What Keeps You Up At Night?
Latin America's 2016 Energy Outlook

As the year comes to a close, the Institute of the Americas asked five energy experts what keeps them awake at night heading into 2016. Their responses covered the Western Hemisphere and issues varied from COP21 outcomes, to Brazil's macroeconomic instability, to political shifts in Venezuela, to the changing geopolitics of oil, to renewed prospects for regional integration in the Southern Cone. On the back of the Paris Agreement and unprecedented global political will to tackle climate change, renewable financing and the transition to clean energy is an area we will also be watching as we begin the new year.

Inaction

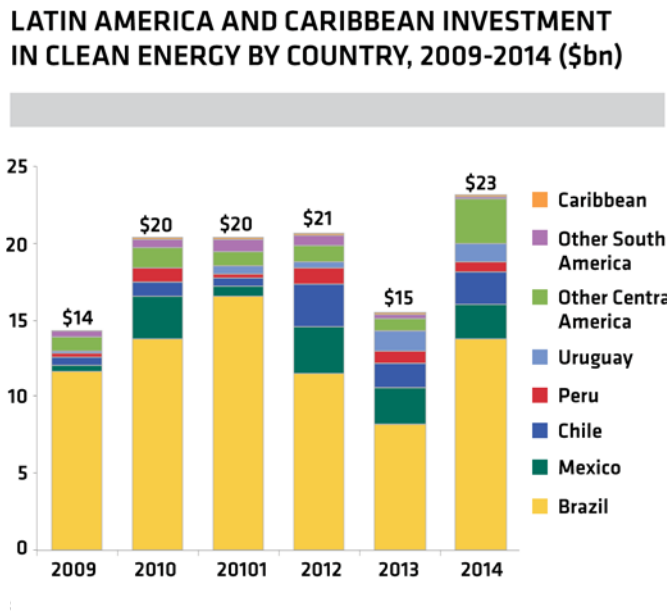
***Jake Levine,** Chief of Staff, Opower*

I'm writing this en route back to the United States from the COP21 negotiations in Paris, where I had the opportunity to join Governor Brown, Tom Steyer, and other business leaders in a California delegation to the talks. It was an inspiring experience because our delegation was joined by many others in delivering -- and exemplifying -- the message that reducing carbon emissions can be done while investing in and growing our economy. And we were proud to stand with our partners in the electric and gas utility sector to show negotiators that the electric grid is the most valuable tool we have to transition our economies to a clean energy future.

In Latin America, however, we risk falling behind on low-cost measures that represent the lowest hanging fruit in the fight against climate change. While Brazil suffers from perennial drought, it continues to weaken the kind of energy efficiency regulation that could rebuild its hydro reservoirs. Mexico's energy reform has been lauded for opening up its monopolistic petroleum and electricity sectors to competitive markets, yet its electric provider, CFE, remains largely unreformed and without any incentive to help its 36 million customers reduce energy waste. In Chile, excitement for an energy efficiency law has lost the executive momentum it had as it seemed headed for congressional approval.

Even if every nation in Paris commits to its strongest possible domestic action, we will only have a 50% chance of meeting the global imperative to halt warming below 2 degrees Celsius. But imagine just how far we'll miss our target if we don't create the policies needed to align our markets to effectively manage this looming crisis. The good news is that the tools we need to innovate and build a clean energy economy are already here. Tech companies like Opower and utilities like PG&E in California have shown that with clear, enforceable and expedient regulation, markets can thrive and economies can grow while we reduce our emissions and make our consumption more efficient. But now, without certainty and predictability from the largest governments in Latin America, we may be resigning ourselves to a futile race with the clock.

Fig. 1. Clean energy investment in Latin Americas has fluctuated but remains dominated by the two largest economies, Mexico and Brazil.



Source: Bloomberg Energy Finance.

Venezuelan Transition

***Francisco J. Monaldi,** Fellow in Latin American Energy Policy & Adjunct Professor of Energy Economics, Baker Institute for Public Policy, Rice University*

Venezuela is the dormant energy giant of Latin America, but a giant with feet of clay. Still, in the next couple of years it might be the most relevant story to follow in the region. After the partial expropriation of foreign companies in 2005-2007, the country has been trying unsuccessfully to attract significant investments to the oil sector. As production kept declining, two years ago the government became increasingly pragmatic (or desperate if you wish) and started offering the foreign partners more attractive fiscal conditions, higher operational and cash-flow control, and projects that involved less significant sunken investments. Things started slowly moving, with Chevron leading the way by negotiating a new type of contract.

With the collapse in oil prices, pragmatism has increased. Eulogio Del Pino, a Stanford graduate with significant expertise in the sector, was appointed as the new CEO of

PDVSA and he is quietly leading a policy turnaround. However, his enthusiasm has been matched by the challenges of a low price environment combined with the poor reputation of the government and its terrible macroeconomic management. Still, with the largest oil reserves outside of the Middle East, and a total oil dependency, the sector offers the only hope of recovery for this or any other administration. On December 6th the opposition won the legislative elections by a landslide, possibly initiating a transition to a new more attractive institutional and policy setting. That transition could be messy, but the giant with feet of clay might finally awake.

Macroeconomic & Political Instability

Lavinia Hollanda, ***Research Director, FGV Energia***

For 2016, the subject that has most of my attention in the energy sector is the challenging macroeconomic situation and the political instability in Brazil and other countries in Latin America. As frequently observed in the region, although these issues are not directly related to energy, they should be pivotal for defining how the necessary restructuring in the sector may advance.

In the Brazilian oil and gas sector, Petrobras' limitations for financing capital intensive projects will likely persist, compelling the company to further review its strategy and reposition itself more clearly. In the electricity sector, the financial distress faced by some companies, together with difficulties in attracting investments and financing new projects, will point toward the need of a deep reassessment of the current business model and regulatory rules. Finally, environmental concerns will continue to be increasingly important for defining the profile of the future energy mix in the country – and this should more and more impact the sustainability of some energy projects.

On the bright side, I hope that the current challenging conditions bring the required sense of urgency and determination for the government and other players to make the difficult choices that have to be made in order to support the necessary reforms in the energy sector. At the same time, it is a great opportunity for academics and researchers to take advantage of the short term turbulence to provide structured knowledge and support to policy makers, so that we can quickly build a solid bridge for the future.

Global Commodities Markets

Jeremy Martin, ***Director, Energy Program, Institute of the Americas***

Beyond my mild insomnia, what most keeps me up at night as the calendar turns to 2016 are global commodity prices, including oil, but also other products that countries of our hemisphere have at their economic core. But it's not just merely the market trend that worries me. Rather it is how economies manage their evolution through a global commodity downturn that is bothersome.

So-called petrostates across the globe are increasingly losers in the current outlook, but how other commodity dependent economies such as Colombia, Chile, Ecuador, Bolivia, Brazil, and Argentina manage, is equally concerning. The time is now to innovate and leapfrog, that is clear. But, the aforementioned countries cannot afford to make changes that undermine their social structures and jeopardize inclusion gains. Finding the recipe for striking inclusive and innovate economic development in 2016 in much of Latin America keeps me up.

Tangential to my fretting over global commodities, are the roles of China and India, both in terms of their economic growth but also role in the climate discussion. In the not-too-distant future, these countries will be roughly one third of the world's population and how they project globally, including in Latin America, will hugely impact the region's energy and climate outlook.

With regards to climate change, we should applaud the agreement reached at the COP21 meeting in Paris. The agreement is historical and sets an ambitious goal. But there remains a bit of a disconnect between science, public policy and industry. The extent of government financial commitments and industry investment are still not entirely clear. Indeed, how decarbonizing is financed and the balance needed to insure continued economic growth and employment must be at the center of all policy decisions

I think we can do better to inform understandable metrics and make the public policy and business case. The need for certainty in policy to match the science and foster serious investment is critical. The Paris agreement provides a framework and target. Now the hard work begins.

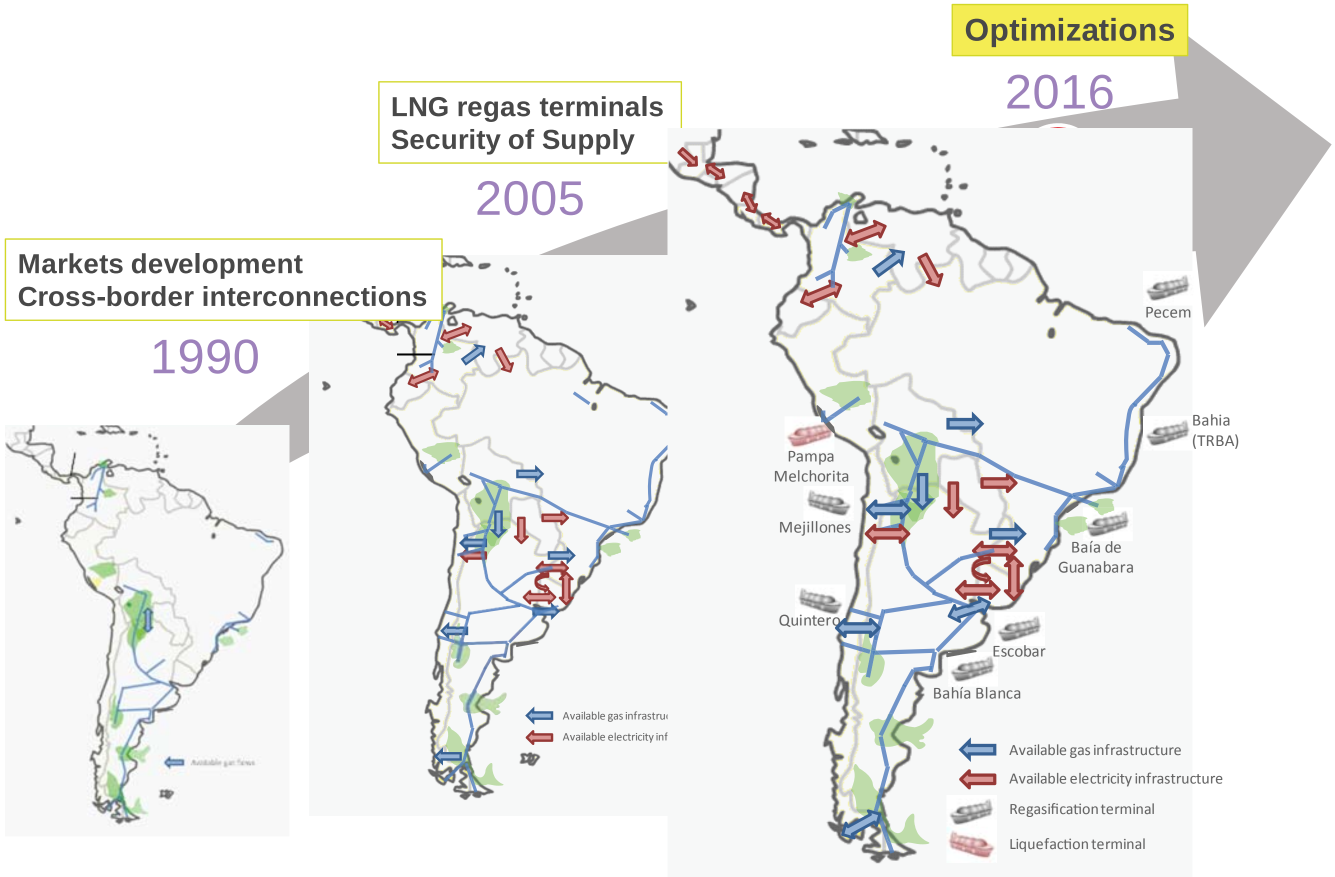
As a final note on this theme, I should add that OPEC meetings and decisions do not keep me up at night any longer nor will they in 2016.

Energy Integration

Gabriela Vidjen*, Director of Advisory & Strategy, Energy Consulting Services (ECS)*

From the mid 1990s up to the beginning of the 2000s, with the development of significant gas and electricity cross-border infrastructure, the region consolidated a process of energy integration that had begun with the development of mega bilateral hydro power plants in the 1970s.

Fig 2. The Development of Energy Infrastructure in South America, 1990 - 2016.



Source: ECS.

However, since the mid 2000s energy priorities for the region changed drastically when Argentina and Bolivia altered the "rules of the game", limiting natural gas supplies. Since then, each country has been focused on assuring its energy supply by diversifying energy sources, and LNG imports appeared the best solution.

Today, the characteristics of the systems in the region allow several optimization opportunities, which can be carried out almost immediately and with minimum investments: complementation of huge renewable and non renewable energy sources (of different hydraulic and hydrocarbon basins), developed pipeline and power transmission infrastructure, and flexibility introduced by the regasification terminals.

Moreover, in the medium/long term, energy integration could be strengthened with the development of unconventional resources in Argentina, the Brazilian pre-salt reservoir, the Peruvian Camisea field, and renewable sources. Integration in larger systems would allow bigger wind and solar capacities thanks to an expanded capacity to manage the increased intermittency of these sources.
The optimization of regional energy infrastructure will contribute to the security of supply, economic efficiency, and environmental sustainability of each energy market as well as better overall competitiveness.

With the recent political events in Argentina (i.e. a new political administration encouraging an open and market friendly environment, with solid institutionalism), there seems to be a new momentum for energy integration.
The country has a great opportunity to recover the strategic role that nature and geography has provided, allowing and promoting the full interconnection of the Pacific and Atlantic energy markets of South America.

The most important issue in order to ramp up this new period of energy integration is to regain confidence among the countries. The advantages of integration should serve to overcome the lack of confidence created in the past and governments should consider these factors when making decisions. International support and sponsorship by each of the governments involved is crucial to guarantee institutionalism, coordination and economic feasibility.

The Institute of the Americas' Energy Program works to foster a deeper understanding of the most critical energy issues facing the Western Hemisphere. For more information and upcoming events, follow us on Twitter @IOA_Energy or visit: www.iamericas.org/energy