

2022 ARPEL Annual Report

March 2023

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ASSOCIATION OF OIL, GAS AND
RENEWABLE ENERGY COMPANIES
OF LATIN AMERICA AND THE CARIBBEAN



INSTITUTIONAL



Table of Contents

Governance	2
Who we are	3
Strategic Vectors	3
Message	4
Membership	7
Spaces for dialogue	9
Energy Transitions	13
Operational Excellence	17
Sustainable Management	40
Relationship with Stakeholders	47

Governance

Board of Directors

President:

EP PETROECUADOR

Vice-presidents:

ANCAP – Alejandro Stipanovic (from September 2022) / Benito Piñeiro

YPF – Carlos Colo

Directors:

OLDELVAL – Diego Martínez

Pan American Energy – Luis Fredes

S&P Global – Bob Fryklund

STAATSOLIE – Rekha Bissumbar

Auditing Committee

President:

PETROPAR – William Wilka

Alternate Members:

TGN – Carlos Ranzani

TGS International – Francisco Colina

About us

ARPEL is the only regional association of oil, gas and renewable energy in Latin America and the Caribbean.

Founded in 1965, our members include private and state-owned operators, as well as service providers operating in more than 30 countries in the Region.

Vision

To be a regional benchmark in strengthening the industry as a sustainable energy supplier that contributes to the energy transition.

Mission

To promote the integration, operational excellence and sustainable development of the oil, gas and renewable energy industry in the region, through cooperation among members and collaboration with its main stakeholders.

Strategic Vectors



Energy transitions



Operational excellence



Sustainable management



Relationship with stakeholders



Message

I felt extremely honored by the trust placed in me when I was selected as the Executive Secretary of ARPEL as of January 2022. I accepted in the spirit of making a modest contribution to the oil and gas industry of the region to which I have devoted most of my career, in exchange for everything it has given me, both professionally and personally.

It was a challenge, given my lack of familiarity with the management dynamics of a non-profit business association at a pivotal moment of our industry, confronted with energy transitions under social demand and a geopolitical disruption that counterbalanced them with apprehensions about energy security. I am a firm believer in the need to traverse the paths of such transitions, of the potential of synergistic complementarity enabled by that tension on our industry, and of the urgency of communicating better as a sector to convey to our society the necessary pragmatism.

I have really enjoyed this year at work, and I was impressed by the professional and human quality of the team that welcomed me. I must also point out that my job was made easier by the excellent interim management of Miguel Moyano and his permanent support. I also want to thank the encouragement and support received from the Governance bodies, which gave me latitude. Moreover, on behalf of this Secretariat, I would like to thank the representatives and delegates from all member companies and partner institutions. We have all contributed to the advancement in all the action lines covered by the Strategic Plan, and to fulfilling ARPEL's mission to promote integration, growth, operational and management excellence, and effective socio-environmental performance.

Among the team's achievements in 2022, we can mention the excellent and successful Sixth ARPEL's Conference, which took place in Lima this time; a 22% increase in membership (the return of two national companies and three new active members); the high level of involvement, with 32 virtual knowledge-exchange and best-practice workshops, five training courses, 41 reciprocal technical assistances, the launch of three studies or benchmarking technical documents and 23 relationship-building events with external stakeholders, with the participation of Government and regulatory authorities, professionals from member and non-member companies, and representatives from national and international sector associations.

Our industry must ensure the region with the necessary energy supplies at accessible costs for its sustainable development. From ARPEL, we support "just" energy transitions that are based on the resources of Latin American and Caribbean countries, the competences of our industry and that consider the various energy and social idiosyncrasies, as well as the climate vulnerabilities of the countries in our region.

In this new era of transitions, ARPEL maintains technological neutrality and recognizes the complementarity of different sources as a fundamental principle for energy supply. We do not observe dialectical dichotomies; on the contrary, we see tensions among trends that are not mutually exclusive but complementary, and that can be a source of opportunities. Next, I would like to share two examples that illustrate what I have just mentioned:

- Firstly, natural gas lies at the intersection of Energy Security and Energy Transitions, providing a synergistic and non-interruptible basis to renewable energies, and that can also be a source for hydrogen
- As a second example and besides natural gas, we can find carbon underground capture and storage, geothermal energy, offshore wind energy and all colors of hydrogen at the intersection of the Energy Transitions and our industry's Technical Competencies.

In order to drive the necessary transformation of the oil and gas sector in Latin America and the Caribbean in line with the new zeitgeist, ARPEL has changed its moniker to *Association of Oil, Gas and Renewable Energy Companies of Latin America and the Caribbean*. This change, which was conceived by the Association's member companies, naturally extends to our Vision and Mission:

- To be a regional reference in the strengthening of the industry as a provider of sustainable energy that contributes to the energy transition.
- Promote the integration, operational excellence and sustainable development of the oil, gas and renewable energy industry in the region, through cooperation among members and collaboration with its main stakeholders.

It happens that we can hardly drive such transformation if ARPEL does not transform itself. The mandate of ARPEL's Organizational Transformation is almost fulfilled and in the process of being completed. As you will remember, ARPEL's strategy is aligned with four work vectors: *Operational Excellence, Energy Transitions, Sustainable Management and Stakeholder Engagement*. However, we must note the transversality that the current process of corporate transformation of ARPEL requires to navigate this era of energy transitions and new risk dynamics. The four Strategic Vectors must not be isolated compartments but communicating vessels; their treatment must be holistic. All of them make up our sustainability as an industry because there can be no sustainable development without a sustainable oil, gas and renewable energy industry.

Consequently, as part of ARPEL's organizational transformation, we have merged the Social Responsibility Committee with the Sustainable Development Goals Working Group, thus creating the Sustainable Management Committee. We have also transformed the Climate Change Committee into the Energy Transitions Committee because the debate on climate change and its anthropogenic component has already been exhausted, and now it is necessary to stabilize the climate volatility through a transition towards economies based on renewable energies, with lower carbon content and lower greenhouse gas emissions.

Today our regional industry faces a new challenge for its sustainability as such. After a century of contributing to

global and regional socio-economic development, we find ourselves at the crossroads of having to renew our social license. This new environment has had an impact on our license to operate among our communities and on our ability to attract and retain new generations of professionals, technicians and administrators.

As the oil, gas and renewable energy sector in Latin America and the Caribbean, we must be able to explain the apparent paradox brought about by the tension between energy security and transitions. For better understanding, realism and pragmatism are required, which ARPEL must transmit through transparent, smooth, factual, and non-confrontational communication.

To expand our institutional relationships, we have significantly raised the profile of ARPEL. Today we have a greater presence in the public debate that takes place in conferences, institutional forums, articles, and interviews with specialized international media. Improving our communication should be a cooperative effort, because third parties could assume that we speak on behalf of our members. From the relaunched Communications Committee we propose to reach a consensus on what messages to convey, what arguments to use and how to transmit them.

We have proven innovation and adaptation capacity as an industry to transform ourselves and continue to meet the energy demand in a cleaner and more sustainable way. We are an "industry of industries" of which we will continue to be proud to belong to, and those who eventually replace us in our tasks will also be proud.



CARLOS GARIBALDI

ARPEL Executive Secretary

ARPEL new Members: ECOPETROL, OCP Ecuador, PETROBRAS, RAÍZEN, The National Gas Company of Trinidad and Tobago Limited

ARPEL membership rose to 28 members in 2022 with the addition of five major industry players in the region: Ecopetrol, OCP Ecuador, Petrobras, Raízen and The National Gas Company of Trinidad and Tobago Limited (NGC).

The incorporation of these new active members is of great value for the fulfillment of the Association's mission and allows us to continue expanding the Latin American network of executives and technicians of the oil, gas and renewable energy industry in Latin America and the Caribbean.

5 new active members

For more information about ARPEL members, please visit:

<https://www.ecopetrol.com.co/wps/portal/>

<https://www.ocpecuador.com/>

<https://ngc.co.tt/>

<https://www.raizen.com.br/es>

<https://petrobras.com.br/pt/>

Annual Meeting of Representatives held in YPF

YPF hosted the Annual Meeting of ARPEL Representatives on April 6, which combined face-to-face and virtual participation by member companies.

The day began with a partners-only webinar entitled "The Crossroads of Financing Energy Transitions", which aimed to analyze the opportunities and risks for companies in the sector related to climate finance and decarbonization from different complementary perspectives.

The speakers who joined us were Marcela Ponce Pérez, Climate Finance Lead, International Finance Corporation of the World Bank; Eduardo Holgado, Managing Director, Investment Banking Division, Project, Infrastructure & Principal Finance of Goldman Sachs & Co., and Paola Carvajal, Senior Manager of Roland Berger. The initial debate was chaired by Irene Alfaro, ARPEL Downstream Director.

Then, the agenda of the Annual Representatives' Meeting was formally opened, including approval of 2021 actions and the new ARPEL name: Association of Oil, Gas and Renewable Energy Companies in Latin America and the Caribbean. The day finished with a fellowship dinner.



ANCAP assumes Chairmanship of ARPEL's Board of Directors

At the Extraordinary Meeting of Representatives held on November 14 at the offices of Petroperú in Lima, and within the framework of the sixth edition of the ARPEL Conference, Alejandro Stipanovic, President of ANCAP, was elected as Chairman of the Board of Directors of ARPEL for the period 2022-2024.

During his participation in the opening ceremony of ARPEL Conference, Alejandro Stipanovic highlighted the fact that energy transition is accelerated and uncertain, and puts the sector at the crossroads of generating accessible, reliable and sustainable energy, which requires responsible acts on behalf of the companies in the sector.

In this context, the new Chairman of the Board pointed out: "ARPEL has a leading role in this context, by showing how to apply best practices and by generating knowledge to be shared with society".



Membership

Active Members



Partnerships



Spaces for dialogue

Networking and
New Business



ARPEL Conference 2022

ARPEL remains true to its mission of driving the development and transformation of the oil and gas sector in an era of energy transitions and new risk dynamics. This was the main topic at ARPEL Conference 2022, which took place on November 14-16 in Lima, Peru.

The sixth edition of our main event, held in a 100% face-to-face format, was attended by more than 450 professionals, including 60 speakers and 15 regional CEOs, four of whom were women.

Among other activities prior to the opening, the Workshop “Diversity, Inclusion and Gender in the O&G Industry” took place, in which corporate policies and experiences were exchanged.

After the Opening Ceremony, ARPEL Executive Secretary, Carlos Garibaldi, chaired a remarkable talk by Daniel Yergin, Vice-President of S&P Global and one of the world’s most renowned energy analysts, who shared his perspectives on global energy and the impact of geopolitics.

On the second day of ARPEL Conference 2022, we moved from the global to the regional, starting with the prospects for hydrocarbon supply to underpin energy security, both from the point of view of operating companies and government agencies.

Special attention was given to gas as the natural fuel for energy transitions.




The experts stated that Latin America and the Caribbean is already in the international natural gas market and, in order to increase its presence, it needs a greater volume of investment in exploration and production. They also analyzed the challenges and opportunities of the refining segment, such as reconfiguration to improve efficiencies and offer higher value-added products.


Both panels emphasized the decarbonization of operations and regional integration. The occasion was an opportunity to learn more about the Talara Refinery modernization project undertaken by Petroperú.

The last day was dedicated to sustainability from a holistic perspective: that of the natural-social ecosystem, the region's energy economies and the oil and gas industry as such. Climate change, energy transitions, compliance, transparency, digitalization, cybersecurity, stakeholder relations and human talent were discussed.

Climate change mitigation marks another front on which the industry must work. The call to action is highly challenging, as curbing the global climate crisis will require substantial changes in the energy system in the coming years.

Finally, ARPEL Conference 2022 featured three panels of CEOs commenting on how companies are changing in this new reality.

 [Link to ARPEL Conference 2022 Video](#)

 [Link to Photo Gallery](#)



CONFERENCE
ARPEL2022 6th edition

Advancing the transformation of the region's oil and gas sector.
Energy transitions and new risk dynamics

November 14 - 16, 2022 | Westin Hotel | Lima, Peru

Report

Languages:
Spanish, English

Download:
<https://arpel.org/library/publication/537/>





1



Energy Transitions

Publications and Reports



ARPEL Report for Senior Management on Climate Change | COP26

The need for nations to make a commitment to update and revise climate plans no later than 2022 to reduce CO2 emissions by 45% by 2030 is the main conclusion reached at the 26th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP26), which took place at the end of 2021 in Glasgow, United Kingdom.

ARPEL Climate Change Working Group published in early 2022 a Report to Senior Management, which brings together the main conclusions of COP26 and argues that: “Our industry will play a leading role in the energy transition to a net-zero emissions future by 2050”.

This COP matched the completion of the five-year period since the Paris Agreement was reached, thus representing the first opportunity for countries to formally review their Nationally Determined Contributions (NDCs) for the period up to 2030, and present strategies to reduce Greenhouse Gases by 2050.

Importance of scaling up mitigation actions; Insufficient long-term finance, which must be increased; Need for collaboration and sustained resource input for the Technology Mechanism; Definition of Article 6 implementation mechanisms that enable the expansion of carbon markets; and Improvements to the transparency framework for NDCs were the five main themes of a set of decisions dubbed the “Glasgow Climate Pact”.



Languages:
Spanish, English

Download:
<https://arpel.org/library/publication/534/>

The role of gas and energy transition, the main issues of the Latin America Energy Forum held in Washington DC

A new edition of the Latin America Energy Forum (LAEF) was held from March 16 to 18 in Washington DC, United States, under the topic “Capital flow underpinning the energy transition”.

On this occasion, ARPEL participated in three panels: “The role of gas in the energy transition”, “From NOCs (National Oil Companies) to NECs (National Energy Companies)”, and “The next round of transformative gas projects”.

Carlos Garibaldi, ARPEL Executive Secretary, was one of the lecturers in the panel “The role of gas in the energy transition”, along with Stuart Young, Minister of Energy and Energy Industries, Trinidad and Tobago; Heloisa Borges, Director of Gas, EPE; Brian Butcher, Senior Policy Advocacy Advisor, Gases - Americas at Shell; and Terence Thorn, Senior Advisor to the President of the IGU.

Carlos Garibaldi was also a speaker in the session “From NOCs to NECs”, together with Sebastián Castañeda, Corporate Manager of Financial Planning and Performance, Ecopetrol, and Neeraj Nandurdikar, Senior VP, Global Head of Power & Renewables Consulting and Head of Americas Consulting at Wood Mackenzie.

Pablo Ferragut, Managing Director of ARPEL, participated in the plenary session “The next round of transformative gas projects”, which was chaired by Mauricio Roitman, Energy Consultant, Former Chairman of Enargas.

Other speakers at the session were Heloisa Borges, Head of Gas of EPE; Juan Pareja, LNG Business Development of Shell, and Chris McCormick, Chief Investment Officer of the Geothermal Development Fund for Latin America (GDFLA).

One of the main conclusions drawn was that Latin America is a very heterogeneous region, and therefore energy transitions are very particular and specific to each country.

It was noted that natural gas offers great opportunities for the region, which is rich in natural resources that can contribute to both decarbonization and economic development.

It was also highlighted that national oil companies own a high proportion of the resources and production, and therefore play a fundamental role in energy transition.

Finally, it was noted that some oil and gas companies have made great progress towards decarbonization, even making commitments to be net-zero by 2050. In this context, diversification towards energy companies is a shift that takes place naturally.



ARPEL on Perú Energía webinar: Cooperation among all stakeholders as a fundamental part of the energy transition process



ARPEL took part in the webinar “Energy transition in the oil and gas industry in Latin America”, held by Perú Energía on April 22.

The activity included a panel that was attended by Alexey Kovshin, Vice-President of Van Meurs Energy; Beatriz de la Vega, Energy and Natural Resources Leader of KPMG Peru, and Irene Alfaro, Managing Director of ARPEL. The debate was chaired by Diana Lizárraga, Perupetro Legal Manager.

Irene Alfaro pointed out that one of the most important pillars for a country to drive the transition to lower-emission energy is to have sustained and coherent public policies in place.

“Legal certainty is essential for attracting investment in energy projects, as it provides a predictable set of conditions for their development and operation. For this reason, it is important that governments seeking to transform

their energy systems do so through roadmaps that reflect stable policies agreed with stakeholders,” he said and added that “the volume of investments needed to achieve cleaner energy systems and meet the expectations of the Sustainable Development Goals and the Paris Agreement far exceeds the capacities of individual governments, so transitions will require public-private partnerships.”

In this sense, Alfaro said: “It is clear that a fundamental portion of the Energy Transition process is cooperation among all stakeholders, i.e., governments, state-owned companies, the private sector, civil society, academics, the financial sector and international organizations.”

“ARPEL is ready and willing to support the acceleration of Energy Transitions processes through dynamic cooperation and integration, as required by the region’s energy industry and markets”, he concluded.

2



Operational Excellence

Development, promotion and implementation of best practices



Process Safety Management

NEW ARPEL PUBLICATION

Process Safety Self-Assessment Tool and Methodology

ARPEL published the second edition of the “Process Safety Self-Assessment Tool and Methodology”. This tool is useful to identify gaps and get a clear view of Process Safety Management Systems’ strengths and vulnerabilities, both at corporate level and upstream, midstream and downstream facilities of the oil and gas industry.

Since its first publication in 2018, the first edition of this tool has been used in many of our member companies’ operational sites, and feedback and suggestions for improvement have been collected to increase its added value, and were included in this second edition.

The new tool maintains the same structure –21 questionnaires related to 4 main pillars (Leadership and Culture; Risk Identification and Analysis; Risk Management; Assessment and Continuous Improvement), and it also includes several improvements:

- Optimized questionnaires
- New recommendation sections to help companies and assessment teams to implement the tool:
 - Recommendations on how to choose the type of assessment.
 - Recommendations on the assessment team members.
 - Instructions on the documentation needed for each item.
 - Instructions on the assessment of the performance level achieved per item.

The document is the result of TEMA consultant teamwork (ARPEL’s member company), in addition to the follow-up and the contributions made by the Process Safety Team of ARPEL Health, Industrial Safety and Environment Safety Committee.



Performance Benchmarking and Mutual Technical Assistance

Benchmarking on Process Safety, Industrial Safety and Environmental Performance

In 2022, ARPEL continued updating its three annual Benchmarking reports: Process Safety, Industrial Safety and Environmental Performance.

This long-term project has the following main objectives:

- To automate data import from companies as much as possible for subsequent analysis.
- To improve user experience since it provides for more interaction, the possibility of using filters (by company, year, line of business, etc.), access to historical data, trends, among others.
- Migration from traditional Excel forms to web forms (available for the 2023 campaign), to facilitate the delivery of data by companies and to improve the quality of the data collected.

These three ARPEL reports allow us to identify gaps in the performance of member companies and implement exchange activities for improvement.



At the Executive Secretary, we would like to encourage and support all member companies to participate in these three studies, since the Association's Benchmarking Reports are an exclusive benefit for them.

ARPEL Benchmarking Reports are a comprehensive and unique regional benchmark of oil and gas companies' performance in process safety, industrial safety and environmental management.

Benchmarking Reports are available in ARPEL website, under Publications:



<https://arpeel.org/library/publications/search/?title=&types=19>

Continuous improvement strategy and cooperation

Mutual Technical Assistance Activities

During 2022, new cooperation and mutual technical assistance activities (ATR) took place among ARPEL members –managed by ARPEL Directors and Project Managers of the Executive Secretary.

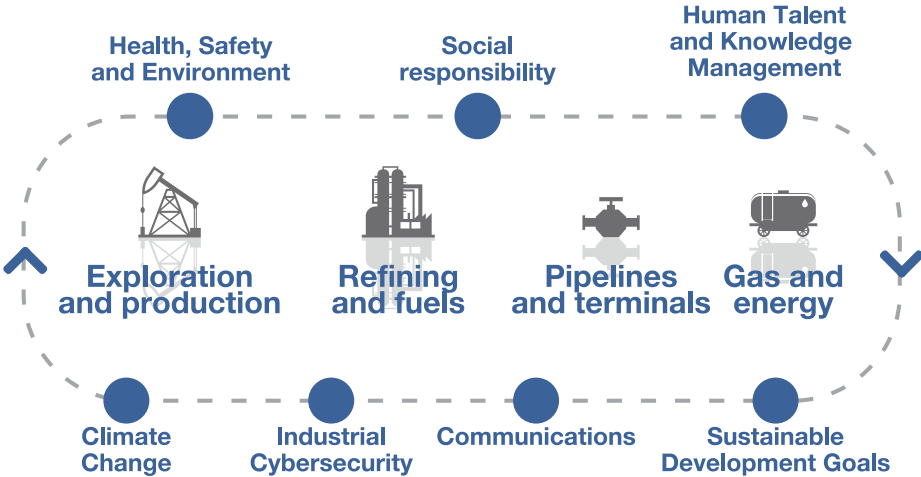
The purpose of these activities is to find solutions to the specific problems faced by member companies, through the transfer of knowledge and experience from other member companies.

In 2022, 16 member companies had access to technical assistance activities through this mechanism developed by ARPEL.

RTA requests can be made through ARPEL website by completing a simple form:

[GO TO THE FORM](#)

Working groups formed of professionals from our members



Topic

Refinery light slop and effluent water management

Refinery effluent treatment

Refinery production optimization software

On-line analyzer system for particulate matter in the FCC stack

Claus Plants functioning

Hydrocracking cargo types

Boiler maintenance shutdowns

CLAUS Plants Maintenance (sulfur)

Refinery production optimization software

Internal and External inspection of furnaces with infrared cameras

External Welding Vacuum Tower

Book value of refinery fixed assets and remaining life

Claus Plants

Decarbonization strategies in refining

HC exploration in Colombia

Integration for fuel supply Perú Ecuador

Treatment and disinfection of cooling water

Supply of amines for gas treatment in refineries

Offshore Development in Argentina

Additives for reducing SO2 emissions

Mass Balance Software and IT services

Corrosion in Alkylation Plants

Madure Fields

Increased staffing based on new units

Organization Sizing for Cybersecurity purposes

Jackups availability for Ecuador

Fire safety and tank explosions

Safety on LPG spheres leaks

Quality of coker units

Standard/regulation on the definition of maximum design temperatures for storage of Gas Oil in tanks

Refractory maintenance

Quality management system - statistics

Furnace equipment inquiry

Vacuum Tower Operating Issue

PSV Plugging

Gas Oil Storage

DME Topics

Gas Topics

Quality Control of crude oil and imported products

Hydrocracker offloading

Plant Shutdown - Staff Structure

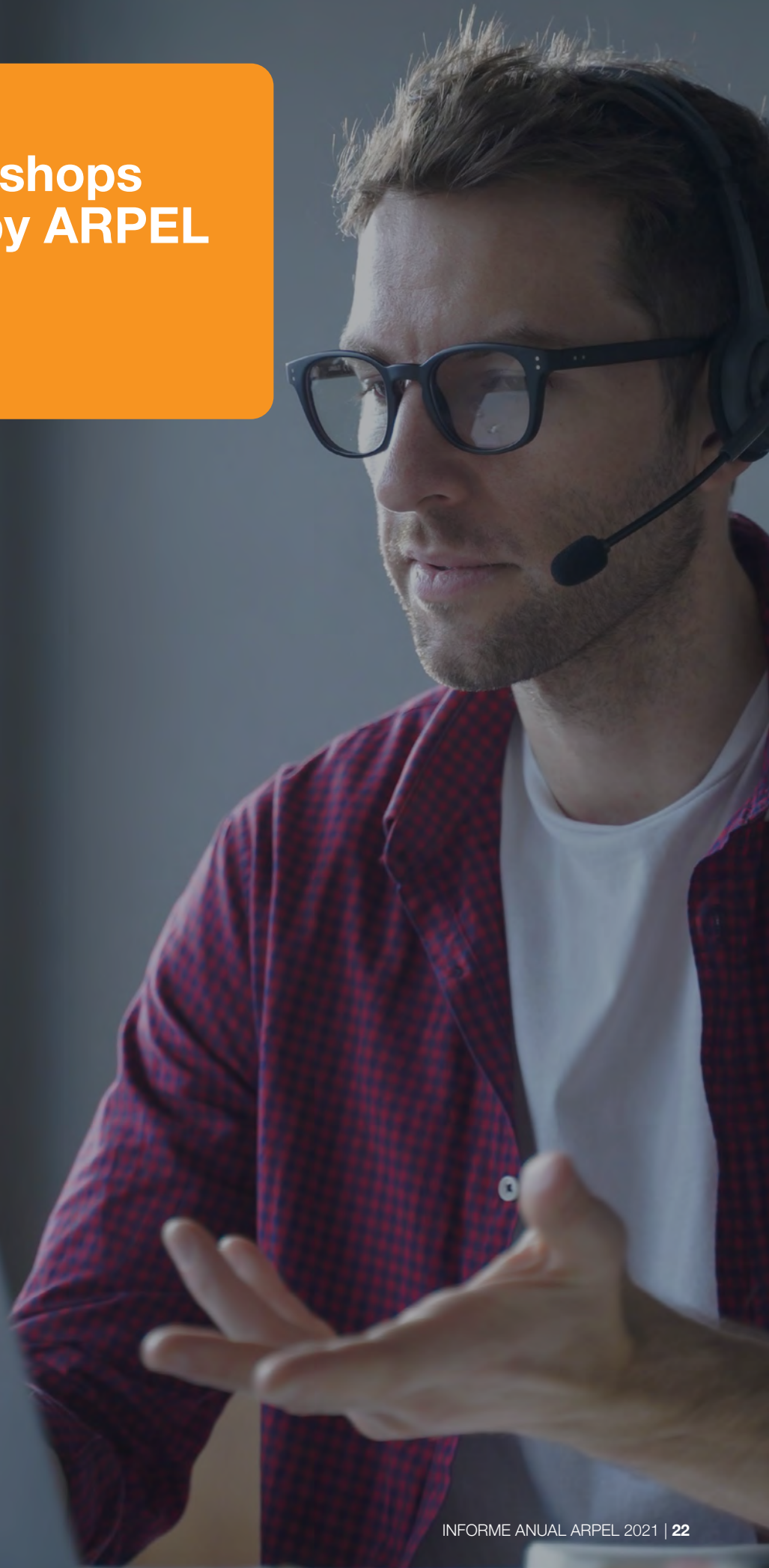
Risk Based Maintenance

Carbon build-up in gas lines of Coker units

Catalyst unloading in high-risk situations

Organizational restructuring and re-engineering

**Virtual workshops
developed by ARPEL
in 2022**



Process Safety

Virtual workshops on Process Safety

ARPEL Health, Safety and Environment Committee (CASYSIA), coordinated by Tiphaine Le Moënnier, ARPEL Senior Project Manager, continued in 2022 organizing a series of virtual workshops on Process Safety Management.

These meetings are intended for those who have a job where Safety is particularly important: operational site personnel, safety and environmental professionals, etc.

The main topic of this first meeting of the year –held on August 23 –was: Safety Culture

To what extent does a poor safety culture condition the implementation of a Safety Management System (SMP) and, therefore, should it be the first aspect to be addressed? what strategies have worked or failed in trying to improve safety culture? and when implementing a program, how soon can we obtain visible results?, were some of the topics addressed during the workshop.

The activity began with a theoretical presentation by Raúl Manga Valenzuela, Industrial Safety and Process Manager of Tema Litoclean, followed by the presentation of concrete case studies and lessons learned, shared by Mario Giamburro, Expert and referent in Safety Culture at Pan American Energy.

The debate was chaired by Eduardo Di Costanzo, TGN Quality, Safety, Health and Environment Manager.

On October 27, the second virtual workshop took place: Building competencies in Process Safety

In the last few years, there has been an increase in the number of incidents and near misses in the oil, gas and refining industry, many of them related to the degradation of competencies and a decrease in training in the area of process safety.

One of the main causes identified is related to organizational changes due to a variety of internal and external factors to the industry, exacerbated by the Pandemic-related restrictions.

This workshop was intended to share a global vision from Latin America on process safety competencies at different organizational levels and the strategies implemented in the operations and shared with Chevron's members.

The workshop was attended by speakers from Chevron. From Houston, Carolina Urdaneta, Process Safety Engineer of Chevron Technical Center. From Caracas, Linda Carmona, Training and Process Safety Advisor of Chevron's subsidiary in Venezuela, and from Buenos Aires, Johana Girolidi, Process Safety Coordinator for the Latin America Business Unit (Argentina, Brazil and Venezuela).




Video



Video

Technical exchange events

Upstream Best Practices - Workshop to share knowledge and experience with ANCAP, Pan American Energy, SLB, Tecpetrol and YPF



Upstream Best Practice exchange talks

Frac Hit in unconventional fields, it's avoidable?

Tuesday, May 31
12:00 – 13:30 (GMT -3)
Spanish / English (simultaneous translation available)

[Registration Link](#)

For more information, contact: eventos@arpe.org.uy

Speaker:
Oscar Álvarez
Upstream Quality & Operational Excellence Manager, Pan American Energy

In 2022, ARPEL Exploration and Production Committee (CEPA) developed a series of Exchange of Best Practices Upstream, coordinated by Pablo Amoedo, ARPEL Project Manager and Committee Coordinator, where Pan American Energy, YPF, ANCAP, SLB and Tecpetrol also participated.

On May 30, the first delivery –dedicated to **“Frac Hit in Unconventional Fields – Is it avoidable?”** took place. The debate was chaired by Engineer Oscar Álvarez, Executive Manager of Quality and Operational Excellence Upstream of Pan American Energy.

In a context where hydraulic fracturing is increasingly demanding, especially in unconventional reservoirs, the Frac Hit phenomenon becomes a highly relevant issue.

The impact of the pressure increase produced by fracturing operations can cause damage to the integrity of neighboring wells as well as damage to the formation, and undesirable effects on active wells productivity.

Avoiding or minimizing the effect of Frac Hit includes involving the different disciplines related to wells construction to evaluate risks from different points of view to mitigate or at least minimize impact.

More than 40 companies from Argentina, Mexico, Colombia, Brazil, Venezuela, Ecuador, Peru, Chile, Bolivia, Spain, the United States and Suriname participated in the activity, including operators, midstream and service companies, as well as different governmental and academic institutions.

 [See event](#)

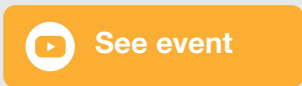


On July 4, the second meeting was held on **“YET TO FIND, Exploratory carryover in mature basins”**, with the participation of Ignacio Brisson, YFP Analyst of conventional and unconventional oil systems.

Exploration in mature basins is one of the biggest challenges for operating companies. Paradigm changes and technological advances provide for finding new exploration cycles in basins where no exploration opportunities seemed to be possible.

In this activity, a workflow was shared which, based on the material balance generated through Basin modeling (petroleum system), feasibility analysis of exploratory plays, post-mortem analysis and probability analysis, allows us to identify prospects with potential unquantified preserved volumes, in order to reformulate paradigms and start with a new exploration cycle and eventual development.

More than 40 companies, government authorities and academics from Argentina, Mexico, Colombia, Brazil, Venezuela, Ecuador, Peru, Chile, Bolivia, Spain, the United States and Suriname also participated.

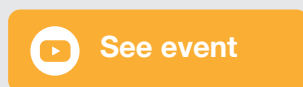


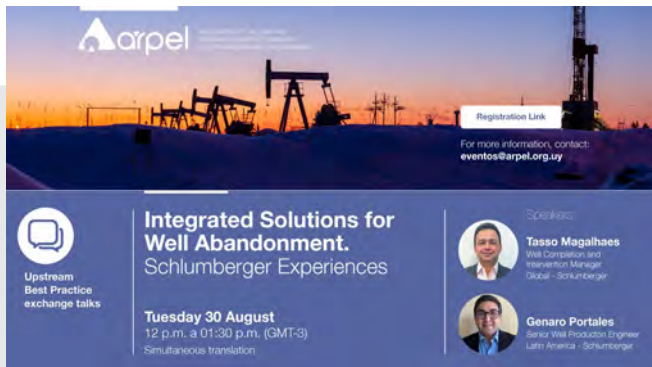
The third exchange talk was held on July 26 and the topic was **“Exploration in remote and ultra-deep waters in frontier basins: challenges and solutions”**, lectured by the engineer Pablo Gristo Savornin, ANCAP Head of Geosciences.

Offshore hydrocarbon exploration is undoubtedly one of the most risky and complex operations in the oil industry. If we also consider the intention of developing this activity in an unknown area more than 150 kilometers from the coast, in ultra-deep waters and also add the lack of experience in this type of activity, we can imagine the huge amount of work that ANCAP had to overcome in order to achieve its objectives.

In this talk, ANCAP shared the difficulties it faced in carrying out hydrocarbon exploration projects in Uruguay’s maritime basins and the solutions found for such challenges, in terms of environment, safety, logistics, customs and local content.

More than 30 companies and governmental and academic entities from Argentina, Bolivia, Brazil, Canada, Chile, Colombia, Ecuador, Spain, United States, Mexico, Peru, United Kingdom, Suriname, Uruguay and Venezuela attended the meeting.





The fourth meeting of the year was held on August 30, and the topic was **“Integrated Solutions for Well Abandonment”**, chaired by SLB.

The workshop was attended by Tasso Magalhaes, Global Completions and Well Intervention Manager, and Genaro Portales, Senior Well Production Engineer Latin America.

In Latin America, there are thousands of wells that will eventually need to be abandoned. Unfortunately, abandoning a well can be a complex and costly operation, and this is usually carried out when assets are limited.

This meeting addressed specific projects of well abandonment that increased efficiency and reduced abandonment costs. A case of reconversion of wells to be abandoned into CO2 injectors for a carbon capture and subway storage (CCUS) project was also presented.

More than 25 companies attended the meeting, including operators and service companies, government agencies and academics from Argentina, Bolivia, Brazil, Colombia, Ecuador, Spain, the United States, France, Mexico, Peru and Venezuela.

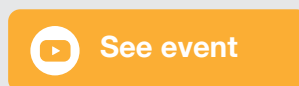


The last event of the year was held on October 25 and the topic was **“Industrialization of Oil & Gas operations”**. The lecturer was Pablo Blasco, Tecpetrol Process Optimization Director.

The Project Fortín de Piedra (FDP) –carried out during 2017-2018– represented a milestone for Tecpetrol given its magnitude, complexity and short term of execution.

Innovation and the application of unusual strategies in the company, the country or the industry were applied from the beginning in: field development strategy (geological and exploration aspects), construction of plants and facilities, contracting methods, supply management, field operation and development techniques, real time control of operations, application of advanced analytics and data science models, and performance management control of these operations.

This talk gave a summary overview of the project and reviewed the innovations applied in the activities involved in the industrialization of the operations.



Refining



Axion Energy, Ecopetrol, ENAP, Raízen and YPF workshop on mass balance closure in refineries

On March 10, the Refining Committee held a workshop to exchange information and knowledge on best practices in Mass Balance Closure, including coal.

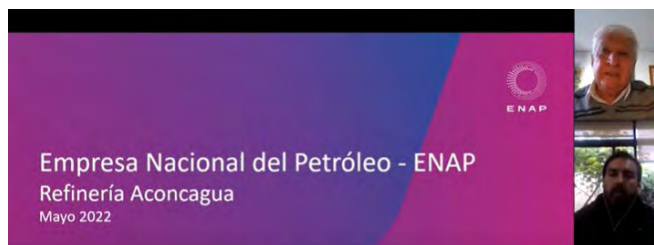
The virtual meeting topic was proposed by Ecopetrol Cartagena Refinery, and member companies' professionals from refineries of Axion Energy, ENAP, Raízen and YPF attended the meeting.

The closing of the mass balance in refineries is an indicator of the optimization of the use of the raw

material being processed, which implies profitability and is a reason for accounting audits with legal implications for those responsible.

The quantification of the load and production of liquid and gaseous components is easy to calculate, since its measurement is very accurate, but measuring solid products, such as coal, might be more difficult.

 [See event](#)



Workshop on sour water management by ENAP

At the beginning of May, ARPEL Refining Committee held a new workshop to exchange information and knowledge on best practices.

The virtual meeting was attended by more than 50 professionals from the refineries of the Region, and the topic was “Problems and Improvements in Sour Water Management”.

The presentation was given by chemical engineer Christian Lafuente of ENAP Aconcagua refinery.

During the technical meeting, chaired by Ricardo Buyatti –ARPEL Downstream Manager– the following issues were discussed: Operational Problems of Sour Water Treatment Units; Environmental Restrictions; Generation of Sour Water in Processing Units; Improvement Plan; Summary of Experience in Slop injection as cooling water in Coker Units.



[Workshop link](#)



Technical Talk on Gas Flare Measurement by YPF

On June 30, the workshop on new best practices on Gas Flare Measurement and Mass Balance of YPF La Plata Refinery was held.

The speakers were Cecilia San Sebastián, Head of Production Control; Juan Ignacio Zavala, Head of Instruments, and Florencia Chiappero, Process Engineer.

Since measurement of gas flare caused uncertainty in the mass balance closure of the refinery, it was decided to change the instruments for new state-of-the-art ones.

The objective of this meeting was to share the results obtained with this new technology and to be aware of the experience of professionals from other refineries on this subject.



[Workshop link](#)

Refining



YPF Luján de Cuyo Refinery: Emergencies in tanks and corrosion in isomerization plant

Another exchange workshop held by the Refining Committee was held on September 21, and the topic was “Emergencies in fuel tanks”.

The presentation was in charge of Ariel Ahumada, Head of Emergency Response of YPF Luján de Cuyo Industrial Park.

The topics addressed were the common types of fires and explosions in tanks, passive safety, fire protection systems and ways to respond.

On September 30, Elio Zuñiga, Senior Process Engineer of YPF Luján de Cuyo Industrial Park, presented a case on aggressive corrosion in an isomerization plant.

According to Ricardo Buyatti, ARPEL Downstream Manager and Coordinator of virtual workshops on best practices, this was an interesting and specific topic for refineries with similar plants, and he also emphasized that the aim was to create a space to find solutions for the future.

 [Workshop link](#)

 [Workshop link](#)

YPF, Ecopetrol and Raízen: Operational Technology, Knowledge Management and Permit to Work Management



The virtual work on shop on Exchange of Best Practices in Operational Technology (OT) was held on October 21. The presentation called “Technology as an enabler of new ways of doing and learning” was chaired by Fabián Verdún, Downstream Operations Technology Leader at YPF.

During the meeting, the concept of “Augmented Intelligence” was discussed and practical examples were shown.

[Workshop link](#)

On October 25, Ecopetrol’s refineries professionals organized a workshop on Knowledge Management.

The technicians presented the process that ensures the maintenance of knowledge in their facilities, covering both in-house and outsourced personnel, professionals and experts.

The aim of the meeting was to exchange specific actions to be performed to achieve goals. Some of the topics included in the virtual workshop were the Knowledge Management Policy in place in Ecopetrol; the certification of operators and experts; specialists training and career; structure of support areas, processes, optimization and control, integrity, and on-site training or external centers.

[Workshop link](#)

ARPEL Refining Committee, chaired by Ricardo Buyatti, ended the year with the workshop held on November 30 on Permit to Work Management.

Information was gathered from seven companies of the Downstream industry, in line with our continuous efforts to enhance the process of exchanging best practices in permit to work management.

As a result, and as a preview of this benchmarking study, a great diversity of formats and methodologies of this important management for a refinery has been detected.

This diversity can be the search engine for improvements implementation in procedures, which

not only contribute to people effective safety but also to workforce productivity.

In view of the above, the Refining Committee intends to continue with meetings of best practices among different Downstream companies.

At ARPEL, we encourage synergy and collaboration among oil companies in Latin America and the Caribbean, especially the exchange of best practices that favor productivity improvement and care for the most important capital of our members: people.

[Workshop link](#)

Pipelines

Arpel ASSOCIATION OF OIL, GAS AND RENEWABLE ENERGY COMPANIES OF LATIN AMERICA AND THE CARIBBEAN

ROSEN empowered by technology

STATE OF THE ART IN PIPELINE CLEANING MANAGEMENT
Taking the first step in pipeline integrity

October 11th, 2022
12:00 to 1:00 pm (GMT-3)
Spanish / English (simultaneous translation available)

[Registration Link](#) For more information, contact: eventos@arpel.org.uy

Michael Schorr
Senior Sales Manager
ROSEN Group

ARPEL-Rosen Webinar: “State of the art in pipeline cleaning management”

ARPEL and Rosen held a webinar on October 11 on “State of the Art in Pipeline Cleaning Management. First steps in pipeline integrity.”

When hydrocarbon pipeline operators contact in-line inspection (ILI) solution providers, the focus immediately turns to the selection of inspection technology and subsequent integrity assessments.

What is underestimated, taken for granted, or often not given due attention, is the condition of the line in terms of its fouling condition.

There may be an assumption that it is only necessary to clean the pipelines before an intelligent inspection is run. However, a clean pipeline is essential for asset life extension.

The webinar discussed the typical steps in cleaning a line: from regular maintenance to progressive cleaning to remove large amounts of debris; best practices when commissioning a new pipeline; how analytical tools can be used; and what conclusions can be drawn from them.

The presentation was chaired by Michael Schorr, ROSEN Group Senior Sales Manager.

Arpel

DAR EL PRIMER PASO EN LA INTEGRIDAD DE LAS TUBERÍAS

ROSEN empowered by technology

Dar el Primer Paso en la Integridad de las Tuberías | Michael Schorr | © ROSEN Group | 11 de octubre de 2022



[Webinar Link](#)

Cybersecurity

Four webinars on Cybersecurity in the oil and gas industry took place during the year.



Cybersecurity: New Standards and OT Systems

The first one –exclusive for members– was organized by ARPEL together with API (American Petroleum Institute) under the topic “Cybersecurity: New Standards and OT Systems”.

The webinar took place on July 13 and the panel was composed by Tom Aubuchon, President and Main Consultant of Ethosecure Consulting, LLC, and Mariano Cuadrelli, Honeywell Cibersecurity Sales Manager for Latin America, who spoke about the main problems faced by the industry, from a holistic point of view, in the implementation of an Industrial Cybersecurity Program (IT & OT), and its subsequent governance, management and sustainability.

The third edition of API 1164 standard on cybersecurity in pipelines was also presented in the virtual meeting held.

 [Webinar link](#)

Panel for exchange and reflection on Industrial Cybersecurity, Safety & Security

On August 4, the Panel for exchange and reflection on Industrial Cybersecurity, Safety & Security was held.

The purpose of the meeting was to share knowledge and disseminate best practices on industrial cybersecurity.

The speakers were Javier Fernando Castillo, Industrial Cybersecurity and IC Manager at YPF and President of the Industrial Cybersecurity Working Group at ARPEL; Ernesto Landa, responsible for the Information Security Area at COGA; Maximillian Kon, General Director at WisePlant, and Gerardo González, Independent Industrial Cybersecurity Consultant.

 [Webinar link](#)

Cybersecurity



Industrial Cybersecurity Best Practices Exchange talks
Industrial supply chain as a weak link in Cybersecurity.

Speaker:
José Valiente
Director at Industrial Cybersecurity Center (Spain)

Thursday, September 8
12:00 p.m. - 01:30 (GMT -3)
Spanish / English (Simultaneous translation available)

[Registration Link](#)

The industrial supply chain as a weak link in cybersecurity

The third meeting of the year was held on September 8 under the topic “The industrial supply chain as a weak link in cybersecurity”. It was chaired by José Valiente, Director of the Industrial Cybersecurity Center in Spain.

Why should we currently be much more aware of supply chain risks? Because almost 50% of cyber incidents are originated in the supply chain.

This talk addressed how to improve preparedness against cybersecurity risks in the industrial supply chain.

[Webinar link](#)



Panel de intercambio y reflexión en
Ciberseguridad Industrial
Ciber Riesgos Operacionales

Martes 1 de Noviembre de 2022
12:00 p.m. (GMT -3)
Duración: 90 minutos

[Link de registro](#)

Exclusivo para socios ARPEL

Operational Cyber Risks

The last exchange panel of the year was held on November 1 and was dedicated to “Operational Cyber Risks”. The panel members were again Javier Fernando Castillo, YPF, Ernesto Landa, COGA, Maximilian Kon, WisePlant, and Gerardo Gonzalez.

[Webinar link](#)

Decarbonization

The oil and gas industry is at a real crossroads today. Providing universal and reliable access to energy while addressing global climate change is one of the biggest challenges our industry has ever faced.

The commitment made by many governments to reduce greenhouse gas emissions to reach net zero by 2050 is causing emissions standards in our sector to tighten.

Investors are also financially punishing companies that produce high emissions and are migrating their portfolios to cleaner energies.

In our industry, this situation turns decarbonization a real topic of survival instead of a single matter of commitment to protect the ecosystem.

Arpel ASSOCIATION OF OIL, GAS AND RENEWABLE ENERGY COMPANIES OF LATIN AMERICA AND THE CARIBBEAN

Decarbonization Webinar

September 27th, 2022
12:00 to 2:00 pm (GMT-3)
Spanish / English (simultaneous translation available)

[Registration Link](#) For more information, contact: eventos@arpel.org.uy

Gas Flaring and Methane Emissions: An overview
Harshit Agrawal
Senior Gas Specialist in the Energy and Extractives Unit of the World Bank

GeoPark's path to produce the cleanest and most responsible hydrocarbons
Martin Terrado
Operations Director at GeoPark

Detection and reduction plan for methane fugitive emissions
Guillem Maurenza
Project Technician at TEMA

In order to raise awareness in the industry, ARPEL organized a webinar dedicated to Decarbonization, which took place on September 27, with the presence of three speakers: Harshit Agrawal from the World Bank, who gave an overview of the problem of Gas Flaring and methane emissions; Guillem Maurenza from TEMA, who presented a program to detect and reduce fugitive methane emissions implemented in one of its member companies, and Martin Terrado from Geopark, who shared the company's Roadmap to produce the cleanest hydrocarbons.

More than 70 companies participated in the webinar, including operators and service companies, as well as different governmental entities, associations and academic institutions from Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Spain, United States, Japan, Mexico, Panama, Peru, Dominican Republic, Uruguay and Venezuela.



[Webinar link](#)

Virtual workshops on Climate Policies

During 2022, ARPEL Climate Change Working Group (GTCC), coordinated by Irene Alfaro, ARPEL General Manager, organized a series of virtual workshops on Climate Policies, with the objective of learning from world referents, inviting them to present different aspects of the topic. These were exclusive meetings for ARPEL members.

By the end of June, the reference institution invited to speak was the Carbon Disclosure Project (CDP), a non-profit organization that offers a global standard for corporate environmental reports and is fully aligned with the recommendations of the TCFD (Task Force on Climate-related Financial Disclosures), among others. Fernanda Coletti and Miriam García chaired the talk.

Transparency and environmental reporting are vital to achieve a sustainable future with zero net emissions, no deforestation and water security. Investors and financial institutions are increasingly considering TCFD recommendations when selecting where to invest or which project to finance, and governments in the region are gradually looking to incorporate regulatory requirements in line with environmental reporting.

By the end of July and September, the topic addressed by the Climate Change Group was: Carbon Markets.

Two workshops were held on July 27 and September 21, and both included a talk chaired by Carlos Cordova, International Emissions Trading Association (IETA) Natural Climate Solutions Market Development Advisor.

“The voice of the private sector in market-based climate solutions” was the title of the second talk which discussed Article 6.2 of the Paris Agreement.

The workshop series ended on October 5 with a presentation on IPIECA vision of energy transition –a global oil and gas industry association promoting environmental and social performance– and the work they have been doing in respect to this topic.

The presentation was chaired by Lorena Pérez, IPIECA Climate Change Senior Manager.

RETOS™ Oil Spill Management

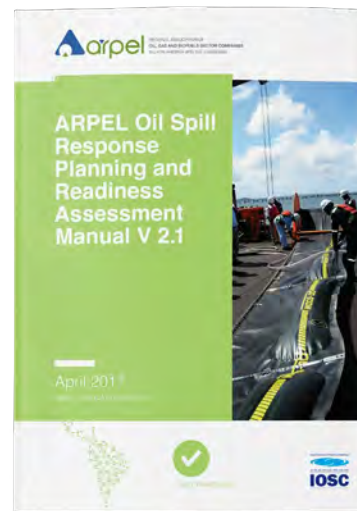
In 2008, the International Oil Spill Conference (IOSC) Executive Committee entrusted a group of international experts, of which ARPEL was a part of, to develop a broad suite of planning and readiness assessment elements to encourage improved oil spill response (OSR) capacity. That initial work set a framework to aid development and maintenance of response management systems to improve OSR readiness, documented in a document entitled “the 2008 IOSC Guidelines”.

In 2010 ARPEL developed the Oil Spill Response Planning and Readiness Assessment Manual and its accompanying assessment tool, the Readiness Evaluation Tool for Oil Spills, or RETOS™, which were intended to be used in conjunction with the 2008 IOSC Guidelines. Since its release in 2010, RETOS™ has been utilized by governments and industry in over 80 countries of the world.

During 2021/2022, ARPEL joined efforts with IPIECA and IMO with the objectives of updating the 2008 IOSC Guideline and transform it into an International Guide for the Assessment of Oil Spill Response Planning and Preparedness and transform the Excel-based RETOS™ assessment tool into a web application. Together, these instruments provide a comprehensive set of criteria for industry and governments to assess their level of oil spill preparedness and response planning and readiness. The assessment criteria, agreed upon by the participating companies and institutions, provide the foundation for a series of checklists whereby gaps

can be identified in oil spill response planning and readiness programs. RETOSTM applies to oil spills at sea, shore and inland and can be considered for spills of hazardous and noxious substances (HNS), with some adaptations.

The International Guide and the RETOS web application are to be released in Q2/2023 and are endorsed by IMO, IPIECA and ARPEL, guaranteeing their wide applicability for governments and industry alike.



Languages:

Spanish, English, French and Portuguese



Free-of-charge download:

<https://arpel.org/library/publication/341/>

WORKSHOP

“Environment, Spill Response, Safe Operations and Decommissioning” - API, ARPEL, IBP, IADC, IOGP and IPIECA



Río de Janeiro hosted the meeting held from June 13-15: “Environment, Spill Response, Safe Operations and Decommissioning”, coordinated by IBP and supported by API, ARPEL, IBP, IADC, IOGP and IPIECA.

The meeting aimed to discuss the most important topics to Brazil’s upstream, mainly in respect to offshore activities, and to share ideas on the industry’s responsible risk management.

Marcus Lisboa, ARPEL’s oil spill consultant, participated in two sessions of the workshop on behalf of the Association: one dedicated to “Business Associations and their role” and the other to “Oil spill preparedness and risk reduction measures”.

In this second session, Lisbon chaired the talk on RETOS: “A complete overview of oil spill preparedness: ARPEL RETOS tool”.

Training

RETOS Training courses: Second virtual edition and in-company training for DIMAR, Colombia

The second virtual edition of RETOS training course was held from September 7-9.

The purpose of this training course is to encourage and facilitate participants the development of their own skills to implement the use of the RETOS® tool in the assessment of planning and preparedness for oil spill response and to identify gaps and alternatives to move from basic management stages to levels of excellence.

Representatives of Maritime Port Authority from El Salvador, ENAP, Geopark, Lamor Corporation, OCP

Ecuador, OSRL, PetroBal Upstream, Raízen Argentina, Refinería Dominicana de Petróleo and YPF were present at the meeting.

RETOS training instructor is Dario Miranda, a marine biologist with a Master degree in environmental engineering.

In October, Darío Miranda offered an in-company RETOS training course for the General Maritime Directorate (DIMAR) in Colombia, which gathered 35 participants from all Colombian maritime ports.

Industrial Safety Management Program by ARPEL and CeTAP

In 2022, ARPEL and CeTAP jointly launched a special version of the Industrial Safety Management Executive Program.

This training program – its general version– has been taught by CeTAP for more than 10 years and already has three editions in virtual mode with excellent acceptance in Latin America and the Caribbean. Its main objective is to provide current and future managers –both HSE and line managers– with the tools they need to properly manage industrial safety.

On this occasion, ARPEL and CeTAP agreed to carry out from mid-year a version of the Program exclusively oriented to the oil and gas industry, for which the contents were adapted and professionals linked to the



Association, with extensive experience in different specialties, were incorporated to the teaching staff.

Ten (10) modules were offered in a five-month training course (biweekly modules; virtual classroom) including topics related to HSE Culture and Management, Human Factors, Process Safety Management and Crisis Management, among other relevant topics. Thirty-six (36) students attended the training course, 31 of whom came from 10 ARPEL member companies.

CeTAP is a consulting company created with the objective of assisting service and production companies to reach the highest levels of performance in Occupational Health and Safety, Industrial Management and Sustainable Development.





Second edition of the virtual training course “Energy Management and ISO 50001 Standard for the oil and gas industry”

ANCAP, COGA, ENAP, Recope, Repsol and Techint participated in the second edition of the virtual training on Energy Management and ISO 50001 Standard.

The main objectives of the course, which was held from August to October in an asynchronous online format with a weekly synchronous meeting, were to introduce the ISO 50001 standard including the requirements to establish, implement, maintain and improve an Energy Management System; to establish guidelines for the implementation of an Energy Management System in process industries, with a focus on the oil and gas industry, and to provide tools to manage the continuous improvement of the organization’s energy performance.

The training course was chaired by Andrea Afranchi, Chemical Engineer, specialized in energy efficiency, processes & utilities energy optimization, energy audits and energy management.

Smart Technologies Skills Acquisition Program. In-company training for ENAP

In 2022, an in-company edition for ENAP of the ARPEL Program for Skills Acquisition in Smart Technologies for Industry 4.0 was carried out.

The training was held through a virtual platform and combined theory and practice. It was attended by 12 executives from the Senior Managements of Aconcagua Refinery, Information Technology, Bio Bio Refinery and HSEC.

Artificial Intelligence has become a competitive factor for the oil and gas sector and goes through the entire chain: upstream, midstream, downstream.

The training course is focused on professionals who want to get started in the Intelligent Data Analysis world by using Statistics, Analytics and Artificial Intelligence techniques applied to solve industry problems.

The lecturer is Estanislao Irigoyen, researcher and analyst in Business Intelligence, Artificial Intelligence and Data Mining with experience in a variety of multinational companies in the sector and in state-owned agencies.

3



Sustainable Management

Development, Promotion
and Implementation of
Best practices



ESG and Compliance

During 2022, ARPEL launched three workshops on ESG and Compliance, which main topics were:

- Trends and challenges in the energy sector
- Integration of sustainability into corporate management
- Focusing on social and governance issues

ESG and Compliance in the oil and gas sector: Trends and Challenges

The first virtual meeting was held by the end of April and dealt with “ESG and Compliance in the oil and gas sector: Trends and Challenges”. The speakers were María Archimbal, YPF Chief Compliance Officer, and Christopher Thomas, Oxy Corporate Sustainability Strategy and Performance Reporting Leader.

The objectives of this first meeting were to discuss international trends in ESG and Compliance, exchange experiences and define how ARPEL can help the industry in this area.

Among the main thoughts arising from the virtual workshop, it was highlighted that climate change, the need for a sustainable transition towards low-carbon systems, and the related social transformations thereto, among other digitalization aspects, are shaping an increasingly complex scenario for the energy business.

The Paris Agreement, the Sustainable Development Goals, the commitments undertaken by governments and companies to be net carbon neutral by the mid-century, and the advances in reporting and accountability regulations are true evidence of these transformations.

In this scenario, there is also a very clear point: transparent communication of Environmental, Social and Governance (ESG) objectives and performance is an increasingly relevant issue on business management and on the relationship with stakeholders.



Upon analyzing global trends, there are three key aspects to focus on in terms of ESG: Climate; Human Rights, Human Resources, Diversity and Value Chain; and Green Taxonomy, which will define the conditions to capital or different markets’ access. Adequate due diligence, reporting, communication and monitoring of actual and potential impacts in these areas will help to build trust with stakeholders.

On the other side of the coin, we can find Compliance or, in other words, compliance with national and international regulations applicable to legal entities and companies.

The meeting also expressed that the transformation of the energy scenario has generated a new dynamic of risks for companies, among which are: cybersecurity, information privacy, money laundering or non-compliance in the value chain, among others, which can involve serious losses for companies, both financial and reputational.

One of the conclusions is that developing an effective compliance program requires, necessarily, an active involvement of top management and a proactive attitude providing for monitoring and adapting in an agile way to the energy sector volatility.

[Workshop link](#)



Sustainability integration into Corporate Management

The second webinar on ESG, Compliance and Sustainability was held on May 26. This time, the topic was “Sustainability integration into Corporate Management”.

The attendees to the virtual meeting were Dante Pesce, Centro Vincular de la Pontificia Universidad Católica de Valparaíso (University) Executive Director and former member of the United Nations Working Group on Business and Human Rights, and María Victoria Riaño, Equion Energía former CEO, international expert in leadership and sustainability and author of the book: “Todos Somos Líderes” (We are all Leaders).

Among the main conclusions presented at the event was the fact that today, unlike a decade ago, there are agreed tools to promote the integration of sustainability into management, such as the United Nations Guiding Principles on Business and Human Rights, the OECD Directives, or the Due Diligence exercise. It was also noted that both society expectations and regulations –at the financial sector and the international trade levels in global value chains– will increase the demand on the business sector.

It was also emphasized that sustainable management should be built on the following pillars: understanding the impacts caused by companies co-building with stakeholders; undertaking to act

responsibly to attend those affected by operations; leading from the top management, ensuring the necessary means of implementation and building a consistent narrative; creating opportunities for sharing best practices and answering “awkward questions” among peers; and leveraging to generate substantive changes in value chains.

Victoria Riaño, based on her experience at Equion Energía, pointed out that “we must communicate in an authentic, simple way with all audiences since it is important for everyone to know what we do in a balanced way, whenever we do it well, and also whenever we do not do it well and, in that case, what we are doing to improve our practices”, thus achieving a better relationship with the community and greater company’s acceptance.



Focusing on Social Responsibility and Governance

The third meeting of the year was held on August 16 and the topic was “Focusing on Social Responsibility and Governance”.

Naana Danquah Jefferson, SLB Americas Law Department Director, and Alessandro Ferreira, Equinor Regional Compliance Director for South America participated in this Workshop. The panel was moderated by María Archimbal, YPF Chief Compliance Officer.

The Webinar included the topic on two large international companies, an industry operator and a service and technology provider, are addressing ESG issues. The event was part of the exchange-of-knowledge activities organized by the strategic line of sustainable management, with the aim of promoting a more systematic, transparent and comprehensive management of sustainability in companies of the sector.

 [Webinar link](#)



Speakers:



Naana Danquah Jefferson

General Counsel, Americas Land | Schlumberger

Naana is the General Counsel for Americas Land and manages a team providing legal support for operations in Argentina, Bolivia, Chile (ABC), Ecuador, Colombia, Peru (ECP), US Land, and Canada Land. She has worked with Schlumberger for over 16 years in various roles legal positions providing support and guidance to operations and technology and in compliance roles in benefits and human resources.



Alessandro Ferreira

Regional Compliance Officer South America | Equinor

He is the Regional Compliance Officer (Director) for South America. He has more than ten years of experience in Equinor in different roles, supporting diverse areas such as technology and development, upstream, midstream, and regulatory. Before entering Equinor, he worked for the largest telecommunications company in Brazil. He graduated in law from the Rio de Janeiro State University and obtained a post-graduate degree from the Fundação Getúlio Vargas. He is currently taking a Master in Anti-Corruption Studies at IACA – International Anti-Corruption Academy based in Vienna, Austria.



María de las Mercedes Archimbal

Chief Compliance Officer | YPF

Chief Compliance Officer of YPF since 2021 with more than 15 years of professional experience, both in the public and private sectors. She is a lawyer, and holds Master's degrees in International Relations and Negotiations, in International Economic Relations, and in Administration and Public Policy. She also holds a diploma in oil and gas, and is a certified Leadership Professional in Ethics & Compliance. Fellow from International Visitors Leadership Program (IVLP) from the US Department of State on the Accountability & Transparency edition.

Audience:

Directors, managers, professionals and experts of the Compliance, ESG, Reporting, Sustainability, Social Responsibility, and Communications areas.

Objectives:

- Share the experiences of the leading companies implementing compliance programmes
- Analyze the trends on the management of social and governance issues
- Exchanging knowledge among peers

[Registration Link](#)

For more information, contact:
pferrog@arpel.org.uy

Sustainable Development Goals (SDGS)



Presentation of ARPEL Roadmap to contribute to the sector's Sustainable Development Goals (SDGs) to SNMPE members

In mid-January, the “Roadmap to boost the contribution to the SDGs of the oil and gas industry in Latin America and the Caribbean” was presented before the Social and Environmental Affairs Committee for Hydrocarbons of the National Society of Mining, Petroleum and Energy (SNMPE), comprising experts from the main companies in the sector in Peru.

The presentation was given by Pablo Ferragut, Managing Director of ARPEL, who also developed the document published in 2021.

The SNMPE is currently in the process of developing a similar document for the sector in Peru, so the presentation was aimed at sharing the methodology and the process of building the ARPEL Roadmap.

This process was based on surveys and participatory workshops with companies and institutions of the sector at regional level, which allowed prioritizing 7 SDGs and establishing 22 lines of action. The White Paper defines a common work agenda and concrete actions to promote the incorporation of the SDGs into business strategy, establish alliances, provide management solutions, measure and communicate progress.

This meeting represented another instance of collaboration with the SNMPE, in an effort to promote sustainability in the hydrocarbons sector and in line with SDG17 “Alliances to achieve the Goals”.

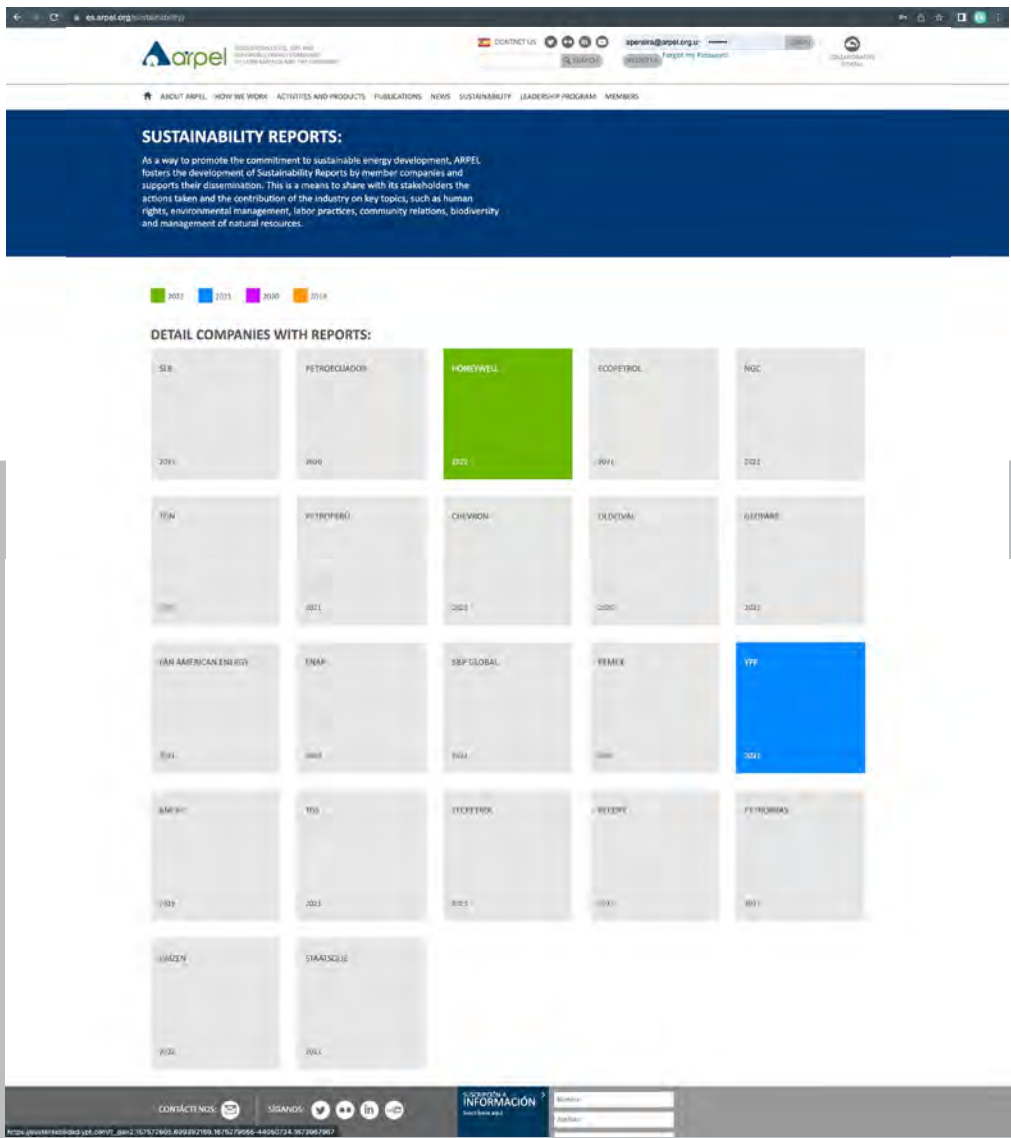


Languages:
Spanish, English

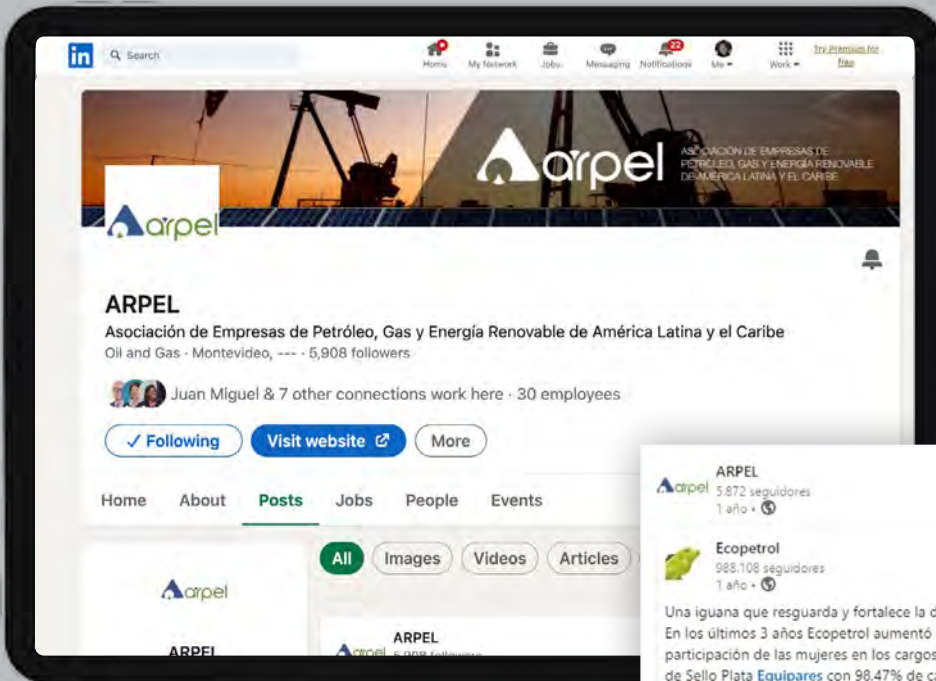
Download link:
<https://arpel.org/library/publication/531/>

Reporting

In line with our commitment to the development of sustainable energy in the region, ARPEL supports the dissemination of the Sustainability Reports issued by member companies.



 [Link ARPEL website, Section Sustainability](#)



#schlumberger #enbeneficiodetodos #Ecuador #emprendimientofemenino #trabajo #ASOTEXIORE #womenempowerment #empoderamientofemenino #orgullosamenteecuatorianos #becausewecare



4



Relationship with Stakeholders



Expansion of the institutional network

Cooperation agreement between ARPEL and Naturgas



In order to promote integration and committing to sustainable development of the energy sector while facing a fair energy transition, ARPEL and the Colombian Natural Gas Association (NATURGAS) has signed a memorandum of understanding which, in its most outstanding aspects, intends to promote the collaboration of both institutions as strategic members involved with the development of the natural gas industry and the positioning of this energy source as a key element in energy transition.

Additionally, the memorandum of understanding also intends to positioning natural gas as an energy source of growing relevance and impact in the regional energy matrix, and to share experience, best practices, information and resources.

Naturgas is a private, non-profit organization composed by 28 main natural gas producing, transporting, distributing and commercializing companies in Colombia. Its objective is to encourage market development and provide for the dynamics needed to the natural gas industry in the coffee-growing country.

Stakeholders' Dialogue

The social and economic value creation of the gas molecules in the energy transition”.

On September 13-14, ARPEL, International Gas Union (IGU), the Latin American Energy Organization (OLADE) and CAF with the collaboration of the Brazilian Institute of Oil and Gas (IBP), organized in Rio de Janeiro, Brazil, an in-person meeting called “Stakeholders’ Dialogue” focused on “The social and economic value creation of the gas molecules in the energy transition”.

The event was supported by Excelebrate Energy and Shell. ARPEL members present were YPF, TGN, Petrobras, Geopark and Ecopetrol.

In this first edition, the meeting brought together more than 70 representatives from the energy, financial and governmental sectors, who shared opportunities and challenges for the gas industry in Latin America and the Caribbean.

On the first day of the meeting, the attendees explored the new policies and regulations foreseen in relation to energy transition and the role of gas in the context of the NDCs (Nationally Determined Contributions) and in the period previous to COP27.

On the second day, the topics discussed included opportunities and challenges of investment and trade in the region, and how a portfolio of low-carbon gases will play a relevant role in supporting economic growth and enhancing the decarbonization of the economy.

Within this framework, ARPEL, IGU and OLADE showed a White Paper on the Role of Gas in Energy Transitions in Latin America and the Caribbean. The document –which will be published in the first half of 2023– will include the main conclusions and reactions of the stakeholders present in the event held in Rio de Janeiro, and will be a wonderful tool to bring a regional perspective to international discussions.



Dissemination activities

Decarbonization Panel organized by Ecopetrol

FEBRUARY 2022

On February 15 Ecopetrol –an ARPEL member company– held the academic conference on “The refining of the future”, which took place within the framework of the 100th anniversary of the Barrancabermeja Refinery.

The virtual meeting was attended by Walter Canova, Vice-president of Ecopetrol Refining and Industrial Processes; Carlos García, Ecopetrol

Barrancabermeja Refinery General Manager; Patricio Farfan, ENAP Chile; Gabriel Grzona, YPF, and Flor de la Cruz, Wood Mackenzie Senior Research Analyst of Hydrogen and Emerging Technologies.

ARPEL was represented by Ricardo Buyatti, Downstream Manager and Coordinator of ARPEL Refining Committee.

ARPEL participation in IPIECA Week 2022 held in Houston

MARCH 2022

In line with the promotion of sustainable development in the oil, gas and renewable energy industry in the Region, and to continue strengthening links at international level, ARPEL has participated in Ipieca Week 2022, a meeting held in Houston, United States, from March 21 to 25.

On this occasion, the in-person event brought together almost 200 representatives of Ipieca member companies, who had the opportunity to share knowledge, learn more about the activities of Ipieca Working Groups and interact with different stakeholders.

In addition to the Annual General Meeting and the working group meetings, Ipieca Week 2022 featured

three stakeholder panels, which were attended by Pablo Ferragut, Managing Director of ARPEL.

The panels were also composed by leading experts from various academic institutions, think-tanks and other business groups external to oil and gas sector, who shared their perspectives on the actions needed to move towards energy transition and the role of the industry in this process.

One of the most important conclusions arising from these panels is that addressing the challenges of energy transition requires collaboration between all the industry sectors and some parts of society. The oil and gas industry must primarily focus on its collaboration with the food, finance and transportation sectors.

ARPEL present at AOG Expo 2022

MARCH 2022

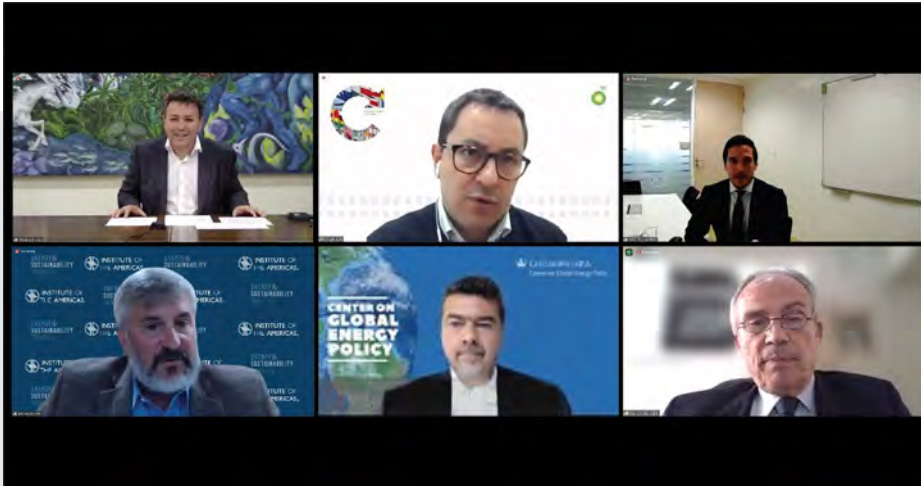
In addition to providing institutional support, ARPEL was present at the 2022 edition of the AOG Expo, held from March 20 to 23 in Buenos Aires, Argentina, which brought together professionals from more than 200 hydrocarbon related companies from different parts of the world.

During the event, ARPEL Executive Secretary, Carlos Garibaldi, and Miguel Moyano, Senior Managing Director, attended the CEOs lectures and interacted

with authorities and executives from different companies. They also held meetings with representatives of the member companies: Chevron, Pan American Energy, Tecpetrol, TGN and YPF.

In addition to the Meeting with CEOs, AOG 2022 included Production Workshops; a Cycle of Conferences; Young Oil & Gas Workshops; Business Rounds and 50 technical and commercial conferences by exhibitors with product presentations.





ARPEL participation in OLADE panel on Volatility in fuel prices

APRIL 2022

Last April 12, ARPEL was part of the discussion board “Volatility in fuel prices: challenges for Latin America and the Caribbean”, coordinated by the Latin American Energy Organization (Olade).

The debate started by pointing out that the current international context has once again produced volatility in hydrocarbon prices, which have an impact worldwide, including our Region. This volatility leads, on the one hand, to an increase in the income of hydrocarbon-producing countries, but on the other hand it causes importing countries to suffer tensions in their budgets and public accounts, as they face higher expenditures to import fuels.

The discussion consisted of two panels: the first panel included the participation of agencies, international institutions, think-tanks, academia and independent experts, and the second panel brought together officials from some Latin American and Caribbean countries.

ARPEL was part of the first panel of the day, and the speakers were Jorge León, Energy Economist at British Petroleum; Leonardo Beltrán, Distinguished Visiting Fellow at Columbia’s Center on Global Energy Policy; Jeremy Martin, VP Energy and Sustainability at the Institute of the Americas; Ali Al-Saffar, Programme Manager for Middle East and North Africa at IEA, and Carlos Garibaldi, Executive Secretary of ARPEL.

Dissemination activities



ARPEL present at agency forum held during ICE 2022 in Colombia

APRIL 2022

ARPEL took part in ICE 2022, organized by the American Association of Petroleum Geologists (AAPG) from April 19-22 in Cartagena de Indias, Colombia.

Among the attendees were ARPEL's Executive Secretary, Carlos Garibaldi, and the Senior Managing Director, Miguel Moyano, who provided institutional support and also took the opportunity to strengthen relations with companies operating in the region. ARPEL also placed an exhibition stand on this major event.

Once again, the Association participated as an observer in the meeting of State Entities which are responsible for the regulation, promotion, bidding and contracts in the oil and natural gas industry in Latin America and the Caribbean.

At the end of the meeting, ARPEL was invited to share the work they have carried out to support regional cooperation between governments and industry, and also to report on the white papers and studies conducted that gather regional and international best practices in terms of government regulations and strategies on several of the issues that concern the agencies for a sustainable development of the upstream.

The agencies agreed to participate in meetings called by ARPEL, associated to its main event, and to carry out other instances that provide added value to continue the government-government and government-industry debates on management issues leading to cooperation agreements.

ARPEL present at the forum on energy in Argentina, organized by Institute of the Americas

MAY 2022

ARPEL participated in the Roundtable on Energy in Argentina, organized by the Institute of the Americas on May 16-17 in Buenos Aires.

On this occasion, the session “Vaca Muerta - Driving Recovery” was chaired by Carlos Garibaldi, ARPEL Executive Secretary.

The panel was composed by Juan Martín Bulgheroni, Vice-President of Upstream Operations of Pan American Energy; Alejandro Rodrigo Monteiro, Minister of

Energy and Natural Resources of the Province of Neuquén; Ricardo Markous, CEO of Tecpetrol; Juan José Carbajales, Director of the Hydrocarbons, Energy and Sustainability Program, Law School of the University of Buenos Aires, and Santiago Martínez Tanoira, Vice-President of Gas and Energy of YPF.

The annual forum - which had been held online for the past two years - was aimed at assessing Argentina’s energy outlook, policy proposals and project development.



FEX, Transcending energy - SLB

MAY 2022

A free, national and international event took place in Quito, Ecuador on May 18-9: FEX, Transcending Energy.

The meeting was organized by SLB, an ARPEL member company, in collaboration with the academia, the Government and companies of the industry. The event was attended by over 1,000 participants in the on-site and online modalities.

Carlos Garibaldi represented ARPEL at this major event, which included simultaneous specialized forums and master lectures on technology advances, social and environmental commitment and organizational culture.

Dissemination activities

6th IAPG Latin American and Caribbean Refining Congress

JUNE 2022

Ricardo Buyatti, ARPEL Downstream Manager, participated in the 6th Latin American and Caribbean Refining Congress organized by Instituto Argentino del Petróleo y del Gas (IAPG) (Argentine Institute of Oil and Gas) held from June 1-3 in virtual format.

Buyatti gave a lecture entitled “Perspectives of the refining sector within the framework of energy transitions.” Felipe Pérez, S&P Global Latin America Downstream Strategist was also part of the meeting.

Suriname Energy, Oil and Gas Summit 2022

JUNE 2022



Carlos Garibaldi, ARPEL’s Executive Secretary, and Miguel Moyano, Senior Managing Director, participated in the Suriname Energy, Oil and Gas Summit (SEOGS), sponsored by the ARPEL member company: Staatsolie.

The event was held in Paramaribo, Suriname, on June 28-30, and it was attended by 2 presidents, 5 Ministers, 115 speakers, 600 delegates and more than 5,000 attendees.



On this occasion, Garibaldi chaired the panel “Ministerial Roundtable: A Bright Future Through Energy”.

Moyano chaired the panel on: “A Global Hotspot and a Window of Opportunity: Creating value to Guyana Suriname Basin from Innovative Technology and Collaborative Sustainable Solutions”.

ARPEL present at the Mexican Petroleum Congress 2022

JULY 2022

Carlos Garibaldi, ARPEL Executive Secretary, was a lecturer at the Mexican Petroleum Congress (CMP) on “Technical, Economic and Regulatory Aspects to stimulate the revitalization of mature, minor and marginal fields”, held on July 6-9 in Villahermosa, which hosted more than 8,000 attendees.

In his keynote speech, Garibaldi argued that revitalizing them and maximizing their recoveries must be part of “energy efficiency,” especially in an era of restricted exploration capital.

He also said that: “the State –in general terms– has “dials” to improve the economic equation of this type



of assets and make them viable, monetizable and a source of additional Income”.

Finally, he also highlighted that mature fields have low geological risk, less technological complexity, often existing or nearby infrastructure, moderate cost and postponement of abandonment costs, almost immediate response and early financial returns.

ARPEL present at BNamericas webinar on Oil & Gas Survey 2022 results

SEPTEMBER 2022

On September 7, the webinar “Results of the 2022 Oil & Gas Survey: In the eye of the hurricane” was held and organized by BNamericas.

The panel was composed by Carlos Garibaldi, ARPEL Executive Secretary and Luiz Eduardo Rubiao from Deloitte, Brazil. The debate was chaired by Michael Place, BNamericas Energy Editor.

The webinar revealed the main findings of the 2022 Survey on the hydrocarbons sector in the Region and then gave way to an open debate among the attendees on some key industry-related topics.

 [Webinar link](#)

XXXI La Jolla Energy Conference of Institute of the Americas

SEPTEMBER 2022



On September 28-29, in La Jolla, California, the XXXI La Jolla Energy Conference was held, and organized by the Institute of the Americas. The topic was “Debating the Future of Energy in Latin America and the Caribbean”.

ARPEL was represented by Irene Alfaro, ARPEL Managing Director –who was part of the panel on “The future of energy in Latin America and in particular, methane management”. The panel was integrated by Alfonso Blanco, Olade former Executive Secretary; Carlos De Regules, Deloitte Risk Advisory Partner, and Jonathan Banks, Global Director of the Methane Program of the non-governmental organization Clean Air Task Force (CATF). The moderator was Leonardo Beltran, Non-Resident Fellow of the Institute of the Americas and member of the Board of Directors of the international organization Sustainable Energy for All (SE4ALL).

Institute of the Americas’ mission is to be a catalyst for promoting economic development and integration, emphasizing the role of the private sector as a means to improve the economic and social well-being of the people of the Americas.

ARPEL participation at ENAEP 2022

OCTOBER 2022

ARPEL Executive Secretary, Carlos Garibaldi, participated in the in-person seventeenth edition of the Energy and Petroleum Annual Meeting (ENAEP 2022), which took place on October 18 in Quito, Ecuador.

Carlos Garibaldi was part of the initial session on “Energy transitions, risk dynamics and energy challenges”, together with Xavier Vera, Minister of Energy and Mines; Jeremy Martin, Institute of the Americas Vice-President of Energy and Sustainability, and Martín Zaruma, Pluspetrol Ecuador Operations Manager.

Nearly twenty national and international experts in energy and non-renewable resources gathered together in Ecuador to participate in the latest edition of the annual meeting.

The event was intended to be a forum for sharing thoughts and points of view on the in-depth analysis of the oil and energy market evolution, both locally and internationally.



ARPEL present at Guyana Basins Summit & Exhibition

OCTOBER 2022

ARPEL participated in the Guyana Basins Summit & Exhibition held on October 4-6 in Georgetown, Guyana.

Carlos Garibaldi chaired the panel composed by the local oil companies called “Shaping Upstream Growth in Partnership, Creating Beneficial Working Relationships for the Long-Term”.

In turn, Miguel Moyano presented ARPEL’s role at the meeting “Role of Trade Associations in Enhancing Stakeholder Partnership on Oil Spill Prevention, Preparedness and Response” and chaired the session “Existing Regional Arrangements for Oil Spill Preparedness and Response in the Caribbean”.

In addition to being part of such an important event, ARPEL placed an exhibition stand jointly with the following international organizations of the same sector: Ipieca, IOGP, API (American Petroleum Institute) and IADC (International Association of Drilling Contractors).



INGEPET 2022

NOVEMBER 2022

Following ARPEL 2022 Conference, the tenth edition of INGEPEP 2022 was held at the Westin Hotel in Lima, Peru, on November 17-18. This event was chaired by Perupetro, with the motto: “Reactivating the Hydrocarbon Sector for a Change in the Energy Matrix”.

During this important event for Peru, ARPEL’s Executive Secretary, Carlos Garibaldi, gave a master lecture on “Technical, Economic and Regulatory Aspects to Stimulate the Revitalization of Mature, Minor and Marginal Fields”.

Dissemination activities

8th Latin American Congress on Economics and Energy

NOVEMBER 2022

On November 21-22, in the City of Bogota, Colombia, the 8th Latin American Congress of Economics and Energy took place, organized by the Latin American Association for Energy Economics (ALADEE), regional arm of the International Association for Energy Economics (IAEE). Our Natural Gas Managing Director, Pablo Ferragut, chaired the session “Is natural gas still a source of the energy transition”? The panel was composed by the President of the Colombian Natural Gas Association, Luz Stella

Murgas; the Natural Gas Director of the Brazilian Institute of Oil and Gas (IBP), Sylvie d’Apote, and researchers Edmilson Moutinho Dos Santos, University of Sao Paulo, and Peter Hartley, Rice University and IAEE.

This Congress is a prestigious academic meeting that brings together industry experts in the field and prestigious academic professionals to discuss in depth and discuss issues related to energy transition.

World Hydrogen Latin America

NOVEMBER 2022

On November 29-30 in Santiago, Chile, the World Hydrogen - Latin America event took place, the regional edition of the series organized by World Hydrogen Leaders.

It was attended by more than 250 experts from across the region, and our Managing Director of the natural gas area, Pablo Ferragut, moderated the session “Decarbonising the Gas Grid across Latin America”, which was also attended by Heloisa Borges Esteves, Director of Oil, Natural



Gas and Biofuels Studies at EPE, Katherine Maria Orozco Quintero, Hydrogen Leader at Ecopetrol, Carlos Cortés Simon, Executive Director of the Chilean Natural Gas Association (AGN) and Gabriel Carmona, Senior Technical Sales Manager at INNIO.



ARPEL participation at AAPG Hydrogen 2022

DECEMBER 2022

Pablo Amoedo, ARPEL Project Manager chaired together with Carlos Colo (YPF) the first session of the virtual meeting: “Exploring the Potential of Hydrogen Energy in Latin America and the Caribbean”, organized by the AAPG (American Association of Petroleum Geologists) on December 1-2.

The virtual meeting gathered together experts from ANCAP, Ecopetrol, Repsol, YPF, University of Texas, and the United States Geological Survey (USGS), as well as other organizations.

The main objective of this meeting was to share ideas, best practices and lessons learned to help the region meet the challenges related to the development of a hydrogen economy.

Global Energy Solutions Leadership Dialogue

DECEMBER 2022

In mid-December, ARPEL’s Executive Secretary, Carlos Garibaldi, participated in the “Global Energy Solutions Leadership Dialogue” in the City of Panama. This event was organized by the International Energy Forum (IEF) and S&P Global, an ARPEL member company.

The IEF is an international organization formed by Energy ministers from 72 countries and includes both producing and consuming nations.

Dissemination activities

VII Week of OLADE Energy

DECEMBER 2022

From December 12-16, Panama hosted the VII Latin American Energy Organization (OLADE) Energy Week –an event that brings together governments representatives of OLADE member countries, companies, academia and international agencies to promote opportunities in the energy sector.

Carlos Garibaldi –ARPEL Executive Secretary– participated as an observer in the LII OLADE Ministers Meeting, and was a panelist in the plenary session on “Energy Security and Supply. Inter-agencies debate: The New Energy Security Agenda and Energy Transitions”.

Miguel Moyano, Senior Managing Director, was a panelist in the session on “The role of state-owned energy companies in supporting energy transitions”.

In addition, Pablo Ferragut –ARPEL Managing Director– spoke on “New natural gas projects to promote energy security”.

Irene Alfaro –ARPEL Managing Director– was a panelist on the session “Fair energy transitions”.



Argentine Offshore Intervention in Public Hearings and publication of articles

On December 30, 2021, the Argentine Ministry of Environment and Sustainable Development approved the environmental impact studies to execute new exploratory seismic campaigns for subsurface oil and gas in three areas of the Argentine Sea, located about 300 kilometers off the coast of the Province of Buenos Aires.

ARPEL congratulates this initiative, which joins other countries' initiatives in Latin America and the Caribbean that monetize their offshore oil and gas resources to support sustainable development and the prosperity of their populations.

In this line, ARPEL has participated as a speaker in the public hearings held on October 19 and December 19, organized by the Ministry of Environment.

Representatives of companies, scientists, consultants, trade unions and academics, among others, participated in the public consultations.

ARPEL considers the debate between the oil industry, the government, environmental NGOs and interested parties a positive step forward.

ARPEL's main message to the attendees, on both meetings, was that "Exploration activity is strategically and economically essential to support the sustainable development of countries who are willing to monetize their natural resources. The oil industry is highly qualified to carry it out in a safe and sustainable manner, listening and communicating with transparency, and being aware of reasonable social concerns in respect to the protection of ecosystems and life quality of the population".

In addition to the participation in public hearings, ARPEL has also published on its website and social media two articles related to this issue.

The first one was published in mid-February on: "Exploration in the Argentine Sea. Supporting energy transition and socioeconomic development of the Region", and the second one was published in mid-April on "Hydrocarbon exploration and marine seismic - Technology at the service of the environment".

On the media

ARPEL Conference 2022

Tarjia Economía
Revista de Economía, Energía, Empresa y Banca
Tarjia | Bolivia, Edición 251 de noviembre de 2022 | Precio Bs 4

SOSTENIBILIDAD PETROLERA CON SENSATEZ SOCIO-AMBIENTAL

En la Conferencia ARPEL 2022, expertos coincidieron que más allá de la responsabilidad, el cuidado del medio ambiente es un requisito para operar legalmente. Esta temática fue abordada como consecuencia del calentamiento global. El evento se realizó del 14 al 16 de este mes en Lima (Perú).
Informe Especial | Pág. 10-11-12

Posicionan a la Ruta del Queso como oferta turística en Padcaya
Pág. 3

Tarija y Salta impulsan proyecto de la hidroeléctrica Bermejo

¡Prometimos y cumplimos!
Rebajamos las tarifas de energía eléctrica para todo el departamento de Tarija.
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Gas natural en Perú: Cuatro CEO de la industria y sus voces sobre los desafíos en el país

14 de noviembre de 2022

MINERÍA & ENERGÍA
REVISTA INTERNACIONAL ESPECIALIZADA EN MINERÍA Y ENERGÍA

MINEM fomenta lanzamiento de industria petrolera y masificación del gas natural

14 de noviembre de 2022

ARPEL 2022 6ª Edición
Impulsando la transformación del sector de petróleo y gas de la Región. Transiciones energéticas y nuevas dinámicas de riesgo.
14 al 16 de noviembre de 2022 | Hotel Westin | Lima, Perú

STAKEHOLDERS.COM.PE
Eventos de ARPEL e INGEPEP buscan contribuir a la reactivación del sector hidrocarburos y a la transición energética en la región y en el Perú

REVISTAENERGIA.pe
12 h

EL POTENCIAL PRODUCTIVO DE AMÉRICA LATINA, CLAVE EN LA TRANSICIÓN ENERGÉTICA GLOBAL

"Impulsando la transformación del sector petróleo y gas de la Región" es la temática central de la Conferencia ARPEL 2022, organizada por la Asociación de Empresas de Petróleo, Gas y Energía Renovable de América Latina y el Caribe, y que este año, en su sexta edición, retomó su carácter presencial.

Conoce a más sobre lo desarrollado en torno al potencial energético de América latina como clave para la transición energética global, revisando el siguiente enlace:
<https://link.in/eSgNKWPx>

#energias #gasgas #arpe2022 #empresas

REVISTAENERGIA.PE
EL POTENCIAL PRODUCTIVO DE AMÉRICA LATINA, CLAVE EN LA TRANSICIÓN ENERGÉTICA GLOBAL

Surtidores uy
14 de noviembre de 2022

Stpanicic: "No conseguimos fondos de inversión para la descarbonización de las refinerías y eso es un problema"

El gerente refinerías sobre la importancia de los créditos para acelerar la transición hacia fuentes de energía más sostenibles.

GERCA DE TODO LO QUE NECESITAS PARA RECORRER EL PAÍS

MANEJADORES DE LA INDUSTRIA
El panel fue moderado por el presidente del World Petroleum Council, Pedro Miras, y también contó con la participación del presidente de Exploración y Producción de Terezo, Heriberto Marín, la directora general Colombia-Ecuador-Petrol de Schumberger y CEO de OCP Ecuador Jorge Magallanes y el CEO de National Energy de T&E, Werner Pallas.

REVISTAENERGIA.pe
3-4 NOVIEMBRE
HOTEL LOS SURETES
ExpoSul

LA INDUSTRIA DE PETRÓLEO Y GAS DE AMÉRICA LATINA ASUME EL RETO DE LA SOSTENIBILIDAD CON FUERTE COMPROMISO SOCIAL Y MEDIOAMBIENTAL

14 de noviembre de 2022

La sostenibilidad, los derechos humanos y el cuidado del medio ambiente ya no son opciones, sino requisitos para operar legalmente en el mundo.

El camino de la sostenibilidad global a través de 15 y 17 grandes Cielos requiere cambios sustanciales del sector energético en los próximos 20 años.

Los proyectos de la región muestran procesos de transformación sustentables con la descarbonización y la transición energética.

Acciones que el sector petrolero y gasífero ya está realizando en la exploración y producción, la sostenibilidad, la transición energética y la mitigación del cambio climático son los factores que marcarán la gestión de la industria. Toda esta realidad se reflejará en la conferencia ARPEL 2022, organizada por la Asociación Regional de Petróleo, Gas y Energía Renovable de América Latina y el Caribe, que tendrá lugar del 14 al 16 de noviembre de este mes.

La sostenibilidad, los derechos humanos y el cuidado del medio ambiente ya no son opciones, sino requisitos para operar legalmente en el mundo.

SECURING A SUSTAINABLE FUTURE POWERED BY GAS



How gas delivers around the world

Global Voice of Gas

Why does gas make sense for Latin America & the Caribbean?

Natural gas can bring great benefits to the region regarding economic development, investment, job creation, quality of life, and decarbonisation

Regional Association of Oil Gas and Biofuel Sector Companies in Latin America and the Caribbean (ARPEL)

Natural gas and the global energy transition

Natural gas will continue to play a fundamental role in the global energy transition, contributing to decarbonisation, energy security, and economic development, mainly in emerging economies.

Finally, natural gas is the cleaner fossil fuel, as it generates 40% less CO₂ emissions than coal and 25% less than oil products when burned. Moreover, natural gas reduces to almost zero the emissions of other harmful pollutants such as particulate matter, NOx, and SO_x, which is particularly important regarding the air quality that people breathe in large cities. Additionally, natural gas combines very well with renewable energy, providing flexibility to power generation systems, or potentially coupling with low carbon hydrogen, leveraging the development of one of the most promising energy carriers in the transition. For example, natural gas can be the feedstock for producing low-carbon hydrogen (blue) or blended in distribution networks. Also, the infrastructure and knowledge are compatible, among other synergies. Furthermore, biomethane, or in other words, non-fossil natural gas, will continue growing rapidly in the next few years.

Another positive attribute that we should mention is that the technology associated with natural gas is mature and well known along its value chain, from extraction to final consumption. In other words, natural gas is a real option, not a promise, an option that fits perfectly with the most promising technological solutions for decarbonisation, which can also leverage them to reach cost-effective flexibility.

Natural Gas in Latin America and the Caribbean

Latin America and the Caribbean is a vast and heterogeneous region where natural gas has excellent development opportunities. Natural gas share in the total energy supply is 31% (IEA, 2021: 51), and it plays a critical role in the economies of several countries. The chart below shows a summary of the main market indicators in 2020.

There are currently two LNG exporting countries: Trinidad & Tobago and Peru. Both economies were significantly transformed since they incorporated natural gas value chains. Trinidad and Tobago also became one of the main ammonia and methanol world

producers and exporters, two products that are taking great relevance in the global decarbonisation journey. The other export-oriented country is Bolivia, which supplies gas to Argentina and Brazil, natural gas being the country's main export product. Additionally, Mexico, Argentina, Brazil, Chile, and Colombia have very mature and developed natural gas markets, while others are emerging or taking advantage of demand spikes such as LNG-to-power. LNG has also proliferated in the region. Since the first importing terminal began operations in the Dominican Republic in 2003, 20 importing terminals have been deployed in 10 countries while many projects are now underway.

Where are the greatest opportunities in LAC?

Argentina's Vaca Muerta play:

The Vaca Muerta play in Argentina, which has world-class, non-conventional oil and gas resources, has been under development in the last few years. This play has become a reality thanks to massive investments and innovation, transforming the gas market in Argentina and the Southern Cone while helping the country to attract investment and foster economic development. Currently, most of the 57 mtpd of shale and tight gas produced in the country are coming from Vaca Muerta, representing 40% of the country's natural gas production. The quality and abundance of its resources could transform Argentina into a prominent gas exporter, first supplying the demand of neighbouring countries and later shipping to world markets through LNG. However, reaching Vaca Muerta's full potential will require significant transport infrastructure development, some of which are now underway.

Brazil gas market opening and LNG

The recent opening of the natural gas market can potentially boost demand, enhancing the development of different sources of supply, both domestic, mainly in the offshore pre-salt region, and foreign. In particular, the massive drought that Brazil suffered last year, which was one of the largest in the last 100 years, boosted LNG imports to reach historical records in 2021, almost tripling the 2020 figure. This situation clearly showed the role of natural gas in providing security and flexibility, particularly in power markets that rely primarily on renewable sources. There are currently 15 LNG import terminals in Brazil, and there are also some projects +

Despite the excellent and well-documented opportunities that natural gas can bring to this region, access to finance represents today a significant challenge to develop natural gas projects, and this situation could become an important barrier.

under development. LNG is seen as one of the main opportunities in the country.

LNG-to-Power in Central America and the Caribbean

Countries with a significant share of coal or oil products as feedstock for power generation have a great opportunity to incorporate natural gas in the energy matrix. Most Central American and Caribbean countries are in this category. LNG-to-power has been the main driver in Panama, Dominican Republic, or El Salvador, so the region has a high and well-proven potential, which can take advantage of its proximity to diverse supply sources such as the USA or Trinidad and Tobago. In the case of small islands, small-scale solutions are becoming more competitive, and the maturity of the regeneration infrastructure in other neighbouring countries can leverage this option. A recent small-scale LNG project developed in Ecuador which imports ISO-containers, or the Jamaican experience, can be interesting examples to replicate in the Caribbean.

Chile's coal power generation phase-out

Chile, a country that is progressing rapidly in the development of renewable energies and green hydrogen, still relies vastly on coal for power generation. This source represented 34% of the power generation share in 2021 (CNE, 2021). Chile has committed to phasing out 65% of

coal power plants by 2025 and 100% by 2040; therefore, it can find in natural gas, coming from Vaca Muerta or via LNG, the perfect partner for this transition.

Guyana and Suriname, the rising stars

Undoubtedly, the region's rising star is the recently discovered high-potential offshore basin of Guyana and Suriname. Guyana, which has already reached the production phase, is currently producing 120,000 barrels of light oil per day, and reasonable projections indicate that the country can reach 750,000 barrels per day by 2026. History led to a massive economic impact in the country, as Guyana's GDP grew 43.5% in 2020; 21.2% in 2021, and it is expected to grow 50% in 2022, despite COVID-19. Guyana, the Human Development Index of which was 0.68 in 2019 (and level), has in its hands a unique opportunity to leapfrog in terms of economic development. Suriname, still in the development phase, is expected to follow Guyana's way. Natural gas projects will begin to happen in both countries, anchoring in monetisation opportunities of associated gas and power generation needs.

Other opportunities - integration and heavy transport

The Southern Cone, a sub-region physically integrated via pipelines with idle capacity, shows excellent opportunities to deepen regional gas integration, taking advantage of

the interesting supply and demand complementarities. Finally, heavy transport, both land and maritime, constitutes an excellent opportunity to develop new value chains in the region. In the case of land transport, natural gas (CNG or LNG) can bring significant economies, considering that 80% of tons per km are transported via diesel-fueled trucks. In the case of maritime transport, Panama could become a natural hub regarding LNG for bunkering because of the Panama Canal. At the same time, river transport in the Parana-Paraguay waterway represents another interesting option for the Southern Cone.

Challenges and final considerations

Natural gas can bring great benefits to the region regarding economic development, investment, job creation, quality of life, and decarbonisation. However, reaching the potential that natural gas represents for the region implies large amounts of capital and investment. Despite the excellent and well-documented opportunities that natural gas can bring to this region, access to finance represents today a significant challenge to develop natural gas projects, and this situation could become an important barrier. At the same time, the finance sector's growing demands, as well as those from the international community and

Fostering natural gas will require political decisions and appropriate energy planning that considers the specificities of the energy transition...

civil society, should lead oil and gas companies in the region to adopt strict ESG policies to report and manage their impacts more transparently.

Finally, fostering natural gas will require political decisions and appropriate energy planning that considers the specificities of the energy transitions in Latin America and the Caribbean countries while striving to advance in other technologies that show great promise in the long term. ■

Country	Reserves	R/P Ratio	Production	Consumption	Imports	Imports LNG	Exports	Exports LNG
	bcf		mm bbl	mm bbl	mm bbl	mm bbl	mm bbl	mm bbl
Mexico	6.3	5.9	32.4	236.4	142.7	0.9	0.1	...
Argentina	13.8	10.1	101.9	126.4	14.3	4.8	3.7	...
Bolivia	7.6	14.8	39.8	10.8	...	...	31.3	...
Brazil	12.3	14.6	65.6	80.9	17.6	9.2	...	...
Chile	n/A	n/A	2.9	16.8	2.6	10.1	...	...
Colombia	3.0	6.6	36.3	38.2	...	1.1	...	...
Ecuador	n/A	n/A	1.5	1.5	...	...	...	...
Peru	9.2	21.6	33.1	19.3	...	...	13.8	...
Trinidad & Tobago	10.2	9.8	80.7	41.4	...	...	29.2	...
Venezuela	221.1	333.9	51.4	51.4	...	...	...	...
Others	1.9	19.7	7.3	13.8	0.2	12.8	...	...
Total	285.2		506.2	637.1	163.6	44.9	35.1	53.1

Source: BP, IGRU, Energas, ANH Bolivia, CNE Chile

AAPG Explorer

24 | BY CARLOS A. GARBALDI | EXPLORER DEC 2022

Commentary

Latin America's Path to Sustainability and Security through the Energy Transitions

Editor's note: The opinions expressed here are those of the author and do not necessarily represent those of AAPG's leaders, membership or staff.

I have the honor of leading the executive secretariat of ARPEL, the Association of Oil, Gas and Geothermal Renewable Energy Companies of Latin America and the Caribbean. ARPEL is a key factor in the development and transformation of the oil and gas sector of our region. We foster cooperation and coordination on strategic and operational aspects among our member companies, and with sister trade and professional associations (such as AAPG), governments, legislators, academia and other stakeholders.

ARPEL held its 6th conference in Lima, Peru, of three days in November, with about 400 registered participants, including 40 speakers and 15 regional company CEOs. Fittingly, the theme of the conference was "Advancing the transformation of the region's O&G sector in times of energy transitions and new risk dynamics."

The keynote speaker, Yorgin, vice chairman of S&P Global, opened the conference with an evening fireside chat about his thoughts on global energy and geopolitical risk perspectives. The next day's presentations were dedicated to oil and gas supply, zooming from global to regional. We began with exploration and production opportunities for oil and gas, both from the perspectives of operating companies and of the national hydrocarbon agencies. We paid special attention to gas as the "natural" transition fuel. We also visited the challenges and opportunities faced by the region's refining sector, including reconfiguration and electric mobility in both the upstream and downstream situations, we focused on decarbonization of operations, energy security and regional integration.

The last day centered on all aspects of holistic sustainability of the natural/social ecosystems of our economies and, not least, of our industry. We discussed issues on climate change, energy transitions, compliance, transparency, digitalization, cybersecurity, stakeholder engagement and our human talent. The evening block was a series of three CEO panels on actions and initiatives to transform their companies. These rich discussions led to some of the conclusions that follow.

Different Paths to a Common Future

Why energy transition?
Because limiting global warming to the 1.5-2 degrees Celsius target (1.5 already seems unattainable) will require drastic changes in the planet's energy matrix during the next three decades.

Why the planet?
Because our model doesn't fit all. Transitional paths must be just and tailored to each country's energy supply, development and social situations.

Why "just"?
Because our region's energy matrix is the cleanest. As an aggregate, 84 percent of primary energy is non-fossil, while the global average is 17 percent. Our mine is only 5 percent coal, compared to 27 percent globally, and our emissions are marginal compared to the rest of the world's (8.3 percent total, of which only 3.6 percent comes from energy). Meanwhile, one third of our regional population falls below the poverty line and 15 percent is extremely poor, according to the Latin American Energy Organization, an Statistical Review and World Bank.

Regions that have reached an enviable level of economic development while leaving in their wake a disproportionate and disastrous externality for the entire planet to suffer should not preach to the



poorer regions. Our governments have the right and the moral imperative to develop and use their hydrocarbon resources sustainably and equitably, to address both economic and energy poverty as well as climate change.

Notwithstanding the above, global warming affects us too, particularly our coastal and insular nations. Being "greener" is not a luxury to slacken our efforts to combat a global problem.

As a regional energy industry, we are clear on the urgency to transition. We have decisively embarked in our transformation, actively decarbonizing our operations and diversifying our energy matrices with renewable energy sources. Many of our regional and national oil and gas companies have adopted net zero targets and are venturing into solar, wind, geothermal, lithium mining, blue and green hydrogen and reforestation.



Continued on next page >

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FEATURED Q&A

Can the Caribbean Reach Its Renewable Energy Ambitions?

Stable wind and solar projects, as well as battery storage, will be a focus of renewable initiatives in the Caribbean in the period ahead, Johanna Merdeson Forman says below. *File Photo: Pixabay*

Q The Alliance of Small Island States, which includes several Caribbean nations as members, and the International Renewable Energy Agency (IRENA) signed an agreement last November to work more closely to deploy renewable energy programs. Small island countries will need some assistance in order to achieve their goals.

A Renewable energy technologies are wind and solar are evolving rapidly and becoming cost-competitive, but it has launched from a very modest base and only contribute about 7 percent to the global primary energy matrix today (investment in clean energy should be at about \$3 trillion annually) and we are dramatically far away from that.

To contribute to the paradigm, our planet is estimated to have reached 8 billion tenants recently. This demographic growth, albeit decelerating, will continue. Economic and demographic growths get compounded in energy demand growth. We all need access to water, food, shelter, health, education, transportation,

TOP NEWS

OL & GAS
Petrols Raises Fuel Prices for Consumers
Brazilian motorists are soon likely to pay more at the pump after the country's state-run oil company, Petrobras, raised gasoline and diesel prices on Wednesday. *Page 3*

OL & GAS
Mexico Swaps Bonds to Lower Pemex Debt Load
State-run Pemex swapped soon-to-expire debt with a new bond with a maturity of 10 years as part of a refinancing plan. *Page 2*

RENEWABLES
Codelco to Look for Lithium in Chilean Salt Flats
The state-owned copper miner Codelco said it is planning to explore lithium in Chilean salt flats in the first months of this year. President Gabriel Boric, who is to take office in March, has proposed plans for a "national lithium" to further develop reserves of the metal. *Page 3*

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Page 6

Radio Interviews




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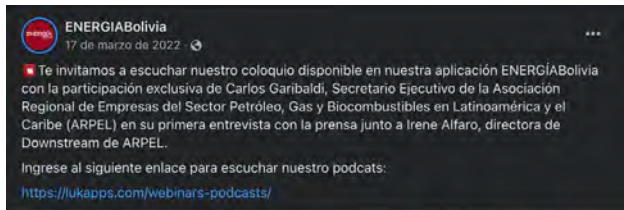
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ARPEL is a non-profit association gathering oil, gas and renewable energy sector companies and institutions in Latin America and the Caribbean. Founded in 1965 as a vehicle of cooperation and reciprocal assistance among sector companies, its main purpose is to actively contribute to industry integration and competitive growth, and to sustainable energy development in the region.

Its members currently operate in more than 30 countries in Latin America and the Caribbean, including national and international operating companies; technology, goods and services providers for the value chain, and national and international institutions in the sector.



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