

Economic Analysis

Amendments to the Mexican Electricity Industry Law come at a cost to cheaper, cleaner energy sources

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- Although renewables such as solar and wind power can pose problems with intermittency, dispatching the most expensive and most polluting electricity first is not the answer.
- With the right mechanisms in place, the CFE (*Comisión Federal de Electricidad* — Mexican Federal Electricity Commission) can provide electricity whenever there are intermittency problems and be compensated for doing so. Countries such as Germany and Denmark have adopted policies to tackle intermittency problems.
- The proposed bill is yet another example of Mexico changing the rules for investors once the game has already begun and agreements potentially being breached.
- If it is approved, this will be a backward step in competitiveness, sustainability and the rule of law.

On January 29th, the office of the Mexican President sent to the House of Representatives a fast-track bill to reform the Electricity Industry Law. The main goal of this reform is to give priority to the Federal Electricity Commission (CFE), under a set of predefined rules, to the detriment of private investors who had decided to invest in the country. The strategy for this objective makes no provision for greater investment to streamline processes within the CFE (a company that lost more than 60 billion pesos in the first quarter of 2020) so that it can reduce its costs or increase renewable energy alternatives; instead, it suggests that the CFE should be given preference on options that are more efficient in economic and ecological terms.

Priority for CFE over competitors and renewable energy

Under this initiative, the order of dispatch from power plants will be:

1. Energy produced by hydroelectric plants.
2. Energy generated at other CFE plants.
3. Private wind and solar plants.
4. Private combined cycle power plants.

Table 1. **POWER GENERATION COSTS**
 (MXN PER MWh AND % VARIATION)

Vesting contracts CFE				Vesting contracts IEP			
Technology	Dec-19	Nov-20	Δ %	Technology	Dec-19	Nov-20	Δ %
Combined Cycle	1,319	1,539	16.7	Combined Cycle	943	1,662	76.1
Thermal	1,508	1,611	6.8	Wind	1,776	2,240	26.1
Carboelectric and nuclear	1,350	1,462	8.3	Total	963	1,673	73.7
Conventional thermoelectric	1,608	2,049	27.4				
Internal combustion	2,486	2,287	-8.0				
Turbogas	2,301	1,745	-24.2				
Large-scale hydroelectric	909	1,219	34.1	Long-term tenders			
Small and medium-scale hydroelectric	769	822	6.9	Technology	Dec-19	Nov-20	Δ %
Intermittent	1,011	1,268	25.4	Intermitentes	552	381	-31.0
Wind	1,247	1,616	29.6	Wind	552	381	-31.0
Solar	2,331	2,536	8.8	Solar	552	381	-31.0
Intermittent mini-hydro	976	1,208	23.7	Geothermal	552	381	-31.0
Geothermal	1,117	1,140	2.1	Total	552	381	-31.0
Total	1,345	1,505	11.9				

Source: BBVA Research with data from the CRE (Comisión Reguladora de Energía — Energy Regulatory Commission)

The order is not in any way based on efficiency or environmental considerations. The CFE is simply given priority for its power generation over alternatives that are less costly in economic and environmental terms.

The justification for this decision is partly based on the commitment made by the current government not to increase fees and to ensure energy security. However, if priority is given to more expensive power generation, it will pressure fees or it will put a strain on public finances, or both. This contradicts the intention not to increase fees or impose higher costs on the Treasury.

The clearest example of this situation is seen with long-term tenders, in which clean energy is cheaper and even report a reduction in costs. These kinds of tenders can also combat corruption, unlike direct awards.

Some argue that we should not be dependent on clean energy, as it can pose problems with intermittency. This is true. It is not always possible to get the ideal conditions where you have enough sun or wind to meet the demand. However, it does not mean we should resort to dispatching the most expensive and most polluting electricity first. There would be fewer intermittency problems if more were invested in clean energy. The more points there are to capture solar and wind power throughout Mexico, the fewer lulls in supply there will be. The CFE therefore needs to invest in improving the power grid to capture clean energy from more points. There also needs to be a supply from the CFE in case this is required in situations where the supply of clean energy is significantly reduced.

It is true that this requires the CFE to invest in being a last resort dispatcher and that this has its costs. Mechanisms can therefore be put in place to compensate the CFE for these investments. For example, new investors in clean energy (not those who have already invested as they did so under predefined rules) could be asked to make a compensatory payment in situations where their output falls below certain parameters. Users could also be charged a higher rate to compensate the CFE, whereby the rate reflects the costs that would be incurred by the state company for being a last resort supplier. That would still be cheaper than consuming the most expensive energy supplies first. And the government could also subsidize some of these investments, as this would have a positive externality in terms of environmental improvements.

If greater energy sovereignty is to be pursued, more must be invested in energy sources in which the country has abundant resources. Relying on hydrocarbons means having to import more inputs.

Countries such as Germany and Denmark are making great strides toward having more clean energy. These countries have no problems with blackouts or fears of losing their sovereignty. Mexico would have to invest even more as its potential for obtaining electricity from the sun and the wind is much greater than in those countries.

Ministry of energy's sectoral policy has already been disputed by the SCJN (*Suprema Corte de Justicia de la Nación* — Mexican Supreme Court of Justice)

Another proposed change in this initiative is that all government agencies in the energy sector should coordinate with the sectoral policy formulated by the Energy Secretariat. However, on February 3th, the Mexican Supreme Court of Justice ruled against 22 provisions of the aforementioned policy. This, among other reasons, is because it goes against the transition to renewable energy and competition. This is again contrary to the explanatory statement for this initiative, which refers to the fact that it will allow fair competition. The same arguments put forward by the Supreme Court to annul the aforementioned policy may, in our opinion, be used against this initiative.

Initiative would result in economic competition detrimental to the market

This initiative subverts economic competition, not only because it seeks to establish an energy policy that the same Court found detrimental to competition, but because priority does not favor the most efficient supply and is instead imposed on the CFE. If approved, the initiative would reduce incentives to innovate to become more efficient, as that would not guarantee greater market share, nor would it be profitable. The dominant player will also have greater bargaining power with both customers and suppliers because their market share is secured. In other words, there is no doubt that the initiative gives the CFE market power.

Highly likely that trade disputes will skyrocket and investment will be inhibited

Acknowledge of Mexico's right to reform its Constitution and domestic legislation, as well as the dominance and ownership of all hydrocarbons in the subsoil of the national territory and exclusive economic zone established in chapter 8 of the USMCA is often referenced to argue that the energy sector does not enter into this trade agreement. However, it refers only to hydrocarbons and the ownership of materials located in the subsoil; it does not refer to power generation. While, like any country, Mexico has the right to reform its Constitution and domestic legislation, this does not mean that such reforms can go against international agreements. Specifically, the agreement provides that sectoral regulation should not increase restrictions, for example, on international competitors.

This initiative would generate a number of trade disputes. The thinking is simple, as it violates the agreement on investment, economic competition, transparency and non-discrimination of foreign suppliers in public procurement. This is due to the preference for generation by the CFE to the detriment of other more efficient and less polluting sources that the initiative proposes. Moreover, it would enable compliance with international agreements on the use of renewable energy to combat climate change.

We must remember that there are companies that have invested more than \$40 billion to produce clean energy. They did so under a set of clear, predefined rules that, among other things, implied that they would obtain Clean Energy Certificates (CECs) if they met certain parameters for which significant amounts had to be invested. The bill envisages granting CECs to the CFE even if these parameters are not met. This is an example of changing the rules of play once the game has already begun. It is also an example of favoring one player over another, which, as we have already pointed out, would be a violation of the USMCA. If approved, the bill could render the investments made by these companies obsolete. Economically, this would be comparable to expropriation.

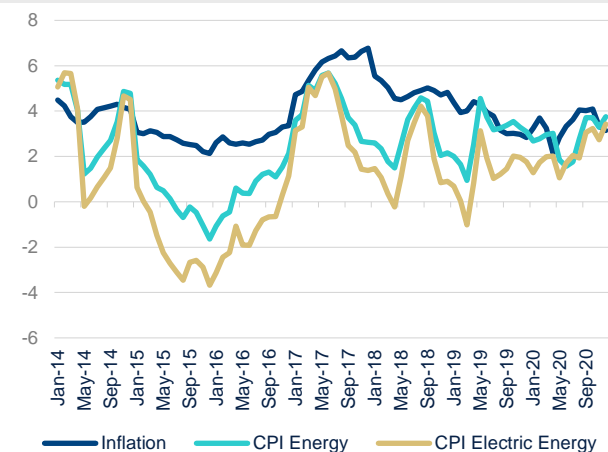
Worse still, this bill could discourage investment in the future — in the energy sector and in all others. The cost of this is incalculable. It will result in a lower growth rate in the country, less employment generation and a lower level of government revenue for social programs. This would be a severe blow to the lower-income population and all inhabitants of the country in terms of poorer health.

Distortion of sector prices and inflation measurement

Lastly, the explanatory statement mentions that prices will only be updated in line with inflation. This will lead to prices being skewed most of the time, as energy prices do not usually coincide with the consumer price index at any particular time. Moreover, it contradicts itself, since in the same section it states that the recognition of total generation costs will allow for greater competition; but how would this happen if it cannot be reflected in prices? A feature of efficient and more competitive markets is that their prices are closely correlated with their costs.

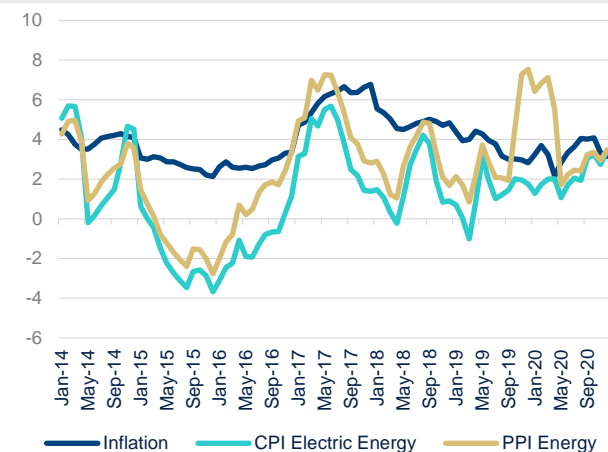
One possible scenario is that costs consistently exceed inflation, leading to unprofitable supply. If so, private offer will be restricted, and public supply will pressure on public finances. In other words, more will be paid, but with a tax burden. In the opposite scenario, if the variation in cost is lower than inflation, then you would be overpaying. Given the significance of energy prices, the measurement of inflation would present bias.

Chart 1. **PRICE INDICES**
(% YOY)



Source: BBVA Research based on data from INEGI

Chart 2. **PRICE INDICES**
(% YOY)



Source: BBVA Research based on data from INEGI

Assesment: priority defined by decree, and not by environmental or economic efficiency, will be detrimental to the market and users of the system. If approved, it would increase the environment of uncertainty, negatively affecting investment

An objective rule of preference for each of the energy supplies should be based on the lowest environmental and economic cost; not on favoring one particular player. It should not give priority to the private sector's supply, but rather have objective criteria in favor of economic and environmental sustainability.

It is true that clean energy poses a risk of intermittent supply. But this should not be resolved by dispatching the most expensive and polluting energy first. There are mechanisms to tackle the problem by using increasingly efficient and ecological energy supplies.

We believe that by staying on this path, the initiative will eliminate competition in the sector and increase the cost of supply, which will be paid at higher rates or through taxes, or both. It will also delay Mexico's transition to renewable energy. While sectors such as services and manufacturing, those that contribute most to the Mexican economy will be hit the hardest, the entire economy depends on the electricity sector, so this issue has a macroeconomic impact.

Lastly, if approved, the initiative would be one more example of economic policy resulting in a change to the rules of play once the game has already begun (private companies invested more than \$40 billion under a legal scheme expected to be changed *ex-post*) and of agreements potentially being breached. All of this would result in further declines in investment and, therefore, in the potential growth rate and a lower standard of living for Mexicans, particularly those with lower incomes.

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