# XXXIV LA JOLLA

## · ENERGY CONFERENCE ·

OCTOBER 21-23, 2025 | LA JOLLA, CALIFORNIA

# SUMMARY REPORT

INSTITUTE OF THE AMERICAS®

**ENLIGHTENING THE PATH** TO TRANSFORMATION

XXXIV
LA JOLLA
· ENERGY CONFERENCE ·

## INTRODUCTION

We were thrilled to welcome an amazing group of participants and friends to our Pacific home for the XXXIV La Jolla Energy Conference, held October 21–23. This year's event once again fostered high-level debate and discussion on the most pressing policy and investment issues shaping global and regional energy markets—while maintaining the collaborative, trusted, and uniquely La Jolla atmosphere that keeps our community strong and growing.

The conference's sessions explored the intersection of geopolitics, technology, and the evolving energy transition. Panels on geopolitics highlighted how U.S.–China rivalry is reshaping supply chains and energy security, particularly in Latin America, where countries increasingly balance relationships rather than choose sides. Several panels underscored that the energy transition is nonlinear: demand for hydrocarbons remains high even as renewables scale, reliability concerns grow, AI drives massive new electricity needs, and grid modernization becomes urgent.

Regional deep dives revealed that Latin American countries—especially Brazil, Colombia, Peru, Mexico and emerging Caribbean Basin producers—face a dual challenge: leveraging hydrocarbons for economic development with an eye to energy security while financing decarbonization. Critical minerals, LNG, and natural gas were framed as strategic assets whose long-term value depends on governance, investment climate, and infrastructure. Across sessions, speakers called for pragmatic energy planning, stronger regional integration, better data systems, and policies that balance affordability, energy security, and sustainability. Discussions at a unique opening session considered the role of women in energy and noted the persistent gender inequities in the workforce and the need for continuity and evolution toward broader and more inclusive strategies.

# Women in Energy and Workforce Development

The panel examined how inclusion is evolving across sectors and why progress remains uneven despite decades of effort. The discussion opened with a candid acknowledgment that women are not a small minority in the workforce yet remain significantly underrepresented in leadership roles. Panelists described how everyday interactions still reveal subtle and overt behaviors that reinforce entrenched hierarchies, such as reducing female colleagues to their appearance in professional settings. These moments illustrate how cultural habits often move more slowly than policy reforms.

All three speakers emphasized that younger generations sometimes assume equity has already been achieved. One panelist shared an anecdote about mentoring a young man who questioned whether microaggressions or gender disparities were still issues at all. Such experiences underscore the need for continued education and intergenerational awareness, because progress in certain spaces does not automatically translate into lived equality.

A decade ago, DEI conversations focused primarily on access and gender parity; today the landscape is broader and more complex. Panelists noted a shift from equating inclusion solely with women's advancement to recognizing a wider spectrum of diversity, including neurodiversity, socioeconomic mobility, access to technology, disability inclusion, and cultural belonging. Effective inclusion must lift historically underrepresented groups without producing new forms of exclusion. The goal is equitable participation, not a reversal of existing disparities. Panelists also pointed out that the global struggle for women's rights is still recent history, with many countries granting foundational rights only within the last century and modern anti-discrimination protections still relatively young.

The discussion included a debate around meritocracy. While expanding candidate pools and using data-driven evaluation can contribute to fairness, merit only functions equitably when everyone begins with similar access to opportunity. In many countries and industries, providing these opportunities is still seen as a burden or a waste of resources. As AI-driven hiring tools spread, the issue grows more complicated, since algorithms trained on biased datasets can amplify stereotypes at scale. The group agreed that organizations must widen access to opportunity and closely audit digital hiring tools to ensure they support rather than undermine equity.

Panelists also addressed how organizations can sustain DEI commitments amid political polarization. A broad and inclusive understanding of diversity that encompasses gender, culture, socioeconomic background, and ability will help institutions remain steady even as national discourse shifts. The business case is well established: inclusive companies show higher innovation, stronger profitability, and better talent retention. Younger professionals increasingly expect workplaces that reflect diversity and offer equitable advancement pathways, and the best candidates are often lost early in their careers if companies fail to show that commitment.

The global picture remains uneven. Differences across the United States, Latin America, Europe, and other regions stem from distinct cultural norms, legal frameworks, and levels of stability. In some areas experiencing conflict or political instability, women's participation in public life has declined. Language also shapes implementation; in highly gendered languages, inclusive phrasing can be difficult to adopt without sounding forced, yet the effort remains important.

One persistent barrier identified was the "middle-management ceiling." While entry-level gender parity has improved, progress often stalls mid-career, where mentorship, sponsorship, and visibility decline. Gains are real but fragile.

The panel closed with practical guidance: ground decisions in evidence rather than rhetoric; build strong feedback structures; elevate women into decision-making roles; and set measurable milestones. Inclusion, they emphasized, is not ideological—it is a strategic necessity for building a resilient and future-ready energy workforce.

# THE BIG DEBATES

## Geopolitics Great Game 2025: China, the US and Latin America

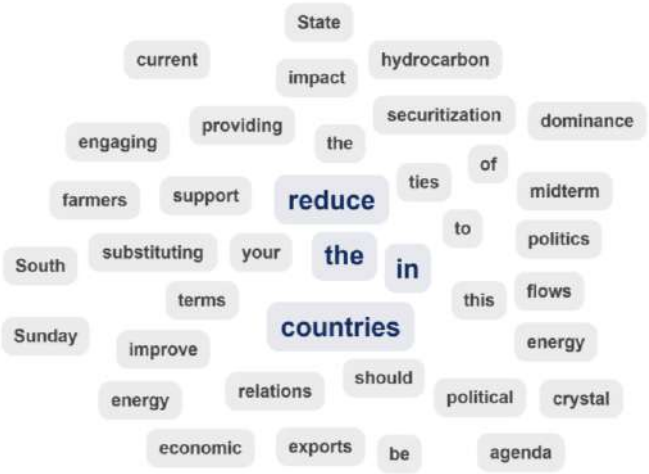
The first "Big Debates" session focused on the geopolitical impact of US-China competition on globalization, including decarbonization, supply chains, and innovation, and examined Latin America's position between the two powers. The discussion compared U.S. and Chinese approaches to the region in terms of nationalism, supply chains, and energy infrastructure, noting that the drastic and uncertain policy changes of the current Trump administration cast a shadow over each topic.

A recurring theme was how differently China and the U.S. engage the region. For China, Latin America provides essential commodities and a major market for Chinese-manufactured goods, and Beijing seeks to maximize market share regardless of political alignment. In contrast, the US approach is largely reactive, shaped by perceived threats involving migration, security, and corruption. The U.S. tends to maximize the profit of individual investments rather than focusing on long-term strategic positioning.

In some ways, China's consistency has allowed it to build more durable relationships across the region. The panel stressed the need to correctly assess both strategies when evaluating Latin America's geopolitical environment.

The conversation highlighted the critical role of supply chains in geopolitics, particularly LNG, semiconductors, and port control – what one panelist summarized as "ships and chips." LNG has become central to the U.S. agenda and so-called National Energy Dominance, with exports to Europe rising as China absorbs more Russian supply.

Competition extends to shipbuilding and port infrastructure throughout Latin America, key to securing logistics networks. Semiconductors add another arena of competition, as artificial intelligence and data centers require reliable baseload power and influence regional energy markets. Panelists argued that the main arenas of geopolitical rivalry lie where global energy supply chains intersect with technological innovation.




Another major theme was Latin America's growing ability to maintain balanced relationships rather than choose sides. Brazil manages its position carefully, avoiding strong criticism of Trump while deepening economic ties with China.

Argentina exemplifies strategic hedging, having received a $20 billion currency swap line from the U.S. Treasury while simultaneously expanding agricultural exports to China. This flexibility is enabled by decades of diversification, with south-south trade rising from single digits to 25 percent of global trade over 25 years. Mexico remains the only country with a clear historical alignment with the U.S., though even this is shifting as the USMCA renegotiation looms.

The panel concluded by stressing the need for Latin America to engage actively in Washington politics to navigate antagonistic U.S. policies. Panelists urged governments and industry to maintain dialogue with policymakers, emphasize the mutual benefits of U.S.-Latin America ties, and encourage Congress to counter harmful actions. While the outlook may appear more favorable for China, panelists underscored the strategic importance of Latin America's ambiguity—or what one panelist called "strategic optionality"—and its future ties with middle powers such as the EU, Canada, and India, beyond the confines of U.S.-China competition.

## Back To the Future and the Strategic Importance of Energy Security

The second "Big Debates" session examined the evolving meaning of energy security in a world where demand is rising sharply, geopolitical dynamics are shifting, and digital transformation is reshaping the scale and speed of energy consumption. Panelists emphasized that the global system is no longer navigating a traditional transition, but a prolonged hybrid phase in which old and new energy sources coexist, expand, and strain existing infrastructure simultaneously.

The conversation opened with a reminder that the longstanding “energy trilemma” balancing security, sustainability, and equity resembles an inherently unstable equilibrium. Despite ambitious global decarbonization scenarios, demand for oil and gas remains.

Energy consumption has grown far faster than population growth, and even as renewables scale rapidly, they started from a small base and cannot yet displace hydrocarbons at the pace imagined in early net-zero pathways. The panel highlighted the historical parallel of coal: although its share of the energy mix has halved over a century, absolute coal consumption is multiple times higher today than in 1925 because total demand expanded tenfold. The lesson: transitions add before they subtract.

Panelists also noted that political shifts in large producer countries reverberate globally. Changes in U.S. policy during the current administration have reset the rhetoric around production and altered expectations for investment, affordability, and the timeline of transition. Yet climate change remains unaffected by political cycles, and the sector must navigate these tensions rather than wait for alignment.

Against this backdrop, AI emerges as a double-edged force. It can be an engine for efficiency and infrastructure optimization, but also a massive new source of electricity demand that will test the resilience of power systems.

When considering how to rebalance the trilemma under these new pressures, panelists pointed to rising demand from data centers, persistent energy-access gaps affecting hundreds of millions, and slow-moving progress in hard-to-abate sectors. Clean power and electrified transport offer strong pathways for both environmental and economic security, but industry, buildings, and industrial feedstocks will rely heavily on hydrocarbons for decades. Many Latin American economies depend on oil and gas revenue to fund social programs, local infrastructure, and diversification efforts, making abrupt transitions impractical and inequitable.
One panelist set forth what they called a “pragmatism scenario” in which reliability sits at the foundation of energy planning, followed by affordability and then sustainability. Transition is underway, but neither 1.5-degree nor high-emissions trajectories appear viable; instead, the world is more likely moving toward an intermediate pathway where oil and gas remain essential even as renewables and storage accelerate. Several Latin American countries already rank among global leaders in decarbonization progress, driven by hydropower, distributed solar, and resource potential.

A strong consensus emerged around the "all-of-the-above" approach. Growth in AI, electrification, and industrial activity means every energy source capable of delivering reliable, affordable supply will be needed. U.S. LNG illustrates this pragmatism: abundant, cost-effective, and cleaner than coal or fuel oil, it supports both domestic security and global diversification. Infrastructure flexibility is becoming a defining strategic challenge, as countries must build systems that can serve today's demand while remaining adaptable to future technologies such as Carbon Capture and Sequestration (CCS), Small Modular Reactors (SMRs), geothermal, hydrogen, and grid-integrated data centers.

The panel closed with calls for regional energy integration, expanded storage investment, diversification of power mixes, and better alignment between government planning and the realities of digital-era demand. The region's promise of rich resources, strong renewable potential, and strategic geography is clear, but so is the need for pragmatic, sequenced investment that strengthens reliability while steadily lowering emissions.

# SPOTLIGHT SESSIONS

## The Pace of the Nonlinear Energy Transition

The spotlight session examined the increasingly non-linear nature of the global energy transition, emphasizing that progress is neither uniform nor guaranteed. Speakers noted that while the scientific imperative is clear—global emissions must fall 43 percent by 2030 to preserve a 1.5°C pathway—current trends reveal a more complex reality. Despite a record USD 1.8 trillion invested in clean energy last year, fossil fuels still supply 82 percent of the world's energy.

More than 30 countries have announced internal combustion engine phaseout targets for 2035, yet several European actors have begun retreating from these commitments under pressure from affordability concerns and security disruptions. The transition, the panel concluded, is fundamentally non-linear and will require greater policy certainty, steady investment mobilization, and accelerated technology deployment to maintain momentum.

Participants also challenged the conventional framing of "oil and gas versus renewables." Instead, they argued for a pragmatic balance across affordability, security, and sustainability. Integrating affordability as a core pillar reflects the reality that emerging technologies evolve at uneven speeds and that infrastructure must be designed to remain productive assets throughout the net-zero journey. Long-term projections, they stressed, should guide investment choices to avoid stranded assets and to ensure system reliability.

The conversation broadened to the institutional and geopolitical dimensions shaping the transition. Reflections on regional leadership highlighted the role of institutions that bridge energy, environment, and economic competitiveness. Examples such as cross-border collaboration under the USMCA and sustainable port initiatives in Mexico illustrated how local action can reinforce

regional transition goals. But panelists also noted that shifts in U.S. political leadership have had tangible effects on global cooperation. The previous withdrawal from the Paris Agreement slowed investment and unsettled partners, even as Asian countries—including China, Japan, and South Korea—advanced rapidly in alternative-fuel maritime technologies and shipbuilding. The Net Zero 2050 framework, they emphasized, remains critical for anchoring innovation funds and supporting developing economies.

Measurement and transparency emerged as essential enablers of credibility. The panel spotlighted the development of universal carbon accounting frameworks designed to eliminate double counting and standardize emissions reporting. Accurate measurement, they argued, is foundational: decarbonization cannot proceed without reliable data. Investor certainty is closely tied to these efforts, as financial institutions increasingly integrate climate-risk assessments into decision-making.

*Participants also challenged the conventional framing of "oil and gas versus renewables."*

Finally, the panel examined China's long-term strategic posture. China's significant share of global clean-energy investment reflects not only scale but also sustained industrial planning. Panelists argued that governments should view energy access as central to economic development rather than a narrow environmental concern. Rather than choosing between affordability, security, or sustainability, countries must adapt solutions to their own contexts.
Collectively, the discussion underscored five themes:

- ✓ transitions are uneven but accelerating;
- ✓ policy certainty is essential;
- ✓ carbon accounting is becoming a global priority;
- ✓ regional cooperation can amplify progress; and
- ✓ long-term industrial strategy offers critical lessons for aligning public and private investment.

## Grid Reliability: Understanding Power System Collapses and Blackouts

The spotlight session tackled one of the most pressing questions in the current energy landscape: should the world continue to pursuea policy pathway of "electrifying everything"in light of rising costs, strained infrastructure, and accelerating demand? Speakers acknowledged the remarkable momentum behind electrification and renewable deployment but cautioned that these advances are unfolding alongside increasing electricity prices, with California cited as a high-profile example of consumers experiencing growing costs even as clean energy investment expands.

A central theme was the structural limitations of today's power grids. Panelists warned that grids already struggling with inefficiencies and aging components are now being asked to absorb exponential demand growth from data centers. The rise of AI and digital services is reshaping load

profiles, creating consumption spikes that traditional systems were never designed to manage. Latin America's grid challenges were of particular concern to the panel, as transmission and distribution losses remain significant across the region.

Improving efficiency requires substantial investment in modern transmission infrastructure, better system planning, and new operational capabilities. The panel noted that giving operators greater remote-control capabilities, along with policies that allow countries to assert more strategic ownership over transmission assets, will be essential to building flexible grids capable of adapting to rapidly shifting consumption patterns.

Intermittency emerged as another major concern. Because electricity generation must match demand in real time, the variability of solar and wind was identified as a potential contributor to blackouts when not paired with adequate storage or firm generation. Panelists stressed that storage systems must become a core component of the transition, acting as a stabilizing buffer and allowing renewables to operate more reliably within the grid. Yet storage development remains under-incentivized. Market structures often fail to reward the system-level value storage provides, leaving early progress heavily dependent on state-led investment. Panelists agreed that markets will ultimately need to play a pivotal role in scaling storage by creating clear price signals that reflect the importance of flexibility.

Despite these challenges, the session also highlighted the formidable potential within Latin America. Colombia was cited for its ability to reach more than 90 percent renewables, while Argentina and Chile hold globally significant reserves of lithium and copper. Although the region faces logistical bottlenecks and inadequate investment in refining and extraction, speakers agreed that electrification should continue its forward trajectory.

With appropriate regulation, infrastructure investment, and grid flexibility, Latin America can both manage the transition and benefit strategically from its resource base. The panel concluded that electrification remains the right path, but only if accompanied by the structural upgrades required to support a resilient and modernized grid.

## What Can We Expect from COP30 in Brazil?

In this spotlight session, panelists discussed expectations for COP30, taking place in Belém, Brazil in November. As the panel underscored, the meeting is being framed as "the implementation COP," with Brazilian president Luiz Inácio Lula da Silva pushing for concrete, actionable steps to emerge from the negotiations.

Panelists outlined three essential priorities they believe COP30 must address:

- ✓ clarifying climate financing and the gap between what has been promised and what is needed,
- ✓ completing a meaningful Global Stocktake, and
- ✓ accelerating progress on decarbonization and renewable-energy efficiency.
- ✓ While panelists expressed genuine excitement for COP30, they also acknowledged that many commitments made at previous COPs have not resulted in significant implementation, underscoring the urgency of shifting from ambition to delivery.

In considering what sets COP30 apart from previous climate conferences, panelists agreed overwhelmingly that the venue is what makes it unique. Hosting the event in the heart of the Amazon, despite the logistical challenges, will help demystify the reality of a major city operating within the rainforest. Belém, home to nearly 2.5 million people, illustrates how climate change directly affects daily life for communities living at the margins of the world's most critical ecosystems. Panelists also stressed that the venue is symbolic not only of Brazil's climate leadership but of the broader global south. Positioning COP30 in the Amazon reframes the global south as part of the solution to a crisis largely driven by emissions from the global north. The conference aims to serve as a showroom of green solutions emerging from developing countries, in part to unlock new financing that many nations will need to meet their climate commitments.

*Hosting the event in the heart of the Amazon, despite the logistical challenges, will help demystify the reality of a major city within the rainforest.*

The conversation highlighted the need to reassess global priorities, with one panelist noting that international climate debates have sometimes focused too heavily on environmental preservation without giving equal weight to development needs. A balanced energy transition, they argued, requires recognizing that each country faces distinct challenges and therefore needs customized, actionable pathways. Regional integration within South America emerged as a particularly important topic. Panelists previewed a forthcoming IRENA study to be released at COP30, which will emphasize that if South America wants to reach net-zero targets, it must act collectively. Regional integration—through shared infrastructure, harmonized regulation, and coordinated planning—is especially essential for developing countries.

Brazil has positioned itself as an influential leader in global climate policy, and COP30 will allow both Brazil and other Latin American nations to be seen more prominently on the international stage. Brazil plans to use COP30 to promote increased ethanol production from other countries, push for expanded global collaboration, and strengthen engagement from civil society and the private sector. Panelists repeatedly referenced the Brazilian concept of *mutirão*, which embodies collective effort and community participation, expressing hope that this spirit will guide COP30's negotiations.

Overall, panelists agreed that the stakes for Brazil and for Latin America could not be higher. COP30 is seen as a crucial opportunity to ensure that every voice is heard and that negotiations grounded in dialogue and trust can finally translate into meaningful, actionable climate solutions.

## Artificial Intelligence: Game Changer or Too Soon to Tell?

"Every big leap in technology comes with its own problems" set off the discussion for this spotlight session on the growing intersection between artificial intelligence and the energy sector. Probing whether AI will be transformative or whether it is still too soon to tell, the conversation opened with reflections on how the rapid rise of AI, especially generative AI, has intensified energy demand and raised concerns about the current capabilities of power grids. This surge has also challenged the tech industry's ability to meet net-zero goals.

Despite these challenges, panelists emphasized that major technology companies remain committed to their climate targets. Microsoft, for example, aims to maintain its position as the world's largest carbon buyer and renewable-energy purchaser. Achieving these goals, they stressed, will require collaboration across industries and collective innovation rather than isolated action.

Panelists identified two primary bottlenecks: generation and transmission. One speaker pointed to the need for a rapid increase in electricity generation capacity to power new data centers, referencing roughly 14 gigawatts of interconnection requests under review in California—enough to power hundreds of thousands of households annually. Meeting this surge will also require substantial investment in transmission infrastructure.

As AI and electrification accelerate, panelists highlighted concerns about how growing consumption will affect grid reliability and affordability. Intermittency from renewables was noted as another challenge, with several panelists stressing that technologies such as nuclear may be needed to support the massive increase in demand.

Speakers outlined three attributes that will define the future relationship between AI and the energy system: power density, scale, and power stabilization. A single advanced AI chip can consume as much electricity as a home's air-conditioning system. Large-scale data centers, such as the OpenAI facility being developed in Texas, may require the energy equivalent of multiple large power plants. Although the scale is daunting, panelists expressed optimism that hardware and software innovation, including advances in GPU programming and grid-stabilization software, will gradually ease these pressures. They also noted that very large AI data centers will remain the minority; most new facilities are more modest.

Panelists were quick to offer an important perspective: AI itself can become part of the solution. AI can support regulators, utilities, and system planners by improving grid modeling, optimizing demand response, and enhancing efficiency across the energy value chain. By streamlining regulatory processes and planning timelines, AI could save time, money, and energy while accelerating the clean-energy transition. One panelist pointed to their companies creation of an AI permitting application to streamline the often time-consuming regulatory processes involved in project planning.

In terms of Latin America's emerging role, panelists were optimistic that the region's strong renewable-energy base—particularly in Brazil, Argentina, and Colombia—could make it an attractive destination for data-center investment. As tech companies increasingly procure their own power supply, Latin America could co-develop reliable, modernized grids that benefit both companies and its residents.

The panel concluded noting that while AI presents significant energy and infrastructure challenges, it also creates opportunities for efficiency and global collaboration. With adoption growing quickly across industries, panelists agreed that, if managed properly, AI has real potential to enhance innovation, accelerate decarbonization, and support the broader clean-energy transition.

## COUNTRY DEEP DIVES | The Booming Caribbean Basin

This deep dive session considered the rapid transformation of the Caribbean and northern South America as new hydrocarbon discoveries reshape regional dynamics. The discussion began with an overview of the historical context of the region and explored the geopolitical, economic, and energy transition implications of emerging upstream developments in Guyana, Suriname, and Trinidad and Tobago (T&T), as well as the evolving role of natural gas and low-carbon strategies across the region.

Speakers noted that the Caribbean Basin's modern energy story cannot be separated from its unique historical and geopolitical context. Long contested by multiple colonial powers, the region today finds itself at the center of renewed global interest. Recent oil and gas discoveries—particularly offshore Guyana and Suriname—have turned the area into one of the fastest-growing petroleum frontiers in the world. Trinidad and Tobago—one of the world's longest continuously producing oil regions—is seeking to capitalize on renewed interest by developing new oil and gas fields, particularly in deepwater areas, and by strengthening LNG production and export capacity.

Political continuity in Guyana following recent elections has provided stability for ongoing upstream investment. The country's production growth has been remarkable: from first discovery in 2015 to first oil in 2019, and now multiple FPSOs producing close to 800,000 barrels per day, with capacity projected to exceed one million barrels by decade's end. Suriname, meanwhile, is moving toward commercializing its own offshore discoveries, supported by its national oil company's equity participation.

In Trinidad and Tobago, the conversation centered on how the country can maintain its role as a regional energy hub amid declining domestic natural gas supply. T&T's existing LNG and industrial infrastructure remains among the most diversified globally, with exports to Europe, South America, and the Caribbean. However, underutilization of these assets has spurred interest in importing gas from Venezuela's nearby Dragon Field. The United States has sought to strengthen diplomatic and energy ties in Trinidad and Tobago, where a recent national election featured the ascendance of a party and leader that now must walk the tightrope between the United States and Venezuela.

Natural gas remains a central element of the region's energy future. Panelists emphasized the need to balance upstream development with long-term low-carbon goals. Guyana is developing a project that will bring associated gas to shore to expand power generation capacity, improve grid reliability, and displace higher-emission fuels. In Trinidad and Tobago, ongoing efforts to decarbonize the industrial sector include investments in CCS, energy efficiency, and potential green hydrogen production linked to existing ammonia facilities.

> *The Caribbean Basin stands at a historic inflection point—where new energy wealth must be leveraged to build sustainable, inclusive, and climate-resilient futures.*

Throughout the session, speakers reflected on how Caribbean Basin nations can avoid the "resource curse" as oil and gas revenues accelerate. Key recommendations included developing and strengthening sovereign wealth funds, diversifying national economies, and investing heavily in education and workforce development. Thousands of citizens, including many women, are now employed in the sector which was highlighted as an encouraging example of Guyana's efforts to provide local benefit.

Ultimately, the region's success will depend on managing a complex intersection of geopolitics, deepwater production challenges, and the imperative for low-carbon growth. As one participant summarized, the Caribbean Basin stands at a historic inflection point—where new energy wealth must be leveraged to build sustainable, inclusive, and climate-resilient futures.

# SPOTLIGHT SESSIONS

## Natural Gas and LNG – Transition or Evolution

This spotlight session examined the role that natural gas and LNG could play in Latin America and the Caribbean as a conduit for decarbonization, underscoring that the fuel's climate and development outcomes are conditional rather than predetermined. Panelists stressed that whether gas serves as a short-term "bridge fuel" supporting economies as they move toward a more carbon-free energy system, a longer-term backstop for reliability, or a durable component of low-carbon systems depends heavily on alignment in policy,

economics, and technology. Rather than assuming a fixed role, speakers framed gas as a set of options whose societal value will hinge on governance, accurate measurement, and clear incentives for lower-carbon production and use.

A recurring theme was the ability of natural gas to support system reliability and affordability while countries scale renewable generation and build out storage. Market dynamics—including a wave of new LNG export capacity and shifts in global trade patterns following Europe's sanctions on Russian gas—will shape how widely natural gas is adopted across the region. These dynamics influence the lifetime of new gas infrastructure and determine how effectively natural gas can displace higher-carbon fuels such as coal and fuel oil.

Methane management, along with the reduction of flaring and venting, was repeatedly identified as a high-impact opportunity for climate mitigation and resource efficiency. Mexico was highlighted as an illustrative case: despite active regulation, it continues to flare large amounts of associated gas. With better technology and enforcement, panelists noted that Mexico could recover roughly 8 percent of the gas it currently imports, reducing reliance on vulnerable U.S. supplies. Improved measurement and targeted investments in capture infrastructure were described as near-term, cost-effective actions that simultaneously cut emissions and recover economically valuable gas.

Speakers also emphasized the role of development banks in advancing generation and decarbonization goals, given their ability to mobilize capital and technical expertise. Several panelists called for a more nuanced view of natural gas as a contributor to development in Latin America, especially where technological improvements and investment can drive cleaner generation and support economic growth. The region's substantial fertilizer demand, they noted, could be met through domestic production rather than imports.

Natural gas' implications for affordability, resilience, and energy security should enhance regional integration and coordinated infrastructure investment. Cross-border cooperation could unlock surplus supply and reduce vulnerability to local price shocks, though doing so requires regulatory alignment and political commitment. Technology was presented as central to aligning gas with long-term decarbonization goals: renewables paired with storage can supply bulk power, while natural gas provides peak support and supplies hard-to-electrify sectors. Additional options such as carbon capture and storage, hydrogen blends, and renewable natural gas were identified as potential pathways for reducing lifecycle emissions, dependent on cost trajectories and transparent carbon accounting.

In summary, finance and policy design will ultimately determine the future potential of natural gas and LNG in the region. Rising electricity demand strengthens the case for deeper regional integration and more efficient use of existing resources. The central conclusion was pragmatic: the future role of gas will depend on policy choices and whether countries position it as a pivotal part of their grids or as a flexible backup in increasingly renewable systems.

# Mining, Critical Minerals and Industrialization

This spotlight session focused on the future of mining, the critical minerals supply chain, and the broader challenges of industrialization in the context of Latin America. As made clear by the panel, the region is endowed with abundant natural resources and is well-positioned to benefit from rapidly growing global demand for critical minerals essential to renewable technologies. Several countries featured prominently in the discussion, including Brazil, Chile, Mexico, and Argentina. Brazil holds nearly all the region's graphite reserves, while Chile is the world's second-largest producer of lithium. The lithium triangle—Chile, Argentina, and Bolivia—was highlighted as one of the most important resource centers globally for the clean-energy transition.

At the center of the discussion was how Latin American countries could move up the critical minerals value chain instead of remaining primarily exporters of raw materials that are refined and manufactured elsewhere. Panelists noted that there are meaningful value-added opportunities available to the region but capturing them requires more than geological abundance. There must be sufficient infrastructure to support processing, refining, and manufacturing, but also to ensure that minerals can reach export markets efficiently. Without modern ports, transportation networks, and energy systems, efforts to industrialize mid and downstream segments of the value chain will remain constrained.

The session also examined the geopolitical backdrop shaping the global minerals landscape, particularly the dynamics between the United States and China. Panelists noted that Washington tends to frame the issue as one of "mineral security," focusing on reducing dependence on China's dominant position in processing and refining. In contrast, Latin American countries largely frame the conversation around economic development and global cooperation. In some ways, the difference in priorities can often work to China's advantage, as it has been deeply engaged in the region for years while the United States can be seen as arriving late to the competition for influence and supply-chain partnerships in the mining and minerals space.

Regulation is seen as another critical area. The panel repeatedly referenced the need for countries to "get their house in order," underscoring the importance of strengthening regulatory frameworks and improving governance. Investor certainty depends on clear, stable, and predictable rules. Without regulatory reform and institutional improvements, Latin American countries risk missing out on the wave of global investment currently flowing into critical mineral development.

There was consensus that while the opportunities in mining and critical minerals are enormous, realizing those benefits will require coordinated improvements in governance, regulation, infrastructure, and strategic partnerships. The region's resource endowment provides a strong foundation, but capturing the full economic potential of the sector will depend on how successfully countries can modernize institutions, attract investment, and integrate themselves more deeply into global value chains.

## *DEMA Project*: Building a New Multi-Country Energy Data Ecosystem

The presentation highlighted DEMA, an OLADE-led and IDB-financed project that was "born in La Jolla!" The DEMA project is an initiative that identifies a possible architecture for an integrated regional energy data platform across South America. The concept originated from discussions between participants during the La Jolla Energy Conference a couple of years ago.

The rationale and goal for the project are because large amounts of energy data already exist, but they are dispersed and poorly organized, limiting their usefulness. Until this information is consolidated in a structured, accessible platform, policymakers cannot fully use it for planning. Once established, DEMA would support key applications: real-time optimization of load and generation, more efficient energy trading, improved infrastructure planning, and country-specific renewable competitiveness assessments.

Future use cases could include bi-national energy plants, new thermal projects, and the integration of oil and gas datasets to build a unified regional energy view. The presentation concluded with a brief roadmap outlining five implementation phases, each requiring roughly three to six months, signaling that while ambitious, DEMA is a realistic and achievable regional effort.

## COUNTRY DEEP DIVES | Colombia & Peru

The deep dive session focused on the evolving energy outlook in Colombia and Peru, emphasizing their shared challenge of balancing energy security, sustainability, and investment attractiveness amid shifting regional and global dynamics. Both countries are at pivotal moments, working to ensure reliable supply while advancing transitions toward more diversified and resilient energy systems.

In Peru, the discussion highlighted the country's substantial but underexplored hydrocarbon potential. While 18 basins have been identified, only a small number have been developed, leaving significant reserves untapped. Current production remains modest, yet Peru's long history of oil extraction and existing infrastructure position the country for renewed growth. Efforts are underway to reactivate the sector through new exploration contracts, reassessment of reserves, and efforts to reverse the decline in gas supplies. Offshore exploration along the Pacific coast was underscored as a promising frontier for the coming decade.

Hydrocarbons remain central to Peru's energy strategy, representing roughly 67% of domestic energy consumption. The country imports about 150,000 barrels per day of oil and gas, while hydroelectric plants supply more than half of its electricity. This dependence on water resources exposes Peru to drought-related risks, reinforcing the need for diversification of its energy matrix by expanding wind, solar, and gas-fired generation to increase system reliability. Social and environmental considerations were also highlighted, including the use of a social fund designed to ensure that revenues from energy projects reach local communities, particularly in the Amazon. Delays in permitting processes, sometimes stretching up to four years despite legal timelines of one year, were cited as a major constraint for investors.

In Colombia, the conversation centered on managing the coexistence of hydrocarbon production with the country's broader energy transition goals. Colombia remains a significant oil producer, yet declining gas reserves and infrastructure challenges exacerbated by extreme weather events pose risks to energy security. To address these vulnerabilities, the government is expanding regasification capacity, advancing offshore development, and increasing investment in solar and wind. Longer-term plans include evaluating unconventional reserves, though the trajectory of these efforts will depend on policy signals and social acceptance.

Both countries highlighted that hydrocarbons are essential to financing their respective energy transitions. In Peru, the expansion of gas use in central and southern regions and the development of petrochemical hubs are expected to bolster industrial activity and job creation. In Colombia, offshore and Caribbean exploration, paired with existing production, aims to stabilize supply over the next decade.

The discussion emphasized the importance of investment climate and regulatory stability. Peru and Colombia are reforming contractual frameworks to streamline licensing, reduce bureaucratic delays, and boost investor confidence. Strengthening community engagement was identified as essential to ensuring project legitimacy and long-term support.

Finally, the session explored how hydrocarbons and renewable energy can advance together. Both countries recognized that revenues, infrastructure, and technical expertise from fossil fuels remain indispensable to scaling clean energy. Panelists stressed the need for regional integration, coordinated planning, and pragmatic public-private collaboration to support realistic transition pathways. The discussion closed with a shared understanding that balancing investment, social considerations, and environmental stewardship is critical to the long-term resilience of Latin America's energy systems.

# COUNTRY DEEP DIVES | Brazil

The deep dive session opened with an examination of the current state of Brazil's energy industry before expanding into a broader discussion on energy security, emerging frontiers, and long-term policy objectives. Panelists noted that Brazil is now the leading oil producer in Latin America, generating roughly 5 million barrels of oil per day, while simultaneously ranking among the world's leaders in renewable energy. Today, about half of all energy consumed in Brazil comes from renewable sources, positioning the country uniquely at the intersection of a leading oil producer as well as clean energy producer in the region.

To frame the discussion, the moderator provided a historical overview of Brazil's evolution in the oil and gas sector. For decades, Petrobras was the only company permitted to drill or produce hydrocarbons. The pivotal market opening in 1998 altered Brazil's constitution, established regulatory agencies, and introduced competition into the sector. This shift allowed multiple companies to enter the Brazilian market and compete for acreage and contracts, while also enabling Petrobras to collaborate with international operators. These partnerships contributed to major technological advancements and significant cost reductions across the industry.

Panelists pointed to two core factors underpinning Brazil's energy strength: world-class geology and a technically capable national oil company. The pre-salt region, Brazil's most prolific petroleum play, was highlighted as a prime example. Its geology enables massive production while maintaining a comparatively low carbon intensity. Pre-salt fields alone are estimated to produce around 5 million barrels per day. Petrobras, the second pillar undergirding Brazil's energy power, continues to demonstrate technical sophistication and strong operational capacity, and has effectively collaborated with major global players such as Exxon and Shell, as well as Chinese NOCs.

*The panel acknowledged rising concerns about the finite nature of Brazil's current oil-producing regions.*

However, the panel acknowledged rising concerns about the finite nature of Brazil's current producing regions. The pre-salt's maturation, with production expected to peak around 2032, will inevitably lead to declines. The panel outlined two possible responses: venturing into new exploratory frontiers or reverting to Brazil's earlier posture as an import-dependent oil sector. Panelists strongly cautioned against the latter, noting Brazil's domestic demand of at least 2.7 million barrels per day. Returning to heavy reliance on imports would expose the country to energy security vulnerabilities and diminish Brazil's status as the region's "oil powerhouse."

Exploration of new frontiers was pointed to as the preferred path. Two areas were highlighted: the equatorial margin and the Pelotas Basin. The equatorial margin alone may hold an estimated 10 billion barrels of recoverable oil, potentially doubling Brazil's reserves. Panelists emphasized that the question is not whether Brazil must expand into new regions, but when, given the timeline of pre-salt decline.

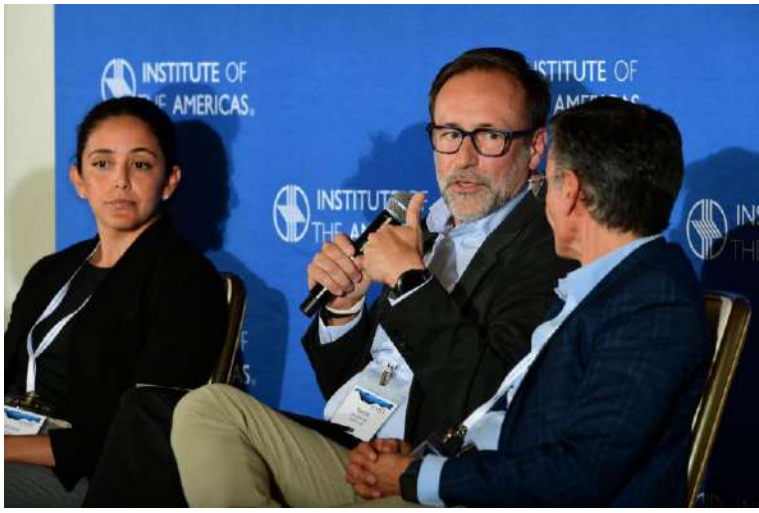
The session concluded with a discussion of how Brazil can balance oil's role in energy security while maintaining a low-carbon agenda. Panelists suggested that Brazil's largest environmental challenge is not oil production but poverty. Directing oil and gas revenues into innovation, industrial development, and social investment was framed as the most effective approach to reducing emissions and improving quality of life. Overall, panelists stressed that if Brazil's demand continues to grow, there will be sustained need for domestic oil and gas production. In all plausible future scenarios, fossil fuels remain central, reinforcing Brazil's argument that continued investment in its energy sector is both necessary and strategic.

## COUNTRY DEEP DIVES | Mexico

The deep dive session began with an update on the current state of Mexico's energy sector, outlining a landscape defined by policy inconsistency, mounting financial pressures on Pemex, and the unresolved question of how to balance state leadership with the role and potential of foreign investors. Panelists underscored that Mexico stands at an inflection point, navigating political transition while confronting both structural and fiscal realities in its energy system.

Their assessment of the current administration's regulatory approach pointed to the newly implemented *reglamentos* aimed at reversing much of the framework from the 2013 energy reform, and, in part, restoring centralized control of the hydrocarbon sector to the state-owned enterprise Pemex. The latest legal and regulatory reforms appear to consolidate the restrictions on foreign participation and reassert Pemex's dominance over national resources.

In contrast with her predecessor, President Claudia Sheinbaum appears more open to pragmatic solutions, signaling interest in a hybrid model that maintains SOE leadership while selectively inviting private investment. Even so, panelists described a lingering dissonance within Mexico's policy environment: the government acknowledges the necessity of foreign capital and expertise, yet there is no unified vision on how private participation should be structured in the coming years, despite the aforementioned revised regulatory framework.




This inconsistency is especially visible in the disconnect between the electricity and hydrocarbon sectors. In electricity, the administration has advanced deeper collaboration with private actors, reflecting an implicit recognition of the investment and technical capacity needed to expand generation, as well as underscoring the linkage with the administration's broader economic goals. By contrast, the hydrocarbon sector remains far more restrictive, maintaining limited avenues for foreign engagement even as upstream challenges intensify.

In taking on the central issue of Pemex, the panel noted that despite its once iconic status, the NOC faces a deteriorating financial outlook, with debt levels rising and operational constraints mounting. Panelists agreed that this fiscal distress represents a major red flag for potential investors. If policy continues to mandate that foreign partners work through Pemex, many investors may hesitate to enter the Mexican hydrocarbon space. Moreover, Pemex's long-standing avoidance of offshore drilling leaves critical technical gaps that foreign firms are better positioned to fill. Without outside capital and expertise, the company is unlikely to become self-sustaining over the long term.

Despite these challenges, Mexico's geology remains promising, with significant untapped hydrocarbon potential. For this reason, panelists emphasized that government inaction and underdeveloped policy—not resource scarcity—pose the greatest obstacles to building a resilient, competitive energy sector, particularly when it comes to hydrocarbons.

In closing, speakers stressed the need for a strategic, long-term outlook that harmonizes policy goals, clarifies the role of private actors, and balances SOE leadership with investor participation. Without such alignment, Mexico risks escalating Pemex's debt burden, weakening grid reliability, and facing wider economic repercussions such as blackouts and declining investor confidence. Ultimately, panelists agreed that as the newly released *reglamentos* are implemented in the coming weeks and months, practical realities will force the administration to establish a coherent regulatory framework and adopt a pragmatic approach to foreign and private investment to achieve more lasting energy security and sustained economic progress.

***Our sincere gratitude to Valeria Becerra Angulo, Colleen Cochran, Owen Coumou, Zachary Fleming, Issy de la Fuente, Eric De Haas, Zane Heather, Michael Khan, Mateo Micucci, Marina Minic, Juan Morfin de la Parra, Rio Namegaya, Amanda Nogueira, and particularly Paul Youngblood from UC San Diego's School of Global Policy and Strategy and Scripps Institution of Oceanography, as well as Rafael Nahas, our rapporteurs who synthesized the conference discussions and ably prepared the summaries that comprise this document.***

# **Join us in 2026** to celebrate our 35th anniversary and milestone **XXXV La Jolla Energy Conference!**

## About the Institute of the Americas

The **Institute of the Americas** is a non-partisan, independent nonprofit organization whose mission is to be a catalyst for promoting economic development and emphasizing the role of the private sector, as a means to improve the economic and social well-being of the people of the Americas.

The **Energy & Sustainability program** has played a crucial thought-leadership role in shaping policy discourse and informing policymakers and investors on the most important trends in the energy sector. We focus on matters related to energy development, investment, natural resource use, and energy transformation in the Americas.

Follow us