Re-Building a Complex Partnership:

The Outlook for U.S.-Mexico Relations under the Biden Administration





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# U.S.-Mexico Energy Relations



Mexico and the United States have been linked

# Key Policy Recommendations

 Return to regular meetings of North America's energy ministers. Regional integration in energy is beneficial to all three countries, commercially, economically, and environmentally.

together through the energy business for over 100 years.

- Reinvigorate the U.S.-Mexico Energy Business Council, with a renewed focus not just on hydrocarbons but also on renewable energy.
- Work together (with Canada) on the connection between the energy sector and respiratory health.
- Discuss the reduction of vehicle emissions. The North American countries need to work together on a plan for the electrification of the regional vehicle fleet, both for passenger and freight vehicles.

# Energy relations: a story of mutual, asymmetrical, and shifting interdependence

Mexico and the United States have been linked together through the energy business for over 100 years. The investment by U.S. firms in Mexican oil reserves helped to develop those resources in the early 20th century and, despite the 1938 nationalization, U.S. companies remained in Mexico, waiting for an opportunity to invest again. The 2013 energy reform made that possible after 75 years, and U.S. companies rushed to explore opportunities. At the same time, U.S. firms invested heavily in the electricity sector, and in the construction of oil and gas transportation infrastructure. All in all, the two countries saw an invigorated and vibrant energy relationship develop after the reform.

Figure 1. U.S.-Mexico Energy Trade

Value of selected energy trade between Mexico and the United States (2009–2019) billion dollars





Energy



But perhaps the most dramatic transformation in the relationship is that which has taken place over the past decade in the energy trade. From being a net importer of energy from Mexico, the United States has become a huge energy exporter to the country (see Figure 1). The causes of this transformation have been various: the rapid and precipitous decline of Mexican oil production, the fracking revolution in the United States, the dramatic rise in demand for natural gas and refined products in Mexico, ahead of the nation's production, to mention just three. From a deficit of almost USD\$18 billion in 2009, the United States saw a complete reversal to achieve a surplus in the energy trade with Mexico of USD\$21 billion by 2019. Mexico has become a market that energy producers in the United States simply cannot afford to lose.

#### Figure 2. Breakdown of U.S.-Mexico Energy Trade

#### Monthly volumes of select energy commodities traded with Mexico (Jan 2017–Dec 2019)

eia crude oil petroleum products natural gas million barrels per day million barrels per day billion cubic feet per day 1.6 1.6 8 1.2 1.2 6 U.S. imports 8.0 0.8 4 2 0.4 0.4 U.S. imports U.S. imports 0.0 0.0 0 U.S. exports -2 -0.4 -0.4 U.S. exports U.S. exports -0.8 -0.8 -4 -1.2 -6 -1.2 -8 -1.6 -1.6 2017 2018 2019 2017 2018 2019 2018 2019 2017

Source: U.S. Energy Information Administration, International Energy Statistics

A decade ago, the United States was deeply concerned that one of its most important oil suppliers would soon see a collapse in oil production, exposing the United States to energy security worries. Over the next few years, these concerns dissipated as the United States came closer to energy independence, thanks to shale oil and gas, and began to see Mexico as an important export market for both natural gas and refined products. After 2014, Mexico saw considerable investment from foreign firms in its energy sector, with U.S. firms leading the way.

The breakdown of the trade figures shows how refined petroleum product exports from the United States to Mexico now dwarf crude oil imports from across the border. And thanks to the growth of the Mexican electricity sector, U.S. natural gas exports now total around 6 billion cubic feet per day (bcf/d). U.S. imports of crude oil from Mexico have collapsed in the past decade, from over 1.2 million bpd in 2009 to less than 600,000 bpd by 2019.



#### Figure 3. U.S. Electricity Trade with Mexico (2009-2019)

The electricity trade between the two countries has also taken off, another sign of deepening cross-border economic interdependence. From around 2 million megawatt hours (MWh) of electricity traded in 2009, by 2019 that trade totaled over 13 million MWh. A number of new private transmission lines have been built across the border and there has been a strengthening of some existing interconnections (at Nogales for example).

But as much as anything, the booming cross-border electricity trade represents the fact that Mexico's electricity prices have become a lot more competitive since 2015, which has allowed for growing sales in the United States.

The growth of the bilateral energy trade was brought to a halt in 2019 by the focus of the Andrés Manuel López Obrador (AMLO) administration on energy sovereignty (see section below), and in 2020 by the onset of the COVID-19 pandemic. As the Biden administration begins, one goal should be to safeguard the huge inroads made into Mexico's energy markets, and to further develop opportunities for U.S. investment in Mexican renewable energy.

# Energy under AMLO

Since the beginning of the AMLO presidency in December 2018, the government of Mexico has implemented an energy policy with one objective in mind: protecting the state-owned energy companies, Petróleos Mexicanos (Pemex) and Comisión Federal de Electricidad (CFE), at all costs. This goal appears to be what drives actions geared towards undermining private participation in the energy sector, with no apparent concern for its impact on public finances, investment climate, and the environment.

AMLO talks a lot about "energy sovereignty", about the need to reduce dependence on imported fuels and on foreign capital. He is clearly moving firmly in the direction of undoing the transformative energy reform of 2013, which would result in the loss of billions of dollars in existing and future investments by U.S. and other foreign firms. The push to build a new refinery in Dos Bocas, Tabasco, and the steady erosion of the autonomy and capacity of regulatory bodies in the energy sector do not augur well for the future of either climate-friendly policy nor for private and foreign investment.

And it must be said that, so far, the results of AMLO's energy policy are not encouraging. Already we have seen Pemex increase its debt, take in billions in new government subsidies, and oil production has continued to decline. Although there was some early progress in stemming fuel theft, and in bringing former Pemex boss Emilio Lozoya back to Mexico to face corruption charges, the organization has made little progress is stemming graft at a company-wide level. With AMLO intent on throwing good money after bad into Pemex, the national oil company continues to be a "money pit" that is a huge drain on the government's, and the nation's, resources.







This section will discuss the series of policies and actions taken by the current administration to change the rules of the energy sector in practice. It will then go over the consequences on investment, and therefore growth and employment, followed by the impact on the environment and Mexico's international commitments in such matter.

#### **Overturning the Law Without Changing It**

Energy policy has been oriented towards the strengthening of the two former monopolies by creating obstacles to its competition, thereby reducing private sector investment. These obstacles have taken many forms and have been issued either by Mexico's Secretariat of Energy (SENER) or by the different regulatory agencies that have lost, de facto, their technical independence.

"Energy policy has been oriented Performance of the strengthening of the suspense of the strengthening of the product of two former monopolies by creating obstacles to its

Pemex's farmouts to private companies have been suspended as well as new bidding rounds for exploration and production projects. Permits for fuel imports have been cancelled or delayed, and new permits and modifications to existing ones in the fuel's value chain have been delayed or declined with the explicit goal of favoring Pemex in the midstream and downstream segments. Pemex's new refinery in Dos Bocas, Tabasco is one of the most important projects

# competition, thereby reducing private sector investment."

of the current administration, along with the strengthening of Pemex refining activities in the existing plants. In the first eight months of 2020, Pemex received USD\$2.3 billion from the federal budget with a net loss of USD\$30 billion over the same period. The company's operation and financial situation is so dire that it has been reported in the press that in November it had to monetize bonds for roughly USD\$4.8 billion to face short-term payments.

CFE is an integrated utility: generation, transmission, distribution, and retail with a gas and fuels business line that was created with the 2014 energy reform. Generation is by far its least profitable activity followed by retail to low-demand users, called *Suministro Básico* in Spanish. Private projects have lower costs than CFE-owned plants. Generation costs for CFE Combined Cycle plants are 35 percent higher than privately operated plants and renewable projects from long-term auctions are 30 percent less than the cost of fuel for these Combined Cycle plants.<sup>1</sup>The most direct effect of the policies and measures of the last few months to protect CFE will be, in fact, to increase costs for the whole system and thus the need to increase tariffs to consumers or subsidies that are ultimately paid by taxpayers.

In the electricity sector, long-term generation auctions have been cancelled, transmission auctions have been cancelled as well, CFE legal separation has been relaxed, and most surprisingly, renewable projects have faced a series of attempts to either slow, affect, or halt their development and operation. The independent system operator (CENACE) issued a COVID-19 Grid Safety Resolution to suspend the interconnection of new renewable projects while declaring conventional plants as must run, prioritizing their dispatch. SENER issued a Reliability Policy with mostly the same objective, prioritizing certain reliability parameters over cost, effectively blocking variable renewable projects contrary to the law. There are several other measures, such as granting more Clean Energy Certificates to CFE plants that were in operation prior to 2014, that would eliminate the price signal by dropping the value of these and, more importantly, eliminating the possibility to reach Mexico's emission reduction targets. All these measures have been challenged in Court by power companies and environmental groups that have obtained injunctions that have stopped its application; in some cases, it has been a final decision whereas in others the legal measure has been suspended until a final decision by the courts is made.

#### Investment Climate

Legal and regulatory uncertainty has been very damaging to investment both in the energy sector and elsewhere. Investment numbers have fallen from USD\$34.8 billion in 2018 to USD\$32.9 billion in 2019 and are unlikely to improve if public policy goes against the law and independent regulatory bodies are weakened or captured.<sup>2</sup>

The general consequence of the decision to favor both Pemex and CFE and limit private investment is the need of public resources and the uncertainty and deterioration of the investment climate. It is puzzling to reconcile protecting the state-owned companies by asking them to bear the burden of the whole energy sector in Mexico with economic growth, competitiveness, and social development.

Another equally important consequence of recent public policies is the protection of existing investment. Reactions from global companies have been very cautious and have only lately been voiced in the press. However, protection mechanisms are clear under the U.S.-Mexico-Canada Agreement

"Legal and regulatory uncertainty has been very damaging to investment both in the energy sector and

(USMCA). Manufacturing is central to Mexico's economy and is **elsewhere.**" an energy-intensive sector.

Competitiveness of energy is crucial for Mexico's economic growth, employment, and development. Mexico has a clear advantage and opportunity for higher integration with its trade partners as U.S. companies try to reduce risks in their supply chains posed by global events such as trade disputes between the United States and China, or COVID-19. Uncertainty is not beneficial to attract new investment or keep the existing. Moreover, blocking or threatening private investment in energy is not only detrimental by itself, specifically in the actions taken against renewable integration, but it will also have a domino effect by reducing investment in other sectors.

Many industrial energy consumers compete in global markets that have sustainability goals and responsibilities. By limiting investment and renewable integration, Mexico will not have enough renewable electricity supply for them and thus will not be able to remain in Mexico regardless of the general investment climate.

#### **Environmental Impact**

Energy policy has been clearly aimed at Pemex's industrial activities and CFE's electricity generation. These two facts have dire environmental consequences for the country's present and future.

Pemex refining infrastructure configuration and operative status produces massive amounts of fuel oil and insufficient fuels.<sup>3</sup> Mexican fuel imports amount to 85 percent of total consumption, and its main source is the U.S. Gulf of Mexico<sup>4</sup>. The more Mexico refines, the more fuel oil it produces. Fuel oil has lost most of its international markets since January 2020 when the global upper limit on Sulphur content of ship's fuel oil was reduced to 0.50 percent from 3.5 percent; this is known as IMO 2020.<sup>5</sup> Unfortunately, CFE has been burning this fuel oil in its power plants with the obvious effects on the environment and health of communities close to these thermal power plants.

The disregard for renewables not only as cheaper energy but also as an essential tool to fight climate change, improve health conditions for Mexicans, and meet Mexico's international environmental commitments is very concerning.

# The Biden Energy Agenda

The Biden administration will have a clear and strong focus on the issue of climate change, marking a radical departure away from the Trump era's focus on "U.S. energy dominance". A quick look at the Biden campaign's energy and climate agenda shows that meaningful steps will be taken towards reducing U.S. dependence on fossil fuels, to boost renewable energy and to impose a significant cost on carbon.

"The Biden administration will have a clear and strong focus on the issue of climate change, marking a radical departure away from the Trump era's focus on "U.S. energy dominance." This move away from traditional energy sources and towards renewables and energy efficiency will drastically alter the North American economic space in general. We should expect discussions over applying a border adjustment tax on carbon intensive imports, something that has immediate implications for both Canada and Mexico, as well other major trading partners such as China.<sup>6</sup> As with other issues, it is possible that USMCA partners would receive a waiver, but that is far from guaranteed.

We also see some major implications for Mexico in Biden's global agenda for climate action, which has

already seen the United States rejoining the Paris Climate Accord. It is clear that Biden will be an aggressive promoter of coordinated global climate action, and pressure will soon fall on the Mexican government (and specifically Foreign Minister Marcelo Ebrard) to show support in international fora. This actually offers an opportunity for Ebrard, who as mayor of Mexico City was an avid promoter of environmental policy, to find a foreign policy point of contact with the Biden team (see chapter by Arturo Sarukhan in this collection). It is likely that there will be pressure not just through the UN process, but also through the G20, and Mexico will be an essential ally in helping to bring other emerging market countries on board. However, convincing AMLO to embrace climate issues will be difficult, especially given the Mexican President's obsession with increasing oil production and strengthening Pemex.

With the Biden administration already declaring a 60-day moratorium on new oil and natural gas leases and drilling permits within the United States, it is clear that the next four years will not be "oil friendly". In fact, the Biden team has promised to seek a global ban on fossil fuel subsidies, which will result in pressure on Mexico to review its fuel pricing policies, and the support given to Pemex.

But perhaps the most worrying aspect of the Biden energy and climate platform comes with the commitment to end financing for "dirty energy". The new U.S. administration will instruct "the Overseas Private Investment Corporation (OPIC), the Export-Import Bank, and the new U.S. International Development Finance Corporation" to halt financing for carbon-intensive projects. Of these, for Mexico the Ex-Im Bank stands out. Pemex is the bank's largest customer, with a debt in 2015 of over USD\$7 billion (in recent years the bank has stopped making public the identities of its biggest borrowers). Pemex owes more to the Ex-Im bank than any other borrower. Under the Trump administration, Pemex had no trouble finding new loans from the bank, with USD\$400 million in new loans in August of 2020.<sup>7</sup> But that will change in the months ahead, and at a critical time for Pemex. Not only are loans coming due, but the company is clearly struggling, awash with debt and still steeped in corruption. If the bank refuses to renew credit, and Pemex is forced to repay, there will be a significant impact on the company's credit rating, with potential knock-on effects being felt in other credit agreements.

#### **Box 1: Biden Campaign Platform on Global Action for Climate Action**

**1.** Re-enter the Paris Agreement on day one of the Biden Administration and lead a major diplomatic push to raise the ambitions of countries' climate targets.

2. Make future bilateral U.S.-China agreements on carbon mitigation contingent on China eliminating unjustified export subsidies for coal and other high-emissions technologies and making verifiable progress in reducing the carbon footprint of projects connected to the Belt and Road Initiative.

**3.** Seek a G20 commitment to end all export finance subsidies of high-carbon projects, building on past commitments from the G7 and multilateral export finance institutions to eliminate financing for coal in all but the poorest countries.

**4.** Reform the International Monetary Fund and regional development bank standards on debt

repayment priorities for development projects.

**5.** Demand a worldwide ban on fossil fuel subsidies.

6. Create a Clean Energy Export and Climate Investment Initiative.

7. No financing dirty energy. Biden will ensure the Overseas Private Investment Corporation (OPIC), the Export-Import Bank, and the new U.S. International Development Finance Corporation significantly reduce the carbon footprints of their portfolios.

8. Meet America's climate finance pledge and provide "green debt relief" for developing countries that make climate commitments.

**9.** Pursue a global moratorium on offshore drilling in the Arctic and reestablish climate change as a priority for the Arctic Council.

### A Potential Agenda for Cooperation

There can be little doubt that there is a rocky road ahead for energy cooperation between the two USMCA partners. Indeed in the closing days of the Trump administration, a letter signed by three U.S. cabinet secretaries (Energy Secretary Brouillette, Secretary of State Pompeo, and Commerce Secretary Ross) was sent to the Mexican government expressing deep concern that Mexican government directives to its energy regulators that favor state-owned companies are creating "significant uncertainty" for investors and may be in violation of USMCA rules.<sup>8</sup> This letter comes a couple of months after another letter, signed by a large number of U.S. Senators and Representatives, was sent to the White House to apply such pressure to Mexico. It is increasingly clear that Mexico under AMLO has lost the faith of U.S. political leaders, both Republican and Democrat.

At the same time, however, there is hope for cooperation. The COVID-19 stimulus bill signed into law by President Trump in late December 2020 included a Sec. 1901 as the "United States-Mexico Economic Partnership Act", focused on advancing economic interests of both countries, that also mentions increasing energy cooperation between the United States and Mexico and opening new opportunities for U.S. energy investment. Such an approach holds potential for rebuilding pre-existing institutional cooperation that has waned under the Trump and AMLO administrations.

Four areas for cooperation stand out. The first would be a return to regular meetings of North America's energy minsters, a process that began in 2014 and continued until 2018. The region is bound by its concern on climate change and economic and social prosperity. Trade is paramount to our relationship and energy touches on every aspect of it, from manufacturing, to transport, to services. Regional integration in energy is beneficial to both countries, commercially, economically, and environmentally. This will be particularly important as the Biden administration considers a decarbonization program for the U.S. economy, requiring intense coordination between energy ministers and ministers of the economy across the USMCA countries. It would also help as a forum to discuss collaboration on renewable energy cross-border infrastructure, with a special emphasis on transmission.

Having a trilateral mechanism for cooperation on climate change, energy efficiency, emission reductions, renewable integration, and grid integration could lead to clear targets and actions to achieve a healthy, sustainable, and beneficial trade relationship. The risk to not address these issues in the near future is that concerns will be eventually raised under the investment protection mechanisms of USMCA or the 6-year review period; both instances that are better prevented for all interested parties. The history of the North American energy minsters' meetings under the Obama administration was one of enthusiastic engagement, with progress made on mapping resources and on reducing methane emissions. Under Biden, there should be a return to these efforts.

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Secondly, the U.S.-Mexico Energy Business Council needs to be reinvigorated, with a renewed focus not just on hydrocarbons but also on renewable energy. The group, which has held meetings since 2016, has been largely ignored by the AMLO administration since it assumed power. However, a new roster of U.S. business representatives was announced in January 2021. It has a heavy emphasis on oil company representatives, and it would not be a surprise for the Biden team to examine this and seek to add more renewable energy companies to the list. If the council can secure buy-in and policy support from the Biden administration, then it can once again become an important counterpart to government-to-government discussions.

Third, the two countries (and Canada) must work together on the connection between the energy sector and respiratory health. The terrible air quality of major Mexican cities compared to U.S. counterparts has been placed in even starker contrast with COVID-19. Mexico's fuel quality has not kept up with international norms, and the AMLO administration's insistence on using fuel oil to power refineries has not helped. Mexico's dependence on imports of fuel from the United States needs to be examined and used as a lever to bring about an improvement in the quality of fuel used in Mexico (particularly diesel). The disastrously high emissions from Mexican refineries should be a priority for discussion, with positive implications for Mexican public health. Energy

Fourth, and given the importance of transportation of goods by road in the North American economic space, there is an urgent need for a discussion on reducing vehicle emissions. This can be linked directly to the previous issue on fuel quality, but more importantly, the North American countries need to work together on a plan for the electrification of the regional vehicle fleet, both for passenger and freight vehicles. The achievement of the Biden's administration's climate goals is impossible without a significant shift towards electric vehicles, and he will be able to count on strong support from the auto manufacturers. AMLO is unlikely to be enthusiastic at first, but with the threat of major impediments to trade if cleaner transportation standards are not adopted, he will be left with little choice. This will require massive investments in charging infrastructure, in battery production, and in refitting existing auto plants. There is potential here for a major boost to inward investment in Mexico if the Mexican government embraces this change. And as many of us have noted in the past, there can be no better resource for AMLO to achieve his much-vaunted energy sovereignty than the natural endowments for renewable energy with which Mexico is so blessed.

# Conclusion

Though the outlook for energy cooperation between Mexico and the United States appears complicated, the economic imperative of integrated manufacturing and trading systems dictates that the two countries must collaborate. At the present time, the AMLO administration's energy nationalism and obsession with its state-run hydrocarbons industry leave little room for meaningful dialogue over climate and renewable energy, but the Biden administration must consider using the carrot of investment in new energy and transportation infrastructure, and the stick of its Ex-Im Bank financing to move Mexico in the right direction.

Despite AMLO's focus on an autarkic approach, the long-term future for Mexico's energy sector has to be one that is viewed in the context of the North American economy, its relationship with the United States, the dictates of climate change, and the emergence and improvements in new technologies. Though AMLO refuses to move beyond a 1970s vision of energy, the world and the United States will not wait for him.

# Endnotes

[1] Universidad Nacional Autonómica de México. (2020). "El sistema eléctrico y la participación privada". Retrieved from: http://www.pued.unam.mx/opencms/actividades/Seminarios/060820.html

[2] Nordea. Country Profile Mexico. Retrieved from: https://www.nordeatrade.com/en/explore-newmarket/mexico/investment

[3] Petróleos Mexicanos. Estadísticas petroleras. Retrieved from: https://www.pemex.com/ri/Publicaciones/Indicadores%20Petroleros/eprohidro\_esp.pdf

[4] Sistema de Información Energética. Volumen de importación de petrolíferos. Retrieved from: http://sie.energia.gob.mx/bdiController.do?action=cuadro&cvecua=PMXE2C15

[5]International Maritime Organization (IMO). (12/19). IMO 2020 - cleaner shipping for clean air. Retrieved from: https://www.imo.org/en/MediaCentre/PressBriefings/Pages/34-IMO-2020-sulphur-limit-.aspx

[6] Holzman, J. (11/12/20). "Biden could seek carbon taxes with the same strategy Trump used for steel, aluminum". S&P Global. Retrieved from: https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/biden-could-seek-carbon-taxes-with-same-strategy-trump-used-for-steel-aluminum-61685494

[7] de Ruguey, V. (25/9/20). "Is the Ex-Im Bank bailing out its favorite borrower?" Mercatus Center. Retrieved from: https://www.mercatus.org/publications/corporate-welfare/ex-im-bank-bailing-out-its-favorite-borrower

[8] Lenton, C. "Trump officials warn of 'significant uncertainty' in Mexico energy sector". Retrieved from: https://www.naturalgasintel.com/outgoing-trump-officials-warn-of-significant-uncertainty-in-mexico-energy-sector/Outgoign

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