



INSTITUTIONAL

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Arpel Publication
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2023 Arpel **Annual Report**



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GOVERNANCE

Board of Directors

President:

ANCAP | Alejandro Stipanovic

Vice Presidents:

PAE | Luis Fredes (until April 1st) then
Fernando Guzmán Cieri

YPF | Fernanda Raggio

Directors:

EP PETROECUADOR | Roberto Andrade

PETROPAR | William Wilka

S&P Global | Bob Fryklund

Staatsolie | Rekha Bissumbhar

Tecpetrol | Horacio Pizarro

TEMA | Albert Tacias

TGN | Carlos Ranzani

Fiscal Commission

President:

OCP Ecuador | Esteban Silva (until March 2023)

Alternate Members:

GeoPark | Martín Terrado

Honeywell | León Melli



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



1 Energy
transitions



2 Operational
excellence



3 Sustainable
management



4 Relationship
with
stakeholders



TECHNICAL COMMITTEES

Expert and executive delegates work cooperatively in the Technical Committees, forming the driving force of the Association to carry out its strategic lines.

Explorations and Production



Pipelines and Terminals



Refining and Fuels



Gas and Energy



Energy Transitions



Health, Safety and Environment



Sustainable Management



Industrial Cybersecurity



Human Talent and Knowledge Management



Communications



MESSAGE

My second year at the helm of ARPEL as Executive Secretary has also been fulfilling, underpinned as ever by the professional quality and commitment of our staff. The time, interest and enthusiasm contributed by the professionals of our member companies have also been especially remarkable. They have participated in our committees, webinars, courses and surveys and have shared their know-how in our workshops and spaces devoted to Reciprocal Technical Assistance.

As a result, in 2023 we continued strengthening our Association and growing from the basis of the transformational effort started in 2022. Amongst the most outstanding achievements of our team in 2023 we can include:

- Publication of a white paper about the role of natural gas in our region's energy transitions to low-carbon economies. It was prepared together with the Latin American Energy Organization (OLADE) and the International Gas Union (IGU). The paper has had a highly positive impact.
- Publication of a white paper about just energy transitions in Latin American and the Caribbean (LAC), which clearly shows our stance in this issue.
- Publication of an international guide to assess spill response planning, which was developed in collaboration with the International Maritime Organization (IMO) and Ipieca.
- Publication of an eye-opening benchmarking analysis about the industrial cybersecurity maturity in our sector.
- First presentational event of Innovarapel, focused on digital transformation and cybersecurity, which was held in Quito.
- Joint conference with Ancap about energy transitions, held in Montevideo.
- Workshop on the role of hydrogen in the path towards Net Zero, held jointly with Honeywell in Mexico City.
- Workshop carried out jointly with API, IOGC and IADC in Paramaribo to assist the SHI of Suriname in the development of its environmental safety regulation.
- Joint Workshop with Ecopetrol in Barrancabermeja on best practices in production units of H₂, and diesel hydroprocessing and hydrocracking.
- Joint workshop with Raizen about Best Practices in alkylation units, held in Buenos Aires.
- First and Second Modules of the Arpel Leadership Program held in Colombia and the USA.
- Launch of the Energy Transition Committee and re-launching of the Communications Committee.
- Workshop for journalists in Quito, to communicate the vision of our sector in terms of just energy transitions in our region.
- 40 instances of Reciprocal Technical Assistance among twelve member companies.
- Testimony in the Public Hearing about oil exploration in the Austral and Malvinas basin of Argentina.
- Hiring of a Midstream Project Manager.
- Incorporation of Shell as new member.
- The outstanding role played by ARPEL's professionals in various conferences held throughout the region: AAPG (Mexico City), Geociencias (Havana), FNREL (Mexico City), IBP (Rio de Janeiro), IAPG (Argentine Institute of Oil and Gas, Buenos Aires), Naturgas (Barranquilla), ROCRAM (Operative Network of Regional Cooperation of Maritime Authorities of the Americas, San Salvador), SEOGS (Paramaribo), AUDER (Uruguayan Association of Renewable Energies, Montevideo), JIDO (Rio de Janeiro), Rio Pipeline (Rio de Janeiro), Gas Natural (Lima), Institute of the Americas – University of Southern California (La Jolla and Buenos Aires), AOG (Argentina Oil & Gas - Buenos Aires), EAGE (Montevideo), GNL (Cartagena), ENAEP (Quito), OLADE Energy Week and Public-Private Dialogue (Montevideo), Ipieca (Fort Lauderdale), URTec (Buenos Aires) and CIER (Regional Energy Integration Commission, Foz do Iguaçu), among others.
- The broader regional exposure of ARPEL and its publications have contributed to highlight ARPEL's profile, leading to gain prominence in prestigious events: Center for Global Energy Policy – Columbia University (NYC), 8th OPEC International Seminar (Vienna), 24th World Petroleum Congress (Calgary) and IEA Workshop (Santiago).
- We have also been interviewed by Gulf Intelligence (Abu Dhabi), Argus Media (UK), Energy Press (Bolivia), GNL Global (Slovenia), BNamericas (Chile), Voice of America (USA), EFE (Spain), IGEF (Panama), The Energy Republic (USA) and Primicias (Ecuador), among other local and international media.

Why is it important to increase ARPEL's exposure?

The sustainability itself of our sector is currently being challenged and we must, therefore, protect its social license at the existential level and its operational license at local community and regulatory levels. Consequently, we need to efficiently communicate our perspective based on facts and using a transparent, clear, concise and non-confrontational style. Conveying our messages successfully is also critical to maintain our capacity for attracting and retaining new generations of professionals, technicians and administrative staff.

We remain focused on driving the evolution of our sector, emphasizing the urgency of decarbonizing our processes, operations and installations, seeking net zero emissions with better energy efficiency, and eliminating routine flaring and methane leaks. In parallel, we can opt to diversify our portfolio of energy products, giving a higher relative weight to natural gas, but also adopting renewable energies on which we may leverage our inherent capabilities, for technological innovation and of management of complex projects. Several member companies have already ventured in lithium mining, solar and wind energy (both onshore and offshore) as well as in blue and green hydrogen.

In line with this transformation, we highlight the essential role of our traditional hydrocarbon industry in plural and just energy transitions. Our industry should continue to provide the energy supply required by the region that is reliable, safe, flexible and affordable to underpin its sustainable development, and it also seek to attain exportable balances. In addition, we support the right of our countries to develop and monetize their energy resources in a sustainable manner, respecting the diversity of their social and energy system idiosyncrasies and considering the climate vulnerabilities of each nation of our region.

This balance can only be achieved with realism, pragmatism, technological neutrality and complementarity of energy sources, the cooperation among all stakeholders and robust national and regulatory policies that ensure stability, transparency and predictability. With strategic vision, tactical agility and resilience in the face of uncertainty and disruptive socioeconomic and geopolitical events, together with a better articulation between companies, government and society, we will continue to be the driving force behind the socioeconomic development and the "industry of industries" we have been so far, for over a century.



CARLOS GARIBALDI

Arpel's Executive Secretary



MEMBERSHIP

ACTIVE MEMBERS



PARTNERSHIPS



SHELL, NEW ACTIVE MEMBER OF ARPEL



ARPEL MEMBERSHIP ROSE TO 29 MEMBERS IN 2023 WITH THE ADDITION OF SHELL.

Shell is a global group of energy and petrochemical companies with more than 90,000 employees in more than 70 countries, that aims to meet the world's growing need for more and cleaner energy solutions in ways that are economically, environmentally and socially responsible.

It has 116 years of experience in exploration, production, refining and marketing of oil and natural gas, and the manufacturing and marketing of chemicals.

To learn more about the company: www.shell.com



ANNUAL MEETING OF REPRESENTATIVES HELD IN MONTEVIDEO

WITHIN THE FRAMEWORK OF THE ANCAP-ARPEL CONFERENCE ON THE "CHALLENGES OF ENERGY TRANSITIONS", THE ANNUAL MEETING OF REPRESENTATIVES WAS HELD ON APRIL 26TH IN MONTEVIDEO, URUGUAY, WHICH COMBINED FACE-TO-FACE AND VIRTUAL PARTICIPATION OF THE MEMBER COMPANIES.

The following companies participated in the meeting: Ancap, Chevron, Ecopetrol; Enap; EP Petroecuador; GeoPark; Honeywell; NGC; OCP Ecuador; PAE; Petrobras; Petroperú; Raízen; Recope; Staatsolie; Tecpetrol; Tema; TGN; SLB and YPF.

The agenda included the approval of the 2022 Annual Report; analysis of the economic-financial situation of the Association; the invitation to form the Organizing Committee for the Arpel 2024 Conference as well as the presentation of the White Paper on Natural Gas in Latin America and the Caribbean.

The background of the cover features a silhouette of offshore wind turbines and oil rigs against a vibrant orange and yellow sunset sky. A large, white, stylized number '1' is positioned in the upper center, partially overlapping the sky and the rigs. The overall composition suggests a focus on the transition from fossil fuels to renewable energy.

1

ENERGY TRANSITIONS

Spaces for dialogue, Publications
and Dissemination



MONTEVIDEO HOSTED THE ANCAP-ARPEL CONFERENCE ON CHALLENGES OF ENERGY TRANSITIONS

THE ANCAP-ARPEL CONFERENCE ON CHALLENGES OF ENERGY TRANSITIONS TOOK PLACE ON APRIL 26TH AT THE HYATT HOTEL IN MONTEVIDEO, AND BROUGHT TOGETHER GOVERNMENT AUTHORITIES, AMBASSADORS FROM THE EUROPEAN UNION, MULTILATERAL BANKS, AND REPRESENTATIVES OF LEADING COMPANIES IN THE OIL AND GAS SECTOR IN LATIN AMERICA.



The event was opened by Alejandro Stipanivic, President of Ancap and Chairman of the Board of Directors of Arpel, who highlighted that “oil companies, which have always been energy companies, have the power to make the real change due to their resilience, their natural competences, the technical and scientific resources they have, and their strategic vision.”

In Stipanivic words, “the energy transition implies a necessary coexistence between fossil fuels and renewable energy sources. It is necessary to understand that fossil fuels will have to support the transition while new energies are developed and, in the meantime, some energies will replace others in a fair and competitive manner.”

For his part, Arpel's Executive Secretary, Carlos Garibaldi, pointed out that "transition doesn't mean an abrupt replacement. It entails having the necessary realism and pragmatism to seek synergies and "quick wins" towards the decarbonization goals. Oil and especially gas, have a role in energy transitions to provide a non-interruptible basis to renewable energies and to fill any gaps between energy demand and their ability to supply."

"Arpel has undertaken as a mission to drive the necessary transformation of the sector in this region and has incorporated renewable energy into its scope. Being an eclectic region, we also understand that transitions need to be just and bespoke to national and even local energy structure, socioeconomic development, and poverty situations," Garibaldi said.



THE PRESENTATIONS OF THE ANCAP-ARPEL CONFERENCE CAN BE VIEWED IN FULL ON ARPEL'S YOUTUBE CHANNEL

SEE EVENT



LAUNCH OF ARPEL ENERGY TRANSITIONS COMMITTEE

THE ARPEL ENERGY TRANSITIONS COMMITTEE WAS LAUNCHED AT THE END OF APRIL IN MONTEVIDEO. THE COMMITTEE IS COORDINATED BY IRENE ALFARO, MANAGING DIRECTOR OF THE ASSOCIATION.

As a prelude to the first meeting of the Committee, an exchange workshop was held within the framework of the Ancap-Arpele Conference, which brought together professionals from Ancap, Chevron, EP Petroecuador, Ecopetrol, Honeywell, NGC, Recope, Petrobras, Petropar, Raizen, SLB, S&P Global, Staatsolie and YPF.

The launching meeting of ARPEL Energy Transitions Committee was attended by 27 executives representing 20 member companies.

During the meeting, the Committee defined the main lines of work for the next two years. The topics that were considered to have the potential to be addressed collaboratively were: Analysis of physical and transition climate risks; Carbon markets, internal carbon pricing and offsets; Fair transitions, and Regulatory frameworks and carbon taxes/incentives.





WHITE PAPER

NATURAL GAS IN THE TRANSITION TO LOW-CARBON ECONOMIES THE CASE FOR LATIN AMERICA AND THE CARIBBEAN

ARPEL, THE INTERNATIONAL GAS UNION (IGU) AND THE LATIN AMERICAN ENERGY ORGANIZATION (OLADE) ANNOUNCE THE PUBLICATION OF A CRITICAL DOCUMENT AT A VITAL TIME: "NATURAL GAS IN THE TRANSITION TO LOW-CARBON ECONOMIES – THE CASE FOR LATIN AMERICA AND THE CARIBBEAN."

This new exercise provides a strategic approach to the role and critical drivers for the development of natural gas today in the energy transition in the specific context of Latin America and the Caribbean.

The report includes an analysis of natural gas scenarios; an overview of the socio-economic, energy and GHG (greenhouse gases) emissions situation in the region; the key drivers of natural gas and lower net carbon gases development and presents perspectives on each country in the Region.

This joint initiative by Arpel, OLADE and the IGU tries to illustrate the complexity of the transition, reinforcing the necessity of dialogue among institutions to reduce global warming and to promote sustainable socio-economic development for a growing global population. The fulfilment of the 17 United Nations Sustainable Development Goals (SDGs) implies a holistic approach. This is not only restricted to energy, as natural gas and low-carbon gases are also feedstock for chemicals, fertilizers, and synthetic fuels.



THE FUTURE OF NATURAL GAS: SOME KEY TRENDS FOR A DEEPLY UNCERTAIN FUTURE

According to the report, the future of energy is highly uncertain. While the driving force of climate change and the consequent need to transition to a low-carbon energy system are self-evident, the nature of the energy mix in the decades to come is much more indeterminate, mainly because it is not possible to accurately predict how and when alternative technologies will mature, reach the commercial stage, and achieve wide-ranging deployment.

Energy demand will most likely increase, driven by population growth compounded by economic development; there will be advantages for the development of lower net carbon gases such as biogas, biomethane, hydrogen, and natural gas with CCUS. The natural gas industry should strive to decarbonize natural gas, developing new alternatives and reducing the carbon footprint of current operations, including maintaining and strengthening a laser focus on the elimination of methane emissions. LNG trade and infrastructure are expected to grow further, adding flexibility and security to the energy supply while opening opportunities for developing other applications, such as bunkering. These are some of the key messages extracted from the analysis.

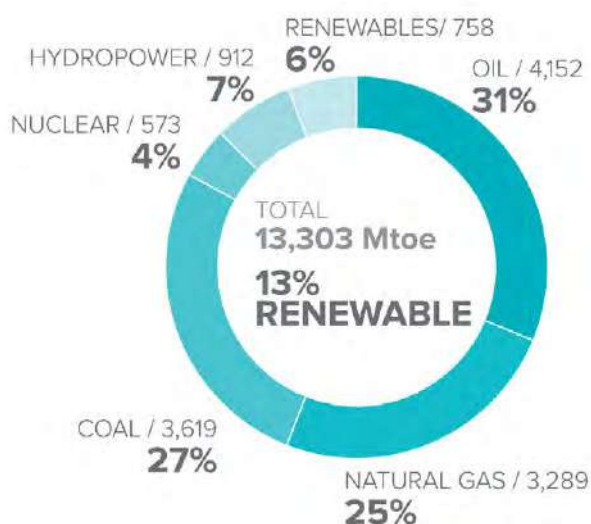
Latin American and Caribbean countries could take advantage of the current window of opportunity to foster the creation of a regional market by promoting the appropriate conditions for investment in E&P and gas infrastructures to support market needs, both for local and overseas demand. The promotion of best ESG practices for additional E&P investments could also be a strong lever to support public finance equilibrium.

The report highlights that the entire region contributes approximately 8% of the world's total GHG emissions annually, with less than half of these emissions from energy use. Latin America and the Caribbean countries must thus build their own climate agendas for the energy sector, balancing economic development and decarbonization on a global scale.

Total Primary Energy Supply (World)

Source: OLADE

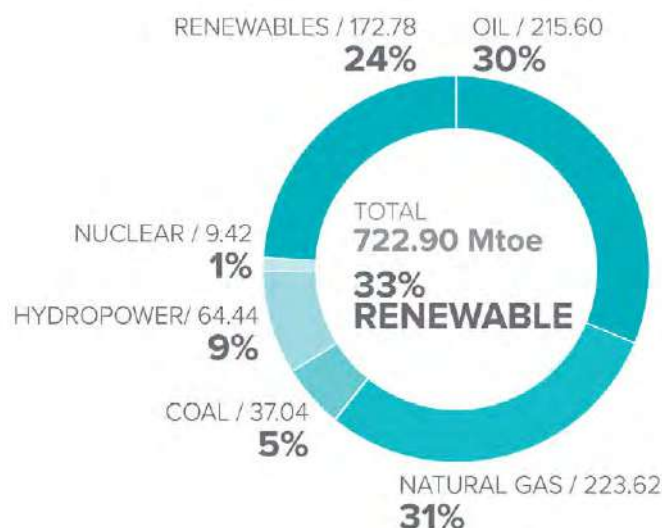
Mtoe; %, 2020



Total Primary Energy Supply (LAC)

Source: OLADE

Mtoe; %, 2020



MONETIZATION OF NATURAL GAS RESOURCES CAN LEAD TO GREATER PROSPERITY

Poverty and inequality are by far two of the most critical socio-economic challenges in the region. 30% of its more than 650 million inhabitants live in poverty, 13% in extreme poverty, and social inequality is vast, with a GDP per capita below world average.

However, the region is rich in natural gas resources, and the gas sector is well-established in many countries, making significant contributions to GDP, attracting foreign investment, creating jobs, and improving lives all around. The report highlights several domestic resource monetization opportunities to continue building on this success.

Countries such as Trinidad & Tobago, Peru, and Bolivia, have benefited from massive economic growth in the last two decades thanks to natural gas resource development; Argentina's Vaca Muerta gas play has attracted 20 billion in investments and has the potential to make Argentina the next LNG exporting country in the region; Brazil shows opportunities in the pre-

salt region; Colombia demonstrates the benefits of gasification and has excellent promise for developing its recent offshore discoveries, while Guyana and Suriname are the two rising stars because of massive offshore discoveries, opening the chance to dramatically boost their economies.



Natural Gas in the Transition to Low-Carbon Economies The Case for Latin America and the Caribbean

Languages:
English

Download link:
<https://arpeel.org/library/publication/542/>



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WHITE PAPER LAUNCH WEBINAR

SEE WEBINAR



REPORT

ARPEL UPPER MANAGEMENT REPORT ON CLIMATE CHANGE COP27

THIS REPORT SUMMARIZES THE MAIN CONCLUSIONS FROM THE 27TH CONFERENCE OF THE PARTIES TO THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE, COP27.

The document was developed by members of the former Arpel Climate Change Working Group -now the Energy Transitions Committee- of the companies Ancap; Chevron; EP Petroecuador; Ooldelval; Pan American Energy; Pemex; Petroperú; Tecpetrol and YPF. The coordination was led by Irene Alfaro, Arpel Managing Director.



ARPEL upper management report on climate change COP27

Languages:
Spanish & English

Download link:
<https://arpel.org/library/publication/545/>



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WORKSHOP

HYDROGEN AS AN ALLY ON THE ROAD TO NET-ZERO, WORKSHOP ORGANIZED BY ARPEL AND HONEYWELL WITHIN THE FRAMEWORK OF THE EXTRAORDINARY ASSEMBLY

AS PART OF THE EXTRAORDINARY ASSEMBLY HELD IN MEXICO IN MID-NOVEMBER, ARPEL AND HONEYWELL ORGANIZED A WORKSHOP TITLED "H₂ AS AN ALLY ON THE ROAD TO NET-ZERO: TECHNOLOGY, REGULATION AND SECTOR STRATEGY."

The activity began with a technical visit to Honeywell's Technology Center and continued with the opening of the workshop, which took place simultaneously in a virtual format for both Arpel members and non-members.

The first panel was dedicated to the Technology applied to hydrogen and featured the participation of professionals from UOP, Electric Hydrogen, Ecopetrol, Y-TEC, and Honeywell.

During the second day, experts from Hinicio, Ancap, Ecopetrol, Petrobras, H2 Mexico, Colombia, and Chile, AIE, BID, GIZ, and McKinsey & Company addressed the role of H₂ in the energy transition, regulatory

frameworks, incentives and certification, and the development of the regional market.

While there are still significant challenges to overcome for projects producing hydrogen from renewable sources to thrive and scale on an industrial level, our region has abundant natural resources to produce it. Industry companies possess extensive knowledge and infrastructure to drive its development, providing a competitive advantage over other regions worldwide.

During the workshop, held at Honeywell's facilities, Arpel member companies also shared their plans and projects, which allowed us to understand the common challenges they face in different countries in the region.

Arpel ASOCIACIÓN LATINOAMERICANA DE EMPRESAS PETROLÍFERAS Y DE SERVICIOS ENERGÉTICOS **Honeywell**

TALLER VIRTUAL

El H₂ como aliado en el camino a net-zero: tecnología, regulación y estrategia del sector

15 y 16 de noviembre de 2023
Traducción simultánea (español-inglés)

 ANCAP Rodrigo Novo Profesional de la Garantía de Transición Energética	 H2 Chile Ricardo Rodríguez Líder de Estudios
 AIE Amalia Pizarro Analista de Hidrógeno	 BID José Antonio Urteaga Especialista Senior en Energía
 ECOPETROL Katherine Orozco Líder de Proyectos de Hidrógeno de Bajo Carbono	 UOP Jeffrey Guenther Director de Desarrollo de Proyectos, Captura de Carbono e Hidrógeno Azul

WATCH THE FULL RECORDING OF THE WORKSHOP AT THE FOLLOWING LINKS

1ST DAY **2ND DAY**





WHITE PAPER

JUST ENERGY TRANSITIONS IN LATIN AMERICA AND THE CARIBBEAN

ARPEL AND ITS MEMBER COMPANIES ARE COMMITTED TO THE SEARCH FOR A JUST ENERGY TRANSITION IN LATIN AMERICA AND THE CARIBBEAN.



Just Energy Transitions in Latin America and the Caribbean

Languages:
Spanish & English

Download link:
<https://arpel.org/library/publication/547/>



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NOW**

We recognize the importance of balancing the path of environmental sustainability with social and economic development. We believe that by promoting a competitive environment to attract investment, providing adequate financing, and fostering collaborative dialogue, we can achieve a just energy transition that benefits all stakeholders and contributes to building a sustainable future in the region.

This document describes the consensual position of Arpel member companies regarding the concept of just energy transitions in Latin America and the Caribbean, developed within the framework of the Arpel Energy Transitions Committee.

The White Paper is subdivided into eight chapters plus conclusions, which - in general - include an analysis of the current scenario, focusing on the conditions of developing countries and the specificities of the region: Introduction; Expansion of the energy supply; Challenges for the decarbonization of traditional businesses; Opportunities in renewable energy; Energy transition and SDGs; Pillars and metrics for just energy transitions; Financing of energy transitions; Training, technological development and supplier development.



2

OPERATIONAL EXCELLENCE

Development, promotion and
implementation of best practices



INNOVARPEL 2023, FIRST EDITION OF TECHNICAL EVENT DEDICATED TO DIGITALIZATION AND CYBERSECURITY IN OIL AND GAS COMPANIES

ON NOVEMBER 21ST AND 22ND AT THE HILTON COLON HOTEL IN QUITO, ECUADOR, ARPEL ORGANIZED INNOVARPEL 2023, A TECHNICAL EVENT FOCUSED ON DIGITALIZATION AND INDUSTRIAL CYBERSECURITY IN THE ENERGY INDUSTRY, MORE SPECIFICALLY IN THE OIL AND GAS INDUSTRY.



The two-day event brought together around 200 professionals from operating companies in the sector as well as from providers of digital solutions and industrial cybersecurity.

In addition to four keynote lectures and three expert panels, 17 specific cases of implementing cutting-edge technologies such as IIoT, Big Data, Artificial Intelligence, Machine Learning, Geographic Information

System (GIS), digital twins, among others, were showcased.

Innovarpel 2023 aimed primarily to share best practices, success stories, and lessons learned, with a particular focus on raising awareness about the opportunities and challenges of digital transformation. The goal was to prepare organizations and their personnel for the upcoming changes.

The idea is that this event will be held in various countries across the region to continue supporting the evolution of digital tools and the implications of their implementation in the sector.

The first edition of Innovarpel received support from EP Petroecuador as the host company, and sponsorship from Grupo Radical, Ancap, OCP Ecuador, SAP, Schneider Electric, SLB, Tory-Tech, Cisco, Honeywell, IST Internacional, Robalino, and Sertecpet.



INNOVARPEL 2023

FIRST EDITION OF TECHNICAL EVENT DEDICATED TO DIGITALIZATION AND CYBERSECURITY IN OIL AND GAS COMPANIES

[LINK TO SUMMARY VIDEO](#)

[PHOTOS](#)



BENCHMARKING ON PROCESS SAFETY AND INDUSTRIAL SAFETY

AS HIGHLIGHTED IN THE ARTICLE PUBLISHED BY ARPEL "DETERIORATING SAFETY PERFORMANCE MAY IMPACT THE SUSTAINABILITY OF OUR INDUSTRY" (ARPEL, JANUARY 2024), SAFETY PERFORMANCE HAS BEEN WORSENING SIGNIFICANTLY POST-PANDEMIC: +71% IN FATALITY RATE BETWEEN 2021 AND 2022 ACCORDING TO INTERNATIONAL ASSOCIATION OF OIL & GAS PRODUCERS (IOGP) DATA.

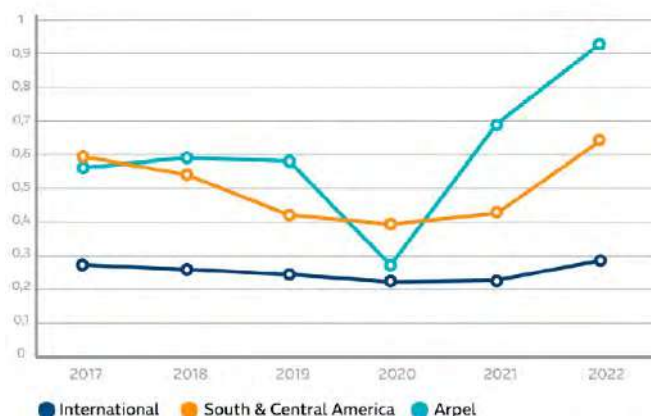
Fatal accident rate

Number of fatalities per 100 million hours worked



LTIR

Number of lost time injuries (fatalities+lost work day cases) per million hours worked



The graphs show that the performance of Arpel's member companies unfortunately follows the same upward trend after years of substantial improvement.

More than ever, we at the Executive Secretariat want to encourage and support all member operating companies to participate in these studies, as Arpel's safety benchmarking reports allow us to identify gaps in the performance of member companies, an essential first step in understanding where to allocate resources and prioritize efforts.

It also allows Arpel, particularly the Environment, Health and Safety Committee, to implement exchange activities and support our partners in achieving their goals.

In 2023, 14 member companies participated in the Industrial Safety benchmarking study and 10 in the Process Safety benchmarking study.

The Association's Benchmarking Reports are an exclusive benefit for member companies and are a comprehensive and unique regional benchmark of oil and gas companies' performance in process and industrial safety.



All benchmarking reports are available in the Publications section of Arpel's website



DOWNLOAD
PUBLICATIONS

MUTUAL TECHNICAL ASSISTANCE ACTIVITIES EXCLUSIVE BENEFIT FOR ARPEL MEMBERS

DURING 2023, 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 2023, 40 MUTUAL TECHNICAL ASSISTANCE ACTIVITIES WERE CARRIED OUT WITH THE PARTICIPATION OF 12 MEMBER COMPANIES.

JANUARY 2023

OPERATOR TRAINING SIMULATOR (OTS) QUERIES

ALKYLATION PLANT INERTIZATION FOR SAFE DELIVERY TO PERFORM MAJOR MAINTENANCE (PLANT SHUTDOWN)

STRATEGY TO PERFORM A MAJOR REPAIR ON A PRODUCTION UNIT

FEBRUARY 2023

SHALE OIL PROCESSING

SHALE OIL PROCESSING IN REFINERY

ALKYLATION PLANT OPERATION

PROPELLANT DEODORIZATION

TRANSFORMATION OF O&G TO ENERGY

ESTRUCTURA DE PERSONAL EN EQUIPOS DE INSPECCIÓN

MARCH 2023

OPERATOR TRAINING SIMULATORS (OTS)

ORGANIZATIONAL DIMENSIONING FOR CYBERSECURITY

PETROCHEMICAL INDUSTRY FROM REFINERIES

APRIL 2023

FINANCIAL COMPLIANCE AND ACCOUNTING PROCEDURES FOR PRODUCTION SHARING CONTRACTS

FINANCIAL COMPLIANCE AND ACCOUNTING PROCEDURES FOR PRODUCTION SHARING CONTRACTS

MAY 2023

EXPERIENCES IN THE USE OF REMOTE SUPPORT, AUGMENTED REALITY AND VIRTUAL REALITY TECHNOLOGIES

PERSONAL WELLNESS

TELEWORK REGULATION

HVO VALUE CHAIN DEVELOPMENT FROM USED COOKING OIL

JUNE 2023

ASSOCIATED GAS CALCULATION METHODOLOGY

INTERNAL INSPECTION OF UNDERWATER LINES

IMPLEMENTATION STRATEGY FOR SECONDARY RECOVERY PROJECTS

JULY 2023

EXPERIENCES IN OPERATION AND MAINTENANCE OF PMM ENGINES

OCCUPATIONAL HEALTH STANDARD

EXPERIENCES IN OPERATION AND MAINTENANCE OF PMM ENGINES

OCCUPATIONAL HEALTH STANDARD

AUGUST 2023

HYDROCARBON TRANSPORT BY RIVER

ASSOCIATED GAS CAPTURE PROJECT

RECOVERY OF METALS FROM HYDROPROCESS CATALYSTS

OCCUPATIONAL HEALTH AND SAFETY

APPLICATION OF BOWTIE'S METHOD IN OCCUPATIONAL HEALTH

FCC CATALYST FINAL DISPOSAL

SEPTEMBER 2023

COMPLAINTS CHANNEL

OCTOBER 2023

COMPLAINTS CHANNEL

EFFLUENT TREATMENT PLANT

POSSIBLE IMPACT OF STREAM ON PIPELINE LOCATED ON RIGHT-OF-WAY IN RIO GRANDE DO SUL

INDUSTRIAL EFFLUENT MANAGEMENT - OPERATING ACTIONS AND NEW EQUIPMENT OPERATION

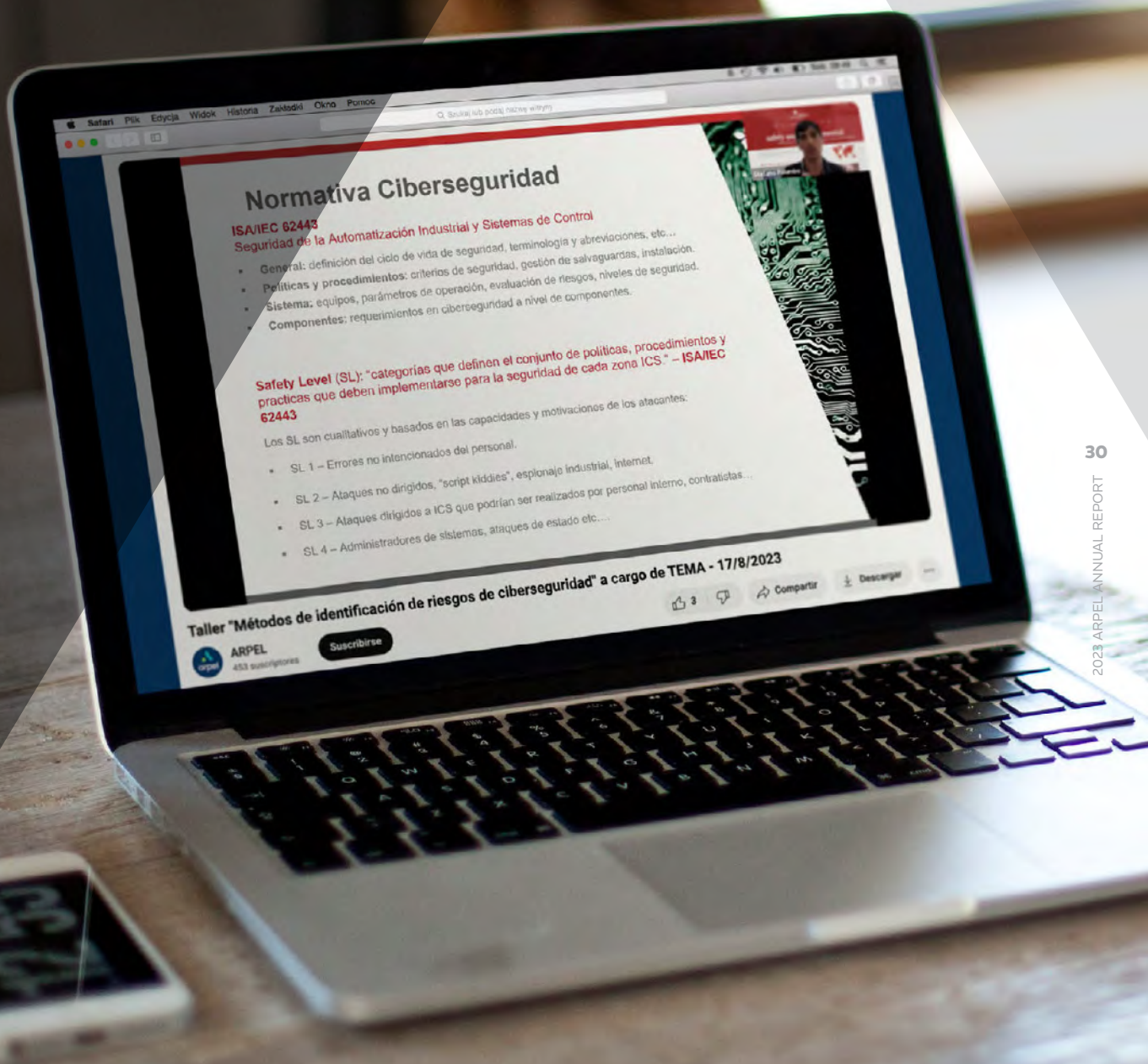
EFFECTS OF RIVER FLOODING ON PIPELINES ON RIVER BED

INTERNAL INSPECTION OF UNDERWATER PIPELINES



Virtual and in-person workshops

developed by Arpel
in 2023



TEMA-LITOCLEAN WEBINAR ON ARPEL PROCESS SAFETY SELF-ASSESSMENT TOOL

ARPEL'S HEALTH, ENVIRONMENT AND SAFETY COMMITTEE ORGANIZED A VIRTUAL WORKSHOP IN CONJUNCTION WITH MEMBER COMPANY TEMA-LITOCLEAN ON HOW TO CONDUCT A SELF-ASSESSMENT OF THE PROCESS SAFETY MANAGEMENT SYSTEM.



This workshop was aimed at introducing the new version of the Process Safety Self-Assessment Methodology and Tool developed by Arpel and its member companies.

It was conducted by Raul Manga, Business Development Manager of TEMA-Litoclean Mexico, who led the team responsible for improving and optimizing the initial version of the methodology.

It is a friendly and useful tool for oil and gas companies to identify gaps in their process safety management systems at both company and facility level.

The tool consists of 21 short questionnaires to assess the 21 defined elements, which can be used for both upstream and downstream operations.

In 2022, a new version of the tool was published, which includes recommendations for ease of use, optimized questionnaires and other improvements.



TOOL DOWNLOAD LINK

[DOWNLOAD TOOL](#)



LINK TO THE FULL RECORDING OF THE WEBINAR:

[SEE EVENT](#)

VIRTUAL WORKSHOP ON SAFETY MANAGEMENT BY GEOPARK

TOGETHER WITH THE MEMBER COMPANY GEOPARK, ARPEL'S HEALTH, ENVIRONMENT AND INDUSTRIAL SAFETY COMMITTEE ORGANIZED LAST AUGUST 9TH THE VIRTUAL WORKSHOP "PREVENTIVE HEALTH AND SAFETY MANAGEMENT TOOLS".



The banner features the ARPEL logo on the top left and the GEOPARK logo on the top right. The main text reads: "VIRTUAL WORKSHOP Learn from the experience Health & Safety preventive management tools". Below this, it specifies the date and time: "Wednesday, August 9 11 a.m. GMT-3", followed by language options: "Spanish / English (Simultaneous translation available)" and the duration: "Duration: 60 minutes". A circular profile picture of Matías Vásquez Cárdenas is shown next to his name and title: "Matías Vásquez Cárdenas Health and Safety Advisor GeoPark". A button labeled "Register now" is present, along with a note "LIMITED SPACES AVAILABLE". A circular badge on the right states "Only for ARPEL members".



LINK TO THE FULL RECORDING OF THE WORKSHOP

SEE WEBINAR

In a post-pandemic context where a very significant increase of fatalities in the industry is observed at a global level, Matías Vásquez Cárdenas, Health and Safety Advisor of GeoPark, presented the accident rate trends of the industry in South America and then, how GeoPark applies its main preventive management tools to avoid the occurrence of labor incidents.

The workshop continued with an interactive session where participants shared their company experiences, discussed their primary management tools, and addressed the current challenges presented by the oil and gas sector in the region.

ARPEL - SPROULE WEBINARS: CCUS AND GEOTHERMAL ENERGY IN LATIN AMERICA

IN ACCORDANCE WITH THE AGENDA OF ACTIVITIES RELATED TO ENERGY TRANSITIONS -ONE OF ARPEL'S FOUR STRATEGIC VECTORS-, A SERIES OF WEBINARS ON ENERGY TRANSITION IN LATIN AMERICA WAS HELD IN CONJUNCTION WITH THE COMPANY SPROULE.

The first webinar took place on May 18th and dealt with the role and opportunities of CO₂ storage (CCUS) in Latin America, taking advantage of the current knowledge about the oil fields.

Richard Hares, Carbon Management Manager at Sproule, gave the talk entitled "Unlocking the potential of CCUS in Latin America: leveraging decades of reservoir knowledge".

Carbon Capture, Utilization and Storage (CCUS) is becoming a critical component for any country or industry to consider as part of an overall strategy to mitigate emissions.

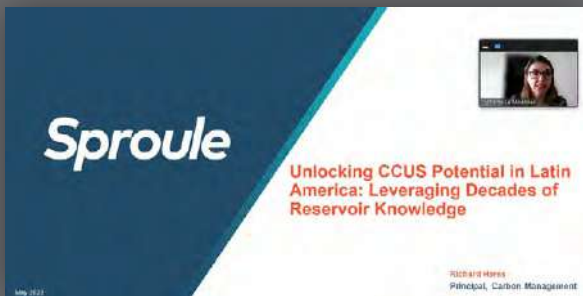
Hares discussed strategies for reducing project risk and defining profitable CCUS business models for the emerging and uncertain CCUS sector in Latin America, applying lessons learned from North America.

The second webinar was held on June 1st and focused on opportunities for power generation through geothermal energy.

The lecture was given by Floris Veeger, Managing Director of Geothermal at Sproule, who shared his experience in the implementation and management of geothermal operations.

Geothermal energy production is a key potential growth opportunity in Latin America and the Caribbean, several sites are already in operation and more than a dozen projects have already been announced.

The two virtual meetings were moderated by Tiphaine Le Moënner, Senior Project Manager at Arpel.



LINK TO THE FULL RECORDING OF THE
WEBINAR ON CCUS IN LATIN AMERICA

SEE WEBINAR

LINK TO WEBINAR ON GEOTHERMAL ENERGY
IN LATIN AMERICA

SEE WEBINAR

VIRTUAL WORKSHOP ON “COP27 AND ITS IMPACT ON THE SECTOR”, CONDUCTED BY CHEVRON

ON FEBRUARY 1ST, A SESSION WAS HELD EXCLUSIVELY FOR MEMBERS ON “COP27 AND ITS IMPACT ON THE SECTOR”. IT WAS A LECTURE BY ARTHUR LEE, FROM CHEVRON, WHO MADE A DETAILED ANALYSIS OF THE SHARM EL-SHEIKH IMPLEMENTATION PLAN, THE MAIN OUTCOME OF COP27.

In the event —attended by 30 professionals belonging to 10 companies—, Lee shared his observations about COP27, as well as the decisions adopted by over 183 nations and the historical context after his twenty years serving as observer in the COPs.



ARPEL-IAPG WORKSHOP ON “VOLUNTARY CARBON MARKETS”

ARPEL ENERGY TRANSITIONS COMMITTEE, WITH THE SUPPORT OF THE ARGENTINE OIL & GAS INSTITUTE (IAPG), HELD A VIRTUAL WORKSHOP ON “VOLUNTARY CARBON MARKETS”, ATTENDED BY OVER 200 PROFESSIONALS FROM 50 COMPANIES OF THE ENERGY SECTOR.

The activity included presentations by Camilo Trujillo, from the International Emissions Trading Association (IETA); Paola Visca, from the National Directorate of Climate Change in Uruguay, and Manuel García, Coordinator of the Project “Support to the NDC implementation process in Peru”, from the Peruvian Ministry of Environment.

The moderator was Irene Alfaro, Arpel Managing Director and Coordinator of the Energy Transitions Committee.

Carbon markets are a strategic tool to drive the global decarbonization process and meet the objective of the Paris Agreement.

Latin America emits 22% of global carbon credits. In the region, Colombia is the country with the highest percentage of carbon credits emitted, followed by Brazil, Peru, Uruguay, Chile and Mexico, in that order.



ARPEL WORKSHOP ON "CLIMATE AND TRANSITION RISKS"

ON OCTOBER 19TH, THE VIRTUAL WORKSHOP ON "CLIMATE AND TRANSITION RISKS" WAS HELD.

THE MEETING -EXCLUSIVE FOR MEMBERS- ANALYZED THE GENERAL CONCEPTS OF CLIMATE RISKS, BOTH PHYSICAL AND TRANSITIONAL, THEIR RELATIONSHIP WITH FINANCIAL DISCLOSURE AND SOME NOTIONS ABOUT METHODOLOGIES OR TOOLS.

Sandra Carrillo Hoyos, member of ERM, and Ariel Dublo, an expert with a vast track record in topics related to climate change, were the special guest speakers.

The workshop was attended by over 60 professionals representing 10 member companies.

"CARBON MARKETS – EXPERIENCES OF THE SECTOR"

CHEVRON, ECOPETROL, VISTA O&G AND PETROPERÚ

On November 1st, there was a new exchange instance exclusively intended for members, where the sector's companies shared experiences and lessons learned. The event was hosted by Arthur Lee, Chevron Fellow and Principal Advisor; César Buitrago, leader of Climate Change at Ecopetrol, and Gabriela Prete, QHSE, Sustainability & Procurement Manager at Vista O&G.

The event was moderated by Juan Gallarday, Corporate Manager of Sustainable Development of Petroperú, and was attended by over 70 professionals.



HOW ARE LEADING COMPANIES IN THE SECTOR PROGRESSING TOWARDS LOW-CARBON ECONOMIES? ARPEL-WORLD BENCHMARKING ALLIANCE WEBINAR

OVER 100 PROFESSIONALS FROM ANCAP, CHEVRON, ECOPETROL, ENAP, EP PETROECUADOR, GEOPARK, HONEYWELL, NGC, OCP ECUADOR, PAN AMERICAN ENERGY, PDVSA, PEMEX, PETROBRAS, PETROPERÚ, RAÍZEN, RECOPE, SLB, TECPETROL, TEMA LITOCLEAN, TGN, YPF, AND YPFB PARTICIPATED IN THE WEBINAR ORGANIZED BY ARPEL IN EARLY NOVEMBER ON “ASSESSING OIL AND GAS INDUSTRY DECARBONIZATION PLANS. HOW ARE THE MOST INFLUENTIAL O&G COMPANIES ADVANCING?”

Arpel's Managing Director, Irene Alfaro, acted as the moderator for speakers Laura Hurtado Verazaín and Vicky Sins, who presented the results of the “Energy and Climate Benchmarking of the Oil and Gas Sector 2023” report prepared by the World Benchmarking Alliance (WBA), as well as the scope of this study evaluating low-carbon transition plans of the 100 most influential companies in the sector.

The webinar explored the progress of oil and gas companies in Latin America and the Caribbean towards low-carbon economies. Mechanisms to promote, implement, and communicate more robust, feasible, and fair transition plans were analyzed based on this analytical framework.

The focus of the presentation was the ACT (Assessing low-Carbon Transition) Initiative, a tool to measure the credibility of transition plans developed by companies and their potential to achieve scientifically based objectives.

ACT has an operational, holistic, and future-oriented approach to corporate climate responsibility and was developed through multilateral technical working groups and public consultations.

The presentation and discussion focused on energy and climate benchmarking for the oil and gas sector.

The methodology is free and publicly accessible, and explains the expectations for each indicator, as well as each element and its scope.

Webinar

Assessing Oil and Gas industry decarbonization plans

How are the most influential O&G companies advancing?

Friday, November 10, 2023
11 AM to 12 PM (Uruguay time, GMT -3)
Spanish / English (Simultaneous translation available)

Speakers:



Laura Hurtado Verazaín
Decarbonization & Energy Research Analyst
World Benchmarking Alliance



Vicky Sins
Decarbonization & Energy Transformation Lead
World Benchmarking Alliance

Only for ARPEL members

Free of charge
Pre-registration is required
Limited spaces available



LINK TO THE FULL WEBINAR
RECORDING

[SEE WEBINAR](#)

WEBINAR ON THE IMPORTANCE OF MATURITY MODELS

ON MARCH 30TH, ARPEL'S CYBERSECURITY COMMITTEE HELD THE FIRST EXCHANGE PANEL OF THE YEAR, WHICH ADDRESSED THE IMPORTANCE OF MATURITY MODELS. THE COORDINATION AND MODERATION WERE IN CHARGE OF PABLO AMOEDO, PROJECT MANAGER OF ARPEL.

Arpel ASOCIACIÓN DE EMPRESAS ANDINO-ECUATORIANAS DE PETROLIO Y GAS ANDINO-ECUATORIANAS DE PETROLIO Y GAS

Exchange and Reflection Panel on Industrial Cybersecurity
The importance of maturity models

Speakers:

Javier Castillo Industrial Cybersecurity and IIC Manager at YPF S.A. President of the Industrial Cybersecurity Committee at ARPEL	José Valiente Director at Centro de Ciberseguridad de España (CCI)
Maximillian Kon Managing Director at WisePlant	Gerardo Gonzalez Independent consultant in Industrial Cybersecurity

Thursday March 30, 2023
12:00 p.m. to 1:30 p.m. (GMT-3)
Duration: 90 minutes
 Spanish / English (simultaneous translation available)

Exclusive for ARPEL members

Registration Link

More than 70 professionals from Ancap, Andes, Ecopetrol, ENAP, EP Petroecuador, Grupo Capsa, Hunt Oil, OCP Ecuador, Oldelval, Pemex, Petroperú, Raizen, Recope, TGN and YPF participated in the meeting.

Javier Castillo from YPF; José Valiente from Spain's Industrial Cybersecurity Center; Maximillian Kon from WisePlant; and Gerardo González, an independent industrial cybersecurity consultant, took part in the expert panel.

The most important concepts shared were that, even when there are different cybersecurity maturity models, all of them are useful, and what really matters is to understand them and make good use of them.

The experts emphasized that cybersecurity maturity measurement is often confused with cybersecurity risk analysis, and it is mistakenly believed that a high level of maturity means low cybersecurity risk.

Cybersecurity maturity measurement is a "snapshot" at a given point in time and for a given scope that shows what capabilities an organization has to counter a cyberattack.



LINK TO THE FULL RECORDING OF THE WEBINAR

SEE WEBINAR



WEBINAR ON CYBERSECURITY RISK IDENTIFICATION METHODS BY GRUPO TEMA

ARPEL'S CYBERSECURITY COMMITTEE CONDUCTED A NEW SESSION OF THE CYCLE "BEST PRACTICES EXCHANGE TALKS ON INDUSTRIAL CYBERSECURITY."

ON THIS OCCASION, GRUPO TEMA, A MEMBER OF ARPEL, WAS IN CHARGE OF PRESENTING THE TOPIC "CYBERSECURITY RISK IDENTIFICATION METHODS."

The presentation was led by Stefano Palumbo, Project Director of Tema, and moderated by Pablo Amoedo, coordinator of the Arpel Cybersecurity Committee.

The webinar was attended by 80 industry professionals representing Amexhi, Ancap, Andes, Capex, CCI, Ecopetrol, Enap, EP Petroecuador, Hunt Oil, IMP, OCP, Pampa Energía, Petroperú, Pluspetrol, Raízen, Recope, Refinor, Rockwell, Tenaris, TGN and YPF.

Industrial cybersecurity is a critical topic today, and risk analysis is a fundamental part of any security strategy.

Industrial cybersecurity risk analysis methodologies have developed rapidly in recent years, but the increasing complexity of cyberspace has meant that risk analysts have to continually update their methodologies.

This activity organized by Arpel reviewed different methodologies to address cyber risk analysis in industrial complexes and the interrelation between the IT and OT worlds.



LINK TO THE FULL
WEBINAR RECORDING

SEE WEBINAR

CYBERSECURITY IN THE INDUSTRIAL CLOUD: PROTECTING THE CONNECTED FUTURE

ON SEPTEMBER 12TH, A NEW EDITION OF THE SERIES OF TALKS ON BEST PRACTICES IN INDUSTRIAL CYBERSECURITY TOOK PLACE. ON THIS OCCASION, THE PRESENTATION WAS GIVEN BY JOSÉ VALIENTE FROM THE INDUSTRIAL CYBERSECURITY CENTER OF SPAIN (CCI).

THE PURPOSE OF THE MEETING WAS TO REVIEW THE DIFFERENT RISK ANALYSIS METHODOLOGIES APPLIED TO INDUSTRIAL CYBERSECURITY.

In an increasingly interconnected world, industrial technology has been integrated with cloud technology, giving rise to the challenging scenario of the Industrial Cloud. This transformation offers unprecedented efficiency, scalability and agility, but also brings cybersecurity challenges that must be proactively addressed.

This webinar explored the complexities of cybersecurity in the Industrial Cloud environment and how to safeguard the integrity and continuity of operations.



ARPEL is a company of the ARPEL Group, which is a 100% owned subsidiary of the ARPEL Group. ARPEL is a company of the ARPEL Group, which is a 100% owned subsidiary of the ARPEL Group.

Industrial Cybersecurity
Best Practices Exchange talks

Cybersecurity in the Industrial Cloud: Protecting the Connected Future



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

Tuesday September 12, 2023
12:00 p.m. to 1:30 p.m. (GMT-3)
Virtual Event
Spanish / English (simultaneous translation available)



LINK TO
THE RECORDING

SEE WEBINAR

ECOPETROL HOSTED THE FIRST MEETING OF EXPERTS IN OPERATIONS PLANNING

ARPEL AND ECOPETROL JOINTLY ORGANIZED THE FIRST LATIN AMERICAN MEETING OF EXPERTS IN OPERATIONS PLANNING (RANE), WHICH TOOK PLACE ON APRIL 27TH AND 28TH IN CARTAGENA, COLOMBIA, AND WAS ATTENDED BY PROFESSIONALS FROM WOOD MACKENZIE, ASPENTECH, BOSTON CONSULTING GROUP (BCG), YPF, RAIZEN, PAN AMERICAN ENERGY, ANCAP, OLEODUCTO DE LOS LLANOS (ODL), CENIT, OCENSA AND ECOPETROL.

The RANE was mainly aimed at creating links for the exchange of best practices with the main players in the operations planning process in oil and gas companies in the region, as well as at proposing strategies to leverage the energy transition in operations.

The opening was in charge of Luis Guillermo Aristizábal, General Manager of Planning and Operational Logistics of Ecopetrol, and Ricardo Buyatti, Manager of the Refining Committee of Arpel.

The agenda of both days included different discussion panels, where the guests shared different points of view on the following topics: International market; Optimization with uncertainty in decision making; Operations planning in Ecopetrol; Centralization of planning functions (Value Chain Optimization); Integrated Margin Analysis Methodology, and Steps towards transition.

The RANE also included six round tables to exchange views and practices on Human Talent; How to involve the energy transition in the planning of the chain; and Technological tools and innovation, among other topics.

As a final treat, the guests had the opportunity to visit the Ecopetrol Innovation Center and the Cartagena Refinery.

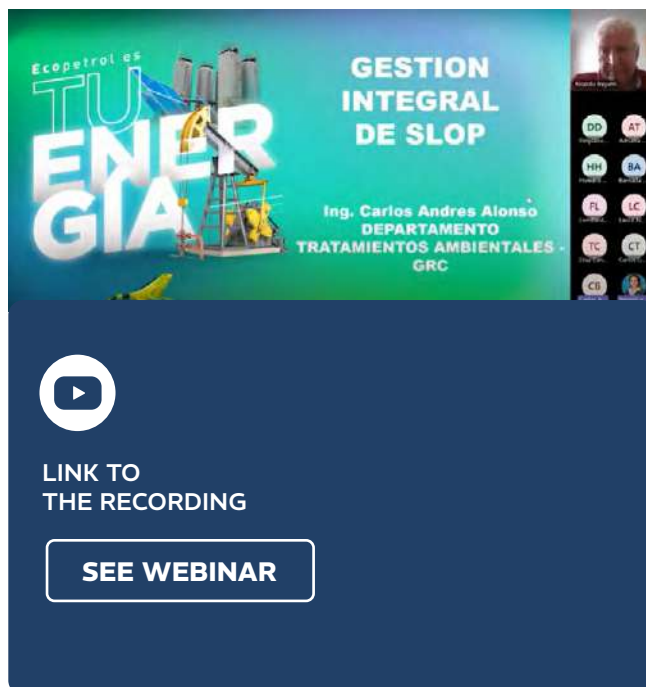


SLOP MANAGEMENT IN REFINERIES BY ECOPETROL

ON NOVEMBER 29TH, A VIRTUAL WORKSHOP WAS HELD ON SLOP MANAGEMENT IN REFINERIES.

During the virtual meeting, which was moderated by Ricardo Buyatti, Arpel's Refining Manager, professionals from Ecopetrol's Cartagena refinery explained the difficulties that slop generation represents for them and their possible solutions.

The topics addressed at the technical meeting included the following: Slop and water management; main sources of slop generation; initiatives implemented to reduce slop production; measurement of water and slop content, and technology for water separation in slop tanks.



WORKSHOP ON BEST PRACTICES IN ALKYLATION UNITS ORGANIZED BY ARPEL AND RAÍZEN

MORE THAN 70 PROFESSIONALS FROM THE REGION, REPRESENTING ECOPETROL, ENVTECH, HONEYWELL, RAÍZEN, AND YPF, PARTICIPATED IN THE WORKSHOP ORGANIZED BY ARPEL ON "EXCHANGE OF BEST PRACTICES IN ALKYLATION UNITS."

The technical activity, co-organized by Raízen, took place from September 25th to 27th in Buenos Aires, Argentina, and was conducted in both in-person and virtual formats.

Coordinated by Ricardo Buyatti, Arpel's Downstream Manager, the workshop aimed to exchange best practices and lessons learned on people and process safety; routine operation, maintenance, and inspection; unit shutdowns and startups; lessons learned from actions and incidents; application of new technologies, as well as material procurement and waste and scrap management, among other topics. The workshop concluded with a visit to Raízen's refinery.

In the context of the energy transition, the refining industry in Latin America and the Caribbean faces the challenge of operating its units efficiently and sustainably to ensure the competitiveness and energy security of its countries.

The exchange of best practices and knowledge among professionals from different companies is a factor that contributes to this goal and is the mission entrusted to Arpel by its member companies.



ARPEL-ECOPETROL WORKSHOP ON "EXCHANGE OF BEST PRACTICES IN H2, HYDROCRACKER AND DIESEL HYDROPROCESSES PRODUCTION UNITS"

ARPEL AND ECOPETROL CONDUCTED A WORKSHOP ON "EXCHANGE OF BEST PRACTICES IN H2, HYDROCRACKER AND DIESEL HYDROPROCESSES PRODUCTION UNITS" FROM OCTOBER 18TH TO 20TH IN BARRANCABERMEJA, COLOMBIA. THE WORKSHOP CULMINATED WITH A VISIT TO THE IMPORTANT REFINERY LOCATED IN THE SAME CITY.

120 people attended the technical event in person, and more than 150 by virtual means. The workshop aimed primarily at exchanging best practices and lessons learned in the operation, maintenance, inspection, safety and environmental impact of hydrogen, hydrocracker and hydroprocesses production units. It also sought to deepen practices for minimizing emissions, water footprint and impact on the community and workers.



The hydroprocess units play a crucial role in the refineries since they produce both gasoline and diesel free of sulfur and nitrogen, compounds that affect the environment in the combustion process of vehicles.

During the event, 24 modules were developed, including presentations and roundtable discussions on: Lessons learned from industrial incidents; New technologies in catalysts; Operations optimization; Best practices in plant shutdowns; Best practices in energy optimization, emissions, etc.; Inspection technologies for static and rotating equipment, and Fuels of the future.



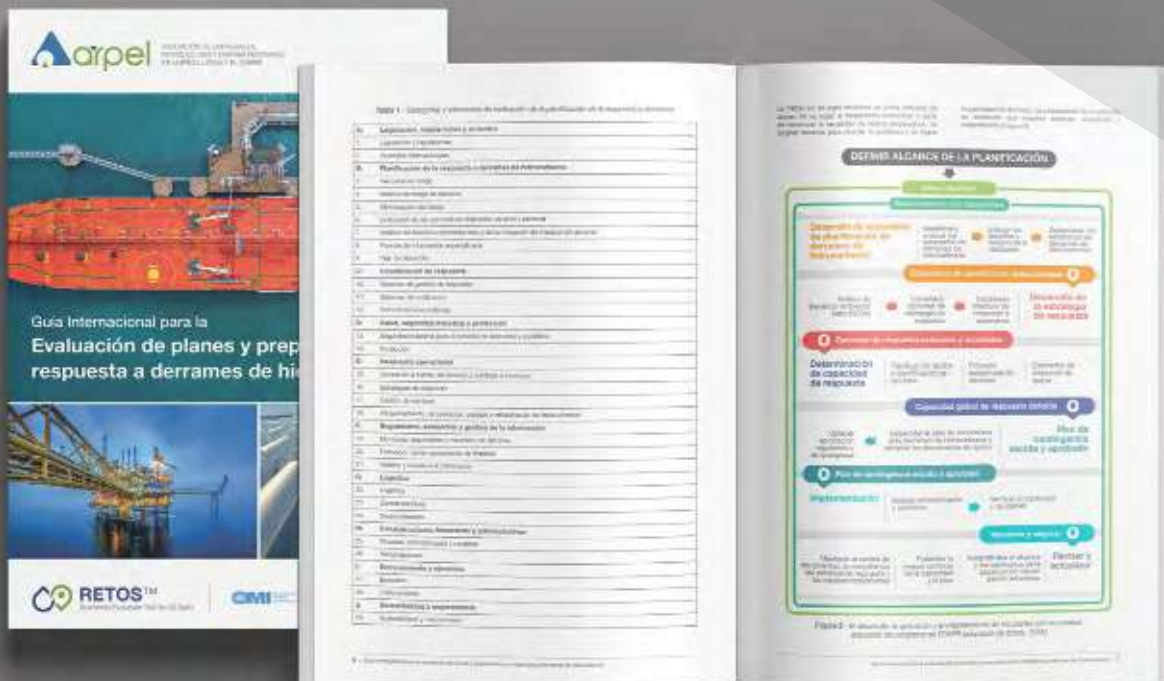
PHOTOS

1ST DAY

2ND DAY

3RD DAY





INTERNATIONAL GUIDE FOR THE ASSESSMENT OF OIL SPILL RESPONSE PLANNING AND PREPAREDNESS

DURING 2021/2023, ARPEL, THE INTERNATIONAL MARITIME ORGANIZATION (IMO) AND IPIECA -WITH THE SUPPORT OF INTERNATIONALLY RECOGNIZED INSTITUTIONS AND INTERNATIONAL OIL COMPANIES- JOINED FORCES TO DEVELOP THE INTERNATIONAL GUIDE FOR THE ASSESSMENT OF OIL SPILL RESPONSE PLANNING AND PREPAREDNESS

This International Guide provides a detailed compilation of over 500 aspects that contribute to a thorough and sound oil spill response program. This Arpel/IMO/Ipieca document is an update of the 2008 IOSG Guideline and represents the knowledge base of ARPEL RETOS™ Tool. With its 500+ references to best practices, the International Guide makes the perfect companion to bridge the gaps identified in the evaluation made with aligned with RETOS™.

This joint Arpel/IMO/Ipieca undertaking included updates to the ARPEL Readiness Evaluation Tool for Oil Spills, RETOS™ and its transition to a web-based application as

well as the new version of the RETOS™ Manual. The 3.0. RETOS™ version and its Manual are intended to be used in conjunction with the International Guide.

Since its launching in 2012, RETOS™ has been used by governments and industry in over 100 countries of the five continents to assess their level of oil spill response planning and preparedness. The endorsement -by IMO and Ipieca- of RETOS™ and the 2023 International Guide will help disseminate best practices on Oil Spill Response Planning and Preparedness by government and industry worldwide.

During 2023, Arpel communicated the deliverables of this two-years project to some of its stakeholders:

- SpillCon en Brisbane, Australia – September/2023
- XIX Jornada de Sociedad Latinoamericana de Operadores de Terminales Marítimo Petroleros y Monoboyas – SLOM in Rio de Janeiro, Brazil – September/2023
- 5th Latin American and 7th National Congress on Safety, Health and Environment in the Oil and Gas Industry, event associated to AOG in Buenos Aires, Argentina – September/2023
- “The Future of Offshore Brazil” session de la Clean Gulf en San Antonio, Texas, USA – November/2023

Considering that in 2011 Arpel developed RETOST™ with the same approach and spirit of its mission, there were two events developed in collaboration with organizations aiming at regional cooperation.

In June, COCATRAM (Arpel partner) invited Arpel to present the new tool at the XXIX Ordinary Meeting of the Operational Network of Regional Cooperation of

Maritime Authorities in Central America and Dominican Republic - ROCRAM-CA at San Salvador, El Salvador. Since 2013, COCATRAM coordinates the use of RETOST™ by Central American Maritime Authorities to enhance their oil spill response planning and preparedness, assisting in their continuous improvement through benchmarking.

In September, the Secretariat of UNEP's South Pacific Regional Program (SPREP) invited Arpel to build the capacity on the use of the RETOST™ tool at the Workshop “Developing oil spill preparedness and response planning in Pacific Small Island and Other Developing States”. The event was jointly organized by SPREP, IMO and Arpel and associated to the international conference SpillCon in Brisbane, Australia. Participants included government delegates from fifteen South Pacific countries, as well as South Pacific Officers from the US Coast Guard, New Zealand, Australia, Canada, Cambodia, Indonesia and international entities such as IMO, Ipieca, OSRL and ITOPF.

For 2024, Arpel has identified several dissemination and capacity building opportunities among government and industry stakeholders from the Region and internationally.



FIRST DRILL EXPERIENCE PERFORMED BY BRAZILIAN NAVY WITH ARPEL'S PARTICIPATION AS AN EXTERNAL OBSERVER

ARPEL WAS INVITED TO PARTICIPATE AS AN EXTERNAL OBSERVER IN AN OIL-SPILL DRILL PERFORMED BY THE BRAZILIAN NAVY, WHICH INVOLVED DIFFERENT CIVIL INSTITUTIONS SUCH AS THE NATIONAL PETROLEUM AGENCY (NPA), THE BRAZILIAN INSTITUTE OF ENVIRONMENT AND RENEWABLE NATURAL RESOURCES (IBAMA) AND THE INTERNATIONAL TANKER OWNERS POLLUTION FEDERATION LIMITED (ITOPF), AS WELL AS SPECIALISTS FROM THE OIL AND GAS INDUSTRY AND PLAYERS IN THE BRAZILIAN MARITIME AND PORT SECTOR. THE ACTIVITIES TOOK PLACE IN RIO DE JANEIRO ON AUGUST 7-9.

The main purposes of the drill were to test the country's structure to respond to this type of events and to practice the coordination and performance skills of the different entities involved at the national level, to guarantee efficient actions that will minimize any possible environmental damage and protect public health.

The accident simulation was carried out at the Campos Basin, caused by an oil tanker in transit through the area, requiring the activation of the National Contingency

Plan for Oil Pollution Incidents in Waters under National Jurisdiction, as it was considered a spill of national significance.

Arpel's Senior Managing Director, Miguel Moyano, and the Oil Spill Management Consultant, Marcus Lisboa, shared the technical experience with over 100 participants, who recognized the importance of the drill considering the growing development of Brazil's offshore exploration and cargo transportation activities.





New technical documents

ARPEL GUIDELINES FOR THE EXECUTION OF CIVIL AND GEOTECHNICAL WORKS IN THE INTEGRITY MANAGEMENT OF HYDROCARBON TRANSPORT PIPELINES IN THE FACE OF GEOTHREATS

THIS GUIDELINE IS PART OF THE FOLLOWING TRILOGY OF ARPEL PUBLICATIONS ON PIPELINE GEOTECHNICS: I. GUIDE 1 ON MONITORING GEOHAZARDS FOR THE INTEGRITY OF PIPELINES, II. GUIDE 2 ON GEOTECHNICAL MITIGATION WORKS IN PIPELINES, III. GUIDE 3 OF GEOTECHNICAL RISK IN PIPELINES.

The content of this Guideline, number 2, referring to geotechnical mitigation works in pipelines, places special emphasis on issues related to the types of geotechnical works that are necessary in the different stages of the life cycle of an asset -referring to a hydrocarbon transportation system. For this reason, the chapters of: Pipeline Design, Pipeline Construction, Operation and Maintenance, Technical Abandonment of the pipeline, Applied Geomatics and some Case Studies, are considered.



Arpel Guidelines for the execution of civil and geotechnical works in the integrity management of hydrocarbon transport pipelines in the face of geothreats

Languages:
Spanish & English

Download link:
<https://arpel.org/library/publication/538/>



**DOWNLOAD
NOW**

INDUSTRIAL CYBERSECURITY MATURITY BENCHMARKING

THIS MANUAL PROVIDES A GENERAL DESCRIPTION OF THE METHODOLOGY DEVELOPED BY ARPEL TO CARRY OUT THE COMPARATIVE ANALYSIS OF THE CYBERSECURITY MATURITY LEVEL OF THE OIL AND GAS INDUSTRY IN THE REGION.

It also provides the results obtained in the assessment carried out in 2021 and 2022 with the participating member companies, providing the reader with the necessary information to identify the gaps with the capabilities developed in the region and thus be able to locate and focus on those that need concrete actions to its evolution.

Currently, the growing interconnection of industrial systems and the adoption of digital technologies, mostly used in information technology environments, have provided enormous benefits in terms of efficiency and productivity. In return, they have increased their exposure

to cyber threats that can compromise the security of the processes they control, having a direct impact on the four risk receptors: People, Environment, Finance and Corporate Image.



Industrial Cybersecurity Maturity Benchmarking

Languages:
Spanish & English

For Arpel members only

Link to the document:
<https://arpel.org/library/publication/546/>



**DOWNLOAD
DOCUMENT**



Training

CYBERSECURITY MANAGEMENT LEVELING COURSE

ARPEL'S CYBERSECURITY COMMITTEE, TOGETHER WITH WISEPLANT, OFFERED A CYBERSECURITY MANAGEMENT LEVELING COURSE FOR PROJECT MANAGERS ON APRIL 18TH AND 19TH.

Professionals from 18 Arpel member companies participated in the two training days: Ancap, Cupet, Ecopetrol, Enap, EP Petroecuador, Geopark, OCP Ecuador, Oldelval, PAE, Petroperú, Raizen, Recope, SLB, Staatsolie, Tecpetrol, TGN, YPF and YPFB.

Evento virtual | Virtual Event

Gestión de Ciberseguridad Industrial para proyectos en el sector de Energía, Petróleo y Gas

Industrial Cybersecurity Management for projects in the Energy, Oil and Gas sector

18 y 19 de abril | April 18-19, 2023
10:00 a 14:00 GMT-3 (Argentina, Chile, Uruguay)
10:00 a.m. to 2:00 p.m. (GMT-3)

Exclusivo para socios ARPEL
Only for Arpel members companies

Programa Ejecutivo de Gestión de la Seguridad Industrial para la industria del Petróleo y Gas

Puntos focales clave para una gestión exitosa

CICLO 2023

MODALIDAD VIRTUAL | Duración: 5 meses

[+ Información e inscripción](#)

Próximo comienzo: Junio 2023



ARPEL AND CETAP: INDUSTRIAL SAFETY MANAGEMENT EXECUTIVE PROGRAM

IN 2023, ARPEL AND CETAP LAUNCHED THE SECOND EDITION OF THE INDUSTRIAL SAFETY MANAGEMENT EXECUTIVE PROGRAM FOR THE OIL & GAS INDUSTRY.

The training sessions extended from June to November (5 months) and were aimed specifically at current and future HSE managers in the sector.

During the program, key knowledge and skills, tools and international best practices are provided, as well as networking among professionals in the region.

CeTAP is a consulting company created with the objective of assisting service and production companies to achieve the highest levels of performance in Industrial Health and Safety, Industrial Management and Sustainable Development. (<https://cetapsa.com/>)



**CURSO
VIRTUAL**

Modalidad:
On-line Asincrónico

Gestión de la Energía y Norma ISO 50001 para la industria de petróleo y gas

28 de agosto al 13 de octubre de 2023



ARPEL
Asociación de Refinerías y Productoras de Energía

COURSE ON ENERGY MANAGEMENT AND ISO 50001 STANDARD

A NEW EDITION OF THE COURSE ON ENERGY MANAGEMENT AND ISO 50001 STANDARD COURSE FOR THE OIL AND GAS INDUSTRY WAS HELD FROM AUGUST 28TH TO OCTOBER 13TH

The virtual training lasts seven weeks (65 hours) and its main objectives are:

- To introduce the ISO 50001 standard including the requirements to establish, implement, maintain and improve an Energy Management System;
- To define guidelines for the implementation of an Energy Management System in process industries, focusing on the Oil and Gas industry;
- To provide tools to manage the continuous improvement of the organization's energy performance.

Andrea Afranchi, Chemical Engineer, specialized in Energy Efficiency, Energy Process & Utilities Optimization, Energy Audits, and Energy Management, was the instructor in charge of this course.

AGREEMENT WITH WISEPLANT | INDUSTRIAL CYBERSECURITY TRAINING PROGRAM

IN APRIL 2023 ARPEL AND WISEPLANT ENTERED INTO AN AGREEMENT TO DEVELOP AN INDUSTRIAL CYBERSECURITY TRAINING PROGRAM SPECIFICALLY ORIENTED TO THE OIL AND GAS INDUSTRY.

The program is delivered virtually and consists of 5 modules with a total duration of 72 hours. Each module can be taken individually and upon passing, a certificate is awarded and completing the 5 modules of the program leads to the "Cybersecurity Expert" certificate.

The agreement reached with WisePlant considered the possibility that each Arpel member company could have a free quota to complete the entire program.

In 2023, the first two modules were attended by 54 participants from 17 member companies.

The first module was held on October 24th and 25th and focused on "Industrial Cybersecurity Management for projects in the energy, oil and gas sector".

The second module took place on November 27th – 30th and dealt with "Cyber Risk Assessment in New and Existing Industrial Systems in Energy, Oil and Gas".

In 2024, the complete program will be delivered twice, starting in May, and the possibility of having a vacancy at no cost for member companies will be renewed. In addition, the option of taking it in English and asynchronously will be offered.

Programa de Ciberseguridad Industrial para empresas de Energía, Petróleo y Gas

Curso virtual

EN60

EN60: Evaluación de riesgos cibernéticos en sistemas industriales nuevos y existentes en energía, petróleo y gas

27 al 30 de noviembre de 2023

10:00 a 14:00 GMT-3 (Argentina, Uruguay)

Link de registro

ARPEL LEADERSHIP PROGRAM

PROFESSIONALS FROM ANCAP, CUPET, ECOPETROL, GEOPARK, OCP ECUADOR, TECPETROL AND YPF STARTED THEIR TRAINING AT THE NEW EDITION OF ARPEL LEADERSHIP PROGRAM.

Colombia hosted the first module of Arpel Leadership Program

Module 1 – “Global Factors and their Effect on the Latin American Upstream sector” – took place from May 30th to June 1st, 2023 in Bucaramanga. On this occasion, in addition to two days of case studies, simulations and interactive sessions with oil and gas experts, the participants were able to make a technical visit to Ecopetrol’s Colombian Petroleum Institute (ICP).

The main goal of Arpel Leadership Program is to give professionals from industries in the sector in Latin America –who report to the President or Vice President– a broad vision of the industry’s future as well as problem-solving skills.

Bob Fryklund -Vice President and Upstream Energy Chief Strategist- and Rodrigo Vaz -Upstream Research Director at S&P Global- were the instructors at this first module, which covered topics such as: How will the future of the energy business look like? What are global and regional companies doing to meet NDCs and low carbon goals? How should Upstream companies’ portfolios be analyzed? and What drives stock market profitability?



ARPEL

Leadership Program

3rd. edition

Empowering the vision of the regional Leaders from the Oil & Gas Industry

Module 2

The Role of Refining in the Scenario of the Energy Transition and Energy Security

Houston, USA

Technical visit to Deer Park Refinery

September 13 - 15, 2023



Felipe Perez
Americas Director and Strategist
Midstream & Downstream Energy



Adrian Calcaqueo
Executive Director and Latin America & the Caribbean Lead,
Midstream Oil & NGL



ARPEL is a joint venture of S&P Global and the Latin American Refiners Association (ALARA)



S&P Global
Commodity Insights



DOWNLOAD BROCHURE



Second module in Houston

A group of 14 professionals representing Ancap, Ecopetrol, GeoPark, OCP Ecuador, PMI, Recope, Staatsolie, Tecpetrol and YPF traveled to Houston, USA, to participate in the second module of the Arpel Leadership Program, which took place from September 13th to 15th.

During the first two days, the participants immersed themselves in the role of refining in the scenario of the energy transition.

Regulatory trends; the role of petrochemicals in the energy transition; review of global energy scenarios; climate change and energy transition; the future of the downstream sector in Latin America, and technological developments were some of the topics addressed during this meeting.

This module was led by instructors Felipe Pérez and Debnil Chowdhury from S&P Global. This edition also included the participation of Karen Jones, Marisa Denosowicz, Oscar Moran, Manuel Flores, Rina Quijada and Kurt Barrow as special guests, who shared their perspectives and experiences.

On the third day of the Leadership Program, participants made a technical visit to the Deer Park refinery.



3

SUSTAINABLE MANAGEMENT

Development, promotion and
implementation of Best practices

GOOD ESG PRACTICES AT OIL & GAS COMPANIES WEBINAR COLUMBIA'S UNIVERSITY

A VIRTUAL WORKSHOP ON GOOD ESG PRACTICES AT OIL & GAS COMPANIES WAS ORGANIZED ON JULY 27TH IN ORDER TO CREATE A SPACE TO DISCUSS AND ANALYZE ONE OF ARPEL'S MAIN STRATEGIC VECTORS: SUSTAINABLE MANAGEMENT.



The banner features the ARPEL logo at the top left, which includes the text 'ASSOCIATION OF OIL, GAS AND RENEWABLE ENERGY COMPANIES OF LATIN AMERICA AND THE CARIBBEAN'. Below the logo, the text reads 'VIRTUAL WORKSHOP' and 'Assessing ESG risks in oil and gas companies'. The date and time are listed as 'Thursday, July 27' and '11 a.m. GMT-3', with a note that 'Spanish / English (Simultaneous translation available)' and a 'Duration: 60 minutes'. A circular profile picture of Luisa Palacios is shown next to her name and title: 'Luisa Palacios, Senior Research Scholar, Center on Global Energy Policy (CGEP), Columbia University'. A red button says 'Register now'. Below it, a small icon and text state 'FREE OF CHARGE | PRE-REGISTRATION IS REQUIRED LIMITED SPACES AVAILABLE'. On the right, a blue circle contains the text 'Only for ARPEL members'.

Luisa Palacios, Senior Researcher at the Center on Global Energy Policy (CGEP) of Columbia's University, was the speaker at this activity, which was only aimed at Arpel's members.

The recently published study "Assessing ESG Risks in National Oil Companies: Transcending ESG Ratings with a Better Understanding of Governance" was presented at the workshop.

This report helps us to understand the impacts of Environmental, Social and Governance (ESG) performance of national oil companies (NOCs) in emerging markets.

The authors presented their research on ESG indicators from the most important national oil & gas companies in emerging markets, as well as from some of the integrated oil & gas companies in more developed countries.



LINK TO
THE WEBINAR RECORDING

SEE WEBINAR

4

RELATIONSHIP WITH STAKEHOLDERS

Expansion of the institutional network

COOPERATION AGREEMENTS WITH EAGE, AIHE, AAPG, API, CIER, OSRL AND ITBA

In order to promote operational excellence and expand the network of professionals in the sector, at the end of the year Arpel signed a cooperation agreement with EAGE (The European Association of Geoscientists & Engineers), which mainly seeks to support the dissemination of the activities developed by both associations.

The agreement also establishes the participation of EAGE in the exhibition area of the Arpel-Naturgas Week 2024.

In line with the strengthening of the institutional relationship, during 2023, cooperation agreements were renewed with five key associations of the oil and gas industry.

In February, an agreement was signed with the Association of the Hydrocarbons Industry of Ecuador (AIHE), based on the promotion of mutual cooperation and the search for synergies in technical activities and projects relevant to the sector.

The second agreement was made in March with the American Association of Petroleum Geologists (AAPG), through which collaboration was defined for the dissemination of the main events organized by both Arpel and AAPG in 2023 and 2024.

In June, an agreement was signed with the American Petroleum Institute (API), focused on promoting the development and implementation of good industrial practices, as well as sustainability. At the same time, it encourages the participation of members in the activities carried out by both organizations.

The fourth agreement was signed in October with the

Regional Energy Integration Commission (CIER), with the aim of fostering the systematic exchange and search for synergies in technical activities and projects relevant to the industry developed by both Arpel and CIER.

In December, the memorandum of understanding with Oil Spill Response Limited (OSRL) was renewed, with emphasis on promoting training and preparation of the countries in the region for oil spill response.

In July 2023, an agreement was signed with the Instituto Tecnológico de Buenos Aires (ITBA) to promote access to training for Arpel's members through ITBA's educational and diploma programs.

ARPEL PARTICIPATED IN IEA'S HIGH LEVEL EXPERT WORKSHOP

MARCH 2023

ARPEL WAS INVITED TO PARTICIPATE IN THE HIGH LEVEL EXPERT WORKSHOP OF THE INTERNATIONAL ENERGY AGENCY (IEA), HELD ON MARCH 16TH AND 17TH IN SANTIAGO, CHILE

Carlos Garibaldi, Arpel's Executive Secretary, participated on behalf of the Association in a closed workshop, held as part of the preparations for the launch of the first "Latin America Energy Outlook", a special report of the World Energy Outlook, by the end of the year.



The event was organized by the United Nations Economic Commission for Latin American and the Caribbean (ECLAC).

The workshop brought together political leaders, industry representatives and experts to discuss the challenges and opportunities for countries in the region as they implement their energy and climate strategies.

ARPEL PRESENT AT MEETING OF REGULATORY AGENCIES AND MINISTRIES IN MEXICO AND IN AAPG "ENERGY OPPORTUNITIES" CONFERENCE

MARCH 2023



ON MARCH 21ST, THE NATIONAL HYDROCARBONS COMMISSION OF MEXICO (CNH) HOSTED ON THE MEETING OF REGULATORY AGENCIES AND MINISTRIES ON ENERGY MATTERS, WITHIN THE FRAMEWORK OF THE "ENERGY OPPORTUNITIES" CONFERENCE SERIES OF THE AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS (AAPG).

Arpel was specially invited to participate in this technical meeting, which was intended only for Regulatory Agencies, Ministries and Associations, in order to exchange ideas and experiences on current trends in the hydrocarbon sector, best practices and lessons learned in each country.

Arpel was represented by Carlos Garibaldi, Executive Secretary, and Miguel Moyano, Senior Managing Director.

The meeting, in which Arpel participated in order to provide the perspective of the regional industry's experience, included four roundtable discussions on the following topics: Safeguarding the historical archive of cores and physical samples of wells; Exploration and development plans; Support for the development of communities, and Regulatory efficiency in energy matters.

Arpel also participated in the roundtable with representatives from the AAPG, the National Association of Hydrocarbon Producers (ANPHI), the Mexican Association of Hydrocarbon Companies (AMEXHI) and the CNH.

In the same week, Arpel was part of the AAPG's "Energy Opportunities" Conference. In this new edition, Garibaldi was in charge of moderating the session entitled "What's in a Name? Transforming from Oil and Gas to Energy", with a panel that included Vernon Paltoo, President of National Energy of Trinidad and Tobago; Frederico Miranda of Eneva; and Sean Kimiagar of Enverus.



KEYNOTE LECTURE ON RESERVES, PRODUCTION AND INVESTMENT TRENDS AT THE X CUBAN EARTH SCIENCES CONVENTION

APRIL 2023

ARPEL PARTICIPATED IN THE PETROLEUM CONGRESS OF THE X CUBAN EARTH SCIENCES CONVENTION, HELD FROM APRIL 10TH TO 14TH IN HAVANA (CUBA), ORGANIZED BY THE CUBAN GEOLOGICAL SOCIETY.

Within this framework, Arpel's Executive Secretary, Carlos Garibaldi, gave a keynote lecture entitled "Reserves, Production and Investment Trends, and the Challenges and Opportunities of the Energy Transition".

The presentation focused on the regional hydrocarbons scenario, its status, challenges -including those of state-owned companies- and perspectives, taking into account how the sector is being transformed in view of the tension between energy security (and sovereignty) and the energy transition necessary to mitigate climate change.

The Convention holds several congresses, including the Petroleum Congress, with the participation of geoscientists, geological engineers, geophysicists, drillers, production engineers, reservoir engineers, environmental engineers and other professionals.

Within the framework of the institutional visit to that country, Garibaldi held two meetings with executives from CUPET -Arpel's member company- from the areas of Human Capital, Fuel Marketing, Maintenance, Commercial, Technical Management and Purchasing.



ARPEL INVITED BY THE FOUNDATION FOR NATURAL RESOURCES AND ENERGY LAW

APRIL 2023

"INTERNATIONAL MINING AND ENERGY LAW, DEVELOPMENT AND INVESTMENT", ORGANIZED BY THE FOUNDATION FOR NATURAL RESOURCES AND ENERGY LAW (FORMERLY ROCKY MOUNTAIN MINERAL LAW FOUNDATION), A NON-PROFIT EDUCATIONAL ORGANIZATION DEDICATED TO THE ACADEMIC AND PRACTICAL STUDY OF THE LEGAL ASPECTS OF NATURAL RESOURCES AND ENERGY, WAS HELD IN MEXICO CITY FROM APRIL 19TH TO 21ST.

On this occasion, Garibaldi spoke about the transformation and opportunity the energy industry is currently facing in Latin America and the Caribbean.





ARPEL AT PRIVATE ROUNDTABLE AT COLUMBIA UNIVERSITY'S CENTER FOR GLOBAL ENERGY POLICY

APRIL 2023

AT THE END OF APRIL, ARPEL PARTICIPATED IN A PRIVATE ROUNDTABLE ON THE ROLE OF NATURAL GAS IN THE ENERGY TRANSITION IN LATIN AMERICA AND THE CARIBBEAN, WHICH WAS ORGANIZED BY THE CENTER FOR GLOBAL ENERGY POLICY (CGEP) OF COLUMBIA UNIVERSITY (UNITED STATES).

This center, which recently celebrated its 10th anniversary, is one of the most relevant energy and geopolitical think tanks in the world, with the participation of academics and leaders in the energy sector.

Carlos Garibaldi, Executive Secretary of Arpel, was in charge of the presentation to a select panel of experts, in which the White Paper entitled "Natural gas in the transition to low-carbon economies: the case of Latin America and the Caribbean", launched in mid-April by Arpel, IGU and OLADE was presented.

The meeting generated a strategic, high-level and, above all, in-depth discussion on the role of natural gas in the energy transition in Latin America and the Caribbean, from the perspective of those who were responsible for public policy in some of the most important gas markets in the region.



PRESENTATION OF WHITE PAPER BY ARPEL, IGU AND OLADE AT IBP NATURAL GAS SEMINAR

MAY 2023



ARPEL PARTICIPATED IN A NEW EDITION OF THE NATURAL GAS SEMINAR ORGANIZED BY THE BRAZILIAN PETROLEUM AND GAS INSTITUTE (IBP), WHICH BROUGHT TOGETHER MORE THAN 700 PARTICIPANTS AND 55 SPEAKERS ON MAY 10TH AND 11TH, AT THE LARGEST GAS EVENT HELD IN BRAZIL.

On this occasion, Arpel was represented by Pablo Ferragut, Managing Director of the Association, who participated in the panel entitled "The role of natural gas in the energy transition. Pathways towards decarbonization in Brazil and Latin America," which was moderated by Fernanda Delgado, IBP's Corporate Executive Director.

The session also included the participation of Fabricio Assis from the steel company ArcelorMittal, who spoke about the complexity of emissions reduction in this sector and the importance of natural gas in the Brazilian industry; Gabriel Junqueira Kropsch from Abiogás, who referred to the potential of biomethane in Brazil as a pillar for emissions reduction, taking advantage of local resources and value chains, in addition to the existing natural gas infrastructure; and Viviana Coelho from

Petrobras, who shared the company's decarbonization strategies and the role of natural gas with a very high potential in the pre-salt layer.

Arpel presented the White Paper "Natural gas in the transition to low-carbon economies. The case of Latin America and the Caribbean."

This time, Ferragut highlighted the main opportunities and challenges of natural gas in the region, the magnitude of offshore resources in Brazil, as well as in other countries, and their significance in the difficult socioeconomic context of the region. He also referred to the potential for integration in the Southern Cone, Argentina's capacity to send gas to Brazil via Bolivia, and the importance of decarbonizing the natural gas value chain, including new alternatives such as biomethane or CCUS.



ARPEL AT NATURGAS CONGRESS 2023

MAY 2023

THE CITY OF BARRANQUILLA HOSTED THE 25TH EDITION OF THE CONGRESS OF THE COLOMBIAN ASSOCIATION OF NATURAL GAS (NATURGAS), WHICH TOOK PLACE FROM MAY 24TH TO 26TH AND BROUGHT TOGETHER REPRESENTATIVES OF THE ENTIRE NATURAL GAS SECTOR CHAIN.

Arpel was represented by Carlos Garibaldi, Executive Secretary of Arpel, together with Pablo Ferragut, Managing Director and coordinator of Arpel Gas & Energy Committee.

Garibaldi gave a lecture in the panel addressing the topic "Natural Gas: New Perspectives and Strategies in Latin America," which was also formed by Andrea Stegher, Vice President of the International Gas Union (IGU); Juan Fernando Espinal, Representative of the Chamber; Carlos Cortés, Regional Coordinator for Latin America and the Caribbean of IGU, and Luz Stella Murgas, President of Naturgas.

During his presentation, the Executive Secretary of Arpel stated that "natural gas is at the intersection of energy security and energy transitions and can be the ideal transition partner."

Garibaldi highlighted the fact that natural gas generates far fewer GHG emissions than coal or petroleum-based fuels, and is an energy source that is continuously available, relatively inexpensive and secure, and with fully proven associated technologies.

To open the panel, the IGU Vice President presented the White Paper "Natural Gas in the Transition to Low Carbon Economies - The Case of Latin America and the Caribbean."



ARPEL AT AN OFFSHORE WORKSHOP IN SURINAME

JUNE 2023

ARPEL PARTICIPATED IN A WORKSHOP ORGANIZED BY THE ENVIRONMENTAL AGENCY NIMOS (NATIONAL INSTITUTE FOR ENVIRONMENT AND DEVELOPMENT IN SURINAME) AND THE STAATSOLIE HYDROCARBON INSTITUTE (SHI), WITH THE PURPOSE OF LEARNING ABOUT GOOD REGULATORY AND MANAGEMENT PRACTICES IN THE VALUE CHAIN OF THIS INDUSTRY AND SHARING THEM WITH PROFESSIONALS FROM VARIOUS GOVERNMENT AGENCIES OF SURINAME.



Suriname is currently in an interesting process of developing its offshore hydrocarbon resources to support its socio-economic growth.

To develop this workshop, which took place June 14th–16th in Paramaribo, NIMOS and SHI invited Arpel, API (American Petroleum Institute), IOGP (International Association of Oil & Gas Producers) and IADC (International Association of Drilling Contractors) to share the industry's international experience and knowledge on good operational, environmental management and safety practices throughout the offshore value chain. The objective was to combine this international industry knowledge with Suriname's experience in the development of regulations in the sector in the country. The four associations mentioned above, together with Ipieca, compose the Trade Associations Support Group for environmental issues.,

Carlos Garibaldi, Executive Secretary of Arpel, shared the experience gathered by the Association over the years in the region in order to promote the development and implementation of regulations.

Garibaldi also showed a status of the situation and perspectives on energy transitions in Latin America and the Caribbean. Miguel Moyano presented some relevant aspects regarding the regulation of gas flaring and production water.

This activity is an example of Arpel's role as an articulator of cooperative and pragmatic dialogue between companies, governments, regulators and business associations in Latin America and the Caribbean, supporting the transformation of the oil, gas and renewable energy sector in times of energy transitions and new risk dynamics.



ARPEL AT THE THIRD EDITION OF SURINAME ENERGY, OIL & GAS SUMMIT

JUNE 2023

ARPEL PARTICIPATED IN THE LAST EDITION OF THE "SURINAME ENERGY, OIL & GAS SUMMIT" EVENT, WHICH TOOK PLACE ON JUNE 19TH TO 22ND IN PARAMARIBO AND WAS HOSTED BY THE COMPANY STAATSOLIE.

In this opportunity, Carlos Garibaldi was the moderator of the Trinidad & Tobago and Dominican Republic ministerial session on "Energy for Development – Country Spotlights".

He also delivered a presentation on "Natural Gas in the Transition to Low-Carbon Economies. The case of Latin America and the Caribbean", a white paper recently written by the Association in collaboration with IGU and OLADE.

Miguel Moyano, Senior Managing Director of Arpel, was also present in this third edition of SEOGS 2023, taking part in the "Cross-Border Oil Spill Prevention, Preparedness and Response" workshop.

The meeting was jointly organized by Arpel and API, IADC, IOGP and Ipieca, and was attended by representatives from Oil Spill Response Limited, NIMOS, RAC/REMPEITC-Caribe and TotalEnergies.

Moreover, Moyano and Simon Byrne, from TotalEnergies, jointly moderated the "Health, Safety, Security & Environment" session, which gathered professionals from Pegasus Risk Management LLC, Oil Spill Response Limited, Norbit Oceans, IHRDC and Halliburton.

SEOGS 2023 was a three-day event packed with enriching content, attended by over 600 delegates, 8,000 participants and featuring 180 lecturers from around the world.



ARPEL IN ARGENTINA CARBON FORUM

JUNE 2023

THE FIRST ARGENTINA CARBON FORUM, ORGANIZED BY GÉNESIS AND MEXICO2 (CARBON MEXICAN PLATFORM) WAS HELD ON JUNE 27TH AND 28TH.

Irene Alfaro, coordinator of Arpel's Energy Transitions Committee, was present at this forum, which was attended by more than 70 international speakers and over 600 participants.

The meeting focused on analyzing in depth the current situation of the Argentine carbon market, as well as the

most relevant experiences and lessons learned from the Mexican market.

Some of the topics addressed at the Forum included certification, measurement, reporting and verification of GHG emissions, offsetting mechanisms and nature-based solutions.

ARPEL AT THE 8TH OPEC INTERNATIONAL SEMINAR IN AUSTRIA

JULY 2023

ARPEL WAS INVITED TO PARTICIPATE IN THE 8TH OPEC INTERNATIONAL SEMINAR TAKING PLACE IN VIENNA, AUSTRIA, ON JULY 5TH AND 6TH.

This OPEC (Organization of the Petroleum Exporting Countries) International Seminar is considered as one of the most relevant events in the global energy agenda. Among its attendees were the Ministers from OPEC member countries and other energy producing and consuming nations, leaders of intergovernmental organizations, senior executives from national and international oil companies, and other sector leaders, scholars and experts in the energy field.

Arpel's Executive Secretary Carlos Garibaldi participated in the high-level round table on "The Pace of Energy Transitions and Climate Change Policies".

The discussion panel also included Majid Jafar, Chief Executive Officer at Crescent Petroleum; Bernard Looney, BP Group Chief Executive/CEO; Tan Sri Tengku Muhammad Taufik, President and Group CEO at Petronas; Simon Stiell, UNFCCC Executive Secretary and Balaji Krishnamurthy, Vice President for Strategy & Sustainability at Chevron.

In his speech, Garibaldi remarked that "no matter how aspirational it may seem, that precludes hydrocarbons from the primary energy matrix. Oil and gas today constitute 55% of the world's primary energy matrix".

"A transition, by definition, is not an abrupt replacement. This implies coexistence and complementarity between hydrocarbons and renewable energies", he explained, and added that Arpel member companies "are already evolving along the transition vectors, by decarbonizing their operations and facilities and diversifying their portfolios with renewable energies".

"There is no universal recipe for energy transition, not even a regional one. To be accepted, sustainable and successful, the pathway and pace of each transition must be just in terms of circumstances and the starting point of each country, while also putting people first to ensure equity", said Garibaldi at the last edition of OPEC International Seminar.



ARPEL PRESENT AT THE LAUNCH OF EP PETROECUADOR'S DECARBONIZATION PLAN

JULY 2023

ARPEL PARTICIPATED IN THE LAUNCH OF EP PETROECUADOR'S DECARBONIZATION AND BUSINESS SUSTAINABILITY PLAN, WHICH TOOK PLACE IN QUITO ON JULY 26TH, WITH THE PRESENCE OF GOVERNMENT AUTHORITIES AND REPRESENTATIVES FROM INTERNATIONAL ENTITIES, COMPANIES AND INSTITUTIONS IN THE OIL & GAS SECTOR.

According to Arpel's member company EP Petroecuador, this technical and strategic project will allow the company to take further actions to reduce greenhouse gas emissions, pursuant to the environmental and energy policy enforced by the Government in Ecuador.

Arpel's Executive Secretary Carlos Garibaldi, who was specially invited to the launch event, gave a lecture on "Sustainability and the Corporate Transformation of Oil Companies".

EP Petroecuador operates in 25 oil blocks –22 in the Amazon and three in the Coastline– which account for nearly 80% of crude oil equivalent national production, including oil and gas.



ARPEL PARTICIPATED IN WEC MEETING ON ENERGY SCENARIOS AND IN LATAM CONFERENCE ON RENEWABLE ENERGY HELD IN MONTEVIDEO

JULY 2023

ARPEL PARTICIPATED IN III WEC URUGUAY MEETING AND IX LATAM CONFERENCE ON RENEWABLE ENERGY, WHICH WAS ORGANIZED BY THE URUGUAYAN ASSOCIATION OF RENEWABLE ENERGIES (AUDER). BOTH EVENTS TOOK PLACE ON JULY 26TH AND 27TH IN MONTEVIDEO.

In this context, Irene Alfaro, Managing Director of Arpel, was invited to attend a regional energy scenario analysis meeting organized by the World Energy Council (WEC), in collaboration with the Uruguayan Member Committee.

This meeting brought together the main energy stakeholders in Latin America and the Caribbean, and provided a platform for strategic conversation relevant to the region, the results of which will allow a nuanced regional perspective to the Council's Global Energy Scenarios.

Alfaro was also part of the IX LATAM Conference on Renewable Energy, where she was in charge of

moderating the session entitled "Energy Transitions in Oil & Gas Companies", which included the lecture of Daniel Chiaffone, VP of Integrated Supply and Commercialization at PAE; Santiago Ferro, Manager of Energy Transitions at Ancap, and Xavier Ramírez Véliz, Director of Business Development of Energy Transition at Tecpetrol, the three Arpel member companies.

During the Congress, and in particular during the Oil & Gas Roundtable, it became clear the importance and the need to involve all the actors of the energy sector to face the challenge of energy transitions, with a focus on people, considering local resources and the right to sustainable development of each particular region, said Alfaro.



ARPEL'S PIPELINES AND TERMINALS COMMITTEE AT RIO PIPELINE 2023

AUGUST 2023

ARPEL PARTICIPATED IN THE LATEST EDITION OF RIO PIPELINE 2023 HELD FROM AUGUST 8TH TO 10TH. ON THIS OCCASION, THE ARPEL GUIDE FOR THE EXECUTION OF CIVIL AND GEOTECHNICAL WORKS, LAUNCHED AT THE BEGINNING OF 2023 AND AVAILABLE FOR ARPEL MEMBERS, WAS PRESENTED.



The presentation was led by Martín Carnicero, an engineer from YPF and a member of Arpel's Geotechnical Project Team.

Within the framework of Rio Pipeline 2023, a face-to-face meeting of the Arpel Pipelines and Terminals Committee took place, led by Fabián Sánchez, Arpel's Project Manager.

The meeting was held at the offices of the Brazilian Institute of Oil and Gas (IBP) and was attended by representatives of 10 member companies. During the meeting, the committee's ongoing activities were analyzed and the 2023-2024 work plan was presented.

Another activity performed within the framework of this important event was the visit to Transpetro's main control room by the OCP Ecuador delegation.

XII PERU NATURAL GAS CONFERENCE

AUGUST 2023

THE XII PERU NATURAL GAS CONFERENCE, ATTENDED BY EXPERTS OF THE SECTOR FROM PERU AND OTHER LATIN AMERICAN AND CARIBBEAN COUNTRIES, WAS HELD IN LIMA ON AUGUST 22ND, AND INCLUDED THE PRESENTATION OF THE DOCUMENT “NATURAL GAS IN THE TRANSITION TO LOW-CARBON ECONOMIES.

The Case for Latin America and Caribbean”. This event was another milestone in the dissemination of this document, published jointly by IGU, Arpel and OLADE in April 2023, which aims to provide a consensual and pragmatic vision on the role of natural gas in the region’s energy transition, contributing positively to the international energy dialogue.

ARGENTINA ENERGY ROUNDTABLE ORGANIZED BY THE INSTITUTE OF THE AMERICAS

AUGUST 2023

THE ANNUAL ROUNDTABLE ON ENERGY IN ARGENTINA —OPPORTUNITIES AND IMPLICATIONS OF THE ELECTORAL CYCLE— WAS HELD IN BUENOS AIRES ON AUGUST 22ND. IT WAS ORGANIZED BY THE INSTITUTE OF THE AMERICAS IN COLLABORATION WITH THE CENTER FOR THE STUDY OF ENERGY REGULATORY ACTIVITY OF THE UNIVERSITY OF BUENOS AIRES.

The speeches highlighted the opportunities ahead for Argentina and the alignment of the main political parties on the issue, especially about Vaca Muerta.

Irene Alfaro, Arpel’s Managing Director and Coordinator of the Energy Transitions Committee, participated in person on behalf of Arpel.

The meeting was attended by top government authorities, private sector executives and academics.



ARPEL PARTICIPATION IN AOG 2023 AND IN THE ENVIRONMENT, OCCUPATIONAL SAFETY & HEALTH CONGRESS

SEPTEMBER 2023

ARPEL WAS PRESENT AT ARGENTINA OIL & GAS EXPO 2023 AND AT THE 5TH LATIN AMERICAN CONGRESS ON ENVIRONMENT, OCCUPATIONAL SAFETY & HEALTH IN THE OIL & GAS INDUSTRY, BOTH EVENTS ORGANIZED FROM SEPTEMBER 11TH TO 14TH IN BUENOS AIRES BY THE ARGENTINIAN INSTITUTE OF OIL & GAS (IAPG).

In addition to providing institutional support, the Association was part of the Congress' agenda and Miguel Moyano, Arpel Senior Managing Director, made a special presentation entitled "RETOS 2023: International trends for assessing the level of industry and government oil spill response planning and preparedness". Tiphaine Le Moënner, Arpel

Environment, Industrial Safety and Health Coordinator also participated in the Congress.

Also, within the framework of the AOG, Arpel Communications Committee held a face-to-face meeting with the participation of María Martha Rabasedas from Tecpetrol, Josefina Ibarra from YPF, Adriana Shimabukuro and Iván Hansen from TGN, together with Carlos Garibaldi, Miguel Moyano and María Eugenia Guzmán on behalf of Arpel.

The main objective of the meeting was to exchange ideas on the work that the group has been doing since the beginning of the year, as well as to discuss the agenda of Arpel 2024 Conference to be held in April in Colombia, together with Naturgas.

AOG 2023 edition was an excellent opportunity for interaction with local authorities as well as executives from different Arpel's member companies.



ARPEL PARTICIPATION AT THE WORLD PETROLEUM CONGRESS

SEPTEMBER 2023

ARPEL WAS PRESENT AT THE 24TH WORLD PETROLEUM CONGRESS HELD FROM SEPTEMBER 17TH - 21ST IN CALGARY, CANADA, WITH THE PARTICIPATION OF MORE THAN 5,000 DELEGATES AND 10,000 VISITORS FROM 100 COUNTRIES.

Arpel's participation in this new Congress edition was an excellent networking opportunity to contact different key players in the sector, as well as a fruitful opportunity to identify potential collaboration mechanisms to address just energy transitions in Latin America. It also served to strengthen the institutional relationship with WPCEnergy (formerly the World Petroleum Council), an institution with which Arpel has had a strategic alliance for over 10 years.

In this edition, Arpel's Executive Secretary, Carlos Garibaldi, was part of the session on Social Responsibility and License to Operate in the Framework of Energy Transitions, together with Lisa Balton from the Canadian Association of Petroleum Producers (CAPP), Brian Sullivan from Ipieca, and Kim McHugh from Chevron.

In this regard, Carlos Garibaldi said that good Social Responsibility Management is key for Oil & Gas companies. "Integrating environmental and social demands into our business activities and stakeholder interactions will make our traditional business sustainable," he said.

Miguel Moyano, Senior Executive Director of Arpel, spoke on a panel on the balance needed in upstream

production, along with Julio Moreira of the E&P division of the Brazilian Petroleum and Gas and Institute (IBP), and Mateus da Costa of the National Petroleum and Minerals Authority (ANPM) of Timor Leste.

Several other venues took place of which Arpel participated during this week in Calgary. Carlos and Miguel participated of a working breakfast with the leaders of the different trade associations from around the world to evaluate cooperation opportunities to common challenges. Carlos delivered a speech at the forum organized by the Canadian Council for the Americas to discuss the path to net zero in LAC. Carlos was also invited to a networking venue by the Alberta Energy Regulator. Miguel participated of a reception hosted by Boston Consulting Group (BCG) to celebrate the launch of the new BCG-WPC Energy Untapped Reserves 3.0 report, to which Arpel contributed as a focal point with LAC industry's information.

In addition to the representation in Calgary, Arpel was again an institutional supporter of the World Petroleum Congress.



ARPEL PARTICIPATED IN THE FIRST EAGE CONFERENCE ON SOUTH ATLANTIC OFFSHORE ENERGY RESOURCES

SEPTEMBER 2023

THE FIRST EAGE (EUROPEAN ASSOCIATION OF GEOSCIENTISTS & ENGINEERS) CONFERENCE ON SOUTH ATLANTIC OFFSHORE ENERGY RESOURCES WAS A FACE-TO-FACE EVENT HELD ON SEPTEMBER 20TH – 22ND IN MONTEVIDEO.

This important event brought together experts from around the world to discuss South Atlantic energy resources and addressed topics such as marine geology and its analogies with recent discoveries in southern Africa, drilling technology, environmental sustainability and investment opportunities in the South Atlantic offshore sector.

Arpel was represented by Pablo Amoedo, Upstream Manager, and María Eugenia Guzmán, Communications Manager.

The conference served as a key meeting point to drive innovation and progress in South Atlantic deepwater energy exploration and production, promoting sustainable development and international cooperation.



3RD INTERNATIONAL GNL GLOBAL FORUM IN COLOMBIA

OCTOBER 2023

CARLOS GARIBALDI, ARPEL'S EXECUTIVE SECRETARY, PARTICIPATED IN THE OPENING CEREMONY OF THE 3RD INTERNATIONAL GNL GLOBAL FORUM HELD IN CARTAGENA, COLOMBIA, FROM OCTOBER 2ND – 4TH.

This event, exclusively focused on LNG, gathered the region's main players of this growing sector to analyze global trends, the impact of energy crisis and the role of LNG in the energy transition of Latin America and the Caribbean. Carlos Garibaldi shared the opening session with Luz Stella Murgas, Naturgas' President, and Marta González, International Gas Union (IGU)'s Senior Advisor of Public Affairs.



XVIII ENAEP AND MEDIA WORKSHOP

OCTOBER 2023

ARPEL PARTICIPATED IN THE EIGHTEENTH EDITION OF THE ANNUAL ENERGY AND OIL MEETING (ENAEP), ORGANIZED BY SEMINARIUM ON OCTOBER 4TH AT CLUB LA UNIÓN, IN QUITO.

Carlos Garibaldi gave a lecture on “Energy Transitions, Uncertainties and Transformation in Latin America and the Caribbean” in the presence of 300 attendees from companies in the sector, investors, law firms and the media.

At the end of the day, local journalists attended a workshop given by Arpel to learn more about the pace of energy transitions and climate change.

The agenda of the workshop, given by Carlos Garibaldi, included topics such as Climate Debate, Energy Transitions, The Latin America and the Caribbean Case and Transformation of the Oil & Gas Industry.

The event was attended in person by journalists from Gama TV; El Universo; BNAméricas; Radio Única; Radio Majestad; Radio Superior; Radio Pública; La Posta; Primicias; Vía Minera; GK City; Mundo Minero and Prensa Minera.



XXXII LA JOLLA ENERGY CONFERENCE OF THE INSTITUTE OF THE AMERICAS

OCTOBER 2023

A NEW EDITION OF LA JOLLA ENERGY CONFERENCE, ORGANIZED BY THE INSTITUTE OF THE AMERICAS, WAS HELD ON OCTOBER 11TH AND 12TH, IN CALIFORNIA, USA.



Carlos Garibaldi attended this conference on behalf of Arpel and participated in the panel called “Is Natural Gas Still the Bridge?”

The other members of the panel were Gabriela Aguilar, from Exceleerate Energy; Gerardo Cervantes, from Saavi Energía; Christopher Goncalves, from BRG Energy & Climate; and Carlos de Regules, Technical Coordinator of the Latin American and the Caribbean Methane Emissions Observatory. Chris Mylde, from Sproule, was the moderator.

OLADE VIII ENERGY WEEK IN MONTEVIDEO

NOVEMBER 2023

AMONG THE HIGHLIGHTS OF THE SECTOR IN 2023 WAS THE VIII ENERGY WEEK, HELD NOVEMBER 6TH-10TH IN MONTEVIDEO, ORGANIZED BY THE LATIN AMERICAN ENERGY ORGANIZATION (OLADE), THE MINISTRY OF INDUSTRY, ENERGY AND MINING OF URUGUAY AND THE INTER-AMERICAN DEVELOPMENT BANK (IADB).

THE EVENT WAS HELD JOINTLY WITH THE IRENA INVESTMENT FORUM.

Within its vast agenda, Arpel took part in the Public-Private Dialogue together with Pluspetrol, Tecpetrol, ExxonMobil, TotalEnergies, PAE, Pampa, Ancap and CGC. In this context, the OLADE Business Council was created.

Carlos Garibaldi, Miguel Moyano, Irene Alfaro, Pablo Ferragut and María Eugenia Guzmán attended the event on behalf of Arpel.

Alfaro was panel member in the space dedicated to “The role of national hydrocarbon companies in energy transitions”, which was moderated by the IDB.

The topics addressed included methane emissions, in which the future Latin American Methane Emissions Observatory was presented to support the efforts of OLADE member countries in regulating and monitoring methane emissions, a crucial component in the decarbonization plans committed by the States.



ARPEL AT THE GAS EXPORTING COUNTRIES FORUM

NOVEMBER 2023

THE 6TH WORKSHOP OF THE GAS EXPORTING COUNTRIES FORUM (GECF) WAS HELD ON NOVEMBER 15TH AND ADDRESSED THE ROLE OF NATURAL GAS FOR SUSTAINABLE DEVELOPMENT.

The Forum was opened by GECF's General Secretary, Mohamed Hamel, and included two discussion panels: one related to the role of natural gas for economic and social development in Africa, and another on opportunities for gas industry development in Latin America and the Caribbean.

In addition to Arpel, Gabriela Aguilar, General Manager for Argentina and VP for Latam of Excelerate and Sylvie d'Apote, Executive Director of Natural Gas for the Brazilian Petroleum Institute (IBP) participated in the panel. The discussion emphasized the current situation of the region's energy matrix, the capacity of natural gas to drive economic development, the need to decarbonize natural gas value chains, investment opportunities and the role of LNG in the flexibility of the region's energy systems.

ARPEL'S GEOTECHNICAL PROJECTS TEAM AT IPG 2023 IN COLOMBIA

NOVEMBER 2023

ARPEL'S GEOTECHNICAL PROJECTS TEAM (EPGEO) PARTICIPATED OF THE SIXTH EDITION OF THE INTERNATIONAL PIPELINE GEOTECHNICAL CONFERENCE (IPG 2023), THAT TOOK PLACE IN COLOMBIA ON NOVEMBER 23RD AND 24TH.

As part of this event, the EPGEO presented the second Arpel guide for the execution of civil and geotechnical works, which is available to professionals from member companies.

ARPEL AT THE UNCONVENTIONAL TECHNOLOGY RESOURCES CONFERENCE HELD IN BUENOS AIRES

DECEMBER 2023

THE UNCONVENTIONAL TECHNOLOGY RESOURCES CONFERENCE (URTEC), HELD IN BUENOS AIRES, ON DECEMBER 4TH-6TH, WAS THE FIRST IN PERSON EVENT FOCUSED ON LATIN AMERICA.

The URTEC is made up of three international sponsoring organizations: the Society of Petroleum Engineers (SPE), the American Association of Petroleum Geologists (AAPG) and the Society of Exploration Geophysicists (SEG).

This premier technical event focused on the science and technology applied to the exploration and development of unconventional resources, with special emphasis on the integration of multiple disciplines.

The conference was attended by experts who shared their knowledge and research work and cooperated to promote the sustainability of unconventional resource development in the region.

Carlos Garibaldi, Executive Secretary, and Pablo Amoedo, Upstream Manager, attended the conference on behalf of Arpel.

The conference dealt with the current innovative technologies, trends and opportunities observed in the region during these transition times.

CIER'S SENIOR EXECUTIVES MEETING IN FOZ DO IGUAZU

DECEMBER 2023

PABLO FERRAGUT, ARPEL MANAGING DIRECTOR, DELIVERED A PRESENTATION ON THE "PERSPECTIVES FOR NATURAL GAS IN THE ENERGY MATRICES OF LATIN AMERICA AND THE CARIBBEAN" AT THE 58TH SENIOR EXECUTIVES MEETING OF CIER (REGIONAL ENERGY INTEGRATION COMMISSION). THE EVENT TOOK PLACE ON DECEMBER 6TH IN FOZ DE IGUAZU, BRAZIL.

This presentation was accompanied by a panel of experts from Itaipú Binacional, the UTE Uruguay, the Brazilian branch of Engie and CIER. The panel analyzed the role of natural gas and its potential to drive the development of renewable energies and decarbonization in this segment and discussed about regulatory aspects before an audience of executives and experts from the main power companies of Latin America and the Caribbean.



ARGENTINE OFFSHORE INTERVENTION IN PUBLIC HEARINGS

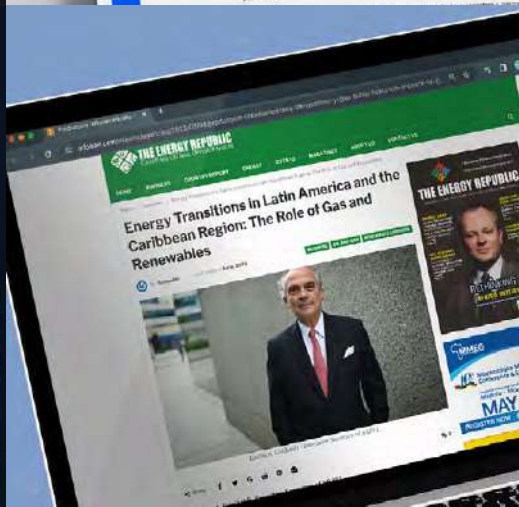
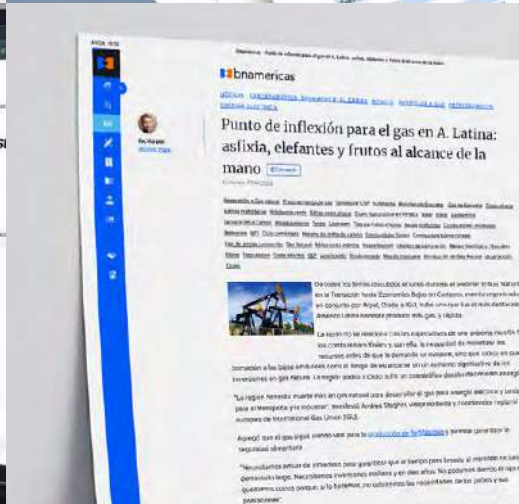
IN 2023, ARPEL CONTINUED TO PARTICIPATE AS A SPEAKER IN THE PUBLIC HEARINGS HELD BY THE ARGENTINE FEDERAL MINISTRY OF ENVIRONMENT AND SUSTAINABLE DEVELOPMENT IN ORDER TO ADVANCE WITH NEW SEISMIC AND EXPLORATION CAMPAIGNS IN AREAS OF THE ARGENTINE SEA.

In addition to the two participation instances in 2022, Arpel added two more interventions, providing experts views -during the virtual hearings- and supporting – the Fenix Project and the Offshore 3D Seismic Record, areas AUS 105, AUS 106, and MLO 121.

ARPEL supports this initiative of the Argentine government, following the line of other countries in Latin America and the Caribbean which monetize their offshore oil & gas resources to underpin their sustainable development and the prosperity of their population.

On
the media





ON THE MEDIA 2023:

GULF INTELLIGENCE
ARGUS MEDIA
ENERGY PRESS
GNL GLOBAL
BNAMERICAS
EFE
IGEF
THE ENERGY REPUBLIC

The material disclosed during 2023

is also available on Arpel website (www.arpel.org) and on the following social media: LinkedIn, Twitter, Youtube and Instagram.

 @ARPEL_Petroleo

 /company/arpel

 Canal ARPEL

ABOUT US

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Carlos Garibaldi
Executive Secretary



Miguel Moyano
Stakeholder Engagement
Technical Direction



Irene Alfaro
Energy Transitions



Pablo Ferragut
Gas and Energy
Human Talent



Tiphaine Le Moenner
Operational Excellence
Digital Transformation
Health, Safety, and Environment



Pablo Amoedo
Upstream
Cybersecurity



Ricardo Buyatti (*)
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Fabian Sanchez
Pipelines and Terminals



Fernando Uberti
Administration and
Finance



Gabriela Pritsch
Institutional Relations
Executive Management



Verónica Ferreira
Courses and Events



María Eugenia Guzmán
Communications



Diego Muses (*)
Computing



Fernanda Areta (*)
Graphic Design



Evangelina Montelongo (*)
Marketing

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2023 Arpel Annual Report



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

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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