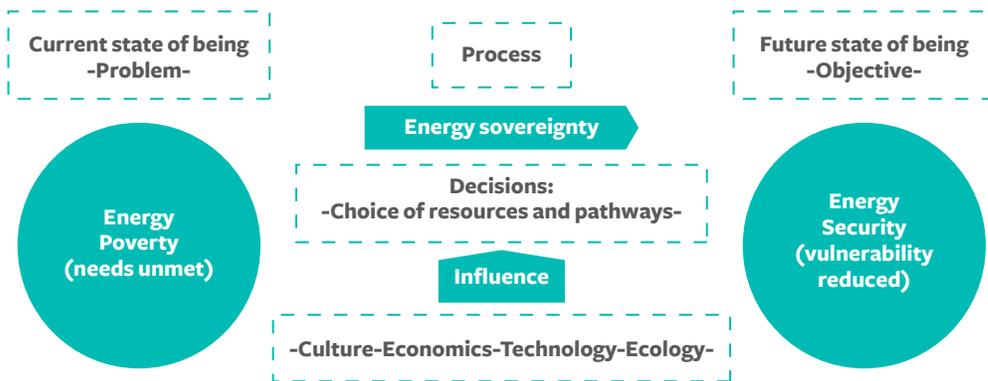


Energy sovereignty for making end goals meet.



The current administration has set its goal in achieving energy sovereignty, though it appears that the road chosen for this purpose is by strengthening the State Productive Enterprises, Comisión Federal de Electricidad (“CFE”) and Petróleos Mexicanos (“PEMEX”). However, if these companies were to become super strong, does this guarantee Mexico has achieved the long-sought energy sovereignty? And, even if sovereign, does this mean we have the basic energy security? Not necessarily.

END GOAL VS MEAN GOAL. Every country’s basic energy end goal is having **energy security**: “the uninterrupted availability of energy sources at an affordable price”. To achieve this, public policies may set **energy sovereignty** as a mean goal, understood as “the right of conscious individuals, communities, and peoples to make their own decisions on energy generation, distribution, and consumption in a way that is appropriate within their ecological, social, economic, and cultural circumstances, provided that these do not affect others negatively.”



2 Conceptual interlinkages between energy poverty, security, and sovereignty

As shown in the diagram, energy sovereignty policies are influenced by several factors. Combine all of them and the result is a policy directed to energy security, where energy systems are resilient to any shock, whether external or internal. In the Mexican case, the Cultural influence (mainly the national pride of our State Productive Enterprises) has always been important in our Energy Sovereignty definition though they could not be aligned with the Mexican People energy security goals.

For instance, at the State Productive Enterprises’ current status, the sole focus on strengthening them may be delaying our energy security. Why? Here, two examples:

Comisión Federal de Electricidad. In 2020, more than 60% of CFE’s electricity is generated with natural gas; however, 64% of natural gas consumption is imported. Without more domestic natural gas production, a dominant CFE may actually be putting our energy security and (unwarily) **sovereignty at stake**. Moreover, reducing participation of renewable sources in Mexican energy mix neglects our renewable energy potential and energy mix diversification, putting Mexican **energy security at risk**.

Petróleos Mexicanos. In order to substitute fuel imports, the government has decided to strengthen the national refining system. By doing this, it’s exercising its energy sovereignty to achieve energy security, nevertheless, at current PEMEX’s debt (USD\$107 B), the required budget allocation for refining translates in less budget for upstream activities, which has been unable to stop declining production. Thus, import substitution could make PEMEX financial situation even worse, weakening our energy sovereignty. Additionally, to strengthen PEMEX, the government has decided to stop bidding rounds for private participation, thus reducing our country’s restitution reserves and weakening our energy security.

Sources:
 1 IEA. <https://www.iea.org/areas-of-work/ensuring-energy-security> 2. Laldjebaev, Murodbek & Sovacool, Benjamin & Kassam, Karim-Aly. (2016). Energy security, poverty, and sovereignty: Complex interlinkages and compelling implications.

MEXICAN ENERGY POVERTY:

- Despite of our vast natural resources...
- 68% of Natural Gas consumption comes from USA imports.
 - 71% of fuels (gasoline, diesel and jet fuel) consumption comes from USA imports.
 - Unstoppable declining production during the last 15 years is the main threat for Mexico becoming a crude oil net importer increasing energy poverty.

Logistics is key to energy security, but in Mexico...

- Natural Gas Storage capacity is less than **5 days** of demand (vs **35 days** in Spain)
- Fuel storage (gasoline, diesel, jet fuel) capacity is **3 days** of sales (vs **56 days** in Italy)
- Natural Gas pipelines of **60,000 kilometers** (vs **+200,000 km** in Texas)
- Fuel Stations of **+13,000** (vs **+12,000** just in Texas)

SLIGHT POLICY TWISTS THAT MAY HELP:

- Assume national private investment as Mexican and maximize investment (public+private)
- Start a National Energy Planning together with private sector aiming at energy security at the center.
- Balance Cultural, Economic, Technological and Ecology criteria to clearly define Mexican energy sovereignty and guarantee our energy security.
- Work with the current legal framework as it compatible with strengthening our State Productive Enterprises.
- One option is to farm-out. But another less explored option is to call for bidding rounds with model contracts that either:
 - Expressly include a participation of PEMEX, in accordance with article 16 of the Hydrocarbons Law, or
 - Grant an option for PEMEX to choose to participate in the E&E Contracts, at any stage, by chipping in. This is international practice, even recognized by the AIPN Model JOA.

Talanza Energy is a consulting firm specialized in regulatory compliance in the Mexican energy sector. We guide our clients into achieving a fast and seamless execution of their projects as we align their operation objectives with the compliance of all regulatory requirements.

ANALYSTS



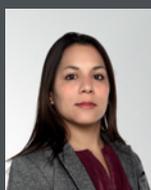
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We are a unique firm integrated by experts in energy regulation and public administration, conformed by a professional team with vast experience in the evolution of the energy sector during the last 10 years.

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