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On-Site Power Generation for Industrial End Users in Mexico: New Opportunities Under the Self-Consumption Framework

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On-site power generation experienced significant growth in Mexico beginning in the 1990s through the regulatory schemes of simple self-supply and cogeneration, and, since 2014, as a result of the now-abrogated Electricity Industry Law, which introduced the concepts of isolated supply as well as exempt/distributed generation, the latter limited to projects below 0.5 MW. In particular, isolated supply allowed individuals or a group of entities with a common economic interest to generate electricity to meet their own needs, with the possibility of interconnecting to the grid as well as selling surplus power and purchasing shortfalls when needed.

After the development of multiple projects across the country, the isolated supply scheme suffered collateral effects during the 2018–2024 administration due to broader policy actions aimed at utility-scale private generation. These effects materialized in difficulties obtaining permits and interconnection contracts, as well as in certain regulatory restrictions introduced in 2021.

Following this period of uncertainty, the publication of the 2024 constitutional amendments on energy and the subsequent entry into force of the Electricity Sector Law (“LSE”) and its Executive Rules (“RLSE”) in 2025 have established a new energy framework in Mexico. With respect to on-site generation, the LSE replaced the isolated supply regime with the concept of self-consumption, which shares certain similarities but also presents important differences. Finally, with the General Administrative Provisions governing the Self-Consumption of Electricity (the “Regulations”), issued by Mexico’s National Energy Commission (“CNE”) in December 2025, the legal framework for the development of these projects has been fully determined, marking a new stage for on-site power generation in the country.

Self-consumption is defined as the generation of electricity through a power plant with a capacity equal to or greater than 0.7 MW to meet on-site energy needs. Such facilities may interconnect with the National Electric System (“SEN”) or remain isolated, at the discretion of the developer. Load centers operating under a self-consumption scheme may connect to the SEN to purchase electricity under different supply arrangements, provided that they execute the relevant connection contract and comply with applicable regulations. Of particular importance, the RLSE expands the concept of “own needs” to allow multiple end users to be supplied through a self-consumption group within a private network, marking a key distinction from the former isolated supply regime, which required end users to belong to the same economic interest group.

Modalities of self-consumption.

Self-consumption may be structured as either isolated or interconnected. Under isolated self-consumption, all electricity produced by the power plant is used exclusively for on-site consumption within a private network and the facility is not interconnected to the SEN. This modality only requires a generation permit and does not require interconnection studies, market registration, or representation in the Wholesale Electricity Market (“MEM”). Despite the broad language of the LSE, the Provisions clarify that an isolated self-consumption power plant must not be synchronized with the SEN, which virtually makes it impossible to structure isolated self-consumption schemes where the load center maintains a connection point with the grid.

In interconnected self-consumption, electricity produced by a power plant is used for on-site consumption while the facility is interconnected to the SEN, either with or without injection into the grid. The framework also allows excess electricity to be injected into the SEN without compensation or sold to the Federal Electricity Commission (“CFE”), provided that the applicable conditions are met, which, in the case of intermittent technologies, include the availability of an energy storage system. Where no energy injection is contemplated, therefore no sale of surplus electricity, the project must include protection devices that ensure no electricity is injected into the SEN, as well as an express waiver by the permit holder of the right to sell electricity.

The LSE provides that load centers operating under self-consumption, whether isolated or interconnected, which do not fully meet their energy needs through their own generation facilities may connect to SEN in order to purchase electricity and associated products under the basic supply, qualified supply, or market participant schemes, provided that they comply with the Market Rules and other applicable regulations. Additionally, the LSE establishes that end users participating in self-consumption schemes are subject to clean energy obligations.

Permits and authorizations.

By statutory definition, all self-consumption power plants require a generation permit. Depending on their capacity and modality, permits may be requested through three procedures under the applicable regulatory framework:

Ordinary procedure without an Energy Sector Social Impact Assessment: applicable to isolated self-consumption projects below 20 MW.

Simplified procedure: applicable to interconnected self-consumption power plants with a capacity equal to or greater than 0.7 MW and below 20 MW.

Ordinary procedure: applicable to all other scenarios not covered above.

Interconnected self-consumption projects may require authorizations such as social and environmental impact assessments, registration in the clean energy certificates' system administered by the CNE ("S-CEL"), and completion of the interconnection procedure before the National Center for Energy Control ("CENACE"). In the latter case, projects with a capacity below 10 MW may access a simplified interconnection procedure under the Manual for the Interconnection of Power Plants and Connection of Load Centers.

Self-consumption groups.

Unlike the former isolated supply regime, the current framework allows self-consumption schemes to serve the needs of multiple end users that do not have a corporate relationship with one another, provided that the project operates through a private network. A self-consumption group consists of a power plant associated with a generation permit for self-consumption and the load centers of one or more participating users that allocate the electricity generated by the plant to meet their energy needs through such private network.

In addition, the Provisions create a Self-Consumption Registry administered by the CNE, which must be updated prior to the start of operations and, thereafter, whenever a relevant modification occurs or on an annual basis. This registry consolidates information regarding the facilities and the users participating in the scheme.

Final remarks.

We consider that the current regulatory landscape is favorable for the development of on-site generation projects under the self-consumption framework in Mexico. The new regime allows self-consumption groups with multiple users, even without corporate affiliation, opening opportunities for industrial parks and other developments with multiple load centers, which could support projects of larger capacity and improved economic feasibility.

At the same time, electricity demand from end users continues to increase, while the development of new generation capacity and transmission and distribution infrastructure faces significant challenges. In this context, self-consumption is emerging as an attractive alternative to help meeting part of that demand.

In conclusion, despite certain regulatory and operational limitations, the new self-consumption regime creates favorable conditions for the development of on-site generation projects for the industrial sector in Mexico, particularly those with a capacity below 10 MW, which benefit from simplified interconnection procedures, and even those below 20 MW, which may benefit from more streamlined permitting requirements.

At CCN, we have extensive experience supporting our clients in the development of on-site generation projects of all types and would be pleased to place that experience at your disposal.