



Potential impact of the new law for distributed generation in Argentina based on renewable sources

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The clean energy challenge

The new law No. 27424 will contribute to reach the goals set by Law 27191– Incentives to Renewable Energy– and will boost the investment process over the next years.

Introduction

The recent shift of most countries towards an increased contribution of clean energies¹ to generate electricity relies, among other, on the sustainability in time, as they are renewable resources or sources; their irreplaceable contribution to the reduction in greenhouse gas emissions (GHG), mainly, carbon dioxide (or CO₂, arising from the consumption of coal and other fossil fuels, such as oil and gas)²; an improved energy system reliability and security based on the use of renewable resources; reduced dependence on other sources operating on the basis of nonrenewable resources (such as oil, gas or coal) and the geographical distribution of which may be irregular or their extraction unfeasible. Finally, clean energies imply savings to some countries that will be released from the oil and gas dependence requiring amounts in foreign currency that can be earmarked for other productive purposes. Additionally, based on recent surveys, it is estimated that the economies of scale of these technologies will start operating in the mid-term, consequently, cost of capital and operating costs will decrease³. Although Argentina is within the set of countries that are progressively adopting this change, it has not achieved yet a significant reduction in the share of fossil fuels in the primary energy and electricity matrix⁴.

¹ That is, energy from the use of biofuels, biomass and waste as well as geothermal, wind, solar energy and that generated by small hydropower plants ($\leq 50\text{MW}$).

² The large share of CO₂ in greenhouse gas emissions is mainly due to the fact that almost 75% of worldwide energy consumption derives from fossil fuels (Instituto Argentino del Petróleo y del Gas, IAPG).

³ The results of the *New Energy Outlook 2017* from Bloomberg New Energy Finance lead to the conclusion that renewable energies will be the most cost-effective means for generating energy in 2040. Actually, the same report forecasts a 66% shrink in the levelized cost of electricity from solar photovoltaic panels for year 2040 and that such source will be even cheaper than coal in countries such as China, India, Brazil and Mexico.

⁴ As reported by the Argentina's Department of Energy and Mining (MINEM), in 1970, the national energy matrix included 71% of oil, 18% of natural gas and 11% of other resources. The latest official figures available (2016) show that the oil incidence increased to 31% and natural gas to 57%; whereas other resources would add up to 12% (hydropower, nuclear energy and coal, among others). Regarding the electricity matrix, data provided by Compañía Administradora del Mercado Mayorista Eléctrico (CAMMESA) as of 2017 is consistent with that previously observed: while the thermal sources depending basically on fossil fuel account for 64.5% of total electricity; nuclear, hydropower and renewables account for 4.2%, 29% and 2%, respectively.

Actually, since 1998, the country has a legal framework in place that seeks to promote renewable energy, governed by Law No. 25019/1998, aimed at promoting the use of wind and solar energy; Law No. 26190/2007 that was intended to supplement the regulations above, including other renewable sources (such as geothermal, tidal, hydro, biomass and biogas energies) and, finally, Law No. 27191/2015, National Regime to Foster the Use of Renewable Sources for Electric Power, intended to achieve 20% of electricity from renewable sources by 2025. Furthermore, to meet the objectives set by the latest law, in 2016, the MINEM launched the RenovAR program, which consisted in adding new sources of clean energy to the national electricity matrix by means of a tender process, and at the same time, fostering competition and a drop in costs and prices thereof. Up to the last tender process (2017), the program has awarded 4500 MW of power distributed in 147 projects that shall be added to the system over the next years at an average cost of USD/MWh 55⁵.

Although the investments in these energy sources have recently come across some obstacles, such as the need for updating and enlarging the current electric power transmission system together with other issues related to the economic reality and political scenario of the country, the levels of this variable have been steeply ascending since 2011, and accumulated approximately USD 2200 million in 2016 as boosted by the RenovAr program and the firm intentions of the Argentine Government of increasing the supply of clean energies, while reducing the dependence on fossil fuel (which has impaired the energy trade balance since 2011, as a consequence of the increase in imports and the production deficit still prevailing in the local industry of oil and gas).

Within this context, the local boost to distributed generation of energy (DG) from renewable sources entails an additional strategy to the same end. In general, the distributed generation refers to a variety of technologies that generate electricity at or near where it will be used, or when tied into the larger electricity delivery system, it is installed at such points making self-consumption available. The general features of DG are: i) reduction in the loss of transmission in the grid –at least up to a certain threshold or limit that depends, among other factors, on the location and level of penetration of the DG⁶ –, ii) injection of total or surplus energy produced, iii) and the fact that the DG may have lower voltage power and a scale of production that can be both commercial (where total energy generated is injected) and residential (where only the surplus is injected). Additionally, if the DG is supported by renewable sources, despite the fact that generation is much smaller, it provides other benefits related to the environment and the possibility of reducing generation costs in the future. In Argentina, the DG is restricted by law No. 27424/2017 (incentives to distributed generation of renewable energy integrated to the public electricity system) “to the generation of electricity by users of the distribution service that are connected to the grid and, to inject the surplus produced. Such users shall meet the technical requirements set forth by the regulations” (section 3rd subsection h).

⁵ Price that from the first release of the program (2016) to the last (2017) decreased by 10%, from USD/MWh 61.33 to USD/MWh 54.75 (MINEM).

⁶ “*The behavior of electric losses in the system by using Distributed generation*”. Energía Estratégica, November 28, 2017.

It should also be noted that the appropriate scenario for the development of DG is that in which the so-called grid parity exists, that is, where the price of energy sold by the distributor is akin to the price of generating electricity independently, and it is possible to recover the investment made by the small producer in the short or mid-term. Therefore, the applicable authorities usually set out the billing process or fee structure in the regulations that best suit the local electric market conditions in order to boost DG (in Argentina, for instance, net billing or net billing balance system was chosen). In fact, the two obstacles encountered by the governments to seek the DG are the lack of proper legislation (that enables the injection of electricity to the grid by small generating units) and the lack of a market that adequately rewards the generation at a lower scale (as well as the recovery of the investment).

As indicated by some reports in this regard⁷, the guiding principle of this practice through the use of renewable sources and the enactment of the law is basically the reduction in the costs of generating electricity, which usually has a direct impact on total production costs of the industry, thus affecting competitiveness and the growth of the economy. Additionally, boosting DG through public measures and policies provides other benefits, particularly, the increase (though marginal) in the local competitiveness-price ratio of electricity, a situation that is promoted by the decentralization of the energy generation and supply; reduction, to a certain extent, in energy losses in the distribution system (as energy is generated in the point of consumption); and among others, the development of a new green industry (that is, if the market is sufficiently big and there are adequate incentives, the development of an industry focused on the manufacturing of renewable energy equipment may lead to an additional result that may benefit the system from the social and economic viewpoint).

The purpose of this work is to analyze the potential impact in Argentina of the new law of distributed generation based on renewable sources (Law No. 27424 of 2017) –hereinafter LDG– and the benefits that it may promote both in terms of increase in the contribution of clean energy to the national electricity generation matrix and to savings in foreign currency as a result of a lower dependence on fossil fuels. To this end, a brief analysis is conducted about the experience of some countries of the region (that have already implemented the technology, though not exclusively by using renewable energies), as well as the case of Denmark, one of the countries with the highest DG penetration at a global level. Finally, we shall address the potential effects in the future for Argentina.

⁷ “Prospects about distributed generation through renewable energies in Latin America and the Caribbean. Analysis of case study for Jamaica, Barbados, Mexico and Chile”. Inter-American Development Bank (IADB), Capital Markets and Financial Institutions Division together with the Energy Division; November 2011.

I. The recent experience in other countries

In this section, we shall briefly analyze the cases of Denmark and some other Latin American countries. While the European case is justified by one of the countries with the biggest DG penetration at a global level, the Latin American countries are surveyed based on their economies comparable to Argentina and their similar contexts.

According to the Danish Energy Agency (DEA) up to year 2015, about 56% of total electricity supply in Denmark relied on renewable sources, mainly, wind energy (42%) and bionergy⁸ (12%). In line with the clean energy development up to 2017, the latest official figures show that clean energies continue increasing the contribution to the electricity generation matrix, as evidenced by the wind energy that satisfied 43.6% of electricity demand during the prior year (2017), even over the record figure of 2015 (42%). The importance of these figures is confirmed when we considered that one decade ago (1998), renewable sources only had a 10% share in the total electricity supply of Denmark, thus the big leap made by these energies in that country is placed into perspective. Accordingly, it should be noted that the economic measures that have been adopted by the governors since the eighties, particularly focused on DG based on renewable sources have played a leading role. Actually, the strategy implemented may be summarized in four basic points, which, from the very beginning, were focused on increasing the contribution of renewable sources to generate electricity and improve efficiency: i) a program for subsidizing renewable energies; ii) a set of mandatory goals including the prohibition of nuclear energy by the mid-eighties; iii) four energy plans aimed at achieving self-sufficiency and the reduction in the greenhouse gas emissions, among which, the last one, dating from 1996, proposes a 50% reduction in these gases by 2030 with respect to the figures of 1998; and iv) the implementation of a law to promote renewable energy, which, at the same time, established a complex tariff structure known as FIT (*feed-in-tariff*)⁹, by type of technology (wind, solar, biogas, etc.), the values of which were set over the avoided costs¹⁰ required to produce energy based on gas and coal, for the clear purpose of boosting investment in clean energies in the mid and long term, through a program of percentage reductions therein every ten years. Actually, since the implementation of the measures commented above, results have been really encouraging.

⁸ That is, biomass (straw, firewood, oils, wood waste) and biofuels (biogas, biodiesel, etc.).

⁹ It accounts for the fee fixed to be paid to the supplier injecting energy to the grid. Specifically, these tariffs are differential prices payable to small producers so that they can recover their investments in the renewable technologies in the short term (usually from 5 to 8 years). The feed-in-tariffs are offered when there is no grid parity, or, in other words, when the price for consuming energy from the grid is the same (or even less than) as that for generating energy by the small producer (World Energy Council Argentina, 2015).

¹⁰ That is, the economic cost of not using a given source of generation to avoid an environmental impact. It reflects the amount that society is willing to pay to avoid such impact.

At present, DEA statistics show that about 43% of total electricity generated in the country relies on DG, particularly, energy generated by wind sources (auto-producers, 9%) and cogeneration (small and large scale, 34%)¹¹; whereas others, such as large scale units that are oil and gas operated, have been paving the way for DG and renewable energies (wind turbines and hydropower). Additionally, in this line, the carbon dioxide (CO₂) emissions, which are the main drivers of greenhouse gas emissions, have decreased by 40% compared with the emissions in 1998, from total 60,100 kilo-tons a year (kTn/year) to almost 35,100 kTn/year in 2015. Accordingly, future compliance with the objectives of the last energy plan can be projected.

Meanwhile, the Latin American region is making its first steps towards DG if compared with the performance noted in the European case. Actually, Chile is the only one country in which statistics show a considerable share of this technology (about 10% of total generation of electricity)¹², mainly composed, as in most cases, of a mix of conventional and renewable energies. Like Denmark, Chile has a developing legal framework that admits the existence of a private market for generating electricity since the eighties, thus giving a boost to DG mainly at the commercial scale.

The great dependence of this country on both import of fossil fuels and hydropower together with the high electricity tariffs payable by users have been the necessary drivers that made the authorities search for new tools and legal frameworks that foster renewable energy and private generation. Therefore, since 2009, Chile has a Renewable Energy Law (No. 20257) in place, which, not only did it provide a schedule of goals to be met as to contribution of these energies to total energy generated and sold to the grid of such country, but also laid the basis for the creation of tax and financial benefits for the promotion thereof. Furthermore, this framework is completed with the Law of Distributed Generation No. 20571 of 2012, which creates a *net-billing*¹³ system for customers generating energy at a residential scale (based on renewable energies or efficient cogeneration), and other addenda intended to streamline the processes for DG projects with power lower than 1.5 MW, thus fostering DG at a small scale. Despite the measures taken, the statistics of the Comisión Nacional de Energía de Chile (CNE) show that, currently, the renewable sources (biomass, wind, solar, geothermal, excluding hydropower) have an 18% share in generating electricity (4000 MW), while conventional energies (carbon, oil-diesel and gas, among others) and hydropower have a 53% and 29% share, respectively. Based on this energy mix, the DG, as mentioned, provides about 10% of total generation, and the renewable energies share is only one fraction.

¹¹ Procedure whereby electrical and thermal power is simultaneously obtained from a primary source (that can be either renewable or derived from fossil fuels). It is also one of the most efficient technologies used in the production of energy.

¹² “*Prospects about distributed generation through renewable energies in Latin America and the Caribbean. Analysis of case study for Jamaica, Barbados, Mexico and Chile*”. Inter-American Development Bank (IADB), Capital Markets and Financial Institutions Division together with the Energy Division; November 2011. See also: “*Solar energy in Mexico. Potential and Use*”; Centro de Investigación Económica y Presupuestaria, 2017.

¹³ System whereby the costs of electricity demanded are offset against the price of electricity injected to the grid in accordance with the invoicing system established by the regulations.

Finally, based on the decreasing costs showed by renewable energies in the future, its growth statistics around the world and the fact that most of the worldwide investment made therein is explained by DG (about 20%)¹⁴, the Energy Department of Chile¹⁵ estimates that clean energies will contribute with 27% of the electricity matrix of Chile by 2022, which may boost the renewable DG in the future.

The DG of Mexico, on the other hand, is born in the nineties when amendments were introduced to the regulatory framework of the electricity sector to enable the private supply of energy. As in the preceding case, the DG at a commercial scale has been the only one economically viable so far, mainly based on conventional sources, which has delayed the introduction of the small or residential scale supply that is usually related to generation from renewable sources. Based on the results of the report prepared by the IADB¹⁶ in year 2011, the DG accounted for 8% of total generation of energy existing up to such moment in Mexico. If it is assumed that this figure has been kept more or less constant over the last years and it is applied to the current installed capacity (about 74,000 MW)¹⁷, currently, the DG would account for some 6000 MW.

Mexico has an enormous potential for generating electricity based on renewable sources, mainly, solar and wind energy. Nevertheless, the 2017 report of the Centre for Economic and Budget Research (acronym in Spanish: CIEP) about photovoltaic energy¹⁸ shows that despite the fact that it is one of the countries with the largest territory and solar radiation exposure (5,5 kWh per square meter), it is also the country where it is least exploited, particularly, when compared with countries with smaller territories, such as Germany (1.1 kWh per square meter), or less exposure, such as China (4.5 kWh per square meter), which, however, generate solar energy in higher amounts. Accordingly, the contribution of renewable energies to total installed capacity for generation, even though figures are low when compared with conventional energies (such as fossil or hydropower accounting for 71% and 17%, respectively)¹⁹, is progressively increasing the share in the electricity matrix of the country favored by different measures and policies, which, at the same time, seek to foster renewable DG and at a small scale. The government of this country has pushed changes to the regulatory framework since 2008 in order to ease the inclusion of renewable energies, increase its contribution to the local electricity matrix and foster private generation. Accordingly, the laws of the electric industry (2014) and energy transition (2015) aimed at regulating and planning the National Electricity System (SEN) and the Public Service of Transmission and Distribution, as well as the sustainable use of energies, and the new obligations or goals in terms of clean energy and reduced greenhouse gas emissions are worth mentioning.

¹⁴ “*Global trends in renewable energy investment 2018*”; UNEP, Bloomberg New Energy Finance, 2018.

¹⁵ “*Distributed generation in Chile*”. Energy Department, Renewable Energies Division, 2016.

¹⁶ “*Prospects about distributed generation through renewable energies in Latin America and the Caribbean. Analysis of case study for Jamaica, Barbados, Mexico and Chile*”. Inter-American Development Bank (IADB), Capital Markets and Financial Institutions Division together with the Energy Division, November 2011.

¹⁷ “*Progress report on clean energy. First half of 2017*”. Energy Department of Mexico (SENER), 2017.

¹⁸ “*Solar energy in Mexico. Potential and Use*”, Centre for Economic and Budget Research (acronym in Spanish: CIEP), 2017.

¹⁹ “*Progress report on clean energy. First half of 2017*”. Energy department of Mexico (SENER), 2017.

At the same time these measures are intended to solve a problem common to most of the countries of the region: the continuous increase in the energy demand and the supply deficit. Additionally, since 2007, Mexico has a regime in place that allows residential, commercial and industrial users to auto-produce energy from renewable sources (solar)²⁰, with the possibility of injecting any surplus (or the whole production) to the grid (that is, the surplus or the production can be sold to the Federal Commission of Electricity or CFE, through the *net-billing system*). In connection with this initiative, statistics of the Mexico Energy Bureau (SENER) indicate that the renewable energies share in the total installed capacity (for generating electricity), without considering hydropower and nuclear energy, account for 8% (if hydropower and nuclear energy are considered, this percentage rises to 30%); figures that are consistent with the current development phase of renewable DG in such country. Actually, at present, *renewable DG* has a marginal share in total installed capacity for generating electricity in this country, and, according to specialized sources²¹, it did not even reach 1% thereof by the end of 2016 (about 250 MW). Most of the energy generated is photovoltaic (98%).

Although other Central American countries, such as Jamaica and Barbados, are consistent with the rest of the countries of the region and have a little DG share in total generation capacity (from 1% to 2%), they stand out, as the energy generated is one hundred per cent renewable, mainly, from solar and biomass sources.

II. Potential impacts of DG on Argentina

In Argentina, the recent enactment of Law No. 27424 *Incentives to distributed generation of renewable energy to be contributed to the grid* (LGD) entails the following step within the transition towards the electricity generation matrix with a larger percentage of clean energies (including hydropower and nuclear energy), after setting up a solid framework for encouraging investment and the use of renewable energies at large scale (that is, in the wholesale market), mainly as from the enactment of Law No. 27191 of 2015 and the tender program, RenovAr, which as mentioned, by 2017, has awarded about 4500 MW of additional power from this type of sources, which shall be progressively added to the total installed power over the following years.

In general terms, the LGD is the set of rules needed to boost the decentralization of the generation market favoring the involvement of citizens not only as consumers or users but also as potential producers (*prosumers*), thus making self-consumption possible and the subsequent injection or sale of the surplus to the distributors.

²⁰ National Development Plan 2007-2012.

²¹ “*Small-scale Photovoltaic energy market. Distributed generation*”. Mexico climate initiative (CLIMA) and ABM, page 16; 2017.

Although the referred law implies a drastic change of the electricity generation and distribution model known up to date, it is not fully new, since some provinces, such as Santa Fe, Neuquén, Salta, San Luis and Mendoza have regulations in place and different financing programs to promote the installation of generating equipment at small scale, although the success thereof, so far, has been relative²².

In fact, the lack of incentives for the installation of DG technology was mainly explained by the low cost incurred in electricity consumption by users (as a result of the freeze on utilities tariffs and the existing subsidy program). Therefore, the use of mechanisms such as *net-billing* or *FIT* to promote investments in DG was uninteresting. However, at present, as the process for the elimination of subsidies has made a great progress and the tariff structure has been reorganized, the tools and mechanisms leading to a set of benefits that may help progressively reach the grid parity are deemed to be critical and *lay the basis for developing and supporting DG*.

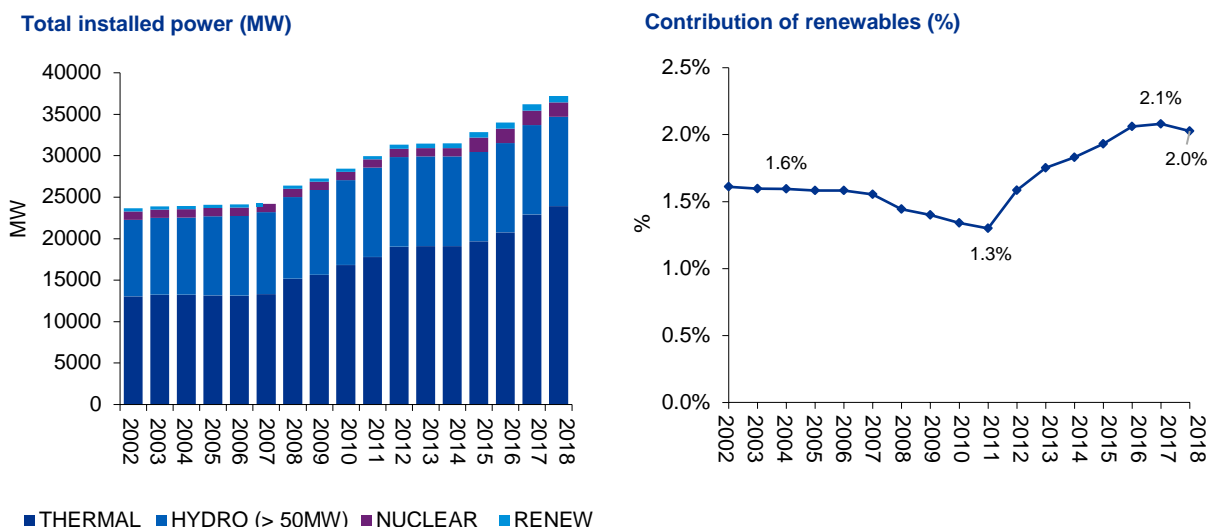
Additionally, the specialists²³ assert that DG offers, at the same time, other advantages or benefits from a social and economic viewpoint, such as the creation of skilled employment (from energy auto-production to that associated with the manufacturing of equipment of generating units, operating with clear energy, such as solar and wind), the development of a green industry, the reduction in greenhouse gas emissions, the drop in costs associated with carbon dioxide (CO₂) emission, less investment requirements for large scale infrastructure works (or saving of resources for central planning) as well as the lower dependence on fossil fuels.

In this regard, the LGD sets forth the legal and contractual terms and conditions based on which the generation of electricity from renewable resources by users of the grid is allowed for self-consumption and potential injection to the grid. Furthermore, the utilities providers are bound to ease the implementation of the referred activity, while securing the free access to the grid. The Law also proposes the creation of the Fund for the Distributed Generation of Renewable Energies (FODIS), aimed at providing the necessary resources and financing to promote DG through loans, subsidies and rebates; and the Incentive Regime for the National Manufacturing of Systems, Equipment and Supplies for DG from Renewable Sources (FANSIGED), intended to boost the national manufacturing of equipment, systems and supplies related to renewable GD. Some other sections of the same Law impels building projects within the public sector to consider the potential use of any renewable DG system, while they stress the need for analyzing the existing public buildings in order to gradually implement this technology therein. Finally, with respect to the invoicing procedure chosen (that is, the system that will be used to net or offset the value of the electricity consumed from the grid against the electricity injected thereto), the LGD establishes the *net-billing* method, whereby the monetary value of electricity demanded and injected is offset under a number of guidelines set out in section 12.

²² Nevertheless, these programs have sought to promote the use of technology itself but without dealing with or addressing the source of generation, which is the main purpose of Law No. 27424 of renewable DG.

²³ “*About renewables and distributed generation*”. Annual Environmental Report, Instituto Nacional de Tecnología Industrial (INTI), 2017.

Figure No. 1
Total installed power according to generation sources and renewables contribution.
2002-2018 Period



Note: the renewable sources include hydropower with power lower than 50 MW.

Source: Prepared by KPMG based on the CAMMESA's data, 2018.

In general terms, and as mentioned, the renewable sources do not currently have a considerable weight in total installed power for the local generation of electricity (only 2%, that is, 0.8 GW); a situation that has remained unchanged over the last 20 years (see *Figure No. 1*). However, it is expected that based on Law No. 27191 and the results of the RenovAr program, this scenario may change in the mid-term, even if we consider that the objectives of the Law include achieving a 20% share of renewables in the total generation of electricity by 2025; a goal that the LGD may help approach if, in addition, a set of policies and measures intended to boost DG from renewable energies is implemented.

In the report “*Investments in sources of generation in the national electricity sector*” (KPMG, 2017)²⁴, it was possible to project, based on a regression analysis, a local demand for electricity of approximately 184,000 GWh by 2025, which would imply that total installed power of 50,000 MW would be attained, considering the current energy scenario as a parameter and the invariability of the contribution of technology and the average hourly generation of electricity per MW installed (which has ranged from 3.8 to 4 GWh/MW over the last five years). Nevertheless, as Law No. 27191 states that renewable energies shall contribute 20% to the electricity matrix by 2025, and assuming the fairly certain decrease in the contribution of thermal sources, the power to be added by renewable sources should amount to 10 GW. Although the RenovAr program has already added some additional 4500 MW of power for the next years, this figure would not be sufficient to attain the goal mentioned above. Although this scenario requires more investments, as a result of the nature of the program (actually, it is stated that the

²⁴ “*Investments in generation sources in the national electricity sector*”. KPMG Argentina, June 2017.

third Release of RenovAr will be conducted in 2018, giving priority to the public-private participation or PPP), it also provides a great opportunity for the development of local renewable DG technology, which, additionally, can cooperate with local efforts to save foreign currency from the import of fossil fuels and with the environmental policies aimed at reducing carbon dioxide emission²⁵.

Final considerations

Law No. 27424, Incentives to distributed generation of renewable energy to be contributed to the grid (LGD) entails the following step within the transition towards the electricity generation matrix with a larger percentage of clean energies. Regarding renewable energies, until the last tender of the RenovAr program, in 2017, the authorities had awarded about 4500 MW of power, which shall be progressively added to the total installed power over the following years, at an average cost of USD/MWh 55 reached in the last release. The renewable sources do not currently have a considerable weight in total installed power for the local generation of electricity (only 2%).

The local boost to distributed generation of energy from renewable sources entails an additional strategy to the same end. As mentioned, the distributed generation refers to a variety of technologies that generate electricity at or near where it will be used. However, it should be noted that the most suitable scenario for the development of DG, based on either renewable or conventional sources, is that enabling the grid parity, so that the small investor can secure an adequate return on its investment in energy generation. In the Argentine case, the LGD aims at this goal through the net billing mechanism.

Additionally, the DG can provide other benefits, such as: decentralization of the energy generation and supply and the potential increase in the local competitiveness-price ratio of electricity; potential reduction in energy losses in the distribution system (at least until certain point or threshold); and among others, the development of a new green industry. Considering that RenovAr program has added some 4500 MW of power for the next years and, as that amount would not be sufficient to meet the goal proposed by Law No. 27191 (that is, renewable energies shall contribute 20% to the electricity matrix by 2025), there is a window of opportunity for the development of renewable DG in Argentina.

Finally, it is necessary to consider that the use of this opportunity will heavily depend on the economic scenario. The current context, with a depreciated exchange rate, a tariff structure tied to the US dollar and high interest and inflation rates cannot be deemed as the desired conditions for the small producer, who will only invest in DG technologies to the extent that it can make an adequate return on the investment and recover it in the mid-term. Furthermore and as a reply to the Government's decision to progressively reduce the fiscal deficit, a decrease in public sector investment is estimated over 2018, which may affect in whole or in part the improvements to local infrastructure, mainly, those referring to the expansion of the grid.

²⁵ Actually, MINEM, in its report "*RenovAr. Renewable energies plan. Argentina 2016-2025*", estimated that the investment in these energies projected by 2025 would allow savings of USD 300 million in fossil fuel and a reduction in CO2 emissions equivalent to 2 million tons a year. Then, the DG may contribute and enlarge these figures in the future.

Despite this situation, which can be considered as temporary, the strategy for the transition towards the electricity generation matrix with a larger percentage of clean energies is a mid-term plan; and although it can be subject to short-term variations, the support provided by a regulatory framework that promotes investments paves the way to secure the future success.

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