

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

Finland



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 EAH/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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National report on the regulatory framework for residential prosumers: Finland

General Description of the national legal and regulatory framework

General

Supply mix

Currently, the Finnish supply mix comprises several energy sources: nuclear power (33.7 %); hydropower (16 %) and biomass (16.2%). Electricity is also being generated using coal (8.5 %); natural gas (7.6 %); peat (4.1%); wind power (3.5%); waste 1.2 (1.2%) and oil (0.3 %)¹ The share of small-scale production is limited. According to estimates from the 2014 National Energy Report, by 2020, small-scale production will reach 600 W (watts) or 1 TW (terawatts) of output in Finland². Whether such goal is achieved or not depends on the technical and administrative development, profitability perspectives from the consumer viewpoint, and availability of consumer-relevant information.

Power markets

The sale of electricity has been liberalised in Finland since 1998. Retail customers, including consumers, are free to choose their provider among the approximately 90 local distributors. A large part of the wholesale of power takes place in the Nord Pool Spot power exchange of which day-ahead (Elspot) and intraday (Elbas) set the electricity market price all over the Nordics, including Finland. Electricity is also traded on the OTC (over-the-counter) market and directly between buyers and sellers.

Grid connection

The power transmission network is nationwide and operated by a national Transmission System Operator (TSO) in which the Finnish State has a majority stake. As for distribution, it is made at regional and local level by, currently, over 90 Distribution System Operators (DSO). Distributors own most of the network, along with municipalities and business investors.

The above-described electricity market design is governed by the Electricity Market Act (588/2013) which implements the EU electricity market framework, the so-called Third Energy Package.³

Construction and operation

Construction of new power supply capacity requires, at first stage, an effective land-use plan that designates the geographic area suitable for construction of new capacity. A building site is designated in a local detailed plan, or—under a wind power special rule—in a more high level plan called ‘local master plan’. Both plans can be adopted on the basis of a valid regional plan—the whole system translating into a national three-level planning hierarchy (regional plan—local master plan—local detailed plan) regulated by the Land Use and Building Act (132/1999).

Furthermore, in order to build up a power plant a construction permit is issued. This is done by the local construction authority that also issues the final operating permit to compliant facilities. There is no straightforward answer as to whether a solar panel installation or wind turbine requires a construction permit. Indeed, a need for permit is assessed on a case-by-case basis and it depends on whether an installation is or not considered as a ‘building’ under the Land Use and Building

¹ The Finnish Wind Power Association (FWPA) <http://www.tuulivoimayhdistys.fi/hankelista>.

² The information provided in this national report is largely based on the Ministry of the Employment and Economy’s Working Group report (‘2014 Report’), published December 2014 by the Working Group to Promote Small-Scale Energy Production.

³ European Commission, Energy, Topics, Markets and consumers, Market legislation viewed 15 December 2016, <https://ec.europa.eu/energy/en/topics/markets-and-consumers/market-legislation>

Act (132/1999).

Finally, under the flexibility mechanisms provided by the Land Use Act, certain major municipalities have issued municipal ordinances that automatically exempt solar panel installations for buildings, fixtures, and yard areas from building permit requirements⁴.

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:

From a legal or regulatory point of view, there is no differentiation on the type of prosumers by the source of energy produced.

However, it is worth noting that in Finland, small-scale producers, including prosumers (for the definition of ‘prosumer’ see Point 3.3 at p. 10) presently rely on the following RES: solar; wind; biomass based in combined heat and power (CHP); and hydro.

Solar

There are a few hundred residential users with average installation size between 2 and 5 kW⁵. It is estimated that there are approximately 40,000 cottage solar systems that are not connected to the grid. The deployment of residential solar is expected to increase in the upcoming years due to a decrease in solar panel prices. It is estimated that the number of residential users relying on solar could reach 150,000 within the next five to ten years⁶.

Wind

Approximately ten residential systems are being delivered and installed per year. The number of summer cottages is more significant, namely, 100 to 200 installations a year. The average power of summer cottage installations is under 1kW and under 5 kW—typically between 200 and 400 W, respectively. The demand for residential wind has remained constant, but moderate growth is expected, especially as far as the demand for hybrid solutions (wind-solar) is concerned.⁷

CHP

Two plants with 1kW of nominal output (1 biogas and 1 natural gas) were connected to the grid in 2014. Modest growth in residential CHP is expected.⁸

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

Answer:

Prosumers are covered by a general institutional framework. The most important authorities are, depending on the project on question:

- the Energy Authority (Government agency)—in charge of the supervision of the electricity markets, including supply and networks: reception of supply project related notifications, grant certain energy subsidies, for example the feed in tariffs;

⁴2014 Report,p.34

⁵ The average industry systems work with 10 to 300 kW.

⁶ The 2014 Report refers to the Gaia Consulting’s study ‘Sähköön pientuotannon kilpailukyvyyn ja kokonaistaloudellisten hyötyjen analyysi – Loppuraportti 3 October 2014’ (Analysis of the competitiveness and overall economic benefits of the small-scale electricity production – Final Report 3 October 2014).

⁷ Ibid.

⁸ Ibid.

- the Ministry of Employment and the Economy—in charge of defining the general energy policy.
- the regional Centres for Economic Development, Transport and Environment—are in charge of the issuance of statements with regard to construction permits in certain cases)
- the Regional State Administrative Agencies—contribute to the definition of the general energy policy, and
- the municipal construction authorities;—are responsible for the issuance of project permits (construction permit)

Specific Questions on the regulatory framework for residential prosumers

3. What is the regulatory framework for residential prosumers in your country?

The legal framework relevant to prosumers consists of the following legislation:

General

Legislation on energy generation and storage; Third Energy Package (network operators);
Legislation on grid access and grid use

Electricity market Act (588/2013), *Sähkomarkkinalaki (588/2013)*

Natural gas Act (589/2013), *Maakaasumarkkinalaki (589/2013)*

The Act on supervision of the electricity and natural gas markets (590/2013), *Laki sähkö- ja maakaasumarkkinoiden valvonnasta (590/2013)*

Planning legislation

Land use and building Act' (132/1999) *Maankäyttö- ja rakennuslaki (132/1999)*

Legislation on financial incentives: feed-in-tariffs; subsidies

Act on discretionary government transfers (688/2001), *Valtionavustuslaki (688/2001)*

Government Decree on the general conditions of the energy aid (1063/2012), *Valtioneuvoston asetus energiätuen myöntämisen yleisistä ehdoista (1063/2012)*

Act on subsidies for enterprises in agriculture (28/2014), *Laki maaseudun yritystuesta (28/2014)*

Government Decree on subsidies for enterprises in agriculture' (80/2015), *Valtioneuvoston asetus maaseudun yritystuesta (80/2015)*

The Act on production subsidy for electricity produced from renewable energy sources (1396/2010), *Laki uusiutuvilla energiavaroille tuotetun sähkön tuotantotuesta (1396/2010)*

Legislation on taxes

Act on excise tax on electricity and certain fuels (1260/1996), *Laki sähkön ja eräiden polttoaineiden valmisteverosta (1260/1996)*

Act on excise tax (182/2010), *Valmitiesverotuslaki (182/2010)*

Energy efficiency legislation, encompassing legislation on energy use and billing energy use

Energy efficiency Act (1429/2014), *Energiatohokkuuslaki (1429/2014)*

'Government bill on settlement and metering of electricity supplies' (2009/66), *Valtioneuvoston asetus sähkötoimitusten selvityksestä ja mittauksesta (2009/66)*

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

The legal framework regulating renewable energy projects is to a large extent the same as for any other energy project.⁹

⁹ The list mentioned to above under Section 3, "General" has been included here in a reduced version, in order to reflect the renewable energy sources specific provisions.

**Legislation on energy generation and storage; Third Energy Package (network operators);
Legislation on grid access and grid use**

Electricity market Act (588/2013), *Energiamarkkinalaki* (588/2013)

Natural gas Act (589/2013), *Maakaasumarkkinalaki* (588/2013)

Both Acts lay down preconditions for efficient, secure and environmentally sustainable markets. They apply to power or gas produced from renewable energy sources, provided that energy is delivered and transported in the existing grid or pipelines.

The Act on supervision of the electricity and natural gas markets (590/2013), *Laki sähkö- ja maakaasumarkkinoiden valvonnasta* (590/2013)

This Act regulates the general goals, duties and jurisdiction of the Energy Authority.

Planning legislation

Land Use and Building Act (132/1999), *Maankäyttö- ja rakennuslaki* (132/1999)

This act contains established rules for renewable project land-use and permitting. It comprises very few renewable energy -project specific provisions.

Legislation on financial incentives: feed-in-tariffs; subsidies

Government Decree on the General Conditions of the Energy Aid (1063/2012), *Valtioneuvoston asetus energiatuen myöntämisen yleisistä ehdoista* (1063/2012)

This decree includes provisions on the allocation of financial aid for investment and research projects that also promote technologies for the use of renewable energy.

Laki uusiutuvilla energiavaroille tuotetun sähkön tuotantotuesta (1396/2010) 'The Act on Production Subsidy for Electricity produced from Renewable Energy Sources' (1396/2010)

This Act establishes the feed-in tariff promoting the construction of wind farms, biogas and wood fuel power plants as well as wood chip power plants.

Other

The Emission Trading Act (311/2011), *Paastokauppalaki* (311/2011)

The Act on Climate (609/2015), *Ilmastolaki* (609/2015); This Act related climate change policy planning and execution and it aims at ensuring that the EU greenhouse gas reduction goals will be reached.

Guidelines for Trans-European Energy Infrastructure (Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/)

Finland is part of the Baltic Energy Market Interconnection Plan for electricity and gas under Regulation that aims to increase the integration of renewable energy in the region.

Government Decree on the Noise Level of Wind Farm (1107/2015), *Valtioneuvoston asetus tuulivoimaloiden ulkomelutason ohjeistoista* (1107/2015)

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

The Renewables National Action Plan or 'NEAP (Suomen kansallinen toiminta-suunnitelma uusiutuvista lähteistä peräisin olevan energian edistämisestä direktiivin 2009/28/EY mukaisesti) which was adopted and notified to the European Commission in 2010, does not mention any small-scale energy production policies or targets.

However, the Act on Production Subsidy for Electricity produced from Renewable Energy Sources' (1396/2010) provides a list of production subsidies for small-scale CHP as well as for small-scale hydropower. Production subsidies are attributed as part of the national policies. The Act 1396/2010 also includes measures promoting use renewables under the NEAP.

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?

Answer:

The legislative framework outlined above regulates ‘small-scale energy production’ -instead of prosumers-. There is no official definition of ‘small-scale energy production’ but rather several definitions, and they are all based on nominal or maximum output. Pursuant to the Electricity Market Act (588/2013), ‘small-scale production’ means a power plant or a consortium of power plants of which nominal output is a maximum of 2 MWa. Generally, micro-scale production is considered to refer to a power plant with a maximum of 50 KWa that has been connected to a low-voltage network close to the consumer of the electricity and whose primary purpose is to produce electricity for the consumer.¹⁰

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

General

There are no small-scale production-specific schemes. Permitting is organised according to the same principles that apply to the construction and operation of conventional energy generation facilities.¹¹

The construction of a power plant requires —at the first stage— a **Construction or Deviation Permit** that is based on an effective land use plan and is granted by the municipal construction authority.

To start operating a power plant in other words to start to generate electricity, the municipal construction authority shall issue a **Commissioning Permit**. In other words, the permitting of generation is governed by the construction framework and no special ‘Energy Permit’ is required. However, as to power plants of which nominal output is a minimum of 1 megawatt amperes a **notification** on the plans to construct such a generation facility or its intended commissioning, as well as a long-term outage or decommissioning shall be submitted to the Energy Authority.¹²

Grid connection is based on an **agreement between the grid provider and the energy generator** and **no special connection permit** is needed. Pursuant to Section 20 of the Energy Market Act interconnection is however based on the principle of open and non-discriminatory access and a network provider is required to connect all facilities that satisfy a set of published and transparent technical and financial preconditions. Parties wishing to connect to the distribution network may ask nevertheless the authority to investigate whether the Electricity Market Act network access provisions have been complied with.

Finally, it should be borne in mind that there is no straightforward answer as to whether a small-scale solar panel installation or wind turbine require a construction permit. Indeed, a need for permit under the construction law framework is assessed on a case-by-case basis and it depends on whether an installation is considered as a ‘building’ under the Land Use and Building Act (132/1999). Also, under the flexibility mechanisms provided by the Land Use Act, permitting requirements may vary among municipalities. Certain major municipalities have issued Ordinances that automatically **exempt** solar panel installations for buildings, fixtures, and yard areas from construction permit requirements. It is also possible that a municipal Conservation Order applies to a building in which case installation of solar panels would not be permitted. A municipality may also—in certain cases require an Approval of a landscape architect or a

¹⁰ 2014 Report, p. 10

¹¹ See General Description of the national legal and regulatory framework—General—Construction and operation, p.7-8.

¹² See Section 64 of the Electricity Market Act and Section 7 of the Electricity Market Decree (65/2009).

Notification to construct.¹³

On the basis of the above, it is also possible that **no permit, approval or notification** is required provided that application of any thresholds or conditions set out in the applicable legislation or municipal orders are complied with.

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**?

Prosumers are subject to the same general requirements as commercial energy producers which are:

Power generation is not as such subject to a permit. However, the Energy Authority must be notified of plans to construct, and the commissioning of, all electricity generation facilities exceeding 1MVA.

Further to the construction permit that may be required under the Land Use and Building Act (132/1999), there might be other requirements depending on the specific situation and conditions of the power generation facility. In certain cases, the facility may need an environmental permit under Section 27 Environment Protection Act 527/2014) or the Act on Environmental Impact Assessment Procedure (468/1994).

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?

There is no legal or regulatory framework that determines the contractual conditions under which prosumers are allowed to sell their surplus back to the grid.

Pursuant to Section 27 Energy Market Act DSOs are required to publish and submit to the Energy Authority their General Terms and Conditions for distribution and prices as well as the basis under which they are determined.

Currently, several distributors offer products tailored for small-scale customer's needs. The Finnish Energy Industry Association website provides a list of distributors that are specialised in selling small-scale generated electricity to end-users¹⁴.

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

General

Access to the transmission grid and distribution network is based on the principle of open and non-discriminatory network access. Pursuant to section 20 of the Electricity Market Act (588/2013), network and grid providers are under an obligation to connect all production facilities to the

¹³ Motiva Group (Affiliated Government Agency tasked with coordinating energy efficiency matters), Renewable Energy, Solar Power, Installation of Solar Panels, viewed 15 December 2016, http://www.motiva.fi/toimialueet/uusiutuva_energia/aurinkoenergia/aurinkosahko/hankinta_ja_asennus/aurinkopaneelien_asettaminen.

¹⁴ http://energia.fi/energiatollisuuden_edunvalvonta/energiapolitiikka/uusiutuva_energia/pientuotanto

network provided that they satisfy technical requirements and pay the relevant fees. Parties wishing to connect to the distribution network may ask nevertheless the authority to investigate whether the Electricity Market Act network access provisions have been complied with. In practice, although under Section 19 of the Electricity Market Act a network provider is required to maintain and develop its network, in order to connect all qualifying supply facilities, there are a high number of small prosumers that are not connected.

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

Configuration is decided on a case-by-case basis by the distribution network provider according to the installation classification. More detailed information on the technical requirements for interconnection per installation type can be found in the Federation of Finnish Energy Industries (Energiateollisuus ry) 2016 guidance documents on how to connect small-scale energy production facilities into to the distribution network.¹⁵

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

Small-scale production is connected to the distribution network and therefore configuration is decided at the local level by the distribution network operator subject to certain rules stemming from the TSO and EU (Network codes etc.) level.

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

There are no **prosumer-specific legislation** guaranteeing access to the grid. Small-scale production is also subject to the Electricity Market Act (588/2013) and its principle of ‘reasonable connection time’. Under this principle, if the time-limit for connection is exceeded by the network provider, to the point that the excess is not reasonable, the small producer (prosumer) is entitled to bring the matter before the Energy Authority. No cases have been reported to date.¹⁶

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

Answer:

Generally, small-scale production needs to comply with the same connection rules as other forms of energy supply.

A connection contract is drawn up between the generator—in this case, the consumer—and the network provider. Applicable contract terms depend on the classification of the installation in question.

¹⁵ The Finnish Energy Industry documents are available online:

Connecting electricity generation installation to the distribution network

http://energia.fi/files/1247/Connecting_generation_to_the_distribution_network_UPDATED_20160427.pdf

Technical appendix 1 Technical requirements concerning generation installations of up to 100 kVA

http://energia.fi/files/1250/technical_appendix_1_-_up_to_100_kVA_UPDATED_20160427.pdf

Technical appendix 2 Technical requirements concerning generation installations of over 100 kVA

http://energia.fi/files/1251/technical_appendix_2_-_over_100_kVA_updated_20160427.pdf

¹⁶ 2014 Report.

The Federation of Finnish Energy Industries (Energiateollisuus ry) has, in 2011, issued non-binding guidelines on how to connect small-scale energy production facilities to the distribution network. The objective of the guidelines is to facilitate the acquisition and interconnection of small-scale production facilities. The updated version of these guidelines were published in 2016. It includes separate instructions for small-scale generation of up to 100kV and for generation exceeding 100kV. The guidelines consist of interconnection principles and technical rules—covering equipment classification affecting connection contract type; and applicable standards e.g. SFS, IEC, and CENELEC on installation protection settings, electricity quality requirements and electrical safety—for up to and over 100 kV nominal capacity generation respectively.¹⁷

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

Answer:

Small-scale production benefits from reduced transmission fees.

Production installations that are interconnected to a distribution network (below 110 kW) are subject to the applicable dispatch charge of 0.07 cents/KWh (value-added tax 0 %).¹⁸

Unlike conventional suppliers of which interconnection fee consists of capacity reservation payment and payment to cover the network upgrade costs, small-scale generation, as defined under Electricity Market Act (588/2013)—a power plant or a consortium of power plants of which nominal output is a maximum of 2 MWa—is exempted from the network upgrade payment pursuant to Section 56 of the Electricity Market Act.

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

General

There are several incentives applied to small-scale production in Finland.

Metering legislation: Government bill on settlement and metering of electricity supplies (2009/66) 66/2009, Chapter 6, Section 3 of the amending Act 217/2016 provides exemptions from metering installation requirements for facilities with below 100 KVA nominal power.

As explained more in detail under the relevant sections of this report, small-scale production can further benefit from zero or reduced taxes, reduced transmission fees and billing practices that allow off-setting (electricity bill or part thereof can be off-set by small-scale produced electricity that is being fed back to the network) to certain extent.

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?

There are no generally applicable prosumer tariffs.

¹⁷ The Finnish Energy Industry documents are available online:

Connecting electricity generation installation to the distribution network

http://energia.fi/files/1247/Connecting_generation_to_the_distribution_network_UPDATED_20160427.pdf

Technical appendix 1 Technical requirements concerning generation installations of up to 100 kVA

http://energia.fi/files/1250/technical_appendix_1_-_up_to_100_kVA_UPDATED_20160427.pdf

Technical appendix 2 Technical requirements concerning generation installations of over 100 kVA

http://energia.fi/files/1251/technical_appendix_2_-_over_100_kVA_updated_20160427.pdf

¹⁸ Report 2014 p. 20

However, several DSOs offer prosumer specific net-billing that can in practice be considered as a sort of ‘prosumer tariffs’ that are different from those offered for commercial suppliers. For more details, see below in this section description about the current net-billing practices that are based, not on legislation, but on contractual practices between prosumers and distributors.

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:

The Act on Excise Duty on Electricity and Certain Fuels (1260/1996), *Laki sähkön ja eräiden polttoaineiden valmisteverosta (1260/1996)* provides that power plants of which nominal output is 100 kilowatt hour or less are completely exempted from electricity tax. Moreover, a power plant of which nominal output exceeds 100 kVA a year is exempted from electricity tax provided that the electricity produced does not exceed 800 000 kWh per year.¹⁹

Unlike conventional suppliers²⁰ –small-scale generation as defined under Electricity Market Act (588/2013)—a power plant or a consortium of power plants of which nominal output is a maximum of 2 MWa—is exempted from the network upgrade payment.

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

General

The 2014 Report lists the following barriers:

Cost-effectiveness, including lack of financing (availability of upfront financing, and special financing models for cooperatives). Although the cost-effectiveness has improved in recent years, the production costs exceed the wholesale market price almost without exception.

Technical and administrative barriers, including permitting. Barriers have been reported in construction permitting, interconnection and metering surplus power. Some operators have reported that permitting practices vary significantly among municipalities, and this hampers investment. In general, interconnections have been established successfully, but there have been weaknesses in technical capacity and attitude especially amongst the smaller distribution network providers. Additional efforts are required in terms of interconnection, information dissemination, metering information management, and customer reporting. Generally, the technical quality of installations should be improved.

Consumer information

Although dissemination of information has improved in recent years there is still a need for a more up-to-date information and information one-stop-shops. The municipal authorities involved in land-use and permitting should also be better informed. Better over-all information including life-cycle aspect, location-fitness, acquisition, delivery, installation, use and remunerations concepts, maintenance, and subsidies are required.

¹⁹ Selvitys energiapolitiikan vaihtoehtoista Työ- ja elinkeinoministeriön julkaisuja Energia ja ilmasto 25/2015 – ‘Study on the energy policy options, Ministry of Economic Affairs and Employment Publications 25/2015’ at p. 36.

²⁰ As for conventional suppliers, interconnection fee consists of capacity reservation payment and payment to cover the network upgrade costs -

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

General

The 2014 Report lists the following measures with a positive impact on the development of residential prosumers: small-scale production can benefit from simplified metering requirements, zero or reduced taxes, reduced transmission fees and billing practices that allow off-setting (electricity bill or part thereof can be off-set by small-scale produced electricity that is being fed back to the network).

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?

- An electricity generation installation with nominal power up to 100 kVA does not require a separate **metering device**, as it is sufficient that the electricity acquired from the network (network input) and electricity fed into the network (network output) are metered separately from the site with a remote meter. Network input and output must not be netted, but the metering device shall have separate registers for both. If the generation installations' nominal **power is more than 100 kVA**, the producer must equip the generation installation with separate metering that enables calculation of consumption of own generation. Consumption of own generation means the energy generated is used directly at the site. Consumption of own generation is obtained by deducting from the generated electricity the generation installation's electricity for own use and the electricity fed into the network. (Electricity for own use is electricity consumed by the generation installation system itself. Electricity tax must be paid on electricity generated at generation installations of over 100 kVA that is consumed at the generation installation site itself, if the annual energy production of the generation installation is more than 800 000 kWh.
- The currently deployed metering technology provides separate registers for grid input and output which can be considered an adequate condition for prosumers' integration in the market.

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

To date, no binding small-scale production billing conditions have been set up. The Finnish Energy Market Authority considers that no obligation to purchase from small-scale producers can be lawfully established through legislative measures given the existing Finnish power market legislation (Electricity Market Act 588/2013) implementing the Third Energy Package. Pricing and billing arrangements—as long as compliant with the general principles of the Electricity Market Act, including principle of non-discrimination—are freely determined by the distributors. To promote small-scale production, there have been studies on the conditions for net-billing for small-scale production. Net-billing refers to power trading mechanisms, where a customer that possesses a small-scale generation capacity, needs additional electricity and purchases it from the markets but can offset a part of its power bill by feeding the power that it has generate back to the network.

The 2014 Report summarises studies concluding that under the currently effective legislative framework an absolute off-setting—encompassing supply, transmission, value-added and excise taxes—is not possible. For example, off-setting valued-added tax relating to power supplies is not

allowed under Directive 2006/112/EC and corresponding national value-added tax legislation. Further, another study concluded that billing systems based on distributors' buying obligation or off-setting transmissions costs would be non-compliant.

In practice an off-setting model where small-scale producer and distributor agree on the latter's obligation to purchase on the basis of an hourly market price and where the purchaser is compensated through a pre-determined margin is quite commonly deployed by certain distributors doing business with small-scale generators²¹.

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?

No.

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?

No.

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

There is no cooperative related legislation.

8. Other questions on the regulatory framework

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

The complaint handling follows the general system Consumers are entitled to bring their cases before the Consumer Disputes Board For more detailed explanation, please see below.

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

Answer:

There are no specific redress procedures available only to residential prosumers.

The Consumer Protection Act (38/1979), including its redress mechanisms apply to sale and marketing of goods or services by entrepreneurs to consumers. If a prosumer, in its electricity **consumer capacity**, in other words, when he or she buys electricity, wishes to lodge a complaint in a matter concerning for example billing, metering or contract provisions it can bring the case before the Consumer Disputes Board (Kuluttajariitalautakunta). However, when a prosumer, in its generator capacity sells power to the DSO, the sale, at least as a self-standing act, falls outside the scope of the Consumer Protection Act and its redress mechanisms. Whether an individual case falls under the consumer protection norms or not would have to be assessed on a case by case basis. No established court praxis around the issue was found.

²¹ 2014 Report.

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 • <i>Types of residential prosumers</i> In Finland, small-scale producers, including prosumers presently rely on the following RES: Solar; wind; biomass based CHP; and hydro. The legislative framework regulates—instead of prosumers — “small-scale energy production”. • <i>Institutional framework</i> Small-scale energy production is covered by general institutional framework. The most important authorities are, depending on the project on question, the Energy Authority, the municipal construction authorities, regional Centres for Economic Development, Transport and Environment, Regional State Administrative Agencies, and Ministry of Employment and the Economy. • <i>Applicable legislation, plans and objectives</i> The key legislation encompasses electricity and gas market legislation (Third Energy Package), metering legislation, tax legislation, and legislation on subsidies. • <i>Definition of residential prosumers</i> There is no official definition but rather several and they are all based on nominal or maximum output. Small-scale production is typically between tens or hundreds of KWh or a maximum of few MWh. Pursuant to the Electricity Market Act (588/2013), small-scale production means a power plant or a consortium of power plants of which nominal output is a maximum of 2 MWa. Generally, micro-scale production is considered to refer to a power plant with a maximum of 50 KWh that has been connected to a low-voltage network close to the consumer of the electricity and of which primary purpose is to produce electricity to the consumer.	Medium
Specific Questions on the regulatory framework for residential prosumers	
Permitting requirements for each type of residential prosumer There are no small-scale production-specific scheme. Permitting is organised according to the same principles that apply to construction and operation of conventional production facilities.	Low
Rules applicable to the access to the grid Pursuant to Electricity Market Act (588/2013) network and providers are under an obligation to connect all production to the network provided that they satisfy technical requirements and pay the relevant fees. In practice, temporary capacity restraints in certain areas along the network may sometimes cause uncertainties with regard to access.	Low

Unlike conventional suppliers of which interconnection fee consists of capacity reservation payment and payment to cover the network upgrade costs, small-scale production is exempted from the network upgrade payment.	
Incentives (e.g. taxes and tariffs) for each type of residential prosumers Small-scale production can benefit from simplified metering requirements, zero or reduced taxes, reduced transmission fees and billing practices that allow off-setting (electricity bill or part thereof can be off-set by small-scale produced electricity that is being fed back to the network) to certain extent.	Medium
Conditions encouraging or acting as barriers for residential prosumers - What are the metering systems for each type of residential prosumer? An electricity generation installation with nominal power up to 100 kVA does not require a separate metering device, as it is sufficient that the electricity acquired from the network (network input) and electricity fed into the network (network output) are metered separately from the site with a remote meter. If the generation installations nominal power is more than 100 kVA, the producer must equip the generation installation with separate metering that enables calculation of consumption of own generation. - What are the billing conditions for each type of residential prosumer? Net-billing based on average market price margin and contractual practices between small-scale producers and distribution network providers are applied. - What are the measures to encourage the creation of energy communities at municipal level? There are none. - 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? No special procedures available for cooperatives.	Medium
Other questions on the regulatory framework - Complaint handling procedures for residential prosumer No special complaint handling procedures have been established for prosumers. - Redress procedures available only to residential prosumers Redress procedures according to the general system, no prosumer specific provisions.	Low

Executive summary

The legislative framework of Finland regulates **small-scale energy production**. There is no official definition of prosumer but rather several and they are all based on nominal or maximum output. From a legal or regulatory point of view, there is no differentiation on the type of prosumers by the source of energy produced. The legislative framework regulates ‘small-scale energy production’ -instead of prosumers-. There is no official definition of ‘small-scale energy production’ but rather several definitions, and they are all based on nominal or maximum output. Pursuant to the Electricity Market Act (588/2013), ‘small-scale production’ means a power plant or a consortium of power plants of which nominal output is a maximum of 2 MWa. Generally, micro-scale production is considered to refer to a power plant with a maximum of 50 KWh that has been connected to a low-voltage network close to the consumer of the electricity and whose primary purpose is to produce electricity for the consumer.²²

There are no small-scale production-specific schemes. **Permitting** is organised according to the same principles that apply to construction and operation of conventional production facilities. On the basis of the above, it is also possible that no permit, approval or notification is required provided that application of any thresholds or conditions set out in the applicable legislation or municipal orders are complied with.

There is an obligation to connect all production to the network provided that they satisfy technical requirements and pay the relevant fees. There are some **incentives** in place for small-scale production. It is exempted from the network upgrade payment and can benefit from simplified metering requirements, zero or reduced taxes, reduced transmission fees and billing practices that allow off-setting to certain extent. There are no measures to encourage the creation of energy communities at municipal level. There are no special procedures available for cooperatives and no special complaint handling or redress procedures have been established for prosumers.

²² 2014 Report, p. 10