

# “FAQ Chilean-Law 20.571 – NET Billing”

## Frequently asked questions

### A. Legal aspects of the law 20.571

#### 1. What is the purpose of law 20.571?

The purpose of the law is to give regulated customers of the distribution companies the right to generate their own energy, and consume or sell their surplus energy to the distribution companies. The system of renewable energy generation (or efficient cogeneration) allows the customers to build a project up to 100 kilowatts (kW).

For these purposes it is understood by regulated customers (those whose service is subject to pricing), which correspond generally to small and medium consumers with a connected capacity less than 500 kW, and those with connected capacity between 500 and 5,000 kW they can choose to be subject to the regime of regulated customers in accordance with current regulations.

Note: For clarity on the meaning and scope of what is meant by regulated customers, one should review Article 147 of the General Electricity Services Law and the first transitory article of Law No. 20.805.

#### 2. When did the law 20.571 come into force?

The law No. 20.571 was published on March the 22<sup>nd</sup> in 2012. It ensures the payment of electricity tariffs for residential generators, which as a transitional provision contains an article that said that the enactment of this law would lead to the publication of the regulation of that norm.

This regulation was published on September 6 in 2014 and took effect on October 22<sup>nd</sup> in 2014.

#### 3. Who can access the established mechanism in this law?

End customers subject to pricing (regulated customers), such as residential, small commercial or industrial customers, comply with the following conditions:

- The installed equipment is for electricity generation.
- The installed capacity of a single solar generation system does not exceed 100 kW.
- The power generation system operates with renewable energy sources or according to the conditions of efficient cogeneration systems.
- And in general if they meet the other requirements of the law and its regulation.

#### 4. Which generation systems can be applied according to law 20.571?

The energy has to be generated with renewable energy sources or according to the conditions of an efficient cogeneration system.

#### 5. Do the energy distribution companies accept the injection of the renewable electricity into the electricity grid?

This law establishes a right for regulated customers and therefore forces distribution companies to receive and pay for their electricity injection.

#### 6. For which type of energy resources is the law valid?

Solar, hydro, wind and biomass energy. Additionally cogeneration plants are those in which electricity and thermal energy are generated in one single process of transformation.

#### 7. If I am the owner of a business, can I make use of the law?

Yes, this is possible; for example, a company which has installed a PV system on its roof with a total capacity of up to 100 kW (about 1,000 m<sup>2</sup> surface) has the right to inject the excess electricity to the grid. The same example applies to an owner-occupied apartment, commercial building or industrial plant whose contracted power is less than 2.000 kW is a regulated customer.

#### 8. According to the law, which technical regulations apply to the electricity generation systems?

The Regulation of Law 20,571, part of the Supreme Decree No. 71, dated in June 4 in 2014, defines measures to be taken in order to protect the safety of people and property and the security and continuity of supply; technical and safety specifications must apply to the generation equipment.

#### 9. Are there more specific rules/regulations that apply to this law?

The following instruments have to be considered:

- A technical instruction (NT) of connection and operation in low voltage generation.
- Technical Instructions for installing PV systems.
- Procedures concerning the commissioning of PV systems.
- Instructions for the authorization of products which will be used under the benefits of the law.

## B. Information concerning the connection procedure

### 1. What will be the first step if I want to connect a system to the grid?

To connect a electricity generation system and/or inject the excess energy to the grid, the customer has to submit a request for the connection to the grid (SC-Formulario 3).

### 2. Is there information about the electrical installations of customer's households?

For proper design and installation of the system, the customer may request the technical information of its electric installations from the distribution company, which in any case must always be available to customers.

### 3. What timeframe should be considered for that procedure, once a SC formulary has been handed in?

The distribution company must answer the connection request of the customer within a maximum period of 20 working days by a certified document and report the conditions that have to be fulfilled in order to connect to the grid, and must in no case go beyond what is allowed by the regulations of the law.

### 4. Which information must be provided by the distribution company in response to the connection request?

The following information must be reported to the customer by the distribution company (Form 4):

- a) The geographical location of the connection point, and of the energy generation system according to the customer number.
- b) The capacity of the connection point.
- c) The system capacity that the customer is allowed to connect to the grid without the need for improvements.
- d) The additional, required work shall include details and valorization of the necessary improvements to connect the system to the grid. The above mentioned counts if the installed capacity of the system exceeds the capacity, which has been reported to the RC.
- e) The customer must receive the connection contract.
- f) The valorization of any costs associated with the necessary work to connect the energy generation system with the grid.

### 5. Which other documents/information are going to be requested by the distribution company?

The customer has to attach the following information to the request:

- a) Complete name or designation of the business.
- b) The certificate of the domain and the place, where the energy generation system is connected to the grid.
- c) The Identification number of the customer.
- d) The address at which the energy generation system is/will be installed.
- e) Telephone number, Email address or other kinds of contact formularies.
- f) Installed capacity of the energy generation system and its main characteristics; among others.

### 6. In case that there is additional work to be done to connect the system to the distribution network; who is responsible for the additional work?

The law defines the costs for additional work and adjustments (only in case that it is necessary) this must be paid for the customer. The regulations in the law determine how the costs for the additional work or adaptations should be calculated.

### 7. Is it possible to adjust the request if the decision for additional work has been reported?

The customer can adjust the installed capacity of the energy generation system to a lower or equal level to the one which has been reported by the distribution company and thus avoid costs due to additional work or adjustments. For example, if the current connection point of the customer has a lower capacity than the capacity of the generation equipment, which is intended to be connected, a generation equipment of lower size and power than the connection point can be installed so this one has not to be changed.

### 8. What should I do once I receive the reply of the distributor?

Once the customer has received the answer of the distribution company within 20 days, the customer has to confirm to the distribution company if the answer is satisfactory for his/her purpose or not.

### 9. What if the customer disagrees with the reply of the distribution company?

Concerning disagreements the customer has to formulate his claim in front of the Electricity and Combustion Superintendence (SEC).

### 10. Has the distribution company the right/possibility to refuse the request for connecting a generation system to the grid?

The distribution companies cannot refuse the request for connecting a generation system to the grid nor impose conditions or requirements which are not mentioned in the regulations of the law. However the regulation mentions that if the information provided by the customer is incomplete or false, the distribution company will ask the interested customer to correct his/her application. In case that the interested customer does not supply correct information, his/her request will be neglected and the process will have to be started again with a new application for the SC.

### 11. In case the customer accepts the conditions of the response to the connection request, what would be the next step?

Once the customer declares his/her confirmation with the conditions, he/she is allowed to start installing the system for which he made a request within a timeframe of 6 months. Once the installation is completed by an authorized installer and its commissioning registered with the SEC, the customer must notify the distribution company immediately. For that purpose the customer should make use of the Connection Notification (Form 5) which will proceed within 5 days from receiving the NC in signing of the contract and subsequent connection.

### 12. How much time should the customer take into account for the whole connection process to be completed?

The duration of the processing is dependent on several factors. The main factors are the time required for the installation of the energy generation system, the time required to adapt the connection to the grid (if necessary) and the associated time for exchanging information between the customer and the distributor.

In any case where a modification of the connection point to the grid is not necessary, the process should not take longer than 4 – 8 month.

**13. Are there costs which have to be taken into account for connecting the generation system to the grid?**

There are costs associated with connection of the energy generation system to the grid. These costs will be reported by the distribution company and shall be paid by the customer. In order to establish target values on which the distribution companies rate those costs, it is noted that these should be consistent with those costs that support the values contained in the decree fixing the prices of non-consistent services power supply, which are determined by the Court of Defense of Free Competition.

## C. About a generation equipment connected to the grid under this law

### 1. Do I have to hire a specialist to execute the connection process of the energy generation system?

It could be recommended, although the first steps of the connection procedure do not need the assistance of a specialist. These steps can actually be served personally by the end customer.

However the installation of the system and the connection to the grid should only be carried out by an electrician, who has to be authorized by the SEC, in order to avoid danger and harm to persons, property and the devices connected to the grid. The installers also must submit the statement of commissioning to the aforementioned team of the SEC.

The advice of a specialist is also recommended in terms of sizing, designing and simulating the PV system. This specialist should also be qualified and trained in terms of all regulations and requirements and furthermore also ensure proper project execution.

### 2. Is it possible to use any solar panel?

No, it is only possible to use solar panels which are authorized by the SEC. The same applies for inverters which are used for the PV system.

### 3. Is the only possibility to register the energy generation system at the SEC with the SC form?

The equipment for the energy generation must comply with any regulations accounting for electrical installations. Consequently the installation, operation, maintenance and certification of the equipment is ruled and explained in the law "General de Servicios Eléctricos" and the other current technical regulations.

### 4. Can I make use of the SC process if I am the lessor of a property?

No; according to the directives of the law, end customers are those who prove to be the current owners of a property. So if a housekeeper wants to install a renewable energy system he must ask for permission by the owner. The process of application requires among other documents the presentation of the current domain title of the property.

### 5. How and who is responsible for the connection of the generation equipment to the distribution network?

If the answer given by the SC has been confirmed by the customer, the company responsible for the installation of the project connects the system to the distribution network and announces the commissioning of the system to the SEC (Form TE4).

### 6. Is the distributor obliged to allow the connection of the energy generation system to the grid?

Yes, unless the distributor, who is supervising the connection of the system to the grid, detects deviations about the information given in the declaration of the commissioning presented to the SEC. In this case it is necessary to report to the customer, with a copy addressing the SEC, the deviations which were detected and the reasons why the connection was prohibited.

If the customer does not agree with the observations, he could solve this issue directly with the distributor or consult the SEC.

### 7. How can I find out how much electricity I am injecting to the grid of the distributor?

Both consumption and injection will be registered by the energy meter and the distributor is responsible to collect this data correctly,

especially the amount of energy distributed to the grid by the customer's energy generation system.

### 8. Do I have to change my current meter?

To ensure a correct and adequate accounting of the amount of electricity delivered to the grid it is required that the customer provides a proper meter to register any energy flow delivered and received by the grid. Usually most installed meters only register the energy obtained from the grid, in which case it would be necessary to change the meter.

### 9. How will the electricity produced by the energy generation system be valued?

The distributed electricity to the grid will be valued according to the price of energy the distribution companies supplies monthly to the customer according to the price regulations. These values also include the electrical losses of the distribution company. In this case the value of the injected energy will be equal to the energy the end customer receives from the distributor. Further details about pricing will be listed and clarified in the following question.

### 10. Will the produced and delivered electricity be equally valued as the electricity obtained from the grid and the customer pays for?

The injected and consumed energy are valued the same, unless the particular case that the end customer is making use of the tariff BT1a (small consumption in several zones of the central coastal area), in which case there exists a special system to calculate the energy bill by accounting the delivered electricity. In the following paragraphs there are several examples and cases to clarify these facts.

Cases for end customers using the tariff BT1b (small consumption with lower voltage in the central coastal area), BT2 or higher with tariffs for higher voltage (AT), in total there are 10 different types of tariffs:

If the end customer is connected to a high voltage grid in Calama (for example with the tariff AT4.3), which could be the case for a supermarket, the owner of the supermarket will receive approximately 50 CLP per kWh[1] for the injections made to the grid. If the end customer is connected to a low voltage grid with the tariff BT2 or higher, which could be the case for a local business, the injections made to the grid will be remunerated with approximately 54 CLP per kWh.

In previous cases the remuneration for the injections to the grid was equal to the charges the distribution company made to its end customer for their electricity consumption and therefore corresponded to the rate of electricity consumption.

With this tariff the end customer has to pay in additionally the utilization of the grid. This price is dependent on the daytime (typically at night). This service has to be paid according to the tariff "potencia".

One example for an end customer using tariff BT1b (the capacity of the system connected to the grid is <10 kW):

The tariff BT1 (typically used for residential buildings and the meter only measures the electricity but not the potential) does not separate the charges which have to be paid for the grid (charge for the potential), the payment associated with the generation and the loss of electricity during transport and distribution (charge for the energy). In this tariff the charge for the electricity transportation in the grid is spread within many end customers. As a consequence the BT1 tariffs

have an energy flat rate but in which the charge for the distribution network is applied as well whether you own an energy generation system or not (unless there are batteries to store the generated energy).

Concerning the example Calama mentioned above: If there is a PV generator installed, the tariff for delivering electricity to the energy grid is approximately 92,5 CLP per kWh[2]. Of this amount, approximately 54 CLP are associated with the value of energy supplied to the grid (including losses), while the remaining 38,5 CLP correspond to the fee for the grid infrastructure. In case of tariff BT1 the injections of electricity into the grid are remunerated as well with 54 CLP, similar to the other cases described above which are also connected to a low voltage grid.

This means that all the electricity donated to a low voltage grid by end customers, made in the same distribution area, will receive the same remuneration regardless of the tariff the customer chose and will be equal to any other BT energy tariff. Similar regulations account for the electricity injections into a high voltage grid. Nevertheless it is necessary to pay attention to the specific regulations of the electricity tariffs of high voltage grids.

#### 11. What are the regulations for the payment procedure?

The law provides a mechanism which does not include direct payment for the injected electricity to the grid, but the mechanism has established a method that the energy supplied to the grid will be deducted from the energy bill.

If there is a surplus in favor of the customer, the same shall account for the subsequent bills, which must be adjusted according to the IPC.

If the remnants have not been deducted from the corresponding bill, they have to be paid by the distributor to the final customer.

#### 12. IS the distribution company allowed to disconnect the electricity generation system of the customer from the grid?

Yes, but the process is subject to the general rules established in the general law of electrical services.

However, there are cases where the generation system will be disconnected and supplement of electricity to the grid will be prevented. These cases are as follows:

In case of energization of the distribution feeder where the generation equipment is connected (blackout), regardless of the origin of the contingency that caused the energization.

In fact that the distributor stopped the distribution of electricity according to the current regulations because for example the energy bills were not paid in time or at all.

#### 13. What is going to happen if the owner of the generation system intends to change some equipment of the system?

Any modification made on the energy generation equipment has to be reported immediately to the distributor who in return has to inform the customer if the modifications can be accepted according to the compliances or not. In case the distributor negates the modifications, the reasons could be that the modifications endangered a secure distribution, the electrical product quality or the safety of persons, property or devices connected to the network. In this case the customer has the possibility to write a complaint to the SEC. Nevertheless modifications must always comply with current regulations.

#### 14. In case of conflicts with the distribution company, who is able to contribute to a solution of the conflict?

The distribution companies are not allowed to impose technical or operational conditions different to those mentioned in the general electricity service law, the regulations or other documents providing information about technical standards to the customer. The above mentioned corresponds to the SEC which is responsible to accomplish the regulations and resolve claims and disputes arising between distributor and customer.

#### 15. Is it possible to transfer the excess renewable energy to other generators?

The regulations provide the possibility that the injected renewable energy can be considered by energy suppliers, who take electricity from installed capacities up until 200 MW, referring to the compliance of the article 150bis.

---

[1] The later calculations are based considered energy prices from 1st of September of 2014(Source: [www.elecda.cl](http://www.elecda.cl) @ 11/08/2014). It is important to take into consideration that energy injection price depends on: Area / zone of connection; if the client is connect in low or high voltage; date when energy injections were made, according to the Chilean electricity's law energy tariffs are being adjusted regularly.

[2] In case where distribution areas need aerial electric grid.