



Q&A

US-Mexico Gas Market Will Grow, But LNG Is a Challenge

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Fri, Nov 18, 2022

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Guillermo Turrent played a key role in implementing the opening of Mexico's natural gas market to the US after the nation's 2013 Hydrocarbon Law took effect, including as Director for Modernization for country's power utility Comision Federal de Electricidad (CFE). In that role Turrent and his team developed more than 5,000 miles of new natural gas pipelines that carry billions of cubic feet per day of US gas to Mexican markets. Turrent, now general manager of consultancy Energy and Infrastructure Advisors, spoke with Energy Intelligence on the sidelines of the US-Mexico Natural Gas Forum held this week in San Antonio on a wide range of issues, including US gas' future role in Mexico's energy sector and the difficulty of creating an LNG export industry south of the US border. The interview has been edited for space and clarity.

Q: Has Mexico's gas sector lived up to the promise it held for US gas producers in 2015?

A: Mexico's gas market has seen exponential growth when it comes to imports of natural gas, from barely nothing in 2010 to up to 6.5 billion cubic feet per day today out of an 8.3 Bcf/d market, or about 75% of the gas market in Mexico. So when you ask whether it has lived up to expectations, I would say yes.

The main reason for that is US natural gas is the cheapest source of supply in the world for generating electricity, in particular, and for producing steel and glass and for general industrial use in Mexico.

The markets started to be deregulated in 1995, but the biggest deregulation was the energy reform in December 2013. There were a series of steps that happened for 18 years between 1995 and 2013 that took us to that point where the energy markets actually opened up. Certain things like private investment in exploration and production opened up for private industry to participate in.

Between 2013 and 2018, a lot of structures were created like CENAGAS, the public independent operator of the original natural gas pipeline system, to break apart the monopoly held by Pemex over gas production, transport and marketing. A market was actually created. Regulated prices of natural gas stopped being important and there was actually some sort of a free market that worked with price arbitrages in the different regions in Mexico.

CFE tendered about 5,000 miles of natural gas pipelines in Mexico, basically increasing the pipeline system from 7,000 to 12,000 miles and I'm anxious to hear how CFE plans to use those natural gas pipelines in a more active way so they bring the benefits to the country and reach even households.

Q: How did this reform specifically benefit the US upstream sector?

A: The previous administration [of Enrique Peña Nieto] tripled the capacity from the US and Mexico. Places like Waha in West Texas were barely connected to Mexico. Now there is 2.8 Bcf/d of capacity from Waha to Mexico, and the same thing happened in South Texas, where our interconnection was about 2.5 Bcf/d and now it's about 5 Bcf/d.

But let's talk about the negatives. Why aren't those pipeline interconnections to Mexico being used 100% even when it can cost zero to bring in natural gas from West Texas? I have my speculations about it. I think non-economic decisions are being made that are not economically driven by the markets.

Mexico has too much [high sulfur 3.5% plus] fuel oil and the only one that can burn that fuel oil in these quantities is CFE, the biggest consumer of natural gas in Mexico. So, if fuel oil is being used instead of natural gas, that slows down the use of natural gas from the US.

Also, some of the [gas-fired] power plants that were supposed to be built were not built and some of the plants that consume fuel oil that were supposed to be converted to gas have not.

How much fuel oil is CFE burning? I'll tell you right now, 120 to 140 thousand barrels a day. You convert that to natural gas and it's more than 800 million cubic feet per day. But there are other issues, such as can the country export all of that fuel oil. If they can't, maybe they have to just burn it.

Q: Do you think natural gas will play a significant role in Mexico's energy market in 2040?

A: My take is natural gas will play a role in Mexico at least as much as it does today, maybe more. One of the main reasons why those pipelines were built by the previous administration was to get rid of the fuel oil and with it decrease emissions. That hasn't happened, but I assume that fuel oil will be gone [in 2040]. Those pipelines were contracted for 25 years until about 2039-40. The previous administration had a comprehensive renewables plan in place to start backing out fossil fuels and the 2040-time frame is the inflection point. But that was the previous administration.

CFE is committed now to the extension of the [Sur de Texas] offshore pipeline. That's going to be at least a 20- to 25-year deal and it's going to be a fixed payments contract. I don't think the Mexican government would commit to a 1.3 Bcf/d, \$5 billion investment unless they were planning on using it past 2040.

Also, CFE assigned six or seven power plants over the last few months and they're all combined cycle natural gas plants that are going to burn at least 700-800 MMcf/d.

So, do I see natural gas fading in Mexico? I don't see it. Maybe the growth will be slower than increase since the 2010 but I think between now and the next 10 years it's going to go up.

Q: Do you think CFE will re-contract capacity as it rolls off or even take a stake in the pipelines?

A: At the end of those 25 years on the 5,000 miles contracted what ends up happening in theory is the pipeline company has to get a new rate authorization from the Mexican Regulatory Commission for a pipeline that has been amortized 100%. So the rate going forward should be significantly lower. The Hydrocarbon Law prohibits CFE from having a stake outright even when it makes sense from an economic standpoint and from a project financing standpoint. But CFE has said it will ask the regulatory authorities in Mexico to allow it.

I think it would have been the logical thing to have had an option to take a stake in those pipelines and in 25 years assign the option to CENAGAS, but that was denied by regulators at the time.

Q: At the US-Mexico Forum, enthusiasm for developing an LNG export sector in Mexico was lukewarm among many attendees from Mexico, who wondered how the country might benefit from exporting US gas. Why was that?

A: I believe if there is economic sense in doing something like that it should be done. If you can buy gas from the US for \$1 [per million Btu] and bring it to Mexico for 50¢ and sell it for \$30 there's an economic reason to do it. I'm all up for that.

I think it's going to be very challenging because there are emerging conditions in the US that could prevent that gas from coming down to Mexico. First of all, if something happens like [Winter Storm] Uri again that gas is not going to flow to Mexico right away. And if Mexico is already committed to selling that gas firm overseas then Mexico's going to have a problem with whoever the developer was or the marketer who sold this forward.

I think there's an issue also if there is an emergency situation in Mexico, which happens often. Is Mexico going to keep exporting that LNG or is Mexico going to keep that gas for its own needs and default on their LNG contracts overseas? I think it's going to be very, very difficult to project finance any of those LNG terminals out of Mexico just for the reason of security of supply.

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