Argentina's energy infrastructure: prospects, challenges and opportunities

阿根廷的能源基础设施:前景、挑战和机遇

Although electricity consumption in Argentina has grown steadily since 1992, the country's government has been unable to ensure that investment in installed power capacity maintains the same pace. This article addresses Argentina's main challenges with increasing energy supply to adequately cope with consumption growth as well as the proposals for tackling the challenges and investment opportunities associated with those plans.

虽然电力消费在阿根廷自 1992 年以来一直稳步增长,该国政府已无法保证在发电装机容量的投资保持相同的步 伐。本文讨论了阿根廷面临的实现日益增加的能源供应以应付能源消费增长的主要挑战,以及为解决与这些计划有 关的挑战和投资机会提出的建议。

Challenges and opportunities in Argentina's electricity sector

While electricity consumption in Argentina grew steadily since 1992 (a 142% cumulative increase), investment in installed power capacity did not match that pace. Due to recent record capacity usage, it is estimated that 14 to 21 GW of generation capacity must be built in the following 10 to 15 years in order to adequately meet the expanding demand.

Argentina's government ratified a law that establishes that by 2016 8% of electricity consumed in Argentina must be generated by renewable sources (e.g., wind, thermal and photovoltaic solar, biomass, tidal, geothermal, small hydro projects - up to 30 MW - and biogas). In doing so, Argentina is tackling the challenge of expanding power generation through both conventional projects (large hydropower, natural gas combined cycles and nuclear) and renewable power projects.

Argentina's natural resources afford the country an excellent opportunity to meet the challenge. Patagonia has significant potential for wind and hydropower, the north and western deserts are ideal for solar facilities and the country's agricultural and forestry resources provide the opportunity for biomass co-generation projects.

Government plans

Hydropower

The Federal government has approved the National Hydroelectric Works Program (the "Program") to encourage the construction of hydroelectric power plants in Argentina through structures with cash flows that will adequately guarantee the repayment of the investments and financing.

To that end, the Program contemplates the possibility of establishing an electricity market administrator (Compañía Administradora del Mercado Mayorista Eléctrico Sociedad Anónima, or "CAMMESA") and power generators for the Wholesale Electricity Market (Mercado Eléctrico Mayorista, or "MEM") to enter into power purchase agreements ("PPA") linked to the energy generated by the hydroelectric projects under the scope of the Program.

PPAs will have a maximum term of 15 years, which may be extended by the Secretariat of Energy under exceptional circumstances. Once that term has elapsed, each hydroelectric power plant falling under the scope of the Program may trade its power at the price established by the MEM.

Wind and other renewable sources

As previously mentioned, the goal of the National Renewable Energies Incentive Regime (the "GENREN program") is to have 8% of the electricity consumed in Argentina in 2016 generated by wind, solar, geothermal, tidal and small hydro (up to 30 MW of capacity) and biomass sources.

The GENREN program includes the following features

i. Tax benefits:

Including either (i) an anticipated VAT refund for durable goods used in the project; or (ii) accelerated amortization of the goods used in the project for Income Tax purposes.

ii. Long-term PPAs with government offtakers

The Federal government has encouraged the execution of long-term PPAs between governmental entities acting as offtakers and private developers as suppliers. In this regard, a PPA corresponding to 750 MW of capacity in wind projects was recently awarded in the range of 120-130 USD MW/hour and other bid projects are expected to be awarded soon. It is worth noting that since 2011 it is possible to execute PPAs without a prior bid and developers may submit projects directly to CAMMESA.

The basic terms and conditions of PPAs are as follows: (i) 15-year fixed term with a fixed MW/h price denominated in USD to be agreed by the parties; (ii) guarantee by the offtaker to purchase the project's supply up to an agreed quantity; and (iii) possibility of assigning the PPA's cash flow to third parties.

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