘self-producer’ as the producer who generates power, mainly for his own use, and channels any surplus of the above power into the transmission or the distribution system²¹.

2. What is the institutional framework & division of competences regarding residential prosumers in your country?

Answer:

Energy policy in Greece is steered by the Ministry of Environment and Energy (*Υπουργείο Περιβάλλοντος και Ενέργειας*) which is responsible for the overall national energy strategy and the energy legal framework and by the RAE which is established as an independent administrative authority²². The RAE monitors the operation of all energy sectors (electricity, natural gas, oil products, RES, cogeneration of electricity and heat etc). It makes recommendations within its field of competence during the preparation and drafting of legislative acts to ensure open and fair competition and consumer protection. In terms of regulatory power RAE’s opinion is required for

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¹⁸ Ministerial Decision 24461/2014 (OJ B’ 3583/31.12.2014) ‘Installation of RES units by self-producers with energy offsetting in application of Article 14A of Law 3468/2006’ [Υπουργική Απόφαση 24461/2014 (ΦΕΚ Β’3583/31.12.2014) «Εγκατάσταση μονάδων ΑΠΕ από αυτοπαραγωγούς με συμψηφισμό ενέργειας κατ’ εφαρμογή του άρθρου 14Α του Ν.3468/2006»].

¹⁹ MD 24461/2014, Article 1(4) and 1(5).

²⁰ Ministerial Decision 1079/2009 (OJ B’ 1079/04.06.2009) ‘Special Program for the Development of Photovoltaic Systems on buildings and especially on lofts and rooftops’ [Υπουργική Απόφαση 4/2009 (ΦΕΚ Β’1079/04.06.2009) «Ειδικό Πρόγραμμα Ανάπτυξης Φωτοβολταϊκών Συστημάτων σε κτιριακές εγκαταστάσεις και ιδίως σε δώματα και στέγες κτιρίων”].

²¹ Law 4001/2011, Article 2(3).

²² Law 2773/1999, Article 4.

the enactment of secondary legislation and it also has self-standing regulatory power. Its Decisions which are published in the Official Journal, are legally binding and regulate all aspects of the functioning of the electricity market, the transmission system and the distribution network, e.g. the Codes adopted in compliance with Directive 2009/72/EC. The RAE also monitors the management and allocation of interconnection capacity, the time for connections and repairs to the network, the publication of all appropriate information by the market operators, the terms and tariffs for third party access, the unbundling of accounts, the level of transparency and competition in the energy market and the security of supply²³. It grants electricity generation permits (*άδεια παραγωγής*) and electricity supply and trading permits²⁴ and, subsequently, monitors the exercise of the activities undertaken by the permit holders. It also acts as a redress, sanctioning and arbitration mechanism for the settlement of disputes with respect to complaints against the transmission or distribution system operator or the undertakings carrying out energy activities²⁵.

Pursuant to Article 20 of Law 3468/2006, a specialised unit is established within the Ministry of Environment and Energy, the RES Service (*Υπηρεσία ΑΠΕ*)²⁶ responsible for providing investors with information on the institutional, legal, fiscal and financial framework for investment in RES projects.

The most important barrier to market opening and competition was the dominance of the PPC in the generation market and the lack of other vertically integrated companies (with generation and supply portfolios). As mentioned above, Law 4001/2011 provided for the legal and operational unbundling of PPC's distribution activities. In terms of changes in network regulation, the legislation has undergone several modifications in the past years which makes it complex to understand the unbundling progress and the current competences of each of the actors involved. Law 4001/2011 which is the national measure transposing Directives 2009/72/EC and 2009/73/EC²⁷, provided for the legal and operational unbundling of PPC's distribution activities, as follows²⁸:

- The PPC undertakes lignite mining, generation and supply of electricity.
- The development, operation and maintenance of the national transmission system follows the ITO model The Independent Power Transmission Operator S.A. (*ADMIE*)²⁹ is a wholly-owned subsidiary of the PPC. It conducts the real time dispatch, the clearing of the imbalance market and the settlement of all other charges or payments³⁰.
- The management, operation, maintenance and development of the distribution network as well as to receive applications from producers for connection to the Grid³¹ is the responsibility of another wholly-owned subsidiary of the PPC, the Hellenic Electric Distribution Network Operator S.A. (*DEDDIE*)³².

²³ Law 4001/2011, Articles 12-26 and website of the RAE,

http://www.rae.gr/site/en_US/categories_new/about_rae/domain.csp, viewed 17 January 2017.

²⁴ Law 4001/2011, Articles 132-135.

²⁵ Law 4001/2011, Articles 34-37.

²⁶ <http://www.ypeka.gr/Default.aspx?tabid=546>

²⁷ Law 4001/2011 (OJ A' 179 A'/22.08.2011) 'For the operation of Energy Markets, Electricity Power and Gas, for Research, Production and transmission networks of Hydrocarbons and other provisions' [*Νόμος 4001/2011 (ΦΕΚ Α' 179 Α'/22.08.2011) «Για τη Λειτουργία Ενεργειακών Αγορών, Ηλεκτρισμού και Φυσικού Αερίου, για Έρευνα, Παραγωγή και δίκτυα μεταφοράς Υδρογονανθράκων και άλλες ρυθμίσεις»*] as amended and in force on 17 January 2017.

²⁸ European Commission, July 2014, C(2014)5837 final – SA.36323 (2013/NN) Greece 'Liquidity support in the energy sector: PPC', viewed 17 January 2017, http://ec.europa.eu/competition/state_aid/cases/247956/247956_1580409_79_2.pdf, pp.3-4.

²⁹ <http://www.admie.gr/nc/en/home/>.

³⁰ RAE, October 2015, 2015 National Report to the European Commission (Covering the period 01.01.2014 – 31.12.2014), viewed 17 January 2017,

http://www.ceer.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/NATIONAL_REPORTS/National_Reporting_2015/NR_En/C15_NR_Greece-EN.pdf, p.21.

³¹ There is a detailed section on DEDDIE's website, with all the necessary information and application forms, distinct between PV and other RES installations, <http://www.deddie.gr/el/sundeseis-stathmwn-ananewsimwn-pigwn-energeias-ape>, viewed 17 January 2017.

³² <http://www.deddie.gr/en>.

- Law 4001/2011 also established the Operator of the Electricity Market as a 100% State owned company (**LAGIE**)³³ whose main function is the clearing of payments, i.e. receiving payments for power by the electricity suppliers and making payments to power producers and engaging into contracts with renewable energy producers.

The privatisation of the PPC remains one of the key elements of the ongoing transformation of the energy sector. Following an Expression of Interest Phase, 24% of ADMIE was sold to the Chinese company State Grid in the end of 2016³⁴.

The supervision of the national energy market is carried out by the RAE. More details on its powers and competences are provided in the respective sections that follow.

All building interventions are subject to a building permit, pursuant to the provisions of Law 4067/2012³⁵. Building permits are issued by the Building Services (*Υπηρεσίες Δόμησης*) of the Municipalities and in cases of installations of great environmental and urban significance or exceeding 3,000m² by the Building Permit Regulations Directorate of the Ministry of Environment and Energy³⁶.

Energy related activities are, in principle, subject to an environmental impact assessment (EIA) procedure. Law 4014/2011³⁷ on the environmental licensing of projects and activities and numerous MDs classify projects and activities depending on their volume. Category A contains projects with potential significant effects on the environment, while Category B contains projects with local and non-significant environmental impacts. Category A is further subdivided into two subcategories, namely A1, regarding projects with severe (very significant) environmental impacts and A2, regarding projects with significant environmental impacts. The main difference between the two subcategories of Category A is the authority competent for issuing the Decision on the EIA approval. In specific, subcategory A1 projects and activities are licensed by the Minister of Environment, while subcategory A2 projects are licensed through a relevant Decision issued by the General Secretary of the competent Decentralized Administration. The second Category, namely B, includes projects and activities which are characterized by local and non-significant environmental effects. These projects shall be subject to general requirements, set for the protection of the environment. These general requirements have been determined for a number of project types and are entitled Standard Environmental Commitments (PPD). PPDs for RES projects and activities are implemented by the authority competent to grant the power generation permit or the Directorate of Environment and Spatial Planning of the Decentralised Administration (*Διεύθυνση Περιβάλλοντος και Χωρικού Σχεδιασμού Αποκεντρωμένων Διοικήσεων*)³⁸.

³³ <http://www.lagie.gr/nc/en/home/>.

³⁴ News portal 'www.skai.gr', 16 December 2016, 'PPC: The sale of 24% of ADMIE to the Chinese State Grid was signed' [*«ΔΕΗ: Υπεγράφη η πώληση του 24% της ΑΔΜΗΕ στην κινεζική State Grid»*], viewed 17 January 2017, <http://www.skai.gr/news/finance/article/333857/dei-ypegrafi-i-polisi-tou-24-tis-admie-stin-kineziki-state-grid/>.

³⁵ Law 4067/2012 (OJ A'79/09.04.2012) 'New Building Regulation' [*Νόμος 4067/2012 (ΦΕΚ Α'79/09.04.2012) «Νέος Οικοδομικός Κανονισμός»*].

³⁶ Law 4030/2011 (OJ A'249/25.11.2011) 'New issuing procedure of building permits, installation controls and other provisions' [*Νόμος 4030/2011 (ΦΕΚ Α'249/25.11.2011) «Νέος τρόπος έκδοσης αδειών δόμησης, ελέγχου κατασκευών και λοιπές διατάξεις»*].

³⁷ Law 4014/2011 (OJ A'209/21.09.2011) 'Environmental licensing of works and activities, regulation of illegal constructions in connection with environmental stability and other provisions falling under the competence of the Ministry of Environment' [*Νόμος 4014/2011 (ΦΕΚ Α' 209/21.09.2011) «Περιβαλλοντική αδειοδότηση έργων και δραστηριοτήτων, ρύθμιση αυθαιρέτων σε συνάρτηση με δημιουργία περιβαλλοντικού ισοζυγίου και άλλες διατάξεις αρμοδιότητας Υπουργείου Περιβάλλοντος»*].

³⁸ Ministerial Decision 3791/2013 (OJ B' 104/24.01.2013) 'Standard Environmental Commitments for Renewable Energy Sources projects classified under Category B of Group 10 "Renewable Energy Sources" of Annex X of MD 1958/2010 (B'21), numbers 1,2,8 and 9' [*Υπουργική Απόφαση 3791/2013 (ΦΕΚ Β' 104/24.01.2013) «Πρότυπες Περιβαλλοντικές Δεσμεύσεις (ΠΠΔ) για έργα Ανανεώσιμων Πηγών Ενέργειας που κατατάσσονται στην Β Κατηγορία της 10ης Ομάδας «Ανανεώσιμες Πηγές Ενέργειας» του Παραρτήματος Χ της υπ1 αριθμ. 1958/2012 (Β' 21) υπουργικής απόφασης, με α/α 1,2,8 και 9»*].

Specific Questions on the regulatory framework for residential prosumers**3. What is the regulatory framework for residential prosumers in your country?****General**

The Greek regulatory framework for residential prosumers is part of the rather vast and complex Greek legislation applicable to electricity generation, RES and HECHP. Energy legislation is set up by a great number of laws which are constantly amended and/or supplemented by new stand-alone provisions of the amending acts. A series of secondary legislation, mainly Ministerial Decisions, should be jointly considered as it provides the legally binding, specific and more technical details for implementation. It should be highlighted that since 2010 Greece had to adopt numerous measures in order to comply with the requirements of the Economic Adjustment Programmes, under the pressure of the periodic evaluations and of ensuring disbursement of the next tranche. This had an impact on the volume and clarity of the legislation in all policy areas, including energy, where several old and new provisions apply at the same time, with no apparent logic or coherence. The present study is based on the latest consolidated versions (January 2017) of the acts in question, as available on the legal database NOMOS³⁹.

From the legal acts (laws and MDs) reviewed for the present study the most relevant to residential consumers are the following⁴⁰:

- Law 2773/1999 ‘Liberalisation of the electricity market – regulating energy policy issues and other provisions sets the general framework and establishes the RAE (transposing act for Directive 96/92/EC). Most of its substantial provisions regulating power generation were repealed by Law 4001/2011 which now consists the ‘core’ energy act.
- Law 3468/2006 ‘Production of Electricity from Renewable Energy Sources and High-Efficiency Cogeneration of Heat and Power and other provisions’ (in its initial version transposed Directive 2001/77/EC). Since its adoption it was amended several times and some of its recent, most important amending acts are:
 - Law 3851/2010⁴¹ ‘Accelerating the development of Renewable Energy Sources to deal with climate change and other regulations addressing issues under the authority of the Ministry of Environment, Energy and Climate Change’ which aimed to simplify some administrative procedures and resolve some grid issues⁴² (transposing act for Directive 2009/28/EC);
 - Law 4203/2013 ‘Regulating RES issues and other provisions’
 - Law 4062/2012 which, among others, established the ‘HELIOS Programme’ (Πρόγραμμα ΗΛΙΟΣ) to utilise the national solar energy potential (transposing act for Directive 2009/28/EC).

Law 3468/2006 sets the rules for a guaranteed feed-in tariff which varies for each electricity generation technology and differentiates between different renewable electricity producers according to whether or not they are connected to the mainland grid or not. As amended and in force, it also constitutes the legal framework for the net metering system which is further specified in MD 24461/2014.

³⁹ https://lawdb.intrasoftnet.com/nomos/nomos_frame.html, accessible only for members upon subscription.

⁴⁰ See also RES Legal website, Maroulis G., Means of support of RES in Greece (updated 27.06.2016), <http://www.res-legal.eu/search-by-country/greece/tools-list/c/greece/s/res-e/t/promotion/sum/140/lpid/139/>, viewed 17 January 2017.

⁴¹ Law 3851/2010 (OJ A’85/04.06.2010) ‘Accelerating the development of Renewable Energy Sources to deal with climate change and other regulations addressing issues under the authority of the Ministry of Environment, Energy and Climate Change’ [Νόμος 3851/2010 (ΦΕΚ Α’85/04.06.2010) «Επιτάχυνση της ανάπτυξης των Ανανεώσιμων Πηγών Ενέργειας για την αντιμετώπιση της κλιματικής αλλαγής και άλλες διατάξεις σε θέματα αρμοδιότητας του Υπουργείου Περιβάλλοντος, Ενέργειας και Κλιματικής Αλλαγής»].

⁴² Metaxas A. – Tsinisizelis M. ‘The development of Renewable Energy Governance in Greece. Examples of a Failed (?) Policy’ in E. Michalena and J.M. Hills (eds.) ‘Renewable Energy Governance’ – Lecture Notes in Energy 23, Springer-Verlag, London 2013, p.156.

- Ministerial Decision 1079/2009 ‘Special Program for the Development of Photovoltaic Systems on buildings and especially on lofts and rooftops’ establishes a feed-in tariff support scheme for fixed small PV installations of up to 10 kWp, deducted from the consumers’ electricity bill⁴³.
- Law 4001/2011 ‘For the operation of Energy Markets, Electricity Power and Gas, for Research, Production and transmission networks of Hydrocarbons and other provisions’ (transposing act for Directives 2009/72 and 2009/73);
In respect of consumer protection, Law 4001/2011 comprises a distinct dedicated section (Articles 46 to 58A), applicable to ‘eligible customers’ (*επιλέγοντες πελάτες*), i.e. customers or consumers of electricity including self-producers. These provisions regulate consumers’ rights e.g. to free choice of supplier, to information, to equal treatment, to transparency and dispute resolution before the Consumer Ombudsman (*Συνήγορος του Καταναλωτή*). Law 4001/2011 specifies that its consumer protection related provisions apply without prejudice to the general consumer protection framework, i.e. Law 2251/1994.
- Ministerial Decision 24461/2014 ‘Installation of RES units by self-producers with energy offsetting in application of Article 14A of Law 3468/2006’ establishing the net metering process for the offsetting of the electricity produced by the PV installation of the self-producer with the plant’s consumed energy. Pursuant to the changes brought with Law 4414/2016, the RAE launched a public consultation (October 2016) on a draft amendment to MD 24461/2014 and to the draft Agreements on offsetting and virtual offsetting⁴⁴;
- Law 4414/2016 ‘New support regime for power plants using Renewable Energy Sources and High-Efficiency Cogeneration of Heat and Power - Provisions for legal and functional separation of the supply and distribution chains in the natural gas market and other provisions’ (applying Commission Guidelines in State aid for environmental protection and energy 2014-2020). This recent legal act introduced the ‘NOME type’ auctions aiming to give independent suppliers access to lignite and hydroelectric sources and to reduce the PPC share in the retail market with a goal of 50% by 2020⁴⁵. It also determined the new compensation reference tariffs (*τιμές αναφοράς*) for the different types of RES and HECHP stations and the details regarding the Operating Aid (*Λειτουργική Ενίσχυση*) to be granted, either as a differential premium (*διαφορική προσαύξηση*) or a fixed compensation tariff (*σταθερή τιμή αποζημίωσης*). Article 3(17) specifies that owners of PV installations under MD 1079/2009 shall be compensated and shall conclude their Netting Agreement pursuant to its provisions.

3.1. What is the existing legislative framework regulating Renewable Energy Projects in your country?

As mentioned above The Greek legislative framework regulating RES projects is quite vast. The RES Service of the Ministry of Environment and Energy maintains an online list of the legal acts consisting the RES legal framework⁴⁶. This list seems to be updated regularly. There are links to the Official Journal but no consolidated versions of the main legal acts.

The most important legal acts are listed in the section right above, and in the sections that follow on permitting requirements.

⁴³ <http://www.res-legal.eu/search-by-country/greece/single/s/res-e/t/promotion/aid/feed-in-tariff-ii-pv-on-rooftops/lastp/139/>.

⁴⁴ <http://www.deddie.gr/el/kentro-enimerwsi/nea-apo-tin-eurwpaiki-elliniki-agora-energeias/enimerwsi-21102016>.

⁴⁵ WWF Greece, October 2016, 2016 Report for the implementation of environmental legislation, viewed 17 January 2017, <http://www.wwf.gr/images/pdfs/WWF-NOMOreport-2016.pdf>, p.62.

⁴⁶ Ministry of Environment and Energy website, List of RES legal framework in Greece, viewed 17 January 2017, <http://www.ypeka.gr/Default.aspx?tabid=555>.

3.2. Does the Renewables National Action Plan include any objectives for residential prosumers (if so, please specify)

The National Renewable Energy Actions Plan (NREAP) in the scope of Directive 2009/28/EC⁴⁷ was drafted and published in July 2010 therefore it describes the measures recently put in place or anticipated at the time. There are several mentions of the Special Program for the Development of PV systems on lofts and rooftops (MD 1079/2009) as a measure promoting energy efficient renewable energy technologies in buildings. The NREAP refers to the period up to 2020, however, no updated version with legislative and/or policy developments has been published.

3.3. Is there a definition (legal or regulatory) of residential prosumers (or self-consumption) in your country? If so, state it and describe the elements of this definition?

As mentioned above, Law 2773/1999 sets a general definition of ‘self-producer’ (*αυτοπαραγωγός*) referring to ‘the producer who generates electricity power mainly for his own use’. Article 2 of Law 4001/2011 defines ‘eligible customers’ (*επιλέγοντες πελάτες*) as the customers or consumers of electricity who are entitled to select a supplier or to directly purchase electricity. Law 4001/2011 also defines ‘self-producer’ as the producer who generates power, mainly for his own use, and channels any surplus of the above power into the transmission or the distribution system.

Law 3468/2006 specified the above definition within its scope of application, i.e. as regards generation of electricity from RES and HECHP. ‘Self-producer of electricity power from RES or HECHP’ is the producer who generates power from RES or HECHP units, mainly for his own use, and channels any surplus of the above power into the System of the Grid.

According to Law 3468/2006, as most recently amended in 2016⁴⁸ ‘energy offsetting’ (*ενεργειακός συμψηφισμός*) is the clearing of the power generated from the self-producer’s installation against the energy consumed in a different installation of the self-producer which is located in the same or adjacent space. Virtual energy offsetting (*εικονικός ενεργειακός συμψηφισμός*) according to the same law is the offsetting of electricity generated from a RES or HECHP installation of a self-producer against the total consumed power in his other installations, provided that at least one of them is not located in the same or adjacent space, or, if this is not the case, provided that at least one is powered through a different supply.

MD 24461/2014 specifies that ‘energy offsetting’ within its scope of application, i.e. for small PV plants, is the netting of the energy generated by the PV system against the power consumed in the self-producer’s installations which is carried out on an annual basis⁴⁹.

The net metering scheme may be used by all natural persons and all legal persons governed by public or private law who hold legal entitlements (ownership or right of use) and also foresees the development of PV installations in shared or jointly owned spaces⁵⁰.

⁴⁷ Hellenic Ministry of Environment, Energy & Climate Change, July 2010, National Renewable Energy Action Plan in the Scope of Directive 2009/28/EC, viewed 17 January 2017, <http://www.ypeka.gr/LinkClick.aspx?fileticket=CEYdUkQ719k%3D&>.

⁴⁸ Law 4414/2016 (OJ A’149/09.08.2016) ‘New support regime for power plants using Renewable Energy Sources and High-Efficiency Cogeneration of Heat and Power - Provisions for legal and functional separation of the supply and distribution chains in the natural gas market and other provisions’ [Νόμος 4414/2016 (ΦΕΚ Α’149/09.08.2016) «Νέο καθεστώς στήριξης των σταθμών παραγωγής ηλεκτρικής ενέργειας από Ανανεώσιμες Πηγές Ενέργειας και Συμπαράγωγή Ηλεκτρισμού και Θερμότητας Υψηλής Απόδοσης - Διατάξεις για το νομικό και λειτουργικό διαχωρισμό των κλάδων προμήθειας και διανομής στην αγορά του φυσικού αερίου και άλλες διατάξεις»].

⁴⁹ MD 24461/2014, Article 1(6).

⁵⁰ MD 24461/2014, Article 1(4) and 1(5).

4. What are the permitting requirements for each type of residential prosumer?

General

The activity of electricity power generation is subject to a requirement of a generation permit which is granted by the RAE. Power stations of up to 20KW, are exempted from the obligation to obtain a generation permit⁵¹. In addition, a generation permit is not required for some categories of RES and HECHP installations⁵², namely:

- geothermal stations of installed power up to 0.5 MW;
- biomass, biogas and biofuels plants of installed power up to 1 MW;
- PV or solar thermal plants of installed power up to 1 MWp;
- CHP stations of installed power up to 1 MWe;
- wind power plants with installed power up to 50 Kw;
- RES or HECHP stations installed by educational or research institutions or by the Centre for RES and Saving (CRES) on its behalf or on behalf of local authorities (municipalities and regions), of up to 5 MWe; autonomous RES or HECHP plants not connected to the system or the grid, of installed power up to 5 MWe;
- PV stations, stations of small wind turbines, biomass/biogass/bioliquid plants and small hydroelectric plants and HECHP plants (of up to maximum 500kW) installed by self-producers for the coverage of their own needs through a net metering system⁵³. For PV in particular, this applies to stations of up to 20kWp or up to 50% of the agreed power consumption if the plant exceeds the limit of 20kWp. Especially for legal persons (established under public or private law), with charitable or other public interest purposes, national or regional, the maximum power of each PV system may amount to up to 100% of the agreed power consumption.

Greece has adopted a Special Framework for Spatial Planning for Renewable Energy Sources⁵⁴ which is the legal basis for the spatial management of RES installations within the Greek territory. Its provisions are not applicable to RES electricity generation installations which are exempted from the obligation to obtain a generation permit according to Law 3468/2006⁵⁵. It also explicitly states that the installation of fixed PV systems on the roofs of all buildings and open spaces of owned land is allowed.

The installation and construction of power plants from RES or HECHP are also subject to an installation permit (*άδεια εγκατάστασης*). Depending on the Category of the project or activity under the classification for the Environmental Impact Assessment, the competent authority is the General Secretary of the Region or the Minister of Environment. The same authority is competent for granting the operation permit (*άδεια λειτουργίας*).

According to Article 13 of Law 3468/2006, the abovementioned categories of RES and HECHP installations, which are exempted from the obligation to obtain a generation permit, are also exempted from the obligation to obtain an installation and operation permit⁵⁶.

All building interventions are subject to a building permit, pursuant to the provisions of Law

⁵¹ Law 2773/1999, Article 10(3) and Law 4001/2011, Article 132(11)(a).

⁵² Law 3468/2006, Article 4.

⁵³ Law 3468/2006, Article 14A.

⁵⁴ Ministerial Decision 49828/2008 (OJ B'2464/2008) 'Approval of the special framework for spatial planning and sustainable development for the renewable energy sources and of its strategic environmental impact assessment' [Υπουργική Απόφαση 49828/2008 (ΦΕΚ Β'2464/2008) «Έγκριση ειδικού πλαισίου χωροταξικού σχεδιασμού και αειφόρου ανάπτυξης για τις ανανεώσιμες πηγές ενέργειας και της στρατηγικής μελέτης περιβαλλοντικών επιπτώσεων αυτού»].

⁵⁵ MD 49828/2008, Article 3(1)(a).

⁵⁶ Law 3468/2006, Article 8(13).

4067/2012⁵⁷. Building permits are issued by the Building Services (*Υπηρεσίες Δόμησης*) of the Municipalities and in cases of installations of great environmental and urban significance or exceeding 3,000m² by the Building Permit Regulations Directorate of the Ministry of Environment and Energy⁵⁸. However, a building permit is not required, amongst others, in the following cases⁵⁹:

- placing exterior heat isolation or passive solar systems to external facades of existing buildings as long as these are not altered;
- installing HECHP systems
- installing solar water heaters.

In the above cases, only an ‘approval of small scale works’ (*έγκριση εργασιών μικρής κλίμακας*) is required⁶⁰. The procedure and documentation required for this approval are simpler than for the building permit.

In principle, RES and HECHP which are not subject to a generation permit and installation and operation permit requirements still have to obtain an EIA Approval or a PPD. There are, however, some exceptions from the obligation of environmental permitting. According to Article 13 of Law 3468/2006, PV stations and wind turbines installed on buildings or other constructions or within organised receptors of industrial activities are exempted from the obligation to obtain an EIA Approval⁶¹. In addition, the following types of power generation plants from RES installed only require an exemption certificate (*βεβαίωση απαλλαγής*)⁶²:

- of up to 0.5 MW for geothermal plants;
- of up to 0.5 MW for PV or solar thermal plants;
- of up to 20 Kw wind power plants.

The above exemptions from environmental licensing do not apply when the installations are located within a Natura 2000 site or in coastal zones located in less than 100m from the foreshore limit or in cases where there is already an identical RES installation in a distance below 150m and the total power would exceed the above limits.

Finally, the owner of an installation, after signing the Connection Agreement (see more details on the procedure below), is obliged to submit a guarantee letter, but this obligation does not apply to RES plants installed on buildings, regardless their power⁶³.

⁵⁷ Law 4067/2012 (OJ A'79/09.04.2012) 'New Building Regulation' [*Νόμος 4067/2012 (ΦΕΚ Α'79/09.04.2012) «Νέος Οικοδομικός Κανονισμός»*].

⁵⁸ Law 4030/2011 (OJ A'249/25.11.2011) 'New issuing procedure of building permits, installation controls and other provisions' [*Νόμος 4030/2011 (ΦΕΚ Α'249/25.11.2011) «Νέος τρόπος έκδοσης αδειών δόμησης, ελέγχου κατασκευών και λοιπές διατάξεις»*].

⁵⁹ Law 4067/2012 (OJ A'79/09.04.2012) 'New Building Regulation' [*Νόμος 4067/2012 (ΦΕΚ Α'79/09.04.2012) «Νέος Οικοδομικός Κανονισμός»*], Article 4.

⁶⁰ Ministerial Decision 5219/2004 (OJ D' 114/17.02.2004) 'Small scale building works for which a Works Approval is needed instead of a Building Permit' [*Υπουργική απόφαση 5219/2004 (ΦΕΚ Δ' 114/17.02.2004) «Καθορισμός εργασιών δόμησης μικρής κλίμακας για τις οποίες αντί της έκδοσης άδειας δόμησης απαιτείται Έγκριση Εργασιών»*]; Ministerial Decision 36720/2010 (OJ AAP' 376/06.09.2010) 'Approval of the specific conditions for the installation of PV and solar systems on buildings and land in areas within the urban plan and in settlements' [*Υπουργική Απόφαση 36720/2010 (ΦΕΚ ΑΑΠ' 376/06.09.2010) «Έγκριση ειδικών όρων για την εγκατάσταση φωτοβολταϊκών και ηλιακών συστημάτων σε κτίρια και οικοπέδα εντός σχεδίου περιοχών, και σε οικισμούς»*]; Decision 40158/2010 (OJ B' 1556/22.09.2010) 'Approval of the specific conditions for the installation of PV and solar systems on land and buildings in areas outside the urban plan' [*Υπουργική Απόφαση 40158/2010 (ΦΕΚ Β' 1556/22.09.2010) «Έγκριση ειδικών όρων για την εγκατάσταση φωτοβολταϊκών και ηλιακών συστημάτων σε γήπεδα και κτίρια σε εκτός σχεδίου περιοχές»*].

⁶¹ Law 3468/2006, Article 8(13) and Annex X of MD 1958/2010 (OJ B'21/13.01.2012) 'Classification of public and private projects and activities into categories and subcategories in accordance with Article 1(4) of Law 4014/2011 (OJ A 209/2011)' [*ΚΥΑ 1958/2012 (ΦΕΚ Β'21/13.01.2012) «Κατάταξη δημόσιων και ιδιωτικών έργων και δραστηριοτήτων σε κατηγορίες και υποκατηγορίες σύμφωνα με το Άρθρο 1 παράγραφος 4 του Ν. 4014/21.09.2011 (Φ.Ε.Κ. Α'209/2011)»*].

⁶² Law 3468/2006, Article 8(13).

⁶³ Law 3468/2006, Article 8(15).

4.1. Does your country recognize certain forms of self-consumption and subject prosumers to certain:

- requirements,
 - application fees and
 - one-off costs
- in order to give them a **permit or licence to generate energy**?

*For the sake of clarity, the elements of the **feed-in tariff for PV on rooftops and the net metering system** will be presented separately, where necessary, in the following sections.*

MD 1079/2009 - Special Program for the Development of Photovoltaic Systems on buildings and especially on lofts and rooftops⁶⁴:

As presented in detail in the above section on permitting requirements, the national framework exempts PV stations of up to 10kWp (mainland and Crete) and 5kWp (NIIs) installed on buildings used as a residence or a very small enterprise from the usual permitting requirements, i.e. generation permit, installation and operation permit, building permit and EIA Approval.

There are however some specific requirements for participating in the scheme⁶⁴:

- there has to be an active power supply/consumption connection (low voltage) in the name of the owner of the building where the PV system will be installed;
- part of the thermic needs in hot water of the property of the owner of the PV installation, given that it is used as a residence, should be covered using RES, such as solar thermal panels;
- the PV system should not benefit from any public support or funding programme, e.g. Investment law provisions or EU funding;
- the installation should not be placed, under no circumstances, on the ground;
- in case of PV plants in shared or jointly owned spaces of the building, only one system is allowed and the approval of all the co-owners is required.

The DEDDIE has compiled a comprehensive Q&A document, listing all requirements and the process in detail⁶⁵:

- The owner of the PV plant submits a connection request (*αίτηση σύνδεσης*)⁶⁶ and the documents listed therein, to the local unit of DEDDIE. The applicant should have already chosen the type of equipment that will be installed, and the relevant technical study should have been implemented.

The local unit of DEDDIE should examine the request within twenty days and send the applicant a written Connection Offer (*Προσφορά Σύνδεσης*) which describes the connection works and their cost and is binding for three months.

The applicant should then submit an application to conclude the Connection Agreement (*αίτηση κατάρτισης της Σύμβασης Σύνδεσης*) which is signed together with the payment of the connection works.

In cases where the distance between the property on which the PV plant will be installed and the DEDDIE unit is relatively small (transportation time less than two hours) and the replacement of the supply cable is not required, the cost of the connection works amounts to € 800 plus VAT. If the distance is bigger or a cable replacement is required, the cost is € 1000 plus VAT. The Q&A document notes that the above costs are indicative, provided that no additional works are necessary, other than the supply cable.

- The next step for the applicant is to submit the request for signing the Netting Agreement (*Σύμβαση Συμψηφισμού*) with his supplier (usually it is the PPC, but could also be one of the

⁶⁴ MD 1079/2009, Article 2.

⁶⁵ DEDDIE, Q&A document for the PV on rooftops Programme, viewed on 17 January 2017, available [here \(in Greek\)](#) and [here \(in English\)](#).

⁶⁶ Application form available [here](#).

IPPs). The Agreement is concluded for 25 years. MD 1079/2009 includes a table of feed-in tariffs (€/MWh) and a model agreement. The feed-in tariff is currently € 105⁶⁷ and will be gradually reduced every February and August (set price for August 2019 € 80)⁶⁸.

Usually, the Netting Agreement is signed within fifteen days from the request. The activation of the connection of the PV system takes place after the competent DEDDIE unit receives a copy of the Netting Agreement accompanied by declarations of an engineer and the owner of the PV system.

Ministerial Decision 24461/2014 ‘Installation of RES units by self-producers with energy offsetting in application of Article 14A of Law 3468/2006’:

PV stations, stations of small wind turbines, biomass/biogass/bioliquid plants and small hydroelectric plants and HECHP plants (of up to maximum 500kW) installed by self-producers for the coverage of their own needs are eligible for participation in the net metering system⁶⁹. For PV in particular, this applies to stations of up to 20kWp for the mainland and Crete and of up to 10kWp for the NIIs, or up to 50% of the agreed power consumption if the plant exceeds the limit of 20kWp or 10kWp. Especially for legal persons (established under public or private law), with charitable or other public interest purposes, national or regional, the maximum power of each PV system may amount to up to 100% of the agreed power consumption. As elaborated above, these stations are, in principle and considering their specific installed power capacity, exempted from permit granting requirements.

There are however some specific requirements for participating in the scheme⁷⁰:

- there has to be an active consumption connection in the name of the self-producer, through which his consuming installation is powered;
- the full payment of electricity bills to the relevant supplier or submission to a debt payment scheme of the relevant supplier is a prerequisite for participation;
- every PV system corresponds exclusively to **one** consumption meter;
- the installation should be fixed installed **on the same or adjacent area** as the consuming installations it supplies. The PV plants may be installed on buildings or on land or on other installations, including in the primary sector, e.g. farm warehouses, farms;
- in case of PV plants in shared or jointly owned spaces of the building, one or more systems may be installed and the approval of all the co-owners is required (a unanimous decision of the general assembly of co-owners or every co-owner’s written agreement);

The DEDDIE has compiled a comprehensive Q&A document, listing all requirements and the process in detail⁷¹:

- For consuming installations which are connected to the low voltage grid, the connection request (*αίτηση σύνδεσης*)⁷² together with all the necessary documents, shall be submitted to the local unit of DEDDIE. For consuming installations which are connected to the medium voltage grid the connection request shall be submitted to the seat of the competent Regional Directorate of DEDDIE for systems connected to the main grid and to the local unit of DEDDIE for systems connected with the NIIs. As a prerequisite, the applicant should have already chosen the type of equipment that will be installed, as well as the relevant technical study.

The competent service of DEDDIE should examine the request within one month and send the applicant a written Connection Offer (*Προσφορά Σύνδεσης*) which describes the connection works and their cost and is binding for three months. Particularly for the NIIs, the Connection Offer shall be extended to the self-producer provided there is available power

⁶⁷ As from February 2017.

⁶⁸ MD 1079/2009, Article 3(3).

⁶⁹ Law 3468/2006, Article 14A.

⁷⁰ MD 24461, Article 2.

⁷¹ DEDDIE, Q&A document for the net metering scheme, viewed on 17 January 2017, available [here](#).

⁷² Application form available [here](#).

margin for PVs in the specific power system.

The applicant should then submit an application to conclude the Connection Agreement (*αίτηση κατάρτισης της Σύμβασης Σύνδεσης*) which is signed together with the payment of the connection works.

Depending on the voltage level (low or medium), the type of the power supply (monophasic or three-phase alternating) and whether the existing consumption meter needs to be replaced or not, the cost may range from € 300 to € 650 plus VAT. The Q&A document notes that the above costs apply under the condition that grid works are not necessary for the connection.

- The next step for the applicant is to submit the request for signing the Netting Agreement (*Σύμβαση Συμψηφισμού*) with his supplier (usually it is the PPC, but could also be one of the IPPs). The Agreement is concluded for 25 years.

Usually, the Netting Agreement is signed within fifteen days from the request. The activation of the connection of the self-production PV system takes place after the self-producer has declared the installation is ready and after DEDDIE has completed any required works.

A functioning PV system operating under MD 1079/2009 may transition to the self-production with energy offsetting status of MD 24461/2014. In order to switch, the self-producer must submit a relevant application and conclude new Connection and Netting Agreements. The switching costs are born by the self-producer⁷³.

4.2. Does the national legal/regulatory framework determine the contractual conditions under which prosumers are allowed to feed or sell their surplus back into the grid or to other consumers?

MD 1079/2009 - Special Program for the Development of Photovoltaic Systems on buildings and especially on lofts and rooftops⁷³:

As mentioned above, MD 1079/2009 includes a model agreement in its Annex. The model agreement includes the contractual conditions which are reflecting the legal framework of law 3468/2006 and MD 1079/2009.

MD 24461/2014 'Installation of RES units by self-producers with energy offsetting in application of Article 14A of Law 3468/2006':

Like in the case of MD 1079/2009, MD 24461/2014⁷⁴ also incorporates a model netting agreement which specifies all the contractual terms, such as the applicable legal framework and subject matter, the duration, the tariffs and charges (competitive rates, regulated monopoly charges, utilities charges, taxes and levies), the metering method, the details on payments.

5. What are the rules applicable to the access to the grid?

General

MD 1079/2009 - Special Program for the Development of Photovoltaic Systems on buildings and especially on lofts and rooftops⁷³: The process described above should be followed by self-producers installing PVs on rooftops.

MD 24461/2014 'Installation of RES units by self-producers with energy offsetting in application of Article 14A of Law 3468/2006':

The process described above should be followed by self-producers installing PVs under the net metering scheme.

The general legal framework for RES and HECHP, namely Law 3468/2006, stipulates that in granting generation permits for RES stations in the NIIs or in areas with congested grids or other

⁷³ MD 24461/2014, Article 1(11) and Q&A document for the net metering scheme, viewed on 17 January 2017, available [here](#).

⁷⁴ MD 24461/2014, Article 5.

restrictions on the installation of RES stations, applications by self-producers should have **priority**⁷⁵ and priority shall also be given to electricity generated from RES in the interconnected system⁷⁶ and on the NIIs⁷⁷.

Finally, there is a number of regulatory acts, i.e. Decisions of the RAE, which, as mentioned above, are published in the Official Journal, are legally binding and regulate all aspects of the functioning of the electricity market, the transmission system and the distribution network. The most important and comprehensive ones are the following Codes, adopted in compliance with Directive 2009/72/EC:

- the Management Code of the Greek Electricity Transmission System of (*Κώδικας Διαχείρισης του Ελληνικού Συστήματος Μεταφοράς Ηλεκτρικής Ενέργειας*)⁷⁸ which defines the minimum technical standards, criteria and requirements for the design and operation with regard to the connection of user installations, including distribution networks, with the System, inter-connection circuits and direct lines. As stipulated in Article 96(2) of Law 4001/2011, these technical rules shall ensure the interoperability of systems shall be objective and non-discriminatory. The Transmission Management Code regulates the conditions for submitting applications and concluding agreements for access to the System, the required documents and the minimum technical and operational requirements for access to the System, ensuring that access is achieved in the most economical, transparent, direct and non-discriminatory manner.
- the Management Code of the Greek Electricity Distribution Grid (*Κώδικας Διαχείρισης του Ελληνικού Δικτύου Διανομής Ηλεκτρικής Ενέργειας*)⁷⁹ which lays down all the detailed financial and technical rules governing the planning and transactions of the electricity load and the safe functioning of the national distribution Grid. Within its scope of application, self-producers are considered ‘users’ of the Grid, both as consumers and producers⁸⁰;
- the Management Code of NIIs’ Electrical Systems (*Κώδικας Διαχείρισης Ηλεκτρικών Συστημάτων Μη Διασυνδεδεμένων Νησιών*)⁸¹ which sets the criteria applied by DEDDIE in respect of the electricity load distribution in the available generating installation, the conditions and procedure to be followed for contracts concluded by DEDDIE and the methodology for calculating the generation units’ remuneration.

5.1. What is the inter-connection configuration used for each type of residential prosumer?

Answer:

MD 1079/2009 - Special Program for the Development of Photovoltaic Systems on buildings and especially on lofts and rooftops⁷:

The PV system is connected to the low voltage grid using the same meter through which the building is supplied, as shown in the diagram below (in Greek):

⁷⁵ Law 3468/2006, Article 3(7).

⁷⁶ Law 3468/2006, Article 9(1).

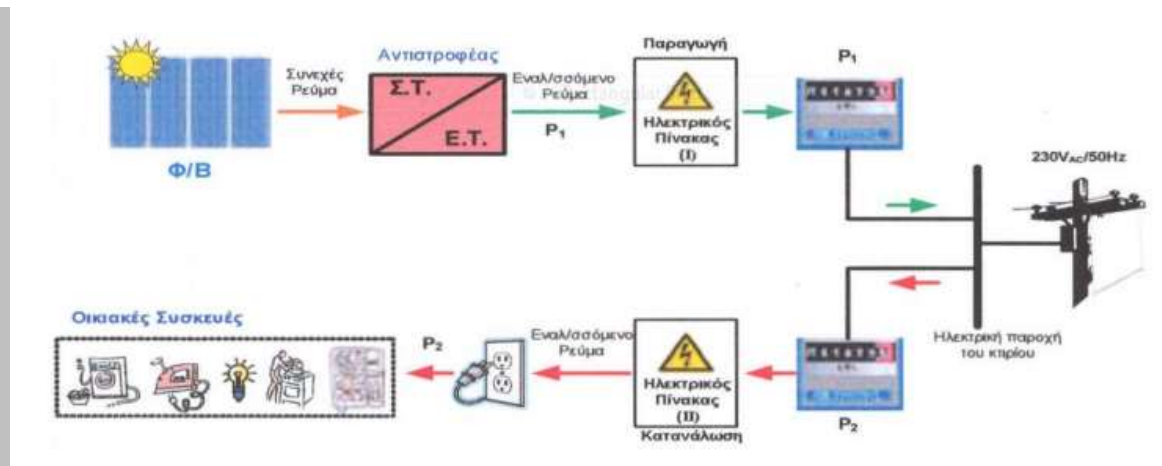
⁷⁷ Law 3468/2006, Article 10.

⁷⁸ Adopted pursuant to Article 96 of Law 4001/2011 through RAE Decision 57/2012 (OJ B’ 103/31.01.2012) and most recently amended by RAE Decision 207/2016 (OJ B’ 2763/02.09.2016).

⁷⁹ Adopted pursuant to Article 128 of Law 4001/2011 through RAE Decision 395/2016 (OJ B’ 78/20.01.2017).

⁸⁰ Article 1(2) of the Distribution Code.

⁸¹ Adopted pursuant to Article 130 of Law 4001/2011 through RAE Decision 39/2014 (OJ B’ 304/11.02.2014) and most recently amended by RAE Decision 238/2016 (OJ B’ 3286/13.10.2016).

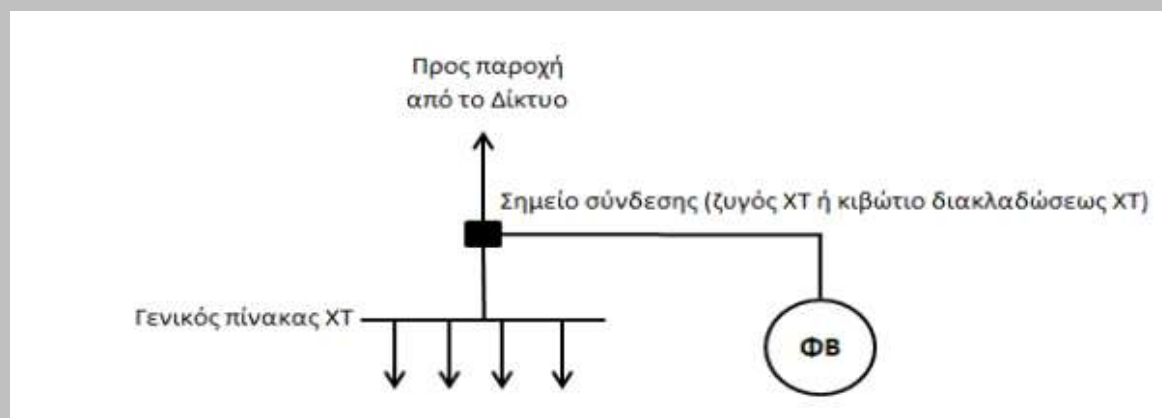


That way, the measurement of the PV system generating energy and the measurement of the energy consumed by the installation are correlated and basically, they constitute a unified total. The small capacity of the PV systems assures that the generated energy corresponds to the energy required to cover the energy needs of the owner.

MD 24461/2014 ‘Installation of RES units by self-producers with energy offsetting in application of Article 14A of Law 3468/2006’:

The connection of self-production PV systems under the net metering scheme of Law 3468/2006 and MD 24461/2014 is done through the existing power supply provision of the consuming installation. In case the PV system might be combined with an increased consumption exceeding the capacity of the existing power supply provision, an upgrade of the supply provision should take place prior to the connection request. In existing monophasic supply provisions of low voltage, the PV installation may not exceed 5Kw; if greater a conversion to three-phasing alternating supply provisions is required.

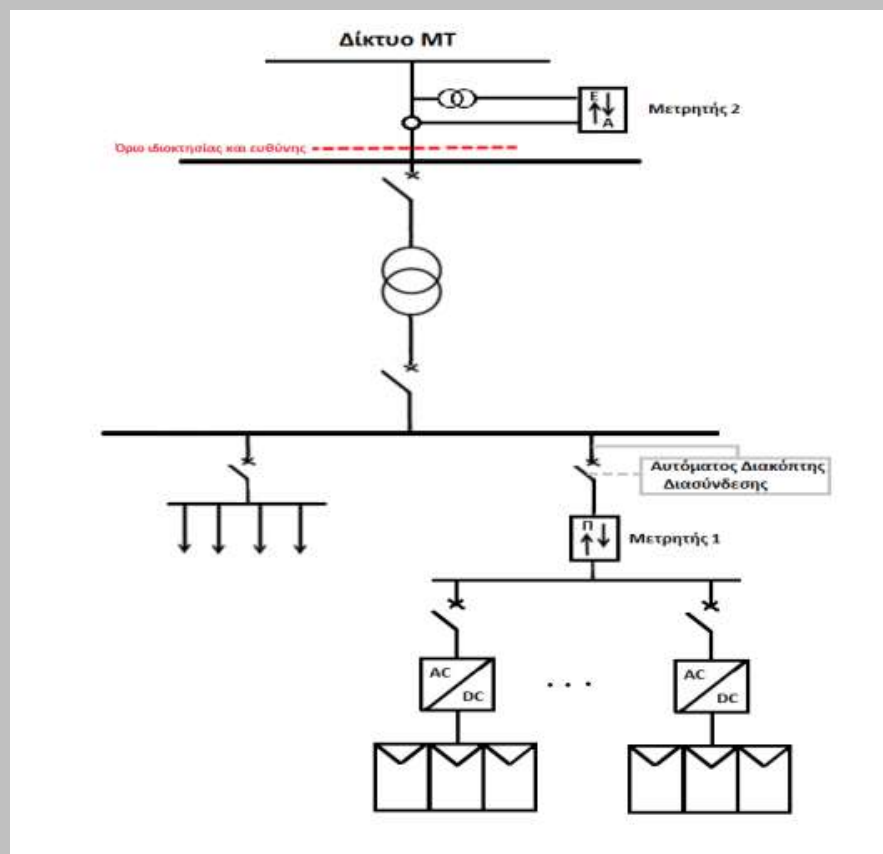
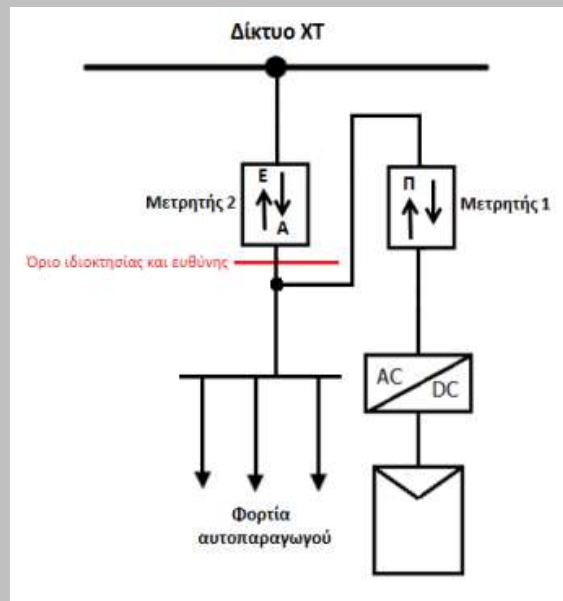
The PV system is not connected to the general, low voltage panel, but to an upstream point thereof, as shown in the diagram below:

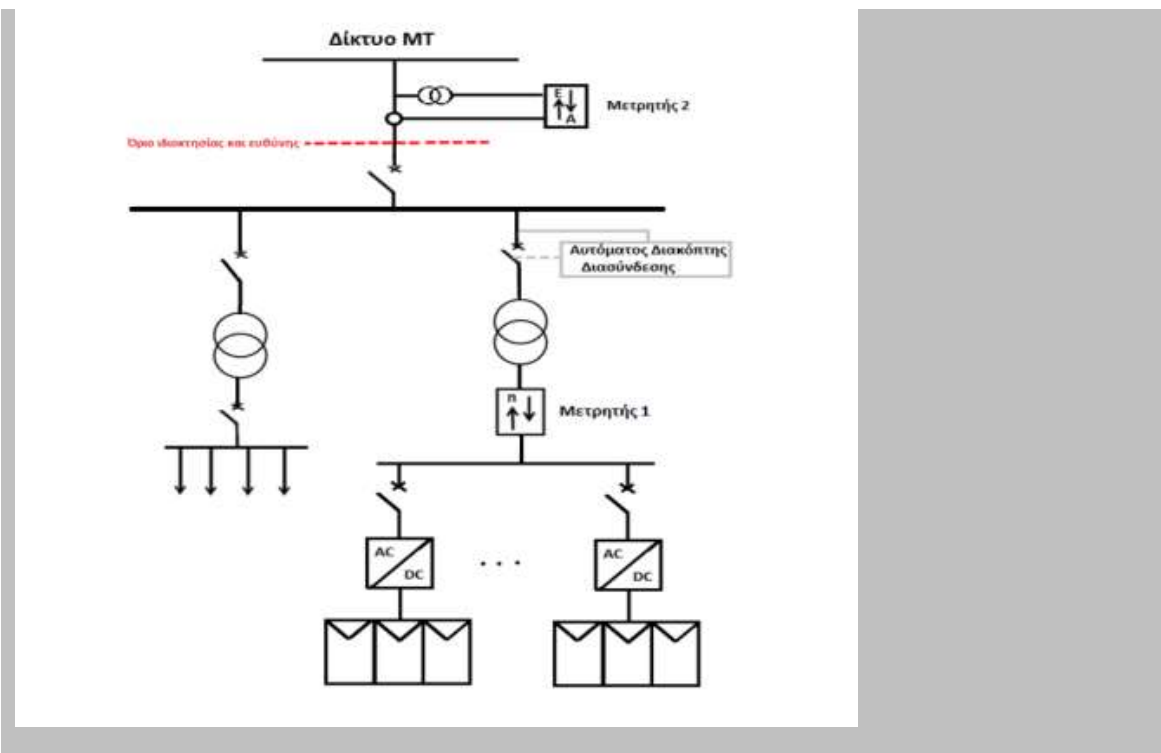


To implement the energy netting, both the energy input (energy absorbed by the grid) and the energy output (energy injected into the grid) should be measured. In case the existing meter does not already have this option, it should be replaced by a new, bidirectional meter. This meter (Meter 1) is part of the internal installation, it is the responsibility of the self-producer who bares the relevant cost. DEDDIE suggests the compatible types of meters and certifies the meter prior to installation. In addition, a second meter is required to measure the generated energy. This second meter (Meter 2) is placed in the position of the existing meter of the consumption installation (if it is not bidirectional) by DEDDIE and is included in the fixed costs of the grid.

The two meters and the delineation of ownership and responsibility between DEDDIE and self-

producer is reflected in the diagrams below, both for the low voltage and medium voltage scenarios (in Greek):





5.2. Does the competence to determine the inter-connection configuration lie at State level or at a regional/lander level?

Answer:

The **RAE** monitors the operation of the electricity market. Its Decisions which are published in the Official Journal, are legally binding and regulate all aspects of the functioning of the electricity market, the transmission system and the distribution network, e.g. the Management Code of the Greek Electricity Transmission System, the Management Code of the Greek Electricity Distribution Grid and the Management Code of NIIs' Electrical Systems. The RAE also monitors the management and allocation of interconnection capacity, the time for connections and repairs to the network, the publication of all appropriate information by the market operators, the terms and tariffs for third party access, the unbundling of accounts, the level of transparency and competition in the energy market and the security of supply⁸². It makes recommendations within its field of competence during the preparation and drafting of legislative acts to ensure open and fair competition and consumer protection. In terms of regulatory power RAE's opinion is required for the enactment of secondary legislation and it also has self-standing regulatory power.

The national distribution system operator DEDDIE is competent for the management, operation, maintenance and development of the distribution network, as well as to receive applications from producers for connection to the Grid⁸³. DEDDIE has a decentralised structure with local services/offices (local units)⁸⁴, typically in the capitals of the country's regions, where self-producers may submit their connection requests, applications to conclude the Connection Agreements etc.

⁸² Law 4001/2011, Articles 12-26 and website of the RAE at:

http://www.rae.gr/site/en_US/categories_new/about_rae/domain.csp, viewed 17 January 2017.

⁸³ Section on DEDDIE's website, with all the necessary information and application forms, distinct between PV and other RES installations, <http://www.deddie.gr/el/sundeseis-stathmwn-ananewsimwn-pigwn-energeias-ape>, viewed 17 January 2017.

⁸⁴ Lists of the local units of DEDDIE, both for the [mainland](#) and the [NIIs](#), can be found on DEDDIE's website.

5.3. Are there any rules to ensure that prosumers are inter-connected to the distribution network/the grid?

Answer:

As elaborated in the previous sections, the general legal framework for RES and HECHP, namely Law 3468/2006, stipulates that in granting generation permits for RES stations in the NIIs or in areas with congested grids or other restrictions on the installation of RES stations, applications by self-producers should have priority⁸⁵. In addition, the owners of the installations are entitled to connection to the grid and the grid operator is obliged to purchase all electricity from RES⁸⁶.

In addition, MD 1079/2009 and MD 24461/2014 lay down the rules for connecting to the grid through a feed-in tariff and net metering scheme respectively.

Finally, the Management Code of the Greek Electricity Transmission System, the Management Code of the Greek Electricity Distribution Grid and the Management Code of NIIs' Electrical Systems set the general, detailed and technical regulatory framework for access and connection to the system and the grid.

5.4. What are the grid access and grid use principles and rules for the energy generated by each type of residential prosumer?

As above.

5.5. What are the network costs and charges for each type of residential prosumer?

MD 1079/2009 - Special Program for the Development of Photovoltaic Systems on buildings and especially on lofts and rooftops⁸⁷:

In cases where the distance between the property on which the PV plant will be installed and the DEDDIE unit is relatively small (transportation time less than two hours) and the replacement of the supply cable is not required, the cost of the connection works amounts to € 800 plus VAT. If the distance is bigger or a cable replacement is required, the cost is € 1000 plus VAT. The Q&A document notes that the above costs are indicative, provided that no additional works are necessary, other than the supply cable.

MD 24461/2014 'Installation of RES units by self-producers with energy offsetting in application of Article 14A of Law 3468/2006':

Depending on the voltage level (low or medium), the type of the power supply (monophasic or three-phase alternating) and whether the existing consumption meter needs to be replaced or not, the cost may range from € 300 to € 650 plus VAT. The Q&A document notes that the above costs apply under the condition that grid works are not necessary for the connection.

Finally, a self-producer under the scheme of MD 1079/2009 may transition to self-production with energy offsetting under MD 24461/2014. In order to switch, the self-producer must submit a relevant application and conclude new Connection and Netting Agreements. In that case the switching costs are born by the self-producer⁸⁷.

⁸⁵ Law 3468/2006, Article 3(7).

⁸⁶ <http://www.res-legal.eu/search-by-country/greece/tools-list/c/greece/s/res-e/t/gridaccess/sum/140/lpid/139/>.

⁸⁷ MD 24461/2014, Article 1(11) and Q&A document for the net metering scheme, viewed on 17 January 2017, available [here](#).

6. What are the incentives (e.g through taxes or tariffs) for each type of residential prosumers?**General**

Under the general, national investment support framework, i.e. Law 3098/2011⁸⁸ RES projects fall under Article 6 (General Investment Plans) and are eligible for a combined subsidy and tax exemption scheme. PV is not eligible for that scheme, but Concentrating Solar Energy technologies are⁸⁹.

Article 13 of Law 3486/2006 regulates the pricing of electricity generated from RES or HECHP in general. Pricing varies depending on the energy source, on whether the installation benefits from another support scheme and on whether or not the system is connected to the mainland grid⁹⁰. The persons entitled are those plant operators holding a generation permit⁹¹.

MD 1079/2009 includes a table of feed-in tariffs (€/MWh) for small PV installations on rooftops. The feed-in tariff is currently € 105⁹² and will be gradually reduced every February and August (set price for August 2019 € 80)⁹³. The metering of the energy generated by the PV system and the energy consumed take place simultaneously. Generated energy is considered to be the energy produced by the PV system minus the energy it absorbs from the grid for own consumption. Generated power is credited following the billing cycles of consumption and the provider clears the difference in the energy bill of the self-producer⁹⁴. If the tariff exceeds the installation operator's electricity bill, the self-producer will receive the exceeding amount⁹⁵.

Self-producers falling under the feed-in tariff scheme of MD 1079/2009 are subject to a favourable tax treatment due to the small capacity of the PV systems which aims to meet the energy needs of the owner. The energy infused in the Grid is calculated in the context of achieving EU targets on RES. Therefore, there are no subsequent tax obligations for the owners of such installations, who can be natural persons or very small enterprises. This means that TVA is not applicable, that the self-producers are not obliged to keep accounting books for this activity and that the income generated from the energy injected to the Grid is exempted from taxation⁹⁶.

Under the net metering scheme of Article 14A of Law 3468/2006 and MD 24461/2014 the electricity produced in small plants by self-producers is netted with the consumed energy. The netting is calculated in the clearing electricity bills issued by the electricity provider, on the basis of metering data provided by DEDDIE. Any energy surplus is carried on throughout the year, from energy bill to energy bill. At the end of the year, any surplus is fed into the Grid without any obligation for remuneration⁹⁷. PV systems installed by public bodies in the context of EU funded programmes, may receive up to 20% of the value of the total electricity produced yearly.

MD 24461/2014 Article 2(4) stipulates that if the self-producer's consumption is billed in an escalating manner, for its competitive part, the netting is carried out so as to result to lower charges

⁸⁸ Law 3098/2011 (OJ A' 8/01.02.2011) 'Supporting Private Investment for Growth, Entrepreneurship and Regional Cohesion' [Νόμος 3098/2011(ΦΕΚ Α' 8/01.02.2011) «Ενίσχυση Ιδιωτικών Επενδύσεων για την Οικονομική Ανάπτυξη, την Επιχειρηματικότητα και την Περιφερειακή Συνοχή»].

⁸⁹ Law 3098/2011, Article 8(3). See also <http://www.res-legal.eu/search-by-country/greece/single/s/res-e/t/promotion/aid/subsidy-subsidy-combined-with-tax-exemption/lastp/139/> for more details.

⁹⁰ <http://www.res-legal.eu/search-by-country/greece/single/s/res-e/t/promotion/aid/feed-in-tariff-i/lastp/139/>.

⁹¹ Law 3468/2006, Article 12(1).

⁹² As from February 2017.

⁹³ MD 1079/2009, Article 3(3).

⁹⁴ MD 1079/2009, Article 3(6).

⁹⁵ <http://www.res-legal.eu/search-by-country/greece/single/s/res-e/t/promotion/aid/feed-in-tariff-ii-pv-on-rooftops/lastp/139/>.

⁹⁶ MD 1079/2009, Article 6 and Ministry of Finance Circular 1101/2009 'Tax treatment of the PV systems installations of up to 10kWp on residential buildings or buildings of microenterprises' [Εγκύκλιος 1101/2009 Υπουργείου Οικονομίας & Οικονομικών «Φορολογική αντιμετώπιση της εγκατάστασης φωτοβολταϊκών συστημάτων μέχρι 10kWp σε κτιριακές εγκαταστάσεις κατοικιών ή πολύ μικρών επιχειρήσεων»].

⁹⁷ Law 3468/2006, Article 14A(1) and MD 24461/2014, Article 2(2).

for the self-producer.

As regards the tax treatment of self-producers falling under the net metering scheme, Article 25(1) of Law 3468/2006, as recently amended by Law 4414/2016, specifies that self-producers of Article 14A are exempted from the special levy of 3% upon the selling tariff (pre-TVA).

The costs of the feed-in tariff system are borne by the consumers, who are obliged to pay a Special Levy for Gas Emission Reduction (*Ειδικό Τέλος Μείωσης Εκπομπών Αέριων Ρύπων – ETMEAR*) incorporated into their electricity bills⁹⁸. The amount charged depends on the consumer category. Article 40 of Law 2773/1999 explicitly subjects self-producers to the levy. However, the Greek Council of State in 2015⁹⁹ established that the ETMEAR does not consist a tax or a contributory levy, but is rather linked to the production cost of electricity from RES and that self-producers should not be subject to the levy in respect of the self-produced net energy. Following the two judgments, the RAE exempted from the ETMEAR¹⁰⁰:

- self-producers of net energy from RES and HECHP, for the part of the self-produced net energy;
- self-producers falling under Article 14A of Law 3468/2006, i.e. small PV plants and small wind power plants, biomass/biogass/bioliquid plants and small hydroelectric plants and HECHP plants installed by self-producers for the coverage of their own needs, who shall pay the ETMEAR only for the part of the electricity they absorb from the System or the Grid.

Article 143(3)(b) of Law 4001/2011, as lastly amended by Law 4414/2016, clearly stipulates that especially for RES and HECHP self-producers the ETMEAR shall be paid only for the amount of electricity absorbed from the Grid or the System.

6.1. Does your country apply specific tariffs to prosumers:

- to charge them for the electricity they draw from the grid for consumption?
- or to compensate them for the electricity they feed back into the grid?

Answer:

Article 13 of Law 3486/2006 regulates the pricing of electricity generated from RES or HECHP in general. Pricing varies depending on the energy source, on whether the installation benefits from another support scheme and on whether or not the system is connected to the mainland grid. MD 1079/2009 includes a table of feed-in tariffs (€/MWh) for small PV installations on rooftops. The feed-in tariff is currently € 105 and will be gradually reduced every February and August (set price for August 2019 € 80).

Under the net metering scheme of Article 14A of Law 3468/2006 and MD 24461/2014 the electricity produced in small plants by self-producers is netted with the consumed energy. The netting is calculated in the clearing electricity bills issued by the electricity provider, on the basis of metering data provided by DEDDIE. Any energy surplus is carried on throughout the year, from energy bill to energy bill. At the end of the year, any surplus is fed into the Grid without any obligation for remuneration

⁹⁸ Law 2773/1999, Article 40.

⁹⁹ StE (Plenary) 3366/2015 and StE (Plenary) 3367/2015

¹⁰⁰ RAE Decision 465/2015 (OJ B' 2815/22.12.2015).

6.2. Does your country

- tax prosumers in a specific way?
- allocate to them a certain part of the cost to upgrade the grid to accommodate the extra generation they feed into the grid?

Answer:

Self-producers falling under the feed-in tariff scheme of MD 1079/2009 are subject to a favorable tax treatment due to the small capacity of the PV systems which aims to meet the energy needs of the owner.

In addition, in the context of the net metering scheme, Article 25(1) of Law 3468/2006, as recently amended by Law 4414/2016, specifies that self-producers of Article 14A are exempted from the special levy of 3% upon the selling tariff (pre-TVA).

The costs of the feed-in tariff system are borne by the consumers, who are obliged to pay a Special Levy for Gas Emission Reduction (*Ειδικό Τέλος Μείωσης Εκπομπών Αέριων Ρύπων* – ETMEAR) incorporated into their electricity bills¹⁰¹. The amount charged depends on the consumer category. Article 40 of Law 2773/1999 explicitly subjects self-producers to the levy. However, the Greek Council of State in 2015¹⁰² established that the ETMEAR does not consist a tax or a contributory levy, but is rather linked to the production cost of electricity from RES and that self-producers should not be subject to the levy in respect of the self-produced net energy. Following the two judgments, the RAE exempted from the ETMEAR¹⁰³:

- self-producers of net energy from RES and HECHP, for the part of the self-produced net energy;
- self-producers falling under Article 14A of Law 3468/2006, i.e. small PV plants and small wind power plants, biomass/biogass/bioliquid plants and small hydroelectric plants and HECHP plants installed by self-producers for the coverage of their own needs, who shall pay the ETMEAR only for the part of the electricity they absorb from the System or the Grid.

However, Article 143(3)(b) of Law 4001/2011 has been amended by Law 4414/2016 and clearly stipulates that especially for RES and HECHP self-producers the ETMEAR shall be paid only for the amount of electricity absorbed from the Grid or the System. Apart from the ETMEAR, there are other standard costs borne by all consumers, namely the regulated monopoly costs (*ρυθμιζόμενες μονοπωλιακές χρεώσεις*) such as the charges for the use of the System and the Grid and the utility costs (*Υπηρεσίες Κοινής Ωφέλειας*)¹⁰⁴. Self-producers are not exempted from such costs.

7. A. What are the conditions that may encourage the take up of residential prosumers (to entry into activity or during functioning)?

General

The PV market in Greece developed rapidly during the past years, both in terms of industrial and residential installations, partly because of the initially generous **feed-in tariffs**. The weighted average price at the end of 2012 for PV produced energy was 420 €/kWh for free-standing

¹⁰¹ Law 2773/1999, Article 40.

¹⁰² StE (Plenary) 3366/2015 and StE (Plenary) 3367/2015

¹⁰³ RAE Decision 465/2015 (OJ B' 2815/22.12.2015).

¹⁰⁴ PPC website, information on the billing of residential consumers, viewed on 17 January 2017, <https://www.dei.gr/el/oikiakoi-pelates/xrisimes-pliforories-gia-to-logariasmo-sas/logariasmos-kai-xrewseis-giati-stous-logariasmous-sas-uparxoun-duo-kategori/ruthmizomenes-xrewseis>.

installations and 550 €/MWh for roof-top ones¹⁰⁵. However, the increased deficits of the market operator led to the imposition of an indirect, retroactive, tariff reduction, through the imposition of the special levy which impacted the ‘guaranteed’ gross income of RES projects¹⁰⁶. In addition, since 2010 tariffs were reduced four times, the first time in 2010, then twice during 2012, and finally in May 2013¹⁰⁷.

The reduction of gross revenue from PV installations could discourage residential prosumers, however, on a more holistic view, there are several favourable conditions which may act as incentives. Residential prosumers for small PV installations under MD 1079/2009 and MD 24461/2014 are exempted from the obligation to obtain a generation permit, an installation and operation permit, a building permit (only an ‘approval of small scale works’ is required) and an EIA approval. RES plants installed on buildings, regardless their power, are also exempted from the requirement to submit a guarantee letter after signing the Connection Agreement.

The actual procedures to be followed for PV on rooftops and net-metering, according to the comprehensive Q&A documents of DEDDIE for each scheme, seem to be quite simple and relatively fast. Therefore, absence of administrative burden and lengthy procedures may encourage residential prosumers to adhere to the schemes.

In terms of other financial incentives, self-producers falling under the feed-in tariff and net metering schemes are also subject to more favourable tax treatment.

B. What are the conditions that may act as barriers for residential prosumers (to entry into activity or during functioning)?

General

Conditions which may act as barriers for residential prosumers in Greece are related to the overall situation in the country and to inherent characteristics of the Greek institutional and regulatory framework.

Financial risks may act as barriers for residential prosumers. Taxation on revenues from self-generation discourages similar investments, although the recent change to apply the ETMEAR only to the amount of electricity absorbed from the Grid or the System and not to the amount produced by the self-producer for own consumption, is a positive step forward.

Greek legislation was always complex and vast, lacking comprehensive codification, however, since 2010 Greece had to adopt numerous measures in order to comply with the requirements of the Economic Adjustment Programmes, under the pressure of ensuring disbursement of the next tranche. This had an impact on the volume and clarity of the legislation in all fields of activity. Constant amendments or adoption of many provisions applying in parallel, create confusion as regards the applicable in each case provisions. In addition, as most legislative changes were paired with structural/institutional changes, e.g. unbundling of PPC’s activities and attribution to DEDDIE, ADMIE, LAGIE, and subsequent changes in the portfolios and names of Ministries, the distribution of competences might not always be clear to the lay public. This aggravates existing

¹⁰⁵ Christoforidis G. et al., ‘A Model for the Assessment of Different Net-Metering Policies’, *Energies* 2016, 9, viewed on 22 February 2017, p.262.

¹⁰⁶ www.keepontrack.eu, May 2013, ‘Policy Paper on Retrospective Changes to RES Legislations and National Moratoria’, viewed on 22 February 2017, available at <http://www.keepontrack.eu/contents/publicationsbiannualnationalpolicyupdatesversions/kot-policy-paper-on-retrospective-changes-to-res-support.pdf>.

¹⁰⁷ Tselepis S., ‘The PV Market Developments in Greece, Net-Metering Study Cases’, viewed on 22 February 2017, available [here](#).

administrative deficiencies and bureaucracy¹⁰⁸ and could cause insecurity and hinder activity of residential prosumers.

7.1. What are the metering systems for each type of residential prosumer? Do these systems provide adequate conditions for prosumers integration in the market?

Under MD 1079/2009 the PV system is connected to the low voltage grid using the same meter through which the building is supplied. The metering of the energy generated by the PV system and the energy consumed take place simultaneously. Generated energy is considered to be the energy produced by the PV system minus the energy it absorbs from the grid for own consumption.

The connection of self-production PV systems under the net metering scheme of Law 3468/2006 and MD 24461/2014 is done through the existing power supply provision of the consuming installation. To implement the energy netting, both the energy input (energy absorbed by the grid) and the energy output (energy injected into the grid) should be measured. Meter 1 consists part of the internal installation and measures the energy generated and consumed by the installation, Meter 2 measures the energy input and output to and from the Grid.

7.2. What are the billing conditions for each type of residential prosumer?

Under MD 1079/2009 generated power is credited following the billing cycles of consumption and the electricity provider clears the difference in the energy bill of the self-producer¹⁰⁹. If the tariff exceeds the installation operator's electricity bill, the self-producer will receive the exceeding amount¹¹⁰.

Under the net metering scheme of Law 3468/2006 and MD 24461/2014 the netting is calculated in the clearing electricity bills issued by the electricity provider, on the basis of metering data provided by DEDDIE. Any energy surplus is carried on throughout the year, from energy bill to energy bill (12month billing period). In particular:

- the difference between the two measured volumes of Meter 2 corresponds to the energy netted and, in case the sum is positive, the volume on which the competitive rates apply;
- the regulated monopoly costs are imposed on the energy input from the Grid measured by Meter 2;
- the energy consumed, upon which the utility costs are calculated, derives from the netting of the volumes of the two Meters (Consumed energy = Energy input – Energy output + generated energy);
- the costs of the feed-in tariff system imposed on consumers in the form of the ETMEAR are incorporated into the electricity bills. Self-producers are also subject to ETMEAR, however, following two Council of State judgements in 2015, for small PV plants and small wind power plants, biomass/biogass/bioliquid plants and small hydroelectric plants and HECHP plants installed for the coverage of the self-producers' own needs, ETMEAR should be charged only for the part of the electricity absorbed from the System or the Grid.

As mentioned in the previous sections, under the net metering scheme of Law 3468/2006 and MD 24461/2014, at the end of the year, any surplus is fed into the Grid without any obligation for remuneration.

¹⁰⁸ Administrative deficiencies and bureaucracy, as well as financial risks were reported as typical risks consumers face when starting a self-generation project, see BEUC, January 2016, 'Current practices in consumer-driven renewable electricity markets', viewed 17 January 2017, http://www.beuc.eu/publications/beuc-x-2016-003_jmu_current_practices_in_consumer_driven_renewable_electricity_markets.pdf, pp.85.

¹⁰⁹ MD 1079/2009, Article 3(6).

¹¹⁰ <http://www.res-legal.eu/search-by-country/greece/single/s/res-e/t/promotion/aid/feed-in-tariff-ii-pv-on-rooftops/lastp/139/>.

7.3. Are there measures to encourage the creation of energy communities at municipal level, or other schemes to encourage inclusive development of the market?

Answer:

The general framework applicable to municipalities¹¹¹ provides for the establishment of municipal enterprises. No specific provision was identified, referring explicitly to energy communities at municipal level.

According to Law 3468/2006¹¹², in case there are overlapping applications for generation permits in a specific area, or in case the RAE has to carry out a comparative evaluation because of urban planning restrictions or limited Grid capacity, priority should be given to applications submitted by legal entities in which local authorities participate by minimum 33%. Moreover, the list of exemptions from the obligation to obtain a generation permit in Article 4(1) of Law 3468/2006, includes RES stations of up to 5MWe of local authorities (municipalities and regions) installed by CRES on their behalf.

Article 14A of Law 3468/2006 establishing the net metering scheme, as in force after its latest amendment by Law 4414/2016, provides that, virtual energy offsetting for small PV and wind turbines installations is possible, especially for self-producers who are legal entities (private or public) pursuing charitable or other public interest goals of general or local range. Such installations will also be exempted from the obligation to obtain a generation permit.

7.4. Are there rules facilitating the creation of energy cooperatives to provide a legal entity to energy communities? Are there measures facilitating other type of schemes and if so which ones?

Answer:

Law 1667/1986¹¹³ regulates civil cooperatives (*αστικοί συνεταιρισμοί*) in general, i.e. voluntary associations of people with financial end, which aims at the economic, social, cultural development of its members and the improvement of their quality of life within a joint venture. Without it being specifically set in order to facilitate the creation of energy cooperatives, it was used in practice to establish similar initiatives, e.g. the Cooperative Company of Sifnos which submitted an application to obtain a generation permit from RAE (September 2016) for a hybrid power plant (wind farm and reversible hydroelectric plant) with an overarching objective to make the island of Sifnos entirely non-dependable.

In 2011, a new Law was adopted¹¹⁴ to determine for the first time the area of social economy and to establish a new type of commercial enterprises, mainly using the form of civil cooperative of Law 1667/1986, with a statutory purpose to pursue collective benefits and general common interests. Article 1 of Law 4019/2011 defines as ‘collective goal’ the promotion of collective actions and protection of collective goods through development, financial and social initiatives of a local, regional or wider character, in particular cultural, environmental, ecological activities, and provision of social services. This law consists the framework for establishing Social Cooperative

¹¹¹ Law 3463/2006 (OJ A’ 114/08.06.2006) ‘Ratification of Municipalities and Communities Code’ [Νόμος 3463/2006 (ΦΕΚ Α’ 114/08.06.2006) «Κύρωση του Κώδικα Δήμων και Κοινοτήτων»]; Law 3852/2010 (OJ A’ 87/07.06.2010) ‘New Architecture of Local Government and Decentralized Administration - Program KALLIKRATIS’ [Νόμος 3852/2010 (ΦΕΚ Α’ 87/07.06.2010) «Νέα Αρχιτεκτονική της Αυτοδιοίκησης και της Αποκεντρωμένης Διοίκησης - Πρόγραμμα ΚΑΛΛΙΚΡΑΤΗΣ»].

¹¹² Law 3468/2006, Article 3(9).

¹¹³ Law 1667/1986 (OJ A’ 196/1986) ‘Civil Cooperatives and other provisions’ [Νόμος 1667/1986 (ΦΕΚ Α’ 196/1986) «Αστικοί Συνεταιρισμοί και άλλες διατάξεις»].

¹¹⁴ Law 4019/2011 (OJ A’ 216/30.09.2011) ‘Social Economy and Social Entrepreneurship and other provisions’ [Νόμος 4019/2011 (ΦΕΚ Α’ 210/30.09.2011) «Κοινωνική Οικονομία και Κοινωνική Επιχειρηματικότητα και λοιπές διατάξεις»].

Enterprises (*Κοινωνικές Συνεταιριστικές Επιχειρήσεις*), one category of which are the Social Cooperative Enterprises of Collective and Productive Purpose (*Κοινωνικές Συνεταιριστικές Επιχειρήσεις Συλλογικού και Παραγωγικού Σκοπού*). Such enterprises shall concern the production of goods and provision of services covering common needs, i.e. culture, environment, ecology, education, utilities, which promote the local and common interest the promotion of employment and the reinforcement of local or regional development. As the case with Law 1667/1986, there is no specific mention of energy generation, but this could potentially be used as a general legal framework for the creation of energy cooperatives.

Very recently (20 January 2017), during a special meeting of the Parliamentary Committee on European, Trade and Environmental Affairs, in the presence of the EU Commissioner for Climate Action and Energy, the Minister of Environment and Energy announced that the Government intends to bring forward the necessary legislative provisions to establish energy cooperatives¹¹⁵.

7.5. What are the procedures/provisions for establishing cooperatives for prosumers? Are they more simple/less costly than those for other schemes?

Answer:

Article 1 of MD 1079/2009 stipulates that in the case of PV systems on a shared or jointly owned space of a building, only one system may be installed. The relevant right to install a system under the feed-in tariff scheme is granted to the owners of the horizontal properties (*οριζόντιες ιδιοκτησίες*) who shall be represented by the building manager or to one of the owners of the horizontal properties after a concession of the use of the shared or jointly owned space from the other co-owners. In that case, there is a requirement that the agreement of all co-owners is proven:

- by the minutes of a unanimous decision of the general meeting of the co-owners; or
- by a written agreement of all the co-owners of the building.

Similarly, Article 1 of MD 24461/2014 provides that in the case of PV systems on shared or jointly owned space of a building, one or more systems may be installed. The relevant right to install a system under the net-metering scheme is granted to the owners of horizontal properties or to the persons enjoying legitimate use following a concession of the use of the shared or jointly owned space on behalf of the co-owners. In that case, there is a requirement that the agreement of all co-owners is proven:

- by the minutes of a decision of the general meeting of the co-owners; or
- by a written agreement of all the co-owners of the building; or
- in absence of such written proof, the consent of all co-owners.

Apart from the provisions on shared or jointly owned building spaces, no specific framework for the establishment of energy cooperatives was identified. According to the abovementioned, general legal framework for civil cooperatives, only 15 people are required to establish a civil cooperative. The statute must then be submitted to the district court (*ειρηνοδικείο*) of the registered seat of the cooperative. Any natural or legal person can become member, including local authorities and public bodies, but not if they are already members of another cooperative with the same registered seat and objective. Each member registers with an obligatory cooperative share as defined by the statute¹¹⁶.

¹¹⁵ News website 'Capital', 20 January 2017 'Energy cooperatives are coming', viewed on 27 January 2017, <http://www.capital.gr/oikonomia/3185269/erxontai-energeiakoi-sunetairismoj>.

¹¹⁶ Law 1667/1986, Articles 1, 2, 3.

8. Other questions on the regulatory framework

8.1. What are the provisions for establishing a complaint procedure? What are the complaint handling procedures for each type of residential prosumer?

Pursuant to Articles 51 and 138 of Law 4001/2011, the RAE drafted the Code of electricity Supply to Customers (*Κώδικας Προμήθειας Ηλεκτρικής Ενέργειας σε Πελάτες*) which was adopted in the form of a MD¹¹⁷. This Code regulates the rights and obligations of suppliers and customers both at the stage of negotiations and of the conclusion of a contract between them, as well as during the fulfillment of their contractual obligations. It applies to ‘final customers’ (*τελικοί πελάτες*), i.e. the natural or legal persons buying electricity exclusively for their own use.

The RAE acts as a redress, sanctioning and arbitration mechanism for the settlement of disputes with respect to complaints against the transmission or distribution system operator or the undertakings carrying out energy activities¹¹⁸. As regards the complaint procedure in particular, according to Article 34 of Law 4001/2011 whoever has a legitimate interest is entitled to submit to RAE a complaint against the owners and managers of the distribution Systems and Grids, as well as against any enterprise engaged in energy related activities. The complaint may be submitted for breach of obligations deriving from applicable legislation or from a granted permit. The RAE must decide within three months and this period may be extended for three additional months provided that the extension is necessary to gather information, necessary for the decision. Further extension of this period is permitted only with consent of the person who submitted the complaint.

The decisions of RAE on complaints are subject to judicial review, according to Article 33 of Law 4001/2011, before the Administrative Court of Appeals of Athens (*Διοικητικό Εφετείο Αθηνών*) and, on a higher degree, before the Council of State. Prior to submitting the application for annulment before the court, Article 32 of Law 4011/2011 establishes a quasi-judicial administrative recourse (*ενδικοφανής προσφυγή*) as a condition of admissibility. This quasi-judicial administrative recourse must be submitted within thirty days from the publication or notification of RAE’s decision on the initial complaint.

According to Article 37 of Law 4001/2011, the RAE is established as an arbitration authority. A standing three-member arbitration body is set up, competent for:

- disputes between persons engaged in any way in the energy sector;
- disputed between customers and the companies carrying out energy-related activities;
- any dispute arising between the above persons deriving from the implementation of the relevant, applicable national and European legislation.

Submission to this arbitration process requires the conclusion of a written arbitration agreement between the parties.

Finally, Law 4001/2011 comprises a distinct dedicated section (Articles 46 to 58A), applicable to ‘eligible customers’ (*επιλέγοντες πελάτες*) which are defined in Article 2 as the customers or consumers of electricity who are entitled to select a supplier or to directly purchase electricity. Law 4001/2011 also defines ‘self-producer’ as the producer who generates power, mainly for his own use, and channels any surplus of the above power into the transmission or the distribution system. Although not explicitly mentioned, self-producers are also customers/consumers, therefore these provisions could also apply to them. These provisions regulate consumers’ rights e.g. to free choice of supplier, to information, to equal treatment, to transparency and dispute resolution before the Consumer Ombudsman (*Συνήγορος του Καταναλωτή*).

¹¹⁷ Ministerial Decision 29/2013 (OJ B’ 832/09.04.2013) ‘Code of Electricity Supply to Customers’ [Υπουργική Απόφαση 29/2013 (ΦΕΚ Β’ 832/09.04.2013) «Κώδικας Προμήθειας Ηλεκτρικής Ενέργειας σε Πελάτες»].

¹¹⁸ Law 4001/2011, Articles 34-37.

8.2. Are there any specific redress procedures available only to residential prosumers?

Answer:

Apart from the general provisions above, no other was identified establishing a procedure exclusively for residential prosumers.

The draft Netting Agreements for the feed-in tariff scheme (MD 1079/2009) and the net metering scheme (MD 24461/2014) include clauses on dispute resolution. The draft agreement stipulates that the supplier and the self-producer shall collaborate harmoniously and in a spirit of good faith, throughout the duration of the Agreement, for the sole purpose of implementing it.

In case any dispute arises, the parties may resort to amicable dispute resolution as agreed between them. If this is not feasible, it is explicitly agreed that the ordinary Courts of Athens are exclusively competent.

Country fiche (Summary and ranking)

The **country fiche** below summarises the information from the report and ranks the **level of favourable impact** of measures in relation to its favourable impact to the take up of residential prosumers.

Country fiche	Ranking Low/Medium/High
General Description of the national regulatory framework No definition of residential prosumer exists as such within the Greek legal order. Instead, there is a general definition of ‘self-producer’ referring to ‘the producer who generates electricity power mainly for his own use’. The institutional framework is relatively clear although the recurrent changes in the Greek administration make it difficult to allocate certain responsibilities. The applicable legislation provides for a basic framework: Small PV plants of up to 10 kWp for the mainland, the Interconnected Islands and Crete and of up to 5kWp for the NIIs installed on the roof or loft of a building, on awnings, façades and auxiliary spaces such as warehouses and parking areas may be subject to the feed-in tariff scheme of MD 1079/2009. PV plants by self-producers of up to 20kWp for the mainland and Crete and of up to 10kWp for the NIIs may be subject to the net metering scheme of MD 24461/2014. Although the provision of Law 3468/2006 establishing the net metering scheme mentions that small PV plants and small wind power plants, biomass/biogass/bioliquid plants and small hydroelectric plants and HECHP plants may be installed by self-producers for the coverage of their own needs, specific secondary legislation has been issued only for PVs (i.e. MD 24461/2014). Self-producers have to follow a relatively simple process and DEDDIE through its local units is the competent administrative service.	Medium
Specific Questions on the regulatory framework for residential prosumers	
Permitting requirements for each type of residential prosumer The administrative burden for small PV plants on rooftops of MD 1079/2009 or under the net metering scheme of MD 24461/2014 is minimal.	High
Rules applicable to the access to the grid The general legal framework for RES and HECHP, namely Law 3468/2006, stipulates that in granting generation permits for RES stations in the NIIs or in areas with congested grids or other restrictions on the installation of RES stations, applications by self-producers should have priority and priority shall also be given to electricity generated from RES in the interconnected system and on the NIIs. MD 1079/2009 and MD 24461/2014 lay down the process for the feed-in tariff and net metering schemes. The Netting Agreements to be signed by the self-producer and the supplier (usually it is the PPC, but could also be one of the IPPs) specify all other details. Finally, the Management Code of the Greek Electricity Transmission System, the Management Code of the Greek Electricity Distribution Grid and the	Medium

Management Code of NIIs' Electrical Systems lays down all the detailed financial and technical rules.	
Incentives (e.g taxes and tariffs) for each type of residential prosumers In general, the pricing of electricity generated from RES or HECHP varies depending on the energy source, on whether the installation benefits from another support scheme and on whether or not the system is connected to the mainland grid. Following successive reductions due to the overall financial crisis of the Greek energy market, the feed-in tariff for PVs on rooftops is currently € 105 and will be gradually reduced every February and August (set price for August 2019 € 80). Under the net metering scheme if the self-producer's consumption is billed in an escalating manner, for its competitive part, the netting is carried out so as to result to lower charges for the self-producer. Both schemes are subject to a more favourable tax regime.	Medium
Conditions encouraging or acting as barriers for residential prosumers • What are the metering systems for each type of residential prosumer? • What are the billing conditions for each type of residential prosumer? • What are the measures to encourage the creation of energy communities at municipal level? • What are the rules facilitating the creation of energy cooperatives? Are they more simple/less costly than those for other schemes? Are cooperatives the most common legal status for energy communities? The Netting Agreements signed by the self-producer and the supplier contain the rules on metering and billing. The feed-in-tariff and net metering schemes establish a favourable framework of the development of residential prosumers. Both schemes for small PV plants regulate the case enabling communities to jointly act as prosumers, where the plant will be installed on a shared or jointly owned space of a building. The requirement in such cases is a proof of the consent of all co-owners, either by the minutes of a general meeting decisions, or by a written agreement. Apart from that, no specific framework for the establishment of energy cooperatives was identified. The general framework for civil cooperatives has been used in practice to facilitate the creation of energy cooperatives on a wider local level, e.g. in the island of Sifnos. A civil cooperative is established with only 15 people and through submission of the statute to the district court of the registered seat of the cooperative.	High
Other questions on the regulatory framework • Complaint handling procedures for residential prosumer • Redress procedures available only to residential prosumers The RAE acts as a redress, sanctioning and arbitration mechanism for the settlement of disputes with respect to complaints against the transmission or	Medium

distribution system operator or the undertakings carrying out energy activities. Whoever has a legitimate interest is entitled to submit to RAE a complaint against the owners and managers of the distribution Systems and Grids, as well as against any enterprise engaged in energy related activities. The decisions of RAE on complaints are subject to judicial review.	
No specific procedure exists exclusively for residential prosumers.	

Executive summary

In Greece, there is no definition of residential prosumer as such. Instead, there is a **general definition of ‘self-producer’** referring to ‘the producer who generates electricity power mainly for his own use’. The applicable legislation provides for a clear basic framework. Depending on the type of the PV plants the **scheme applied is different**: feed-in tariff scheme or net metering scheme: Small PV plants of up to 10 kWp for the mainland, the Interconnected Islands and Crete and of up to 5kWp for the NIIs installed on the roof or loft of a building, on awnings, façades and auxiliary spaces such as warehouses and parking areas may be subject to the **feed-in tariff scheme** of MD 1079/2009. PV plants by self-producers of up to 20kWp for the mainland and Crete and of up to 10kWp for the NIIs may be subject to the net **metering scheme** of MD 24461/2014.

Self-producers have to follow a relatively **simple process and the administrative burden is, in general, minimal**. In granting generation permits for RES stations in the non-interconnected islands (NIIs) or in areas with congested grids or other restrictions on the installation of RES stations, applications by self-producers should have priority. **Priority** shall also be given to electricity generated from RES in the interconnected system and on the NIIs.

In general, the pricing of electricity generated from RES varies depending on the energy source, on whether the installation benefits from another support scheme and on whether or not the system is connected to the mainland grid. Following successive reductions due to the overall financial crisis of the Greek energy market, the feed-in tariff for PVs on rooftops is currently € 105 and will be gradually reduced every February and August (set price for August 2019 € 80). Under the net metering scheme if the self-producer’s consumption is billed in an escalating manner, for its competitive part, the netting is carried out so as to result to lower charges for the self-producer. A **favourable tax regime** is applied to both the feed-in tariff and the net metering scheme.

Both schemes also regulate the case enabling **communities to jointly act as prosumers**, for which a proof of the consent of all co-owners is needed. No specific framework for the establishment of energy cooperatives was identified though. The general framework for civil cooperatives has been used in practice to facilitate the creation of energy cooperatives on a wider local level. No specific redress procedure exists exclusively for residential prosumers.