ARGENTINA ENERGY ROUNDTABLE

May 16 - 17, 2022

REPORT

INSTITUTE OF THE AMERICAS | ENERGY & SUSTAINABILITY PROGRAM

CEARE
CENTRO DE ESTUDIOS DE LA ACTIVIDAD REGULATORIA ENERGÉTICA

Executive Summary

After a three-year hiatus for in person events, the Institute of the Americas and the University of Buenos Aires' Center for the Study of Energy Regulatory Activity (CEARE) hosted the Argentina Energy Roundtable on May 16-17 in Buenos Aires.
Over 75 representatives from academia, NGO's and the private and public sector convened in Recoleta to discuss the global backdrop, current state of the energy sector, and the energy transition in Argentina. The roundtable's overarching goal was to gather a multitude of stakeholders from diverse energy subsectors to foster an increased exchange of ideas and help to shape and inform the evolving policy debate in the country.

In a series of Davos-style panels with expert speakers across six topic areas, crucial and challenging issues were confronted. Day one of the roundtable focused on the role of Vaca Muerta for natural gas production, as well as critical infrastructure projects that would support producers meet domestic, regional, and international energy demand. Day two assessed creating the regulatory conditions necessary for nationwide planning, renewables and sustainable energy, climate change, hydrogen projects and strategy, and lithium projects and their outlook.

The ongoing debate and discussions around the global energy transition to meet internationally agreed-upon climate and emissions reduction goals and the current energy crisis brought on by the Russian-Ukraine war, provided a unique moment for the event. More importantly, the international developments underscore the important opportunity for Argentina to regain energy self-supply while increasing production in valuable subsectors to service the international market.

However, each subsector faces significant macroeconomic and political stability challenges that cause many observers to question Argentina's ability to take advantage of the various opportunities for further development within the industry.
While significant hurdles exist, participants exhibited an overall sense of optimism for the future. In almost every panel, the experts signaled positive outlooks for each energy subsector. This confidence carried over from formal talks to informal conversations during networking sessions. Most of this optimism was driven by the sheer number of resources available to meet domestic demands and the potential to add to the international value chain.
Yet, even though this optimism permeated most of the dialogue at the roundtable, the obstacles to further developing the industry do still cast a shadow that must be managed. In particular, as the following high-level event summary notes, are the challenges and opportunities associated with three key areas: energy security and regaining self-supply, public policy, and finally, emerging energy industries.

1) Energy Security, Self-Supply, Exports and Regional Integration

The latest data from the International Energy Agency shows that Argentina has significantly balanced its energy imports and exports in the last five years.[i] However, the country remains a net importer of energy. Moreover, Argentina's relative dependence on imports to serve its domestic demand today contrasts with the outlook of the late 1990s and early 2000s, when the country was a significant exporter of natural gas. In this period before the economic crash and subsequent gas crisis of 2004, Argentina had successfully integrated itself into the regional energy market. Unfortunately, due to natural gas prices policy and constraints in the following years, Argentina was forced to withdraw from its position as a regional energy exporter.[ii]
At the roundtable, speakers emphasized the need both regain energy security and self-supply while redistributing production through the rebuilding of trust in regional integration in South America and beyond. Three main topics discussed concerning this goal were infrastructure projects, the increased productivity in Vaca Muerta and the continued pursuit of further clean energy development (renewables and nuclear).

a. Natural Gas Production and Transportation

Not surprisingly, Vaca Muerta figured prominently in the agenda and discussions on day one. The role of Vaca Muerta, its progress, and its future implications for energy security and export potential continue to merit discussion. Overall, there was an extreme amount of confidence about the future regarding Vaca Muerta. Private industry representatives with concessions in the prolific play highlighted the progress made in exploiting the shale rock underground, asserting increased production capacity and illustrating the quality of the resource compared to similar holdings around the world.

Repeatedly, panelists suggested that Vaca Muerta could easily service the entire Argentine natural gas market with ample resources to spare and export globally, if fully developed. However, stakeholders made it clear that the current challenge in Vaca Muerta is not in accessing the resource but in transporting the resource in line with the market demand. This challenge led to impassioned discussions on infrastructure improvements and developments, not just in delivering the resources from Vaca Muerta but in positioning all the subsectors to supply domestic demand and build capacity to reach the global market.

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Part of the roundtable dialogue on infrastructure centered on the Gasoducto Presidente Néstor Kirchner. Approved by the Fernandez administration, the pipeline would connect the new influx of natural gas produced in Vaca Muerta to the province of Buenos Aires. According to the expert panelists, the need for more projects like this is a crucial piece of Argentina's ability to realize its full export and domestic potential. Currently, the existing pipeline infrastructure is over 40 years old.[iii] As a result, it lacks the capacity to meet domestic demand in the winter months, which costs the country billions of dollars per year in imports. There was a palpable excitement around the project's approval at the conference, though questions of financing were set forth. Subsequent to the event, a series of news stories about the project cast doubt on the project's development and timeline.

Furthermore, expert panelists shared insights around intriguing infrastructure developments for regasification and liquefaction to increase import and export capabilities. Representatives from the subsector relayed the success of the two regasification terminals (constructed for imports). However, they illustrated the need to sign more contracts to increase investment and claimed that a lack of macroeconomic stability and price volatility made it hard to attract new investors. With new investment in liquefaction terminals, the idea is to build more capacity to export natural gas while the domestic natural gas production is developing in line with the goal of becoming a global LNG exporter.

While much optimism surrounded the discussion of infrastructure projects, private sector representatives illustrated the need for more government-led projects, or at least support and clear-cut policy frameworks. The not-surprising complaint from industry focused on how difficult it is for the sector to make the necessary changes because of bureaucratic red-tape limiting their ability to obtain permits, licensing, and concessions. Furthermore, there were calls from the private sector to provide a clear strategy and regulatory framework for changing the flow direction of natural gas in the north of the country with an eye on replacing the possible decreasing of Bolivia imports. The overall sentiment was that the private sector could secure the funding needed to complete these necessary projects, but it needs increased support from the government to bring projects to the implementation stage.

b. Clean Energy Production and Distribution

Regarding the role of clean energy in meeting domestic demand, there was dialogue about the potential of Argentina to generate more renewable and nuclear energy soon. For many, the relative potential of renewable resources due to the country's natural diversity of weather patterns demands increased attention. For example, the northwest region has a strong solar-energy generation potential, and the southeast maintains constant offshore winds all year round. However, much like natural gas, the challenge lies in the distribution of renewable resources. Due to the generation potential being far from the population hubs and major demand centers, panelists stressed the need for increased investment in transmission and distribution to deliver electricity generation to the demand centers.

Photo: "La energía del Sol" by Flickr User Alejandro

Argentina continues to consider the key potential role nuclear energy can play in transitioning to a zero-carbon energy grid. Although the expansion of nuclear generation was not a prevailing theme at the conference, representatives from the public sector spoke about the need for further development of nuclear facilities during the second day's topics on energy transition. The representatives spoke on the need to aid the country's three active reactors at this time (1763 MWe), not only as a potential for energy security, which many at the event felt was a high priority, but as it serves as a source of dispatchable power to ease issues of variability in incorporating renewables. Even more, the government officials stated that nuclear energy not only complements renewable energies but also could allow the release of hydrocarbon resources to position Argentina as an energy exporter.

Furthermore, they pointed out that nuclear energy currently represents 7% of the production of electrical energy and if the expansion plans materialize, it could reach 10% by 2030. In addition, they considered that these expansion plans are one of the main pillars of Argentina's energy transition policies, considering the need to meet the environmental goals duly assumed and considering that it is a clean energy source that does not emit greenhouse gases.

In addition, part of this conversation was the role of Chinese financing as a potential avenue to facilitate expansion, particularly considering the case of Atucha III NPP Project which shall be a Pressurized Water Reactor (PWR) to be operated with a rated gross electric power of 1200 MWe. The CAREM Project was also addressed as one of the main initiatives of the Argentine nuclear program which is at a pivotal juncture and that could eventually require international funding as well, but at the same time it was highlighted that now it is an ongoing prototype in charge of the National Atomic Energy Commission (CNEA). Subsidiary topics covered by the representatives were small-scale reactor prototypes and their potential incorporation into the energy grid. It was also indicated that Argentina had begun the Life Extension Project to prolong the license of its first nuclear power plant, Atucha I, for another 20 years.

c. Regional Integration

In order for Argentina to regain its stature as a regional energy exporter, the panelists continually asserted the importance of building back relationships with neighboring countries. While this is more of an abstract concept due to the complex nature of international relations, experts signaled the need to build trust and think about long-term energy contracts with Chile, Bolivia, and Brazil. They pointed out the diminishing natural gas production in Bolivia as creating space in the regional energy market that the Argentine natural gas producers could capture.

Most private industry panelists agreed that producers' most crucial goal was first to service the domestic market. However, they also were harmonious in their goals to eventually move their product to the export market once Argentinian energy independence is secured. Still, there was unanimous agreement that the infrastructure to deliver natural gas to the region would need to be funded and agreed upon in the coming years if Argentina were to take full advantage of regional demand lapses.

After the event in Buenos Aires, and during the proceedings of the US-hosted Summit of the Americas, the presidents of Argentina and Chile signed an agreement to address many of these points debated at the roundtable.

Overall, the experts emphasized three central challenges to energy security, regaining self-supply, regional integration, and expanding export potential. The panels highlighted that to solve these challenges it would take a cross-industry and sectoral efforts to realize the potential to meet domestic energy demands in the near term, capture the regional market in the medium term, and take advantage of the global market in the long term; the none of which are possible without the proper policy planning and regulation.

2) Public Policy, Regulation and Policy Planning

Public policy was one of the most contentious topics at the conference, and there were instances in which panelists were naturally prudent as to their opinions on the role of politics in the energy sector. Nevertheless, panelist after panelist underscored the importance of the government setting clear, consistent rules of the game and, in cases where there may be the need to revise terms, maintaining an open dialogue and open communication with the private sector, particularly the international investment community. There were three in-depth conversations on public policy: RenovAR, the State of Neuquén's handling of Vaca Muerta, and the Plan Gas.

One of the policies highlighted by the panelists was RenovAR, Argentina's renewable energy program instituted by the Macri administration in 2016. There was a sentiment that this program did an excellent job at incentivizing investment through a unique guarantee structure from the World Bank. In addition, several projects were mentioned as a direct consequence of solid public policy, such as the San Juan Solar Park and the Genoveva Wind Project. Furthermore, through the program, the government facilitated three auction windows which resulted in 147 projects.[iv]

Deputy Secretary for Electricity Federico Basualdo discusses the government's energy transition plans while Silvina Batakis, Secretary of Provinces at the Ministry of the Interior and Leonardo Chullmir of OREL Energy Group listen as part of the panel.

On the other hand, there was a level of criticism aimed at what some noted was the lack of a long-term plan to build upon the progress. As a result, there were calls from academics and private sector renewable energy representatives for the current administration to extend the program.

Another policy regime which the panels elucidated was the role of the State of Neuquén in the development of natural gas in Vaca Muerta. In this example, the state has been crucial for the successful evolution in facilitating investment. Success was achieved through close coordination with the Federal Government, the companies, and the unions, to foster conditions for contractual terms and industry and resource growth. A government representative from Neuquén also mentioned that they overcame a politically challenging release of a Provincial law through action plans that involved a steady companionship of the civil society and the entire value chain. The so-called Social License to Operate afforded developments in Neuquen was roundly applauded by panelists.

Another important policy discussion examined Argentina's Plan Gas (IV), a program intended to incentivize investments. Plan Gas focuses on increased commitment with longer contracts, clear rules, and competitive pricing models to attract international investment. At the conference, some talked about expanding the time horizons for the policy to build upon the momentum building in the industry. Others stressed the need for a broader strategy concerning Natural Gas, claiming that this would give investors confidence in Argentina's commitments to developing the resource in the long-term to export.

It is also useful to note what policy areas were not a priority for the experts. For example, representatives from the lithium and hydrogen subsectors relayed the need for national short, medium, and long-term strategies for their respective industries. While Argentina approved a law to incentive hydrogen production in 2006, the 15 year-term program expired without regulations being issued. Especially considering the rise in demand and future demand projections for green hydrogen, a new regulatory framework will be essential. Regarding lithium, still there is not a comprehensive strategy.

Representatives from private companies seeking to produce lithium relayed the need to develop a plan to attract investors, secure capital amidst macroeconomic challenges, and scale-up production.

Overall, the panelists at the roundtable expressed a desire to build intersectoral collaboration. They outlined the role of the State as a facilitator for investment and production. They illustrated the importance of solid institutions, consistent and clear public policies, robust legal and regulatory frameworks, and providing legal, financial, and contractual security for successful resource development.

Since the conclusion of the roundtable, the government has released a new natural gas strategy. While the roundtable cannot be viewed as causation for the new policy, it offers a clear signal that these conversations are being had at the highest level and is cause for the continued optimism around the development of the energy sector in Argentina, as was demonstrated by the roundtable proceedings.

3) Emerging Industries

With all that is happening in the nation and across the world, the reason for optimism within the energy sector is derived from the country's vast wealth of resources. As the world pivots and turns its focus to renewable energy, many in Argentina believe they can significantly contribute to the world's transition to a zero-emission future. Hydrogen is one of the resources that many in academia and the public and private sectors believe is the best bet for providing clean firm power. Argentina has incredible potential for hydrogen, specifically green hydrogen, and panelists articulated that during the second-day sessions. Representatives of the hydrogen industry updated attendees on the production of green hydrogen has already begun in Argentina's southern region of Patagonia. Panelists stated scale needs to be increased to be competitive in the world markets. However, they articulated that hydrogen should not be exclusively seen as an export but also for domestic consumption. Hydrogen is still in its early stages, although panelists were very optimistic and supportive of Argentina's potential.

The roundtable ended with discussion of critical minerals and lithium, with representatives from the private sector advocating for public and private cooperation. With production already underway in the salt flats of Jujuy and Salta, the representatives indicated that Argentina has the potential to be among the top three largest producers of lithium in the world. The focus would be on mining and production, aiming not to create batteries in Argentina yet but to supply the global battery value chain through exports.

It bears mentioning that environmentalists worldwide and a number of concerned citizens in Argentina have had growing concerns about the possible environmental degradation of lithium mining. This has been further exacerbated by questions around water usage and social license to operate that, critics contend, were strategically played down by entities associated with current production. Production hurdles articulated by the panelists included the need to import mining equipment as well as the lack of human capital in this burgeoning field. Lastly, panelists stressed the importance of government support and cohesion in their projects.

Conclusion

On clear display from the panelists was the confidence in Argentina's potential and opportunity to leverage to current moment in time. The fact that between Vaca Muerta and the potential for renewable energy, green hydrogen, modular nuclear production and lithium, Argentina has an incredible abundance to offer the world. However, bringing these resources to fruition would be as great a hurdle as the design and implications of the projects themselves. Funding and intersectoral cooperation and collaboration were prevailing themes and might have been the most congruent arguments across all forms of energy production.

Upon returning to San Diego and meeting to discuss the ongoings of the conference with Jeremy Martin, VP of Energy and Sustainability of IOA, and our coordinator on this event, the most significant surprise of the conference was the overall positive outlook on the future of energy in Argentina. There were concerns that between the pandemic and economic struggles, the conference would be awash with caution and uncertainty. However, it was very much the opposite. Both days of panels were lively and full of confidence for the future. In the end, the roundtable proved a success; stakeholders from all areas across the energy sector in Argentina engaged in necessary discussions, which will help build a consensus and cohesion amongst the industry and government.

We cannot know what lies ahead for Argentina on its energy and climate journey. Still, we know that the right conversations are taking place and that with the proper planning and coordination, Argentina can take advantage of this vital moment.

This report was prepared by Ezra Kraus and Gordon M. Magne, graduate students at the University of California San Diego's School for Global Policy and Strategy (GPS); Ezra and Gordon joined us in Buenos Aires for the Roundtable.

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[i] (International Energy Agency, 2021)

[ii] (Honoré)

[iii] (Grainger, 2022)

[iv] (International Finance Corporation, 2020)