Welcome to your CDP Climate Change Questionnaire 2022

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Parex Resources Inc. ("Parex" or the "Company") (TSX:PXT) is an international company headquartered in Calgary that focuses on sustainable, profitable, and conventional oil and gas production. The Company holds, through its foreign subsidiaries, interests in several onshore exploration and production blocks in the Magdalena and Llanos Basins of Colombia, where all reserves and production are located. Established in 2009, Parex' common shares trade on the Toronto Stock Exchange ("TSX") under the symbol PXT.

The Company's strategy is to leverage South American and Western Canadian experience and capability in its South American operations to create shareholder value. Parex targets jurisdictions that have stable fiscal regimes coupled with oil-prone hydrocarbon-rich basins in under-explored areas. The Company applies proven technology used in the Western Canadian Sedimentary Basin in basins with large oil-in-place potential. Parex focuses on short cycle time from discovery to bringing new reserves on-stream and uses a portfolio approach to manage surface, subsurface and commercial risks.

Parex aspires to become one of the least GHG emissions intensive exploration and production rp companies while delivering shareholder value and meeting ongoing global energy demand.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1, 2021	December 31, 2021	Yes	3 years

C0.3

(C0.3) Select the countries/areas in which you operate.

Canada
Colombia

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C-OG0.7

(C-OG0.7) Which part of the oil and gas value chain and other areas does your organization operate in?

Row 1

Oil and gas value chain

Upstream

Other divisions

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, a Ticker symbol	TSX: PXT
Yes, a CUSIP number	CA69946Q1046
Yes, an ISIN code	69946Q104

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain

Board Chair	Parex' Board of Directors has the responsibility to, in collaboration with Board committees, the ESG Steering Committee ("ESG Committee") and Management, establish procedures and processes to identify, manage, measure and assess risks and opportunities related to climate change and other environmental and social factors relevant to the Corporation and the conduct of its business in a safe, socially responsible, ethical and transparent manner for the benefit of all stakeholders and the communities in which Parex operates. Relevant factors for consideration throughout this process include plausible future physical and transition climate related macro scenarios, land and water use, human capital management, employee engagement, diversity and inclusion and health and safety. The Board delegates to its committees the responsibility to review and assess the identification and management of enterprise risks pertaining to the applicable committees. The Board has assigned the Health, Safety and Environment and Reserves Committee ("HSE and Reserves Committee") the role of assisting the Board in fulfilling its oversight responsibility related to health, safety and environmental ("HSE") practices and compliance with the applicable laws and regulations, including those related to climate change. In collaboration with the ESG Committee, the HSE and Reserves Committee has the responsibility to identify and assess ESG related issues, trends and opportunities relevant to Parex' production, reserves and exploration and development activities. The HSE and Reserves Committee reports to the Board of Directors following each meeting of the HSE and Reserves Committee. The Audit Committee, in collaboration with the ESG Committee, is responsible for reviewing and assessing all other climate-related risks relevant to the Company, including those identified in the Company's annual ESG report. The Audit Committee is responsible for regularly reviewing the Company's risk management policies, processes and analytical procedures relative to addressing climate risks.
Board-level committee	The Board delegates to its committees the responsibility to review and assess the identification and management of enterprise risks pertaining to the applicable committees. The Board has assigned the Health, Safety and Environment and Reserves Committee ("HSE and Reserves Committee") the role of assisting the Board in fulfilling its oversight responsibility related to health, safety and environmental ("HSE") practices and compliance with the applicable regulations, including those related to climate change. In collaboration with the ESG Committee, the HSE and Reserves Committee has the responsibility to identify and assess ESG related issues, trends and opportunities relevant to Parex' production, reserves and exploration and development activities. The HSE and Reserves Committee reports to the Board of Directors following each meeting of the HSE and Reserves Committee.

	The Audit Committee, in collaboration with the ESG Committee, is responsible for reviewing and assessing all other climate-related risks relevant to the Company, including those identified in the Company's annual ESG report. The Audit Committee is responsible for regularly reviewing the Company's risk management policies, processes and analytical procedures relative to addressing climate risks.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures	Parex' Board of Directors has the responsibility to consider ESG related issues, including as identified by Board committees, the ESG Committee and Management when reviewing and approving the Company's strategic plan, risk management policies, annual operating and capital plans and budgets, acquisition and divestiture activities and investor relations activities. Going forward, Parex' corporate strategy and major plans of action will be guided by and reviewed with consideration of the Company's ambition to become one of the least carbon intensive oil and gas producers. The Board is responsible for reviewing ESG-related risks and opportunities relevant to the Company's business and strategic plans and assigning associated management responsibilities, as applicable. Annual operating and capital plans and budgets are reviewed at least quarterly by the Board considering climate-related targets and annual objectives. The HSE and Reserves Committee is responsible for, in collaboration with the ESG Committee, identifying and assessing ESG related risks (including climate change), trends and opportunities relevant to the Company's production, reserves and exploration and development activities. Parex' Controller, through consultation with Management, reviews and updates the

	Monitoring and overseeing progress against goals and targets for addressing climate-related issues	enterprise risk register for climate-related risks on a semi-annual basis. The Controller CFO & COO meet with the Board and relevant committees semi-annually to review and validate the risk registers and risk management policies.. The Board considers the financial requirements for initiatives to lower Parex' carbon footprint as part of annual budget development activities. The COO and the SVP of Capital Markets and Corporate Planning present the Board with annual budget forecasts that include dedicated budgets for climate-related initiatives (i.e. acquisitions, investment in emissions reducing technologies, organic capital investment). Parex plans to invest annually up to 5% of its annual Capex in initiatives aimed at reducing Parex' operational carbon footprint, at the Board's and Management's discretion. The Board's approach to considering climate related issues when setting organizational performance objectives is to review and sign-off on corporate scorecards which include climate-related targets and objectives such as carbon-intensity reduction targets. The Board assesses the Company's climate-related performance against metrics, targets, benchmarks and goals established, periodically, by Parex to address and monitor climate-related issues. The Board is responsible for overseeing the following public goals and targets: near-term goal to eliminate routine flaring by the end of 2025, medium-term target to reduce operational Scopes 1 and 2 GHG emissions intensity by 50% by 2030 from a 2019 baseline and a long-term ambition to achieve net-zero Scopes 1 and 2 GHG emissions by 2050

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues

Row 1	Yes	ESG/Sustainability - experience with or knowledge of evaluating risk and opportunities related to a broad range of evolving environmental, climate related, and social criteria, including but not limited to emissions, water, land and energy use, and overall stakeholder engagement. During the most recent board assessment, 7 out 9 directors indicated that they hay expertise within this criteria.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	Quarterly
Chief Financial Officer (CFO)	Both assessing and managing climate-related risks and opportunities	Quarterly
Chief Operating Officer (COO)	Both assessing and managing climate-related risks and opportunities	Quarterly
Other C-Suite Officer, please specify SVP Capital Markets	Both assessing and managing climate-related risks and opportunities	Quarterly
Other committee, please specify ESG Steering Committee	Both assessing and managing climate-related risks and opportunities	Quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

Parex' CEO chairs the ESG Steering Committee ("ESG SC"); responsible for assessing and managing climate-related risks and opportunities. The SC consists of the CEO, SVP of Capital Markets & Corporate Planning, COO, CFO, SVP Corporate Services, the Controller and a Senior Sustainability Advisor and meets at least twice quarterly. Roles and responsibilities of the ESG SC include assisting and supporting the Board with its identification,

management, measurement and assessment of risks and opportunities related to climate change, environmental and social factors relevant to the Corporation and the conduct of its business in a safe, socially responsible, ethical and transparent manner for the benefit of all stakeholders and the communities in which it operates. Further, the ESG SC assists the Board, Board committees and Management with preparing, reviewing and providing oversight over the Corporation's processes and practices used to identify, assess, manage and monitor climate-related risks and opportunities. The ESG SC assists in the preparation of reports on the Corporation's performance against climate-related goals, benchmarks and milestones, including the use of internationally recognized reporting frameworks and standards. To the extent requested by the Board or any Board committee, the ESG SC assists with the development of applicable climate metrics, targets, benchmarks and goals for Parex.

The ESG SC, represented by the COO and SVP of Capital Markets reports quarterly to the Board on initiatives and opportunities to optimize climate performance including processes to reduce GHG emissions and reduce or substitute energy use; climate trends in public debate, public policy, regulation and legislation that impacts or may impact Parex' business, strategy and risk management practices; and performance against established climate targets, goals and milestones.

Parex' Management is responsible for reviewing the Company's HSE strategies and policies, including those related to climate-related risks and opportunities. Management reports to the Board through the HSE and Reserves Committee on a quarterly basis with respect to the following climate matters: (i) compliance with all applicable climate related laws, regulations and policies; (ii) emerging climate-related trends, issues and regulations that are relevant to the Company; (iii) the findings of any significant report by regulatory agencies, external health, safety and environmental consultants or auditors concerning performance related to climate issues; (iv) any necessary corrective measures taken to address issues and risks with regards to the Company's climate-related performance as identified by Management, external auditors or by regulatory agencies; (v) the results of any review with management, outside accountants, external consultants and legal advisors of the implications of major corporate undertakings such as the acquisition or expansion of facilities or ongoing drilling and testing operations, or decommissioning of facilities; and (vi) all incidents and near misses with respect to the Company's operations, including corrective actions taken as a result thereof. On behalf of Management, the COO is the key contact and liaison with the Board's HSE and Reserves Committee and provides regular updates on operations, reserves and environmental, health and safety performance and issues, including those related to climate change. The COO is the head of operations and is responsible for: (a) the identification of the principal operational risks of the business; (b) ensuring the implementation of appropriate systems to manage risks; (c) managing environmental issues, including climate-related issues; and (d) reporting quarterly to the Board's HSE and Reserves Committee on climate-related performance and issues during the operational and enterprise risk management quarterly updates. Parex' CEO, CFO, COO, VP of Corporate Planning and Senior Sustainability Advisor are responsible and/or accountable for developing and articulating Parex' climate governance structure, strategy, risk management and metrics and targets in line with the recommendations of the TCFD. The ESG SC is supported by a Sustainability Working Group ("SWG") led by the Country Manager & President of Parex Colombia and comprised of employees of the Company in both Colombia and Canada from

multiple departments. The SWG provides an operational-level perspective on climate-related risks and opportunities, while the ESG Committee provides a management perspective. Management is primarily informed about climate-related issues through engagement in climate-related conferences, training, internal knowledge sharing, desktop research and consultations with external subject matter specialists. On a semi-annual basis, ERM updates are presented to Management.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	The Company's annual incentive plan is based on a balanced scorecard and applies to all employees. Included in the 2021 scorecard was a short-term interim target to reduce Scopes 1 and 2 GHG emissions intensity year-over-year to support Parex' achievement of its medium-term target to reduce operated Scopes 1 and 2 GHG emissions intensity by 50% by 2030 from a 2019 baseline. For the CEO and the executive team, the overall target incentive bonus is 100% and 60% of base salary respectively with a threshold ranging from 50% to 150%; ~18.3% of which was tied, in 2021, to the climate-related targets and milestones. For all non-executive employees, the annual incentive ranges from approximately 10% to a higher percentage of base salary. In addition, some long-term incentives, i.e. PSUs, for executives are tied to performance targets, including an ESG performance criteria to ensure that the core aspect of the Company's business strategy continues to progress key ESG measures.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Corporate executive team	Monetary reward	Emissions reduction project Energy reduction project Efficiency project	30% of the 2021 short-term incentive compensation was tied to ESG metrics, including an annual reduction in GHG emissions (Scopes 1 & 2) intensity from operated assets.
Chief Executive Officer (CEO)	Monetary reward	Emissions reduction project Energy reduction project Efficiency project	~30% of the 2021 short-term incentive compensation was tied to ESG metrics, including a year-over-year reduction in GHG emissions (Scopes 1 & 2) intensity from operated assets and the installation of two geothermal units.
Chief Financial Officer (CFO)	Monetary reward	Emissions reduction project Energy reduction project Efficiency project	~30% of the 2021 short-term incentive compensation was tied to ESG metrics, including a year-over-year reduction in GHG emissions (Scopes 1 & 2) intensity from operated assets and the installation of two geothermal units.
Chief Operating Officer (COO)	Monetary reward	Emissions reduction project Energy reduction project Efficiency project	~30% of the 2021 short-term incentive compensation was tied to ESG metrics, including a year-over-year reduction in GHG emissions (Scopes 1 & 2) intensity from operated assets and the installation of two geothermal units.

All employees	Monetary reward	Emissions reduction project Energy reduction project Efficiency project	~30% of the 2021 short-term incentive compensation was tied to ESG metrics, including a year-over-year reduction in GHG emissions (Scopes 1 & 2) intensity from operated assets and the installation of two geothermal units.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	5	This time horizon aligns with Parex' capital allocation, operational planning and impact measurement horizons. The impact of present and near-term climate-related risks and opportunities such as rising carbon taxes and operational efficiency projects are factored into annual capital allocation and operational planning processes. The relative severity of climate-related risks identified through Parex' ERM process is currently assessed based on estimated short-term impact and likelihood.
Medium-term	5	10	This time horizon considers macro-economic, socio-cultural and geopolitical trends and conditions and how they may impact the Company, whether, positively or negatively. For example, in terms of exposure to climate-related litigation risk, access to capital and shifting consumer preferences. Parex continues to review how the Company can integrate the assessment of medium and long-term impact and likelihood into climate risk and opportunity assessments.

Long-term	10	20	The productive horizons of Parex' asset base extend to 2040. As such, Parex defines a long-term time horizon as 10-20 years. Parex is in the process of formally identifying risks to the long-term viability of its assets in the context of escalating climate-related risks, including natural, operational and market risks, and integrating the assessment of medium and long-term impact and likelihood into climate risk and opportunity assessments.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

Through Parex' Enterprise Risk Management process, Parex evaluates the severity of potential financial impact on market capitalization from negligible or 1 (<$10 million USD financial impact) to severe or 5(>$750 million USD financial impact). A financial impact that is affecting or may affect the Company is defined as substantive if it could cause a market capitalization loss of more than $100 million.

Parex takes a long-term view of strategic impact, acknowledging trends shaping overall societal norms. Factors such as reputation and access to communities where the Company operates as well as other stakeholders such as investors are considered in the assessment of potential strategic impact. A strategic impact that is affecting or may affect the Company is defined as substantive if it:

- Requires an operational shutdown for longer than three months or involves multiple assets
- Results in a loss of license or authorization to operate or long-term limitation to access new licenses

To determine the relative significance of climate-related risks compared to other risks faced by Parex, materiality assessments are conducted. Through the latest materiality assessment, Parex determined that risks associated with climate change ranked in the top five most material issues for Parex' as per internal and external stakeholders. Parex materiality assessments incorporate assessments of potential impacts the estimated likelihood that such impacts will materialize.

Parex recognizes the importance of assessing the potential financial and strategic impacts of climate-related risks and opportunities under different future scenarios. In 2021, Parex conducted a qualitative climate scenario analysis using two different climate-scenarios. The Company plans to conduct a quantitative climate scenario analysis by no later than December 2024

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations
Upstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

Parex' ERM process, approved by the Board of Directors, outlines the Company's risk management principles and expectations as well as the respective roles and responsibilities of all staff. The ERM process includes a Risk Management Framework and Risk Assessment Tools including a Risk Matrix. Parex' Risk Management Framework contains the key attributes recommended by the International Standards Organization ("ISO") in its ISO 31000 – Risk Management Guidelines (2017). Parex' ERM process aims to identify all business and operational risks, some of which are climate-related.
Parex' Board of Directors understands the profound relationship that exists between corporate performance in terms of sustainability and the viability and permanence of the business. For this reason, climate-related risks and opportunities are analyzed and strategic actions for their management are defined, ensuring compliance with applicable regulations and the highest industry standards.

On a bi-annual basis, Managers and VPs update the ERM risk register and where necessary, reassess the risk scores and mitigation strategies. A comprehensive review is then conducted at the executive management level.

Risks are assessed in terms of potential impact on market capitalization, the ability to gain access to assets or continue the operation of producing assets, the well-being of stakeholders, the way communities, employees, government stakeholders and/or shareholders regard Parex.

Management reports to the Board's committees the risks and risk assessments for which each committee has oversight. The committees in turn review the top risks and submit them to the Board of Directors for a full review. For the top enterprise and business risks, that Management identifies which could include climate-related risks, Management also develops responses and, in some cases, action plans. Managing identified climate-related risks may include identifying and implementing strategies to mitigate, transfer or control the risk. Where no opportunities are identified to mitigate, transfer, or control the risk, the risk is accepted and where possible, organizational processes are adapted to reduce the associated or potential impact.

Parex' process for managing climate-related risks aligns with Parex' long- term corporate strategic objective to become one of the least carbon intensive oil and gas producers among E&P's. As such, climate-risk management efforts are focused on maximizing carbon intensity reductions in its operations.

In 2021, Parex performed a qualitative climate scenario analysis under a low emissions scenario and moderate emissions scenario. The analysis aimed to support and enhance climate-related risk and opportunity identification, assessment, and management processes. Among the intended outcomes of the scenario analysis was an improved understanding of which components of Parex' value chain are most exposed to climate-related risks, which in turn enhances Management's ability to develop effective risk mitigation strategies. A series of climate-related risks were identified, evaluated in the risk register, and their corresponding mitigation measures articulated. Parex plans to conduct a quantitative climate scenario analysis by no later than December 2024 to enhance the Company's ability to measure the effectiveness of climate-related risk and opportunity management strategies.

As Parex matures its approach to identifying and managing climate-related risks and opportunities, the Company will strive to reflect the potential impact of such risks and opportunities in its public disclosure documents. The Company's Inaugural TCFD Report is the first step in advancing such disclosure.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Complying with climate-related laws, regulations and policies is part of Parex' commitment to operate responsibly. As such, risks associated with current and emerging regulations are relevant to Parex and are always considered when making updates to and reviewing the ERM risk register. These types of risks are overseen by the HSE and Reserves Committee and the ESG Committee. Among the climate-related regulatory risks Parex has identified was changes to energy policies and/or regulations. Colombia has binding regulatory measures on environmental issues such as air quality; however, current regulations related to GHG emissions and reductions are voluntary or in the early stages of implementation. Parex' voluntary climate-related strategies and initiatives are informed by and in alignment with Colombia's National Climate Change Policy and the Integrated Climate Change Management Plan for the Energy and Mines Sector. Regarding environmental licensing regulations, the National Environmental Licensing Authority (ANLA) has developed guidelines for new projects requiring an assessment of the generation of GHG emissions to be incorporated within the environmental management measures required to obtain licenses. Parex both participates independently and as a member of energy sector associations such as ANDI (National Business Association of Colombia) and ACP (Colombian Petroleum Association) in processes that review, structure and update current regulations related to climatic aspects. Sessions are regularly convened by government representatives to review laws and regulations, allowing for early identification of potential risks and opportunities that Parex may face as a result of the laws, regulations and policies to which it is subject. Parex engages with external regulatory agencies and experts to ensure that relevant employees stay up to date on current regulations and are aware of upcoming regulatory changes that may impact Parex' operations.

Emerging regulation	Relevant, always included	Complying with climate-related regulatory requirements is part of Parex' commitment to operate responsibly. As such, risks associated with current and emerging regulations are relevant to Parex and are always considered when making updates to and reviewing the ERM risk register. These types of risks are overseen by the HSE and Reserves Committee and the ESG Committee. Among the climate-related emerging regulatory risks identified was the risk of changes to energy policies and/or regulations. Future climate-related regulations requiring additional disclosures, licensing or abatement of operational GHG emissions may impact Parex' operations by increased expenses associated with reducing and/or offsetting emissions and/or restricted ability to maintain or establish new operations. Parex engages with external regulatory agencies and experts to ensure that relevant employees are aware of upcoming regulatory changes that may impact the Company's operations. The Company participates in consultations on the development of public policies and regulatory processes. As a result of this participation, Parex has deemed the following programs and regulations under development applicable to the Company and is currently monitoring them for their potential impacts: 1.The National Program of Greenhouse Gas Tradable Emission Quotas (PNCTE) coming into effect in 2022 will require companies to report their GHG emissions. 2.The Colombian 2050 climate-related strategy. 3.Structuring of the National Registry of Emissions Reductions (NDC) expected to become operational depending on the implementation of policies to be defined by the new government. 4.Regulatory processes to reduce fugitive emissions, (issued by February 2022). 5.Changes in carbon tax policy and pricing. 6. In 2021, Congress approved the regulation on climate change. This regulation will mandate measuring GHG emissions in future environmental licenses. 7. PROURE (Program for the Rational and Efficient Use of Energy) was updated by the Ministry of Energy in April 2022. The program establishes goals for energy efficiency as well as incentives for companies to carry out energy efficiency projects. 8. PIGCCme (Climate Change Plan for the Mining and Energy Sector) was updated by the Ministry of Energy in late 2021. Ministry of Energy clarified that the Climate Change Plans to be prepared by companies are currently voluntary but are expected to become mandatory by 2024.
Technology	Relevant, sometimes included	Access to current and emerging technologies that enable operational efficiencies are considered essential in order for Parex to achieve its aspiration of becoming one of the lowest carbon emitting oil and gas producers among E&P's. In 2021, Parex successfully installed two geothermal power generation units and a solar field, which are expected to contribute to meaningful reductions in carbon intensity. Dependence on technology is expected to increase as Parex works toward meeting its medium and long-term GHG emissions intensity reduction targets.

		The greatest climate-related technology risk Parex faces presently is the availability, scalability and costs of technologies to meet emissions reduction targets and successfully transition to lower emissions technologies. Should the technologies enabling Parex to reduce GHG emissions be unavailable, unaffordable, or inadequate, executing emissions reduction initiatives and meeting the Company's emissions intensity reduction targets could be very costly or impossible. An inability to meet GHG emissions intensity reduction targets could result in major financial implications in the form of carbon taxation. Parex continues to assess the scale and scope of impacts associated with various types, rates and extents of technological adoption under different energy transition scenarios. The Company is currently evaluating existing and emerging technological solutions including, among others, the production and use of blue and green hydrogen as an energy efficiency process, carbon capture in the post-combustion phase, gas recovery from the control of fugitive and venting emissions, and the use and production of gas transportation (GTL, LNG, CNG)
Legal	Relevant, sometimes included	The oil and gas industry has been the target of an increasing number of climate-related lawsuits in recent years. Parex currently considers the risk of being named as a defendant in a lawsuit to be unlikely given the jurisdictions in which it operates. However, legal action against key stakeholders such as regulators or partners could have material strategic impacts upon Parex' operations. To date, climate-related legal risks with global or national scope have been identified and assessed primarily for the purpose of informing investment decision-making processes.
Market	Relevant, sometimes included	Capital markets are adjusting to the risks that climate change poses and as a result, Parex' ability to access capital and secure necessary or prudent insurance coverage may be adversely impacted in the event that institutional investors, credit rating agencies, lenders and/or insurers adopt more restrictive decarbonization mandates and/or policies. The future development of Parex' business may be dependent upon its ability to obtain additional capital, including debt and equity financing. Certain insurance companies have taken action or announced policies to limit available coverage for companies which derive some or all of their revenue from the oil and gas sector. As a result of these policies, premiums and deductibles for some or all of the Parex' insurance policies could increase substantially. In some instances, coverage may be reduced or become unavailable. As a result, Parex may not be able to renew its existing policies, or procure other desirable insurance coverage, either on commercially reasonable terms, or at all.

		Additionally, new alternatives to and changing demand for petroleum products poses a risk to Parex' in terms of the resulting impact on market price for crude oil and gas, a key determinant of Parex' overall corporate performance. Forecasted demand for fossil fuels ranges substantially under different energy transition scenarios. In 2021, Parex performed a qualitative climate scenario analysis under a moderate emissions scenario and a low emissions scenario, resulting in the identification of some potential climate-related markets risks, i.e. the risk of restrictive decarbonization mandates from investors, credit rating agencies, lenders, and insurers, and their corresponding mitigation measures.
Reputation	Relevant, sometimes included	There are growing expectations from stakeholder groups such as NGOs, investors, communities, and industry organizations regarding transparency on measurable commitments and progress of oil and gas companies in support of a global transition to a lower carbon future. Negative public perception of the oil and gas industry may reduce the pool of experienced, skilled people available and willing to work in the industry as well as impact Parex' ability to retain talent with the necessary leadership, professional and technical skills. Parex currently manages this risk by integrating measurable climate-related commitments and targets in executive scorecards and company-wide incentive structures. Consequently, progress against climate-related commitments is monitored and disclosed annually. Membership and participation in international initiatives promoting climate responsibility, such as the UN Global Compact, as well as on-going engagement with key stakeholder groups, also helps Parex mitigate climate-related reputation risks.
Acute physical	Relevant, sometimes included	Parex is exposed to the risk of severe weather events (flooding, earthquakes) disrupting operations, infrastructure, and/or supply chains. The Company's exploration, production and construction operations, and the operations of major customers and suppliers, can be affected by floods, forest fires, earthquakes, hurricanes, and other extreme weather events. This may result in cessation or diminishment of production, delay of exploration and development activities or delay of plant construction. Parex' licensing processes or environmental impact assessments include the studies of hydrological and climate-related patterns of the areas where the Company operates. Findings from the studies allow prioritization of actions and plans focused on attending to possible events that may affect the normal course of operations. The results obtained are considered into engineering, construction and assembly designs to minimize possible impacts on operating activities.

		In 2021, Parex performed at qualitative climate scenario analysis in order to better understand the frequency and assess the potential severity and impacts of extreme weather events under different future climate scenarios.; and outlined a number of mitigation measures.
Chronic physical	Relevant, sometimes included	Parex is exposed to the risk of changes in long-term weather patterns affecting working conditions and/or the length of drilling seasons. Crude oil and natural gas production activities are subject to chronic physical risks such as a shorter dry season for drilling, changes in the water table and reduced access to water due to drought conditions. A systemic change in temperature or precipitation patterns could result in more challenging conditions for construction and reclamation activities. Parex' licensing processes or environmental impact assessments include the studies of hydrological and climate-related patterns of the areas where the Company operates. Findings from the studies allow prioritization of actions and plans focused on attending to possible events that may affect the normal course of operations. The results obtained are considered into engineering, construction and assembly designs to minimize possible impacts on operating activities. In 2021, Parex performed a qualitative climate scenario analysis in order to better understand the frequency and assess the potential severity and impacts of extreme weather events under different future climate scenario; and outlined a number of mitigation measures.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Market

Changing customer behavior

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

Changes in demand for oil and gas products, resulting in: decreased revenue and/or volatility due to fewer and/or shorter-term purchasing contracts; projected return on investment for lower carbon energy investments become more attractive than for investments in oil and gas projects; reducing the availability of capital for future oil and gas related projects; and reduced skilled candidate pool due to sector stigmatization and long-term asset devaluation

Time horizon

Long-term

Likelihood

Likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

100,000,000

Potential financial impact figure – maximum (currency)

500,000,000

Explanation of financial impact figure

Through the ERM process, Parex evaluates the potential severity of a climate-related risk's financial impact from negligible (<$10 million USD financial impact) to severe (>$750 million USD financial impact). Potential severity of financial impact is currently based on the estimated impact on Parex' share price and consequent decrease in market capitalization should the risk occur. For changes in the demand of oil and gas products, our initial risk assessment of the potential financial impact maps the risk's likelihood as possible to probable and impact scale as moderate to significant ($100-500 million)

Parex plans to explore the potential financial impacts of climate-related risks and opportunities in more depth via a quantitative climate scenario analysis and subsequent use of additional financial impact indicators such as impact on asset valuation. Among the primary outcomes of the scenario analysis is an improved understanding of how changing demand for oil and gas products may impact the Company financially.

Cost of response to risk

100,000

Description of response and explanation of cost calculation

Parex is in the process of evaluating the cost of responding to identified climate-related risks. We estimate the initial average cost of $100,000 for consultancy services necessary to perform a quantitative climate scenario analysis by the end of 2024.

Comment

Parex' current asset base of conventional oil and gas tends to produce hydrocarbons with a lower carbon emission intensity and typically has a shorter cycle time to project payout. Given a December 31, 2021, independent reserve auditor report demonstrating a proven plus probable reserve life index of 11 years, it minimizes the likelihood of stranded assets for Parex. Also, Parex is considering increasing the proportion of natural gas in Parex' product mix to capture a portion of growing demand for lower carbon fuels

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Market

Uncertainty in market signals

Primary potential financial impact

Decreased access to capital

Company-specific description

Restrictive decarbonization mandates from investors, credit rating agencies, lenders and insurers, reulting in: reduced access to existing or prospective capital and insurance due to misaligned strategic priorities and objective; increased human and financial capital requirements to articulate concrete decarbonization plans and meet other climate-related disclosure requirements and expectations; and/or higher costs of debt due to debt interest rates being tied to environmental performance

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

10,000,000

Potential financial impact figure – maximum (currency)

100,000,000

Explanation of financial impact figure

Through the ERM process, Parex evaluates the potential severity of a climate-related risk's financial impact from negligible (<$10 million USD financial impact) to severe (>$750 million USD financial impact). Potential severity of financial impact is currently based on the estimated impact on Parex' share price and consequent decrease in market capitalization should the risk occur. For restrictive decarbonization mandates, our initial risk assessment of the potential financial impact maps the risk's likelihood as rare to unlikely and impact scale negligible to minor ($10-100 million)

Parex plans to explore the potential financial impacts of climate-related risks and opportunities in more depth via a quantitative climate scenario analysis and subsequent use of additional financial impact indicators such as impact on asset valuation. Among the primary outcomes of the scenario analysis is an improved understanding of how restrictive decarbonization mandates may impact the Company financially.

Cost of response to risk

100,000

Description of response and explanation of cost calculation

Parex is in the process of evaluating the cost of responding to identified climate-related risks. We estimate the initial average cost of $100,000 for consultancy services necessary to perform a quantitative climate scenario analysis by the end of 2024.

Comment

Parex is taking action to mitigate the potential financial impact and costs that may be associated with restrictive decarbonization mandates in the future. The Company voluntarily reduced the corporate GHG emissions intensity in 2021 and set medium and long-term emissions intensity

reduction targets. Parex is investing in emissions reduction initiatives focused on flaring reduction, electrification and renewables, and operational efficiencies. Further, the Company continues to improve the disclosure of climate-related performance using rigorous sustainability reporting standards/frameworks, including the CDP. In 2021, Parex released its Inaugural TCFD Report to align disclosure with external stakeholders' expectations and report on its short- and long-term climate-related strategies. The current mitigation measures, for this risk, include reporting on short- and long-term climate-related strategies; operational level energy switching; collaboration with suppliers and business partners to identify and implement carbon reduction initiatives; and/or reviewing of renewable energy implementaion on an on-going basis.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Emerging regulation

Enhanced emissions-reporting obligations

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

Changes to energy policies and/or regulations , resulting in: decreased demand for products due to reduced competitiveness of oil and gas in the energy market resulting from regulations and/or incentives that favour low carbon energy sources; increased human and financial capital requirements to meet additional licensing, reporting, and GHG abatement/offsetting requirements; exposure to higher carbon taxes and higher direct and indirect energy costs; and/or reduced levels of government support due to misaligned strategic priorities and objectives

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

100,000,000

Potential financial impact figure – maximum (currency)

500,000,000

Explanation of financial impact figure

Through the ERM process, Parex evaluates the potential severity of a climate-related risk's financial impact from negligible (<$10 million USD financial impact) to severe (>$750 million USD financial impact). Potential severity of financial impact is currently based on the estimated impact on Parex' share price and consequent decrease in market capitalization should the risk occur. For changes to energy policy an/or regulations, our initial risk assessment of the potential financial impact, maps the risk's likelihood as possible and impact scale as moderate ($100-500 million).

Parex plans to explore the potential financial impacts of climate-related risks and opportunities in more depth via a quantitative climate scenario analysis and subsequent use of additional financial impact indicators such as impact on asset valuation. Among the primary outcomes of the scenario analysis is an improved understanding of how changes to energy policies and/or regulations may impact the Company financially.

Cost of response to risk

125,000

Description of response and explanation of cost calculation

Parex is in the process of evaluating the cost of responding to identified climate-related risks. We estimate the initial costs of $125,000, including $100,000 for consultancy services necessary to perform a quantitative climate scenario analysis by the end of 2024 and of $25,000 for evaluating the possibility of implementing a certification process, technologies or services related to emissions accounting/calculations.

Comment

In anticipation of emerging GHG regulations in Colombia, Parex is being proactive by taking some steps to reduce its carbon footprint/boe from operated assets. The Company's GHG emissions intensity reduction targets are in line with Colombia's announced commitment, under the Paris Agreement, to reduce GHG emissions by 51% by 2030. Also, Parex has some mitigation measures in place, including on-going engagement with regulatory experts to remain aware of upcoming changes, operational level energy switching to less intensive fuels and implementation of renewable energy, and/orr the application of shadow carbon prices in project planning.

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Emerging regulation

Carbon pricing mechanisms

Primary potential financial impact

Increased direct costs

Company-specific description

Changes to energy policies and/or regulations , resulting in: decreased demand for products due to reduced competitiveness of oil and gas in the energy market resulting from regulations and/or incentives that favour low carbon energy sources; increased human and financial capital requirements to meet additional licensing, reporting, and GHG abatement/offsetting requirements; exposure to higher carbon taxes and higher direct and indirect energy costs; and/or reduced levels of government support due to misaligned strategic priorities and objectives

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

10,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Through the ERM process, Parex evaluates the potential severity of a climate-related risk's financial impact from negligible (<$10 million USD financial impact) to severe (>$750 million USD financial impact). Potential severity of financial impact is currently based on the estimated impact on Parex' share price and consequent decrease in market capitalization should the risk occur. For changes to energy policy an/or regulations related to the carbon pricing mechanisms, a preliminary sensitivity analysis of funds flow potential to a potential carbon tax, under a number of IEA's carbon prices and oil prices, indicates the impact of such tax to be negligible i.e., $10,00,000 or less.

Parex plans to explore the potential financial impacts of climate-related risks and opportunities in more depth via a quantitative climate scenario analysis and subsequent use of additional financial impact indicators such as impact on asset valuation. Among the primary outcomes of the scenario analysis is an improved understanding of how changes to energy policies and/or regulations (carbon tax) may impact the Company financially.

Cost of response to risk

140,000

Description of response and explanation of cost calculation

Parex is in the process of evaluating the cost of responding to identified climate-related risks. We estimate the initial costs of $140,000, including $100,000 for consultancy services necessary to perform a quantitative climate scenario analysis by the end of 2024 , and of $25,000 for evaluating the possibility of implementing a certification process, technologies or services related to emissions accounting/calculations.

Comment

In anticipation of emerging GHG regulations in Colombia, Parex is being proactive by taking some steps to reduce its carbon footprint/boe from operated assets. The Company's GHG emissions intensity reduction targets are in line with Colombia's recently announced commitment, under the Paris Agreement, to reduce GHG emissions by 51% by 2030. Also, Parex has some mitigation measures in place, including on-going engagement with regulatory experts to remain aware of upcoming changes, operational level energy switching to less intensive and implementation of renewable; and/or the application of shadow prices in project planning. .

Identifier

Risk 5

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Legal

Exposure to litigation

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

Increased legal action on climate grounds, resuling in: increased legal fees/fines associated with third-parties seeking compensation for losses, claims against Parex of inadequate disclosure of climate risks, public nuisance, etc.; legal action against key stakeholders impacting Parex' supply and value chain; and/or higher ongoing operating expenses due to liability insurance premiums

Time horizon

Long-term

Likelihood

Likely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Through the ERM process, Parex evaluates the potential severity of a climate-related risk's financial impact from negligible (<$10 million USD financial impact) to severe (>$750 million USD financial impact). Potential severity of financial impact is currently based on the estimated impact on Parex' share price and consequent decrease in market capitalization should the risk occur. For increased legal action on climate related grounds, it is not possible to provide a financial impact for this risk due to its uncertainty.

Parex plans to explore the potential financial impacts of climate-related risks and opportunities in more depth via a quantitative climate scenario

analysis and subsequent use of additional financial impact indicators such as impact on asset valuation. Among the primary outcomes of the scenario analysis is an improved understanding of how increased legal action on climate related ground may impact the Company financially.

Cost of response to risk

0

Description of response and explanation of cost calculation

Parex is in the process of evaluating the cost of responding to identified climate-related risks.

Comment

The outcome of any climate-related litigation is uncertain and may materially impact Parex' business, financial condition or results of operations. Parex may also be subject to adverse publicity associated with litigation matters, which may negatively affect public perception and reputation, regardless of whether the Company is ultimately found responsible. Parex may be required to incur significant expenses or devote significant resources in defense against any litigation. Current mitigation measures for this risk include robust EIAs and/or TCFD-aligned reporting of climate-related risks and short- and long-term climate-related strategies

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Identifier

Risk 6

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Acute physical

Heat wave

Primary potential financial impact

Increased capital expenditures

Company-specific description

Extreme weather events, resulting in: stalled or reduced production and/or sales flow resulting from restricted access to operations and disruptions to Parex' supply chain and transportation networks; higher energy costs due to power supply system failures; repair and replacement costs associated with infrastructural and equipment damage; higher ongoing operating expenses due to insurance premiums; delays in payback and/or increased costs associated with exploration, development, and construction activities; and/or obligations to ensure community access to essential resources

Time horizon

Long-term

Likelihood

About as likely as not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

100,000,000

Potential financial impact figure – maximum (currency)

500,000,000

Explanation of financial impact figure

Through the ERM process, Parex evaluates the potential severity of a climate-related risk's financial impact from negligible (<$10 million USD financial impact) to severe (>$750 million USD financial impact). Potential severity of financial impact is currently based on the estimated impact on Parex' share price and consequent decrease in market capitalization should the risk occur. For extreme heat waves, our initial risk assessment of the potential financial impact, maps the risk's likelihood as unlikely and impact scale as moderate ($100-500 million).

Parex plans to explore the potential financial impacts of climate-related risks and opportunities in more depth via a quantitative climate scenario analysis and subsequent use of additional financial impact indicators such as impact on asset valuation. Among the primary outcomes of the scenario analysis is an improved understanding of how extreme heat waves may impact the Company financially.

Cost of response to risk

100,000

Description of response and explanation of cost calculation

Parex is in the process of evaluating the cost of responding to identified climate-related risks. We estimate the initial cost of $100,000 for consultancy services necessary to perform a quantitative climate scenario analysis by the end of 2024.

Comment

The Company mitigation measures for addressing any potential impacts of exposure to this risk, including: robust environmental studies and impact assessments ("EIA") to identify key vulnerabilities within Parex' operational environment and supply chain, and opportunities to improve infrastructure and equipment resiliency, social programming to avoid risk of resource competition and retain social license to operate, and programs aimed at promoting efficient use of water , and emergency response plans.

Identifier

Risk 7

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Chronic physical

Other, please specify

Heavy precipitation (rain, hail, snow/ice)

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

Increased variability in precipitation patterns, resulting in: higher costs of exploration, development and construction due to longer execution times in wet conditions and/or disrupted supply chains; lost revenue potential resulting from operational shut-downs due to heavy rainfall and/or shorter operating seasons due to drought; higher water input costs due to baseline water stress; higher energy costs due to power supply system failures; and/or repair and replacement costs associated with infrastructural and equipment damage

Time horizon

Long-term

Likelihood

About as likely as not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

10,000,000

Potential financial impact figure – maximum (currency)

100,000,000

Explanation of financial impact figure

Through the ERM process, Parex evaluates the potential severity of a climate-related risk's financial impact from negligible (<$10 million USD financial impact) to severe (>$750 million USD financial impact). Potential severity of financial impact is currently based on the estimated impact on Parex' share price and consequent decrease in market capitalization should the risk occur. For increased increased variability in precipitation patterns, our initial risk assessment of the potential financial impact, maps the risk's likelihood as unlikely and impact scale as

minor ($10-100 million).
Parex plans to explore the potential financial impacts of climate-related risks and opportunities in more depth via a quantitative climate scenario analysis and subsequent use of additional financial impact indicators such as impact on asset valuation. Among the primary outcomes of the scenario analysis is an improved understanding of increased variability in precipitation patterns may impact the Company financially.

Cost of response to risk

100,000

Description of response and explanation of cost calculation

Parex is in the process of evaluating the cost of responding to identified climate-related risks. We estimate the initial cost of $100,000 for consultancy services necessary to perform a quantitative climate scenario analysis by the end of 2024.

Comment

The Company mitigation measures for addressing any potential impacts of exposure to this risk, including: robust environmental studies and impact assessments ("EIA") to identify key vulnerabilities within Parex' operational environment and supply chain, and opportunities to improve infrastructure and equipment resiliency, social programming to avoid risk of resource competition and retain social license to operate, and programs aimed at promoting efficient use of water , and emergency response plans.

Identifier

Risk 8

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Chronic physical
Changing temperature (air, freshwater, marine water)

Primary potential financial impact

Increased direct costs

Company-specific description

Increased average temperatures and frequency of extreme heat waves, resulting in: higher operating expenses due to increased energy consumption for space cooling; compromised health, safety and wellbeing of Parex' workers resulting from extreme heat exposure; and/or social unrest and/or competition for resources in surrounding communities resulting from water, energy, or food scarcity

Time horizon

Long-term

Likelihood

About as likely as not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

10,000,000

Potential financial impact figure – maximum (currency)

100,000,000

Explanation of financial impact figure

Through the ERM process, Parex evaluates the potential severity of a climate-related risk's financial impact from negligible (<$10 million USD financial impact) to severe (>$750 million USD financial impact). Potential severity of financial impact is currently based on the estimated impact on Parex' share price and consequent decrease in market capitalization should the risk occur. For increased average temperatures and frequency of extreme heat waves, our initial risk assessment of the potential financial impact, maps the risk's likelihood as unlikely and impact scale as minor ($10-100 million).

Parex plans to explore the potential financial impacts of climate-related risks and opportunities in more depth via a quantitative climate scenario analysis and subsequent use of additional financial impact indicators such as impact on asset valuation. Among the primary outcomes of the scenario analysis is an improved understanding of increased average temperatures and frequency of extreme heat waves may impact the Company financially.

Cost of response to risk

100,000

Description of response and explanation of cost calculation

Parex is in the process of evaluating the cost of responding to identified climate-related risks. We estimate the initial cost of $100,000 for consultancy services necessary to perform a quantitative climate scenario analysis by the end of 2024.

Comment

The Company mitigation measures for addressing potential impacts of exposure to this risk, include: robust environmental studies and impact assessments ("EIA") to identify key vulnerabilities within Parex' operational environment and supply chain, and opportunities to improve infrastructure and equipment resiliency, social programming to avoid risk of resource competition and retain social license to operate, and programs aimed at promoting efficient use of water , and emergency response plans.

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Primary potential financial impact

Reduced indirect (operating) costs

Company-specific description

Opportunity to decarbonize power generation in some fields by using renewables (geothermal and solar energy).

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

15,000,000

Potential financial impact figure – maximum (currency)

30,000,000

Explanation of financial impact figure

Based on energy cost savings (USD/kWh) for using renewable energy provided by the national grid or a photovoltaic solar system per the energy demand levels estimated within the power purchasing agreement (contract term - 15 years). In addition, the financial impact includes cost savings during the contract term (USD/kWh) on energy rates as a result of using the national grid por 5 MW and also a new solar field in Cabrestero field and two units of geothermal in Maracas and Rumba field.

Cost to realize opportunity

10,000,000

Strategy to realize opportunity and explanation of cost calculation

Signed contracts and agreements with providers and landowners to install the Photovoltaic System at Cabrestero Field. The costs to realize this opportunity include lease, social and environmental support as activities out of the PPA contract scope. (400KUSD)

As additional initiatives, Parex signed a PPA contract for solar power purchase and is planning to make an investment of an estimated 10,000,000 USD to connect Parex fields to the national power grid.

Parex is currently reviewing the costs related to Geothermal and other renewable energy initiatives seeking to realize climate-related opportunities to support the Company's long-term GHG emission reduction strategy.

Comment

Parex installed the second geothermal unit for the operated fields. Parex plans to install additional geothermal units in blocks, where generating power from geothermal is conducive. Also, where possible Parex will connect its fields to the electrical grid.

In 2022, Parex completed construction and started the operation of a 3 MWp Photovoltaic System at Cabrestero, adding renewable energy

sources to meet power demand on the block. The system is expected to produce up to 5,900 MWh-year of solar energy, displacing approximately 3,500 tCO2e per year.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of more efficient production and distribution processes

Primary potential financial impact

Increased revenues resulting from increased production capacity

Company-specific description

Construction of facilities reusing materials, pipelines to displace oil or gas trucking and gas treatment plants to avoid flaring.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

50,000,000

Potential financial impact figure – maximum (currency)

100,000,000

Explanation of financial impact figure

Estimated revenue over next five years based on the average gas price in the Colombian market and taking into account gas production forecast to be processed in new gas plants and avoided flaring volumes in fields such as La Belleza, Capachos, Arauca, etc.

Cost to realize opportunity

55,000,000

Strategy to realize opportunity and explanation of cost calculation

Development of a business plan to install facilities for gas treatment and distribution to minimize flaring volumes and take advantage of the different applications of gas to generate energy and recover liquids. Cost to realize opportunity is around $55,000,00,000 USD (Upgrade PTF Capachos $10,000,000 USD, Gas Plant La Belleza $25,000,000 USD and GAS Plant Arauca $20,000,000) calculated based on investment in facilities and infrastructure necessary to process and compress the projected gas production over the next five years.

Comment

The risk of a decrease in demand for petroleum products and associated opportunity to increase revenue by capturing a portion of increased demand for lower emissions products and services has prompted Parex to consider increasing the proportion of natural gas in its product mix.

Over the last few years, Parex has invested in several emission reduction initiatives, including reuse of materials for construction of facilities and the construction of well platforms flowline connecting various assets, this project displaced oil transport trucks. In 2021, Parex avoided releasing 1,998.75 tCO2e in scope 3 GHG emissions into the atmosphere as a result of this initiative.

The gas plants built at Capachos, Aguas Blancas and La Belleza fields to reduce gas flaring resulted in Parex avoiding the release of 130,052.94 tCO2e of direct GHG emissions

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of supportive policy incentives

Primary potential financial impact

Returns on investment in low-emission technology

Company-specific description

Use tax incentives targeting investments in renewable power generation to decarbonize field energy demand as energy efficiency projects.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

300,000

Potential financial impact figure – maximum (currency)

400,000

Explanation of financial impact figure

25% of the total investment value associated with renewable projects would be applied as tax credits in annual income tax. This is according to Colombia´s regulations promoting the execution of low-carbon projects using renewable energy.

Cost to realize opportunity

1,450,000

Strategy to realize opportunity and explanation of cost calculation

Cost is calculated based on estimated investments for renewable systems to be installed.

Comment

Over the next 5 years, Parex plans to develop new projects in renewable energy (geothermal and solar) power generation as part of meeting the demand for low-carbon power.

In 2021, Parex completed the installation of the second geothermal power generation unit to reduce the carbon intensity of fuel sources at the Rumba Field.

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a transition plan that aligns with a 1.5°C world?

Row 1

Transition plan

No, our strategy has been influenced by climate-related risks and opportunities, but we do not plan to develop a transition plan within two years

Explain why your organization does not have a transition plan that aligns with a 1.5°C world and any plans to develop one in the future

Parex recognizes the importance of aligning its climate change strategy with a 1.5 °C world . The Company is evaluating appropriate and responsible pathways of adapting its operations and business strategy to a lower carbon economy. In 2021, to better understand the potential impacts of different climate-related futures and the uncertainties related to the global transition to a lower carbon economy, Parex conducted a qualitative climate scenario analysis. The Company undertook an extensive qualitative climate-related scenario analysis in order to prioritize climate-related risks and opportunities with the greatest potential to impact Parex between 2021 and 2040. Parex explored a low emissions scenario and a moderate emissions scenario . The validated climate scenario analysis outputs were used to inform Parex' assessment of climate-related risks using the ERM likelihood and impact criteria described above. By applying the same assessment criteria, Parex can determine the relative significance of climate-related risks compared to other business and operational risks faced by the Company. Parex expects to conduct a quantitative climate-scenario analysis by no later than December 2024 in order to obtain a more detailed and quantified understanding of the potential impacts of the key climate-related risks identified. The Company plans to use these insights to inform corporate strategic planning and objective-setting as well as the development of a climate strategy, mitigation plans and associated management accountabilities. Managing climate-related risks may include identifying and implementing strategies to mitigate, transfer or control the risk.

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy
Row 1	Yes, qualitative

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios IEA NZE 2050	Company-wide		To better understand the potential impacts of different climate-related futures and the uncertainties related to the global transition to a lower carbon economy, Parex conducted a qualitative climate scenario analysis. Two distinct scenarios were selected for analysis, including: Low emissions scenario Aligned with the International Energy Agency's ("IEA") Net Zero Emissions by 2050 ("NZE2050") scenario and the Intergovernmental Panel on Climate Change's ("IPCC") Shared Socioeconomic Pathways ("SSP") 1.9 scenario. Explores a rapid and deep transformation of the global energy sector and meets the Paris Agreement goal of holding the rise in global temperatures to well below 2°C without an overshoot through to the end of this century. Key assumptions applied: Global temperatures rise above pre-industrial levels by 1.5°C or less by 2100, without an overshoot. Global oil demand falls by more than 4% each year between 2021 and 2040. Carbon prices average $205/tCO" in advanced economies by 2040.
Transition scenarios IEA STEPS (previously IEA NPS)	Company-wide		To better understand the potential impacts of different climate-related futures and the uncertainties related to the global transition to a lower carbon economy, Parex conducted a qualitative climate scenario analysis. Two distinct scenarios were selected for analysis, including: Moderate emissions scenario

			Aligned with the IEA's Stated Policies scenario ("STEPS") and IPCC's SSP4.5 scenario. Explores all of today's climate-related policies as well as announced policy intentions, insofar as they are supported by detailed plans for realization. Global temperature increase exceeds the critical 2°C by the end of this century. Key assumptions applied: Global temperatures rise above pre-industrial levels by 2.7°C to 3.4°C by 2100. Global oil demand growth stabilizes between 2030 and 2040 at 104mb/d. Carbon prices average $37/tCO" in selected regions by 2040.
Transition scenarios Customized publicly available transition scenario	Company-wide	1.5ºC	To better understand the potential impacts of different climate-related futures and the uncertainties related to the global transition to a lower carbon economy, Parex conducted a qualitative climate scenario analysis. Two distinct scenarios were selected for analysis, including: Low emissions scenario Aligned with the International Energy Agency's ("IEA") Net Zero Emissions by 2050 ("NZE2050") scenario and the Intergovernmental Panel on Climate Change's ("IPCC") Shared Socioeconomic Pathways ("SSP") 1.9 scenario. Explores a rapid and deep transformation of the global energy sector and meets the Paris Agreement goal of holding the rise in global temperatures to well below 2°C without an
Transition scenarios Customized publicly available transition scenario	Company-wide	2.1ºC - 3ºC	To better understand the potential impacts of different climate-related futures and the uncertainties related to the global transition to a lower carbon economy, Parex conducted a qualitative climate scenario analysis. Two distinct scenarios were selected for analysis, including: Moderate emissions scenario Aligned with the IEA's Stated Policies scenario ("STEPS") and IPCC's SSP4.5 scenario. Explores all of today's climate-related policies as well as announced policy intentions, insofar as they are supported by detailed plans for realization. Global temperature increase exceeds the critical 2°C by the end of this

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

What is Parex' exposure to climate-related risks and opportunities? What are the potential impacts under various scenarios explored, and What is the organization's resilience to the potential impacts of the scenarios?

Results of the climate-related scenario analysis with respect to the focal questions

Parex performed its first qualitative climate-related scenario analysis to prioritize climate-related risks and opportunities with the potential to impact the Company over multiple time horizons. The outputs inform Parex' governance, strategy and risk management. Through the process, a series of potential climate-related physical and transitions risks were identified and their corresponding mitigation measures articulated. These risks have been prioritized and integrated in Parex' risk register through the ERM process to ensure board's oversight and account for management's responsibility over climate-related matters. By the end of 2024, Parex plan to perform a quantitative scenario in order to further articulate the financial impact of identified risks and develop appropriate climate strategies.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Parex' Management meets regularly to discuss long-term the corporate strategy in the context of current and emerging climate-related risks and opportunities and Parex' aspiration to become one of the least carbon intense oil and gas producers among E&Ps. Parex is continuously exploring and implementing opportunities to reduce the carbon intensity of its product development activities.

		The risk of decreased demand for petroleum products and the associated opportunity to increase revenue by capturing a portion of increased demand for lower emissions products and services have prompted Parex to consider increasing the proportion of natural gas in its long-term product mix. We are making some progress. In 2021, we achieved an operational milestone that diversified our value chain when we began transporting gas (CNG) from La Belleza to our newly developed gas plant. La Belleza represents one of Parex' most important assets in the VIM-1 block. As a condensate gas field, La Belleza has created new opportunities for the Company in terms of evaluation and exploitation and is a key component that will help grow our gas portfolio in Colombia in the future.
Supply chain and/or value chain	Evaluation in progress	Parex is planning to adapt its approach to supply chain management to prioritize collaboration with suppliers and business partners to identify and implement carbon savings/ reduction initiatives throughout the value chain. This includes drilling and transportation partners. An example of how Parex has taken initiative on this can be demonstrated in Parex' efforts to reduce trucking activities, having switched to lower emissions pipelines on LLA 34 and Cabrestero in Q4 2021.
Investment in R&D	Yes	Parex plans to invest up to 5% of its annual Capex in activities and implementation of technologies aimed at reducing the Company's' operational carbon intensity at the Board's discretion. Investment in climate-related research and developments to date have focused on the identification and implementation of innovative means to reduce Parex' operational GHG footprint to mitigate current and emerging climate-related risks. In 2021, Parex made a substantial investment in the installation of two geothermal power generation units, new to Colombia, to reduce the carbon intensity of fuel sources at the Las Maracas and Rumba Fields.
Operations	Yes	All of Parex' operations are located in Colombia. The Company is constantly seeking opportunities to drive operational efficiencies to mitigate climate-related risks. In 2020, four Parex-operated fields of interest were identified for a geothermal co-production pilot and two generation unit installations have

		been planned for. Other applications of the technology are being investigated for deployment across Parex' assets. This geothermal power co-production project represents several milestones for both Parex and Colombia's progress towards energy diversification. It is the first generation of geothermal power in Colombia and first application of oilfield geothermal co-production in Latin America. With up to 100kW of generation potential as identified in the pilot stage, the project received the 2020 Colombian Petroleum Engineers Association innovation prize for environmental management renewable energy. To date, we have installed two units, which are expected to avoid ~580 tCO2e annually each. We continue to evaluate initiatives with the potential to further lower our GHG intensity including: (i) Cabrestero field connection to the grid, (ii) increasing Capachos' gas treatment capacity, (iii) solar farm, etc.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Direct costs Capital expenditures Access to capital	Climate-related risks and opportunities have influenced financial planning in: 1. The selection of resource developments that generate industry leading Scope 1,2,3 emission intensity. Parex has only developed conventional oil & gas reservoirs and does not have the application of unconventional development – horizontal fracking – in its existing Colombia development plan. This greatly reduces the energy and water requirements of a project. Additionally, Parex is actively increasing its resource portfolio to add natural gas and light oil. 2. The capital design to minimize energy requirements and lower direct costs. New projects are being designed to incorporate high energy efficiencies and low emissions. For example, at the Capachos light oil field, gas processing facilities were installed to be used as feedstock for on-site power generation. 3. Having short cycle time projects that generate free cash flow and minimize the requirement to access external capital

		funding. Parex maintains a top tier balance sheet – holding material amounts of USD cash and no long-term debt. Our business model is to build a sustainable free cash flow business that can thrive throughout the commodity cycles and be self -funded, not reliant on external capital sources.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Intensity target

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number

Int 1

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Location-based

Scope 3 category(ies)

Intensity metric

Metric tons CO2e per barrel of oil equivalent (BOE)

Base year

2019

Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

0.029997

Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)

0.000013

Intensity figure in base year for Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

0.03

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

100

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

100

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this Scope 3 intensity figure

% of total base year emissions in all selected Scopes covered by this intensity figure

100

Target year

2030

Targeted reduction from base year (%)

50

Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated]

0.015

% change anticipated in absolute Scope 1+2 emissions

% change anticipated in absolute Scope 3 emissions

0

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

0.0198

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)

0.00002

Intensity figure in reporting year for Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

0.01982

% of target achieved relative to base year [auto-calculated]

67.8666666667

Target status in reporting year

Underway

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

Target ambition

Please explain target coverage and identify any exclusions

Target includes GHG emissions from operated assets and excludes those from non-operated assets and scope 3 emissions

Plan for achieving target, and progress made to the end of the reporting year

Achieved 34% reduction from baseline and 13% reduction yoy. Parex plans further reduction through flaring volume reduction, electrification and renewables, and operational efficiencies.

In 2021, the main initiatives implemented that contributed to the reduction of operated GHG intensity included:

• Gas plants in Capachos, Aguas Blancas and La Belleza fields where flaring was reduced, resulting in avoided emissions of 130,052.94 tCO2e; and

• Geothermal units for electric power generation, resulting in avoided emissions of 371.76 tCO2e.

List the emissions reduction initiatives which contributed most to achieving this target

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Net-zero target(s)

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number

NZ1

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Int1

Target year for achieving net zero

2050

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

Please explain target coverage and identify any exclusions

Target includes operated scope 1 and 2 GHG emissions intensity and excluded scope 3 emissions and all emissions from non-operated assets

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?

Unsure

Planned milestones and/or near-term investments for neutralization at target year

Planned actions to mitigate emissions beyond your value chain (optional)

Currently under review

C-OG4.2d

(C-OG4.2d) Indicate which targets reported in C4.1a/b incorporate methane emissions, or if you do not have a methane-specific emissions reduction target for your oil and gas activities, please explain why not and forecast how your methane emissions will change over the next five years.

Parex does not have specific methane reduction targets. However, the conservation of energy and maximization of resources has led the Company to optimize power generation fuels and reduce methane emissions (specifically those associated with gas flaring). In 2021, Parex optimized flaring volumes so that new producing fields with high volumes of associated gas restricted operations until gas treatment facilities were built. As an example, La Belleza field's activities were suspended from April to November and only resumed once the facilities were completed. As a result, Parex avoided methane emissions associated with gas flaring.

The Company identified gas flaring and venting as main sources of methane emissions during the production process. In 2021, Parex continued to install additional gensets at the Capachos and La Belleza Fields to increase power generation capacity that maximizes the use of available natural gas and avoids flaring and associated methane emissions. In addition, the optimization of the Capachos gas plant has increased the production of products like liquated petroleum gas (LPG) that the Company can sell to local consumers. Parex is continuously seeking to improve gas plants operating at the Capachos and Aguas Blancas Fields to minimize flaring and to take advantage of different applications of natural gas such as generating energy and recovering liquids.

In 2022, Parex plans to pilot a project for detecting, measuring and quantifying fugitives and venting emissions. This is the Company's first step in comparing the estimated fugitive emissions with direct measurements prior to developing a gas recovery program.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	2	0
To be implemented*	3	6,000
Implementation commenced*	2	7,000
Implemented*	9	132,423.46
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Transportation

Company fleet vehicle replacement

Estimated annual CO2e savings (metric tonnes CO2e)

22.64

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 3 category 4: Upstream transportation & distribution

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

20,000

Investment required (unit currency – as specified in C0.4)

0

Payback period

No payback

Estimated lifetime of the initiative

3-5 years

Comment

161,538 kilometers traveled in 2021 with gas units instead of diesel units. The savings costs is calculated based on fuel consumption performance of gas-powered transport units versus diesel-powered units.

Initiative category & Initiative type

Transportation

Other, please specify

Reducing of trucking due to use of a Flowline between Azogue-Kananaskis

Estimated annual CO2e savings (metric tonnes CO2e)

38.39

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 3 category 4: Upstream transportation & distribution

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

20,000

Investment required (unit currency – as specified in C0.4)

1,964,605

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

Azogue -Kananaskis Flowline, reducing trucking using diesel and/or Gas.

Initiative category & Initiative type

Transportation

Other, please specify

Reducing of trucking due to use of a Flowline between Capachos andina

Estimated annual CO2e savings (metric tonnes CO2e)

420.33

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 3 category 4: Upstream transportation & distribution

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

3,000,000

Investment required (unit currency – as specified in C0.4)

4,317,909

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

Capachos-Andina Flowline, reducing trucking using diesel and/or Gas.

Initiative category & Initiative type

Low-carbon energy generation

Geothermal

Estimated annual CO2e savings (metric tonnes CO2e)

371.76

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

15,000

Investment required (unit currency – as specified in C0.4)

1,450,000

Payback period

11-15 years

Estimated lifetime of the initiative

16-20 years

Comment

Use of thermal energy from the production fluid to generate power.

Initiative category & Initiative type

Energy efficiency in production processes

Other, please specify

Capachos Gas plant operation

Estimated annual CO2e savings (metric tonnes CO2e)

77,200.02

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

0

Investment required (unit currency – as specified in C0.4)

7,067,098

Payback period

4-10 years

Estimated lifetime of the initiative

6-10 years

Comment

Gas plant operation at the Capachos field to reduce gas flaring to a minimum. Parex has not yet determined the monetary savings.

Initiative category & Initiative type

Energy efficiency in production processes

Other, please specify

Aguas Blancas Gas plant operation

Estimated annual CO2e savings (metric tonnes CO2e)

38,980.41

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

0

Investment required (unit currency – as specified in C0.4)

4,023,420

Payback period

4-10 years

Estimated lifetime of the initiative

6-10 years

Comment

Gas plant operation at the Aguas Blancas field to reduce gas flaring to a minimum. Parex has not yet determined the monetary savings.

Initiative category & Initiative type

Energy efficiency in production processes

Other, please specify

La Belleza Gas plant construction and operation

Estimated annual CO2e savings (metric tonnes CO2e)

13,872.51

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

0

Investment required (unit currency – as specified in C0.4)

10,968,000

Payback period

4-10 years

Estimated lifetime of the initiative

6-10 years

Comment

Gas plant construction and operation at the La Belleza field to reduce gas flaring to a minimum. Parex has not yet determined the monetary savings.

Initiative category & Initiative type

Energy efficiency in buildings
Lighting

Estimated annual CO2e savings (metric tonnes CO2e)
424.99

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 3 category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
80,000

Investment required (unit currency – as specified in C0.4)
0

Payback period
No payback

Estimated lifetime of the initiative
6-10 years

Comment
Replacement of individual lighting units powered by diesel with low consumption lamps connected to the central generation system.

Initiative category & Initiative type
Waste reduction and material circularity
Remanufacturing

Estimated annual CO2e savings (metric tonnes CO2e)

1,092.4

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 3 category 5: Waste generated in operations

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

700,000

Investment required (unit currency – as specified in C0.4)

780,000

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

Reuse of equipment and materials in the construction of new facilities. The estimated amounts are calculated based on the remanufacturing rates and steel prices in the market.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Dedicated budget for energy efficiency	Parex has a dedicated budget for its geothermal project aimed at minimizing operational CO2e emissions. The project is a voluntary initiative through which the Company is focusing on generating low-carbon energy for an estimated investment of

	US $1 million. Two geothermal generators were installed at the Las Maracas and Rumba Fields in 2021. In addition, a dedicated budget was assigned to create a multidisciplinary workgroup as an evaluation mechanism whose purpose is to evaluates internally the alternatives that allow the adoption of initiatives to decarbonize Parex's energy demand. Main objective for this team are: I) Compile ideas (initiatives) for reducing GHG emissions and energy efficiency improvements; and propose them to the sustainability work group for consideration; and (ii) Evaluate/Audit new projects' GHG emissions intensity to estimate their impact on the Company' GHG emissions profile as well as reduction targets (apply an internal carbon price to new projects).
Dedicated budget for other emissions reduction activities	Parex plans to invest up to 5% of its annual Capex in initiatives aimed at reducing the operating carbon footprint, at the discretion of the Board and Management. The Company dedicates some budgets to invest in initiatives that optimize operations and reduce emissions. In 2021, Parex allocated funds to the following initiatives: (i) the evaluation of a pilot project for detecting, measuring and quantifying fugitive emissions; the execution of this project is expected in 2022; (ii) The evaluation of a cogeneration project, which targets the use of residual heat from combustion gases produced by the power generation units, in order to reduce gas consumption in the treatment process of crude oil - (expected avoided emissions: 3,000 CO2e/ year); and the Solar farm installation at Cabrestero, which started in 2021 and was completed 2022; this project is expected to avoid ~ 3,500 tons of CO2e/year.
Financial optimization calculations	The financial analysis and evaluation that Parex undertakes for new projects aimed at improving energy efficiency and decarbonizing field energy incorporates tax incentives as part of Parex' determination of whether a particular project will be feasible in the medium-term. In 2021, Parex invested initiatives such as developing and operating the first geothermal power unit in Colombia and the first application of oilfield geothermal co-production in Latin America. A second unit was installed during 2021 but commenced operation in 2022. Similar projects are being evaluated for feasibility at other production fields. This project

	achieved an income tax reduction of up to 25% of the total investment value, due to tax credits associated with new investments in the renewable energy production. A 15-year term power purchasing agreement with a local power company was signed to provide solar power connected to the local electric grid, saving energy costs and displacing the use of fossil fuels.
Internal price on carbon	In the absence of a carbon tax in Colombia, Parex performs sensitivity analysis of funds flow to a potential carbon price during its long-term planning processes. Starting in 2023, a price of USD $30/ton CO2 is applied, and the price increases annually by $15/ton CO2 to a cap of $140/ton CO2.
Internal incentives/recognition programs	The Company's annual incentive plan is based on a balanced scorecard and applies to all employees. Included in the 2021 scorecard was a short-term interim target to reduce Scopes 1 & 2 GHG emissions intensity year-over-year to support Parex' achievement of its medium-term target to reduce Scopes 1 and 2 GHG emissions intensity by 50% by 2030 from a 2019 baseline. Other goals 2021 included an emission reduction project and reporting in alignment with SASB and the TCFD Recommendations.
Partnering with governments on technology development	Parex is currently evaluating with academia and government entities the possibility of participating in projects that have as an objective reducing greenhouse gases. In prior years, Parex signed agreements with the Universidad Nacional, Medellín, in order to participate in the calls of the Ministry of Science, Technology and Innovation - MINCIENCIAS, on science, technology and innovation projects. One of the most relevant projects executed with the said University is the cogeneration of geothermal energy and oil. This project had among its objectives the evaluation and pursuit of achieving greenhouse gas reductions. In 2022, Parex plans to evaluate with de Universidad Nacional the initiative of producing and using hydrogen as a strategic option for reducing emissions within the framework of the global energy transition.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

No

C-OG4.6

(C-OG4.6) Describe your organization's efforts to reduce methane emissions from your activities.

Parex has outlined an internal plan, targeting the reduction of methane emissions over the next few years. In phase 1, the Company will focus on detecting and measuring fugitive and venting emissions within the production processes, Subsequently, the Company will validate the sources of such emissions and upgrade facilities as necessary to minimize vents and leaks.

Planned activities include:

- Preventive maintenance strategy - use of new technologies to monitor the condition of the equipment and facilities associated with gas processes in order to detect, quantify and repair leaks.
- Train operating staff to inspect and repair leaks in gas processes.
- Eliminate or reduce flaring wherever feasible.
- Install equipment that are efficient for avoiding or reusing the vented gases.
- Improving the design and engineering of facilities in new projects

C-OG4.7

(C-OG4.7) Does your organization conduct leak detection and repair (LDAR) or use other methods to find and fix fugitive methane emissions from oil and gas production activities?

Yes

C-OG4.7a

(C-OG4.7a) Describe the protocol through which methane leak detection and repair or other leak detection methods, are conducted for oil and gas production activities, including predominant frequency of inspections, estimates of assets covered, and methodologies employed.

In 2022, Parex plans to implement a pilot LDAR with OGI and QOGI technology in all its main production facilities with the aim of determining accurately methane emissions and establishing an ideal program for managing such emissions.
As stated in prior year's responses, Parex has a protocol at the production facilities where natural gas is handled for treatment or for consumption using methane detectors installed throughout the lines to detect any leaks; these detectors are calibrated and inspected every six months. The protocol, at oil facilities, includes several inspections from production staff who conduct regular gas detections with portable equipment to detect possible leaks; these detectors are calibrated and inspected every six months according to metrological requirements of local regulations and standards.

C-OG4.8

(C-OG4.8) If flaring is relevant to your oil and gas production activities, describe your organization's efforts to reduce flaring, including any flaring reduction targets.

Aligned with the World Bank's zero routine flaring initiative, Parex has a goal of eliminating routine flaring in operations by 2025. The gas plants at the Capachos and Aguas Blancas Fields are frequently assessed for improvements intended to minimize flaring and to take advantage of different applications of natural gas such as generating energy and recovering liquids. As an example, the Company undertook in 2021a new project to install a 7 MW gas turbine on Capachos field. To evaluate the reduction of flaring in new exploratory wells, Parex has planned production testing processes to obtain oil field information under minimum gas flare. Furthermore, Parex optimized flaring volumes so that new producing fields with high volumes of gas restricted operations until gas treatment facilities were built. As example, La Belleza's activities were suspended from April to November and resumed only once the facilities were completed. The Company expects continue increasing the volume of gas treatment, leading to additional avoided flaring. During in 2021, Parex avoided 130,052.94 tCO2e of Scope 1 as a result of gas plants.

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

No

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?
Row 1	No

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

190,409.58

Comment

Activities included:

- Gas Flares
- Fugitive Emissions (vented emissions of atmospheric tanks, production gas emissions and production oil emissions)
- Emissions due to air conditioning in production facilities
- Oil & gas consumption for steam generation (Parex' own equipment).
- Fuel consumption for power generation (using rental power generators in Parex' facilities).

Scope 2 (location-based)

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

82.85

Comment

National Interconnected System for Office and Field. (Canada and Columbia)

Scope 2 (market-based)

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

0

Comment

No market-based Scope 2 emissions.

Scope 3 category 1: Purchased goods and services

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

14.25

Comment

Value reported for the pulp and paper manufacturing industry.

Scope 3 category 2: Capital goods

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Parex did not include this category in the annual GHG inventory

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

20,012

Comment

Value from fuel consumption and fugitive emissions in suppliers' operations.

Scope 3 category 4: Upstream transportation and distribution

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

12,531

Comment

Value associated with fuel combustion in transportation from suppliers' operations.

Scope 3 category 5: Waste generated in operations

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

1,056

Comment

Value associated with the treatment of solid waste of organic origin and wastewater disposal.

Scope 3 category 6: Business travel

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

4,580.69

Comment

Value associated with fuel combustion in the transportation of administrative staff and collaborators.

Scope 3 category 7: Employee commuting

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Category not included in GHG inventory

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Category not included in GHG inventory

Scope 3 category 9: Downstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Category not included in GHG inventory

Scope 3 category 10: Processing of sold products

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

215,457.64

Comment

Emissions associated with this category included in GHG inventory since 2020

Scope 3 category 11: Use of sold products

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

2,460,563.51

Comment

Emissions associated with this category included in GHG inventory since 2020

Scope 3 category 12: End of life treatment of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Category not included in the GHG inventory

Scope 3 category 13: Downstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Category not included in the GHG inventory

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Category not included in GHG inventory

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Category not included in GHG inventory

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Category not included in GHG inventory

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Category not included in GHG emissions inventory

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

ISO 14064-1

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

158,324.11

Start date

January 1, 2021

End date

December 31, 2021

Comment

Direct Sources - fuel combustion (diesel, gas, crude) for power generation, flared gas, refrigeration emissions and fugitive emissions.

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)

140,719.81

Start date

January 1, 2020

End date

December 31, 2020

Comment

Direct Sources - fuel combustion (diesel, gas, crude) for power generation, flared gas, refrigeration emissions and fugitive emissions.

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)

190,410

Start date

January 1, 2019

End date

December 31, 2019

Comment

Direct Sources - fuel combustion (diesel, gas, crude) for power generation, flared gas, refrigeration emissions and fugitive emissions.

Past year 3

Gross global Scope 1 emissions (metric tons CO2e)

125,352

Start date

January 1, 2018

End date

December 31, 2018

Comment

Direct Sources - fuel combustion (diesel, gas, crude) for power generation, flared gas, refrigeration emissions and fugitive emissions.

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

Comment

Energy acquired by Parex is taken from the national interconnected system for facilities (Kona, Capachos, and Aguas Blancas) & offices in Colombia (Bogota, Tauramena, Yopal, Tame and Saravena) and from Alberta Interconnected Electric System for the Calgary office.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

176.29

Start date

January 1, 2021

End date

December 31, 2021

Comment

Energy acquired by Parex is taken from the national interconnected system for facilities (Kona, Capachos Centro and Aguas Blancas) & offices in Colombia (Bogota,Tauramena, Yopal, and Tame, Saravena) and from Alberta Interconnected Electric System for the Calgary office. Scope 2 emissions increased as a result of higher power demand from the grid in operations. There was also a change in accounting methodology for energy consumption in the Bogota offices as specific meters were installed and resulted in more accurate measurement and the Company office spaces were larger

Past year 1

Scope 2, location-based

149.57

Start date

January 1, 2020

End date

December 31, 2020

Comment

Energy acquired by Parex is taken from the national interconnected system for facilities (Kona, Capachos Centro and Aguas Blancas) & offices in Colombia (Bogota,Tauramena, Yopal, and Tame) and from Alberta Interconnected Electric System for the Calgary office. Scope 2 emissions

increased as a result of higher power demand from the grid in Aguas Blancas compared to previous years. There was also a change in accounting methodology for energy consumption in the Bogota offices as specific meters were installed and resulted in more accurate measurement and the Company 'occupied larger office spaces

Past year 2

Scope 2, location-based

82.85

Start date

January 1, 2019

End date

December 31, 2019

Comment

Scope 2, location-based energy acquired by Parex is taken from the national interconnected system for facilities (Kona, Capachos Centro and Aguas Blancas) & offices in Colombia (Bogota, Tauramena, Yopal, Tame) and the Alberta Interconnected Electric System for the Calgary office.

Past year 3

Scope 2, location-based

95.38

Start date

January 1, 2018

End date

December 31, 2018

Comment

Scope 2, location-based.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

82.67

Emissions calculation methodology

Average data method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

GHG emissions from using paper products were calculated using an emission factor (EF) of 1.05 tCO2e per ton of paper. This is the EF value reported for the pulp and paper manufacturing industry harvesting from managed timberlands (Silva et al, 2015). GHG emissions from cooling and air conditioning systems were estimated based on global warming potentials (GWP) for each gas reported in IPCC guidelines representing the factors by which the amount of gas leak is multiplied to derive CO2e values.

Capital goods

Evaluation status

Not evaluated

Please explain

Parex does not include the emissions associated with this category in the GHG inventory, but plans to evaluate the relevance of these figures in the future.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

18,429.54

Emissions calculation methodology

Supplier-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

The emissions calculation from fuel consumption and fugitive emissions. GHG emissions associated with fuel combustion were calculated based on emission factors for CO2, density and caloric values provided by FECOC (Emission Factors for Colombian Fuels) (2016). Emission factors for methane and nitrous oxide were based on IPCC (2006) data for each type of fuel. The international metric system and methodology unit standards from Colombia's Industry and Tourism Superintendence were used for unit conversion. Fugitives emissions were estimated using IPCC (2006) emission factors.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

9,490.59

Emissions calculation methodology

Fuel-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

Emissions calculation includes information about GHG emissions associated with transportation, fuel combustion was calculated based on emission factors for CO2, density and caloric values provided by FECOC (Emission Factors for Colombian Fuels) (2016). Emission factors for methane and nitrous oxide were based on IPCC (2006) data for each type of fuel. International metric system and metrology unit standards from Colombia's Industry and Tourism Superintendence were used for unit conversion.

Waste generated in operations

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

596.82

Emissions calculation methodology

Waste-type-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

In the process of estimating GHG emissions by treatment of solid waste of organic origin, emission factors were used for methane (4 g of CH4 / Kg of treated organic waste) and nitrous oxide (0.3 g of N2O / Kg of organic waste) reported by the IPCC (2006). For the elimination and

treatment of wastewater, factors provided by the IPCC (2006) were used (Methane: 0.6 kg CH4 / kg BOD, Nitrogen: 0.005 Kg N2O-N / Kg N.) and averages of degradable organic matter - (Biochemical demand of Oxygen - BOD) (38.4g / person / day) established for Colombia and reported in the national GHG inventory published by the IDEAM et al. (2015). A methane correction factor (MFC: 0.1)corresponding to systems not treated and eliminated in rivers, provided by the IPCC (2006) Emissions from water and solid residues generated in operations which are sent to third party companies for disposal.

Business travel

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

970.13

Emissions calculation methodology

Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

The process for estimating GHG emissions from fuel combustion, factors of CO2 emissions, density and caloric values of the FECOC (2016) (emission factors of Colombian fuels) were used. Methane and nitrous oxide emission factors were taken from the IPCC (2006) for each type of fuel (gasoline, diesel and aviation fuel).

Employee commuting

Evaluation status

Not evaluated

Please explain

Parex does not include the emissions associated with this category in the GHG inventory, but plans to evaluate the relevance of these figures in the future

Upstream leased assets

Evaluation status

Not evaluated

Please explain

Parex does not include the emissions associated with this category in the GEI inventory, but plans to evaluate the relevance of these figures in the future

Downstream transportation and distribution

Evaluation status

Not evaluated

Please explain

Parex does not include the emissions associated with this category in the GEI inventory, but plans to evaluate the relevance of these figures in the future

Processing of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

227,656.51

Emissions calculation methodology

Average data method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Scope 3 emissions related to Processing of Sold Products were identified and calculated following the GHG Protocol Guidance regarding Scope 3 emissions. Total GHG emissions do not include biogenic CO2 emissions. Emissions were calculated according to the following steps:
1) Total annual sold crude volumes to refineries.
2) Specific national refinery process emissions factor was used for crude processing.
3) GHG emissions were calculated by multiplying sold volumes with the refinement emission factor.
4) Emissions from refined crude correspond to the sum of the total crude produced and sold to refineries during 2021. Global warming potentials from the 4th IPCC Assessment report were used for the calculations.

Use of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

2,571,207.27

Emissions calculation methodology

Methodology for direct use phase emissions, please specify

Fuels and feedstocks

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Scope 3 emissions related to Use of Sold Products were identified and calculated following the GHG Protocol Guidance regarding Scope 3 emissions. Total GHG emissions do not include biogenic CO2 emissions. Emissions were calculated according to the following steps:
1) Total annual sold volumes were obtained for each costumer (refineries or corporate).
2) Specific fuel combustion emission factors were used for each fuel type (sold products).
3) GHG emissions were calculated by multiplying sold volumes with the relevant fuel combustion emission factor.

4) Emissions from each production field were summed to give the total emissions. Global warming potentials from the 4th IPCC Assessment report were used for the calculations.

End of life treatment of sold products

Evaluation status

Not evaluated

Please explain

Parex does not include the emissions associated with this category in the GHG inventory, but plans to evaluate the relevance of these figures in the future

Downstream leased assets

Evaluation status

Not evaluated

Please explain

Parex does not include the emissions associated with this category in the GHG inventory, but plans to evaluate the relevance of these figures in the future

Franchises

Evaluation status

Not evaluated

Please explain

Parex does not include the emissions associated with this category in the GEI inventory, but plans to evaluate the relevance of these figures in the future

Investments

Evaluation status

Not evaluated

Please explain

Parex does not include the emissions associated with this category in the GHG inventory, but plans to evaluate the relevance of these figures in the future

Other (upstream)

Evaluation status

Not evaluated

Please explain

Parex does not include the emissions associated with this category in the GHG inventory, but plans to evaluate the relevance of these figures in the future

Other (downstream)

Evaluation status

Not evaluated

Please explain

Parex does not include the emissions associated with this category in the GHG inventory, but plans to evaluate the relevance of these figures in the future

C6.5a

(C6.5a) Disclose or restate your Scope 3 emissions data for previous years.

Past year 1

Start date

January 1, 2020

End date

December 31, 2020

Scope 3: Purchased goods and services (metric tons CO2e)

3.13

Scope 3: Capital goods (metric tons CO2e)

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

11,854.16

Scope 3: Upstream transportation and distribution (metric tons CO2e)

7,182.01

Scope 3: Waste generated in operations (metric tons CO2e)

193.39

Scope 3: Business travel (metric tons CO2e)

741.36

Scope 3: Employee commuting (metric tons CO2e)

Scope 3: Upstream leased assets (metric tons CO2e)

Scope 3: Downstream transportation and distribution (metric tons CO2e)

Scope 3: Processing of sold products (metric tons CO2e)

215,457.64

Scope 3: Use of sold products (metric tons CO2e)

2,460,563.51

Scope 3: End of life treatment of sold products (metric tons CO2e)

Scope 3: Downstream leased assets (metric tons CO2e)

Scope 3: Franchises (metric tons CO2e)

Scope 3: Investments (metric tons CO2e)

Scope 3: Other (upstream) (metric tons CO2e)

Scope 3: Other (downstream) (metric tons CO2e)

Comment

Emissions from the use and processing of sold products reported since 2020 GHG inventory. The emission factors (FECOC 2016, IPCC 2006, IDEAM 2015) and the data collected for the calculations depend on each particular category.

Past year 2

Start date

January 1, 2019

End date

December 31, 2019

Scope 3: Purchased goods and services (metric tons CO2e)

14.25

Scope 3: Capital goods (metric tons CO2e)

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

20,012

Scope 3: Upstream transportation and distribution (metric tons CO2e)

12,531

Scope 3: Waste generated in operations (metric tons CO2e)

1,056

Scope 3: Business travel (metric tons CO2e)

4,580.69

Scope 3: Employee commuting (metric tons CO2e)

Scope 3: Upstream leased assets (metric tons CO2e)

Scope 3: Downstream transportation and distribution (metric tons CO2e)

Scope 3: Processing of sold products (metric tons CO2e)

Scope 3: Use of sold products (metric tons CO2e)

Scope 3: End of life treatment of sold products (metric tons CO2e)

Scope 3: Downstream leased assets (metric tons CO2e)

Scope 3: Franchises (metric tons CO2e)

Scope 3: Investments (metric tons CO2e)

Scope 3: Other (upstream) (metric tons CO2e)

Scope 3: Other (downstream) (metric tons CO2e)

Comment

The emission factors (FECOC 2016, IPCC 2006, IDEAM 2015) and the data collected for the calculations depend on each particular category.

Past year 3

Start date

January 1, 2018

End date

December 31, 2018

Scope 3: Purchased goods and services (metric tons CO2e)

42.37

Scope 3: Capital goods (metric tons CO2e)

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

21,624.01

Scope 3: Upstream transportation and distribution (metric tons CO2e)

13,285.12

Scope 3: Waste generated in operations (metric tons CO2e)

370.63

Scope 3: Business travel (metric tons CO2e)

1,757.22

Scope 3: Employee commuting (metric tons CO2e)

Scope 3: Upstream leased assets (metric tons CO2e)

Scope 3: Downstream transportation and distribution (metric tons CO2e)

Scope 3: Processing of sold products (metric tons CO2e)

Scope 3: Use of sold products (metric tons CO2e)

Scope 3: End of life treatment of sold products (metric tons CO2e)

Scope 3: Downstream leased assets (metric tons CO2e)

Scope 3: Franchises (metric tons CO2e)

Scope 3: Investments (metric tons CO2e)

Scope 3: Other (upstream) (metric tons CO2e)

Scope 3: Other (downstream) (metric tons CO2e)

Comment

The emission factors (FECOC 2016, IPCC 2006, IDEAM 2015) and the data collected for the calculations depend on each particular category.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

Yes

C6.7a

(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	3,899.16	Carbon dioxide emissions from biogenic carbon are calculated as a 10% of the diesel consumed in the operations. This 10% of the diesel components is biofuel (B-10). 22% of biogenic emissions are associated with scope 1 and 78% with scope 3.

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.0198226502

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

158,500.4

Metric denominator

barrel of oil equivalent (BOE)

Metric denominator: Unit total

7,995,923.79

Scope 2 figure used

Location-based

% change from previous year

13.17

Direction of change

Decreased

Reason for change

GHG emissions intensity decreased by 13.17% yoy as a result of several emissions reduction initiatives

Intensity figure

0.000149927

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

158,500.4

Metric denominator

unit total revenue

Metric denominator: Unit total

1,057,184,000

Scope 2 figure used

Location-based

% change from previous year

37.47

Direction of change

Decreased

Reason for change

Based on higher gross revenue compared to 2020. This indicator decreased due to a better financial performance, related to the increase in the Company's revenues as a result of higher oil prices

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Intensity figure

427.2247978437

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

158,500.4

Metric denominator

full time equivalent (FTE) employee

Metric denominator: Unit total

371

Scope 2 figure used

Location-based

% change from previous year

5.54

Direction of change

Increased

Reason for change

Based on higher emissions number and higher FTE compared to 2020 as a result of increased activities once COVID restrictions were lifted.

C-OG6.12

(C-OG6.12) Provide the intensity figures for Scope 1 emissions (metric tons CO2e) per unit of hydrocarbon category.

Unit of hydrocarbon category (denominator)

Thousand barrels of crude oil/ condensate

Metric tons CO2e from hydrocarbon category per unit specified

23.14

% change from previous year

10

Direction of change

Decreased

Reason for change

a 10% yoy decrease due to more efficient processes and operations

Comment

Compared to 25.64 tCO2e/Mbbl in 2020

Unit of hydrocarbon category (denominator)

Million cubic feet of natural gas

Metric tons CO2e from hydrocarbon category per unit specified

20.87

% change from previous year

17

Direction of change

Decreased

Reason for change

17% reduction yoy as a result of better performance in gas management and production versus to the increase in absolute emissions, by more efficient processes and operations

Comment

Compared to 25.02 tCO2e/MMscf in 2020

C-OG6.13

(C-OG6.13) Report your methane emissions as percentages of natural gas and hydrocarbon production or throughput.

Oil and gas business division

Upstream

Estimated total methane emitted expressed as % of natural gas production or throughput at given division

0.364

Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division

0.058

Comment

In 2021, figure was recalculated to express total methane emitted as percentage (%) of natural gas and oil production. 2021: oil and gas production = 1,207,805.13 tons (oil and gas), oil production = 1,015,806.34 tons, total natural gas production = 191,998.8 tons, and CH4 = 698.23 tons. As a result CH4 represents 0.364% as % of natural gas production and 0.058% as % of total oil production. YOY, there was a 26% reduction in methane emissions as percentage of natural gas and a 20% reduction in methane emissions as a percentage of hydrocarbon.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference

CO2	140,436.77	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	17,455.77	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	252.37	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	179.2	IPCC Fourth Assessment Report (AR4 - 100 year)

C-OG7.1b

(C-OG7.1b) Break down your total gross global Scope 1 emissions from oil and gas value chain production activities by greenhouse gas type.

Emissions category

Combustion (excluding flaring)

Value chain

Upstream

Product

Unable to disaggregate

Gross Scope 1 CO2 emissions (metric tons CO2)

79,925.78

Gross Scope 1 methane emissions (metric tons CH4)

1.25

Total gross Scope 1 emissions (metric tons CO2e)

80,000

Comment

Including CO2, CH4, N2O and HFC.

Emissions category

Flaring

Value chain

Upstream

Product

Gas

Gross Scope 1 CO2 emissions (metric tons CO2)

60,507.84

Gross Scope 1 methane emissions (metric tons CH4)

366.71

Total gross Scope 1 emissions (metric tons CO2e)

69,885.15

Comment

Including CO2, CH4, N2O and HFC.

Emissions category

Venting

Value chain

Upstream

Product

Gas

Gross Scope 1 CO2 emissions (metric tons CO2)

0

Gross Scope 1 methane emissions (metric tons CH4)

256.61

Total gross Scope 1 emissions (metric tons CO2e)

6,415.19

Comment

Including CO2, CH4, N2O and HFC.

Emissions category

Fugitives

Value chain

Upstream

Product

Gas

Gross Scope 1 CO2 emissions (metric tons CO2)

3.15

Gross Scope 1 methane emissions (metric tons CH4)

73.66

Total gross Scope 1 emissions (metric tons CO2e)

1,844.57

Comment

Including CO2, CH4, N2O and HFC.

Emissions category

Other (please specify)

Other emissions

Value chain

Upstream

Product

Unable to disaggregate

Gross Scope 1 CO2 emissions (metric tons CO2)

0

Gross Scope 1 methane emissions (metric tons CH4)

0

Total gross Scope 1 emissions (metric tons CO2e)

179.2

Comment

Including CO2, CH4, N2O and HFC.

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
Colombia	158,324.11

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By facility

By activity

C7.3b

(C7.3b) Break down your total gross global Scope 1 emissions by business facility.

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
LLANOS 30 (Adalia)	515.191	5.128743	-71.096349
LLANOS 40 (Begonia)	2,946.485	5.788396	-71.388413
FORTUNA (Cayena/Totumal)	1,896.396	8.160782	-73.58952
PLAYON (Boranda)	2,658.153	7.672808	-73.562465
CABRESTERO (Kitaro/Akira/Bacano)	34,158.705	4.342332	-72.715722
LLANOS 26 (Rumba)	6,419.747	4.867884	-72.419899
LOS OCARROS (Las Maracas)	8,118.587	5.360983	-71.978597
LLANOS 32 (Gas Plant/Carmentea/Kananaskis/Azogue/Calona)	10,908.501	4.534299	-72.622293
CAPACHOS (Capachos/Andina)	57,308.564	6.570293	-71.754997
Aguas Blancas	6,068.13	6.834932	-73.772107
LLANOS 16 (Kona)	2,176.006	5.609489	-71.864236
VIM-1 (La Belleza)	25,147.1	9.879532	-74.627223

Bogota	2.543	4.691426	-74.034776

C7.3c

(C7.3c) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Oil and gas production	158,324.11

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Comment
Oil and gas production activities (upstream)	158,324.11	100% upstream activities
Oil and gas production activities (midstream)	0	no midstream activities
Oil and gas production activities (downstream)	0	no downstream activities

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Colombia	110.46	0
Canada	65.83	0

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By facility
By activity

C7.6b

(C7.6b) Break down your total gross global Scope 2 emissions by business facility.

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Kona	3.889	0
Tauramena office	2.232	0
Bogotá office	41.141	0
Yopal office	10.307	0
Tame office	5.444	0
Calgary office	65.833	0
Capachos Centro	6.69	0
Aguas Blancas	38.949	0
Barrancabermeja	1.774	0
Saravena	0.028	0

C7.6c

(C7.6c) Break down your total gross global Scope 2 emissions by business activity.

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Oil and Gas production	176.29	0

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Oil and gas production activities (upstream)	176.29	0	Energy acquired by Parex is taken from the national interconnected system for facilities (Kona, Capachos Centro and Aguas Blancas) and offices (Bogota, Tauramena, Yopal, Tame, Saravena) in Colombia and from the Alberta Interconnected Electric System for the Calgary office
Oil and gas production activities (midstream)	0	0	0
Oil and gas production activities (downstream)	0	0	0

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Increased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption				No emissions from renewable energy consumption in 2021
Other emissions reduction activities				Not observed
Divestment				No divestment activity in 2021
Acquisitions				No emissions from acquired assets in 2021
Mergers				No emissions from mergers assets in 2021
Change in output	17,604.298	Increased	12	The increase of 12% compared to 2020, due to operating activities resuming to pre-pandemic levels
Change in methodology				No change in methodology
Change in boundary				Maintained operating control boundary
Change in physical operating conditions				No change in physical operating conditions observed
Unidentified				None
Other	26.72	Increased	0.02	Installation of energy meters and purchased energy to national grid. The increase of 0.02% compared to 2020, due to the return of employees to the offices after easing COVID-19 restrictions.

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 20% but less than or equal to 25%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh

Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	352,339.17	352,339.17
Consumption of purchased or acquired electricity		1,011.11	0	1,011.11
Consumption of purchased or acquired heat		0	158.33	158.33
Consumption of self-generated non-fuel renewable energy		236.11		236.11
Total energy consumption		1,247.22	352,497.5	353,744.72

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

Heating value

LHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

Comment

Parex does not use biomass as a source of energy generation

Other biomass

Heating value

LHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

Comment

Parex does not use any type of biomass as a source of energy generation

Other renewable fuels (e.g. renewable hydrogen)

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

236.11

MWh fuel consumed for self-generation of electricity

236.11

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

Comment

Parex uses geothermal energy as a source of power generation. Since 2021, Parex generates electricity from two geothermal units and started the operation of a solar farm in 2022 for self-generation.

Coal

Heating value

LHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

Comment

Parex does not use coal as a source of energy generation

Oil

Heating value

LHV

Total fuel MWh consumed by the organization

16,044.46

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

16,044.46

Comment

Parex took emissions factors 11.282 kg CO2/Gal, (FECOC – Factor emissions of Colombian fuels - Ministry of energy of Colombia IPCC) from national sources.

Gas

Heating value

LHV

Total fuel MWh consumed by the organization

304,466.91

MWh fuel consumed for self-generation of electricity

304,308.58

MWh fuel consumed for self-generation of heat

158.33

MWh fuel consumed for self-generation of steam

0

Comment

For generation of electricity, Parex took emissions factors 1.980 kg CO2/m3,(FECOC – Factor emissions of Colombian fuels - Ministry of energy of Colombia IPCC) from national sources; and for generation of heat, the Company took emissions factors 56,300 kg CO2/TJ

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

LHV

Total fuel MWh consumed by the organization

31,986.14

MWh fuel consumed for self-generation of electricity

31,986.14

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

Comment

Parex uses diesel, LPG and COWGEN - Fuel Oil as a sources of energy generation. Parex took emissions factors 10.277 kg CO2/Gal (Diesel), 4.692 kg CO2/m3 (LPG), 10.178 kg CO2/Gal (COWGWN-fuel oil), (FECOC – Factor emissions of Colombian fuels - Ministry of energy of Colombia IPCC) from national sources.

Total fuel

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

352,733.62

MWh fuel consumed for self-generation of electricity

336,530.83

MWh fuel consumed for self-generation of heat

158.33

MWh fuel consumed for self-generation of steam

16,044.46

Comment

For the next few years, Parex plans to expand the diversity of its energy matrix to strengthen the use of non-conventional sources of renewable energy in order to achieve mid-term corporate emissions reduction target.

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	337,541.94	337,541.94	236.11	236.11
Heat	158.33	158.33	0	0
Steam	16,044.46	16,044.46	0	0
Cooling	0	0	0	0

C8.2g

(C8.2g) Provide a breakdown of your non-fuel energy consumption by country.

Country/area

Colombia

Consumption of electricity (MWh)

780.79

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

780.79

Country/area

Canada

Consumption of electricity (MWh)

466.43

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

466.43

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description

Energy usage

Metric value

12.74

Metric numerator

101,862,967

Metric denominator (intensity metric only)

7,9959,24

% change from previous year

4

Direction of change

Increased

Please explain

the indicator is expressed in kW-h/Boe. YOY increase due to operating activities resuming to pre-pandemic levels. Compared to 2019, energy intensity declined by 21%

Description

Waste

Metric value

0.77

Metric numerator

6,144,740

Metric denominator (intensity metric only)

7,995,924

% change from previous year

318

Direction of change

Increased

Please explain

The indicator is expressed in kg/boe. Waste volume increased as operating activities resumed to pre-pandemic levels. Compared to 2019, waste intensity declined by 11%

C-OG9.2a

(C-OG9.2a) Disclose your net liquid and gas hydrocarbon production (total of subsidiaries and equity-accounted entities).

	In-year net production	Comment
Crude oil and condensate, million barrels	16.53	Based on 2021 average daily production of 45,280 bbls/d of light and heavy crude oil
Natural gas liquids, million barrels	0	No natural gas liquids production
Oil sands, million barrels (includes bitumen and synthetic crude)	0	No oil sands production
Natural gas, billion cubic feet	3.76	Based on 2021 average daily production of 10,308 Mmcf/d of conventional natural gas

C-OG9.2b

(C-OG9.2b) Explain which listing requirements or other methodologies you use to report reserves data. If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries, please explain this.

Parex' reserves evaluation is prepared by GLJ Petroleum Consultants Ltd ("GLJ") and done so in accordance with the procedures and standards contained in the Canadian Oil and Gas Evaluation Handbook. All reserves definitions used to prepare Parex' reserves are those contained in the Canadian Oil and Gas Evaluation Handbook, as well as the Canadian Securities Administrators National Instrument 51-101 - Standards of Disclosure for Oil and Gas Activities (NI 51-101). Additional information regarding the Company's reserves, for the year ending December 31, 2021, is available in the Company's Annual Information Form dated March 1, 2022 at https://parexresources.com/wp-content/uploads/2022/05/PXT-12-31-2021-AIF-FINAL.pdf

C-OG9.2c

(C-OG9.2c) Disclose your estimated total net reserves and resource base (million boe), including the total associated with subsidiaries and equity-accounted entities.

	Estimated total net proved + probable reserves (2P) (million BOE)	Estimated total net proved + probable + possible reserves (3P) (million BOE)	Estimated net total resource base (million BOE)	Comment
Row 1	198.82	286.93	286.93	As per the independent reserve report prepared by GLJ effective December 31, 2021

C-OG9.2d

(C-OG9.2d) Provide an indicative percentage split for 2P, 3P reserves, and total resource base by hydrocarbon categories.

	Net proved + probable reserves (2P) (%)	Net proved + probable + possible reserves (3P) (%)	Net total resource base (%)	Comment
Crude oil/ condensate/ natural gas liquids	94	92	92	Parex' working interest before royalties, as per the independent reserve report prepared by GLJ effective Dec. 31, 2021
Natural gas	6	8	8	Parex' working interest before royalties, as per the independent reserve report prepared by GLJ effective Dec. 31, 2021
Oil sands (includes bitumen and synthetic crude)	0	0	0	Parex' working interest before royalties, as per the independent reserve report prepared by GLJ effective Dec. 31, 2021

C-OG9.2e

(C-OG9.2e) Provide an indicative percentage split for production, 1P, 2P, 3P reserves, and total resource base by development types.

Development type

Onshore

In-year net production (%)

100

Net proved reserves (1P) (%)

100

Net proved + probable reserves (2P) (%)

100

Net proved + probable + possible reserves (3P) (%)

100

Net total resource base (%)

100

Comment

All properties are onshore, located in Colombia's Llanos, Lower Magdalena, Middle Magdalena, and Upper Magdalena Basins

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	Parex continues to assess the scale and scope of impacts associated with various types, rates and extents of technological adoption. In 2021, Research studies were carried out with technical pre-feasibility phases to implement cogeneration systems through the use of residual gases in generation turbines and synchronism network systems to link renewable energies with self-generation systems of energy from gas. The Company is currently evaluating existing and emerging technological solutions including, among others, the production and use of blue and green hydrogen as an energy efficiency process, carbon capture in the post-combustion phase, gas recovery from the control of fugitive and venting emissions, and the use and production of gas transportation (GTL, LNG, CNG).

C-CO9.6a/C-EU9.6a/C-OG9.6a

(C-CO9.6a/C-EU9.6a/C-OG9.6a) Provide details of your organization's investments in low-carbon R&D for your sector activities over the last three years.

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Renewable energy	Basic academic/theoretical research	≤20%	5,000	Parex evaluated the implementation of a synchronism network systems to link the solar park in Cabrestero with self-generation systems of the field energy from gas.

Other energy efficiency measures in the oil and gas value chain	Basic academic/theoretical research	≤20%	25,000	Conceptual engineering was developed to evaluate the technical and economic feasibility of using residual heat from the exhaust gases of the turbine exhaust at Capachos Field. A heat exchanger will be installed reducing the consumption of natural the gas treatment gas.

C-OG9.7

(C-OG9.7) Disclose the breakeven price (US$/BOE) required for cash neutrality during the reporting year, i.e. where cash flow from operations covers CAPEX and dividends paid/ share buybacks.

65

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

0

ISAE 3410 Reasonable Assurance Report on Parex's 2021 GHG Inventory.pdf

Page/ section reference

1/evaluation criteria, 4/Reasonable Assurance Conclusion, and 5-14/Direct GHG emissions - scope 1

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

0

ISAE 3410 Reasonable Assurance Report on Parex's 2021 GHG Inventory.pdf

Page/ section reference

1/evaluation criteria, 4/Reasonable Assurance Conclusion, and 6-16/Indirect GHG emissions - scope 2

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category

Scope 3: Purchased goods and services

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

0

ISAE 3410 Reasonable Assurance Report on Parex's 2021 GHG Inventory.pdf

Page/section reference

1/evaluation criteria, 4/Reasonable Assurance Conclusion, and 17-28/ Other Indirect GHG emissions - scope 3

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

0

ISAE 3410 Reasonable Assurance Report on Parex's 2021 GHG Inventory.pdf

Page/section reference

1/evaluation criteria, 4/Reasonable Assurance Conclusion, and 17-28/ Other Indirect GHG emissions - scope 3

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Upstream transportation and distribution

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

0

ISAE 3410 Reasonable Assurance Report on Parex's 2021 GHG Inventory.pdf

Page/section reference

1/evaluation criteria, 4/Reasonable Assurance Conclusion, and 17-28/ Other Indirect GHG emissions - scope 3

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Waste generated in operations

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

0

ISAE 3410 Reasonable Assurance Report on Parex's 2021 GHG Inventory.pdf

Page/section reference

1/evaluation criteria, 4/Reasonable Assurance Conclusion, and 17-28/ Other Indirect GHG emissions - scope 3

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Business travel

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

0

ISAE 3410 Reasonable Assurance Report on Parex's 2021 GHG Inventory.pdf

Page/section reference

1/evaluation criteria, 4/Reasonable Assurance Conclusion, and 17-28/ Other Indirect GHG emissions - scope 3

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Processing of sold products

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

0

ISAE 3410 Reasonable Assurance Report on Parex's 2021 GHG Inventory.pdf

Page/section reference

1/evaluation criteria, 4/Reasonable Assurance Conclusion, and 17-28/ Other Indirect GHG emissions - scope 3

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Use of sold products

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

ISAE 3410 Reasonable Assurance Report on Parex's 2021 GHG Inventory.pdf

Page/section reference

1/evaluation criteria, 4/Reasonable Assurance Conclusion, and 17-28/ Other Indirect GHG emissions - scope 3

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

No, we do not verify any other climate-related information reported in our CDP disclosure

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

Colombia carbon tax

C11.1c

(C11.1c) Complete the following table for each of the tax systems you are regulated by.

Colombia carbon tax

Period start date

January 1, 2021

Period end date

December 31, 2021

% of total Scope 1 emissions covered by tax

4.94

Total cost of tax paid

70,826.06

Comment

Carbon tax obligations is regulated in law 1819 of 2016 section 221, which indicates that "Carbon tax is generated on sales made by producers of fossil fuels" according to that Parex paid the carbon tax values (established in resolution DIAN N° 9/2019) included in the Tariff of fuels acquired for its operation.
The value of the tax for local currency $283,304,246.80 with an approximate exchange rate of $4000 COP.

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

Parex engages with external regulatory agencies and experts to ensure that relevant employees are aware of upcoming regulatory changes that may impact the Company's operations. The Company participates in consultations on the development of public policies and regulatory processes. As a result of this participation, Parex has deemed the following programs and regulations under development applicable to the Company and is currently monitoring them for their potential impacts:

- The National Program of Greenhouse Gas Tradable Emission Quotas (Programa Nacional de Cupos Transables de Emisión de Gases de Efecto Invernadero – PNCTE) came into effect in 2022 will require companies to report their GHG emissions.
- The Colombian Ministry of Environment and Sustainable Development's 2050 climate-related strategy.
- Structuring of the National Registry of Emissions Reductions, in which companies must register verified reductions to be accounted for in the country's NDC
- Changes in carbon tax policy and pricing.

Colombian National Law 1819 of 2016 created the carbon tax as a consumption tax on all fossil fuels, including all oil derivatives and all types of fossil gas (for refining only) that are used for energy purposes, provided they are used for combustion. The tax regulation allows its neutralization through the purchase of verified and certified carbon credits.

Parex monitors the applicability, accounting , and the potential impact of carbon tax on direct operations. Also, the Company always looks into new requirements and changes in the regulations to remain protective and take actions relative to new emissions reduction requirements.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

No, but we anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

% of suppliers by number

17

% total procurement spend (direct and indirect)

6

% of supplier-related Scope 3 emissions as reported in C6.5

1

Rationale for the coverage of your engagement

Parex has been expanding the inventory coverage for Scope 3 emissions, involving its suppliers in order to ensure and improve the emission measurements and control processes involved in the provision of goods and services. As an example, travel agencies and transportation companies have been keeping records of fuel consumption, distances travelled and emissions. Parex' environmental management system makes it possible to involve and commit suppliers towards sustainable management so that material aspects are identified with the objective of reporting GHG emissions. In 2022, Parex expects to continue involving new contractors in the emission calculation process based on their contractual objectives with the main suppliers along the supply chain to include GHG-related provisions.

Impact of engagement, including measures of success

Parex does not have performance indicators for suppliers and contractors in terms of the prevention and monitoring of GHG emissions. However, the Company will strive to develop a system over time. In addition, the selection processes currently requires suppliers' acceptance to comply with corporate policies on environmental matters and the certification of the environmental management system.

Comment

The percentage of supplier spending associated with issues related to climate change is estimated based on the ratio of the cost of the suppliers mentioned with the total spending for 2021.

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

Parex involves and shares with partners, initiatives, new projects, successful experiences and follow-up management so that actions are jointly defined on material issues that allow GHG emissions reductions. An example of this is a conference carried out with partners to share Parex' experience and success with the geothermal power co-production project which represents several milestones for both the Company's and Colombia's progress towards decarbonizing energy.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

No, but we plan to introduce climate-related requirements within the next two years

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

Direct or indirect engagement that could influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

Yes, we engage indirectly through trade associations

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

No, and we do not plan to have one in the next two years

Describe the process(es) your organization has in place to ensure that your engagement activities are consistent with your overall climate change strategy

There is no process in place; however, the Company's engagement activities are guided by the corporate code of conduct

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Focus of policy, law, or regulation that may impact the climate

Carbon tax

Mandatory climate-related reporting

Methane emissions

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Resolution 40066 February 2022. Detection and repair leaks and managment flaring and venting emissions of natrual gas.
Resolution 40350 of 2021. Integral climate change management plan.
Law 1819 of 2016, section 221. Carbon tax is generated on sales made by producers of fossil fuels.

Policy, law, or regulation geographic coverage

National

Country/region the policy, law, or regulation applies to

Colombia

Your organization's position on the policy, law, or regulation

Support with no exceptions

Description of engagement with policy makers

Parex engages with outside regulatory agencies and experts to ensure that relevant employees are aware of upcoming regulatory changes that may affect the Company's operations.
Parex actively participated in the fugitive emissions reduction workshop sessions during 2020-2021 in order to implement a methodology for the monitoring and reduction of fugitive emissions in the Colombian Oil & Gas sector. Parex considers this initiative relevant, in order to report and mitigate fugitive emissions associated mainly with CH4. The regulations was issued by the Colombian Ministry of Mines come into force in February 2022.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

No, we have not evaluated

C12.3b

(C12.3b) Provide details of the trade associations your organization engages with which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association

Other, please specify

Colombian Petroleum Association ACP

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

The position of trade associations is aligned with compliance with regulations and the objectives related to climate change that the country has established. Parex as a member of this association seeks relevant arguments related to climate change based on our experience in our fields.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

25,000

Describe the aim of your organization's funding

The agreed annual membership is focused on all general aspects of the business and is not exclusive to matters related to climate change.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

No, we have not evaluated

Trade association

Other, please specify

The National Association of Industrial ANDI

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

The position of trade associations is aligned with compliance with regulations and the objectives related to climate change that the country has established. Parex as a member of this association seeks relevant arguments related to climate change based on our experience in our fields.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

25,000

Describe the aim of your organization's funding

The agreed annual membership is focused on all general aspects of the business and is not exclusive to matters related to climate change.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

No, we have not evaluated

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In voluntary sustainability report

Status

Underway – previous year attached

Attach the document

Parex-Inaugural-TCFD-Report-_December-20-2021_RD-1 (6).pdf

SRparex2020eng__ (2).pdf

Page/Section reference

Review environment section, page 58: climate strategy and GHG emissions

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets

Comment

The 2021 sustainability report is expected to be available in mid-August 2022 at https://parexresources.com/sustainability-reporting/. For reference , we are attaching the 2020 sustainability report and the Inaugural TCFD Report , in which Parex disclosed its 2020 performance

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity
Row 1	Yes, both board-level oversight and executive management-level responsibility	Parex' Board of Directors has the responsibility to, in collaboration with Board committees (Health, Safety, Environment and Reserves Committee), the ESG Steering Committee ("ESG Committee") and Management, establish preventive measures, based on the Precautionary Principle, to mitigate our environmental impacts on the environment while protecting ecosystems, the flora and the fauna, species, and biodiversity. We work to achieve this goal with the guidance of the national and regional authorities, but also through collaborative effort with social organizations and the communities, such that we can carry out comprehensive actions to protect the biodiversity. We carefully monitor the fauna in the vicinity of our operations, paying special attention to the species protected under national laws, and international risk listings of the International Union for the Conservation of Nature (IUCN) In addition, we conduct environmental preservation campaigns, including the development of agricultural and forestry initiatives, the protection and repopulation of endangered species, and the preservation of important ecological areas.

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments
Row 1	Yes, we have made public commitments only	Commitment to avoidance of negative impacts on threatened and protected species

C15.3

(C15.3) Does your organization assess the impact of its value chain on biodiversity?

	Does your organization assess the impact of its value chain on biodiversity?
Row 1	Yes, we assess impacts on biodiversity in our upstream value chain only

C15.4

(C15.4) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water management Species management Education & awareness

C15.5

(C15.5) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance

Row 1	No	

C15.6

(C15.6) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
Other, please specify Biodiversity-related issues will be disclosed in the 2021 sustainability report, which we expect to release in mid-August. For your reference, we have attached the 2020 sustainability report - see page 68-69	Content of biodiversity-related policies or commitments Governance Impacts on biodiversity Biodiversity strategy	see page 68-69 [1]

[1] SRparex2020eng__ (2).pdf

C16. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

Our responses may be subject to forward-looking statements, which involve significant risk factors and assumptions; and have been fully described in the Company's continuous disclosure reports, which are available on the Company's website at www.parexresources.com and on SEDAR.

GHG Emissions Information

GHG emissions and emissions savings estimates that are provided herein have been calculated with a third party's assistance, as is further described

below. These measures do not have standardized meanings or standard methods of calculation and therefore such measures may not be comparable to similar measures used by other companies and should not be used to make comparisons. Parex quantifies and reports its GHG emissions using the operational control approach. Its organizational boundary includes the Company's Calgary & Bogota offices and all operated oil & gas exploration and productions facilities. Parex has elected to report Scope 1, 2 and 3 GHG emissions. For the purposes of the Company's GHG emissions reporting:
• Scope 1 emissions are defined as direct emissions from GHG sources that it owns or controls
• Scope 2 emissions are defined as indirect GHG emissions that result from Parex' consumption of energy in the form of purchased electricity from the Colombian national grid and Canadian power grid
• Scope 3 emissions are defined as Parex' indirect emissions other than those covered in Scope 2. They are from sources not owned or controlled by Parex, but which occur as a result of the Company's activities. Particularly, Parex' drilling and completions activities conducted by third parties are deemed to be Scope 3.

Parex used a third party to help quantify its GHG emissions. For the 2021 reporting year, Parex retained Conservación & Carbono S.A.S to evaluate GHG emissions from all operated facilities located in Colombia in accordance with IPCC (2006) Guidelines for National Greenhouse Gas Inventories and Colombia's Technical Standard ISO 14064-1 ("NTC ISO 14064-1"). Verification of Scope 1, 2 & 3 GHG emissions is currently being conducted by PricewaterhouseCoopers in Colombia in accordance with International Standard on Assurance Engagement 3410, Assurance on Greenhouse Gas Statements ("ISAE3410') issued by the International Auditing and Assurance Standards Board.

Oil & Gas Matters Advisory

BOE: The term "BOE" means a barrel of oil equivalent on the basis of 6 Mcf of natural gas to 1 barrel of oil ("bbl"). BOEs may be misleading, particularly if used in isolation. A boe conversion ratio of 6 Mcf: 1 bbl is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. Given the value ratio based on the current price of crude oil as compared to natural gas is significantly different from the energy equivalency of 6:1, utilizing a conversion ratio at 6:1 may be misleading as an indication of value.

Reserves Advisory

The recovery and reserve estimates of crude oil reserves provided in this survey are estimates only, and there is no guarantee that the estimated reserves will be recovered. Actual crude oil reserves may eventually prove to be greater than, or less than, the estimates provided herein. All December 31, 2021, reserves presented are based on GLJ's forecast pricing effective January 1, 2022. The 2021 GLJ Report was prepared in accordance with the definitions, standards and procedures contained in the Canadian Oil and Gas Evaluation Handbook and National Instrument 51-101 - Standards of Disclosure for Oil and Gas Activities.
- Proved" or "1P" reserves are those reserves that can be estimated with a high degree of certainty to be recoverable. It is likely that the actual remaining quantities recovered will exceed the estimated proved reserves.

- "Probable" reserves are those additional reserves that are less certain to be recovered than proved reserves. It is equally likely that the actual remaining quantities recovered will be greater or less than the sum of the estimated proved plus probable" reserves.
- “Possible” reserves are those additional reserves that are less certain to be recovered than probable reserves. There is a 10 percent probability that the quantities actually recovered will equal or exceed the sum of proved plus probable plus possible reserves. It is unlikely that the actual remaining quantities recovered will exceed the sum of the estimated proved plus probable plus possible reserves. "2P" means Proved Plus Probable reserves. "3P" means Proved Plus Probable Plus Possible reserves

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	President & CEO	Chief Executive Officer (CEO)

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

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I have read and accept the applicable Terms