

Welcome to your CDP Climate Change Questionnaire 2020

C0. Introduction

C0.1

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

Atlantica is a sustainable infrastructure company with the majority of its activities in renewable energy. We own and manage renewable energy, efficient natural gas, transmission and transportation infrastructure and water assets in North America (United States, Mexico and Canada), South America (Peru, Chile and Uruguay) and EMEA (Spain, Algeria and South Africa).

Helping to mitigate climate change is core in our strategy. Our purpose is to support the transition towards a more sustainable world by investing in and managing sustainable infrastructure, while creating long-term value for our investors, customers, employees and local communities.

Atlantica is a United Kingdom company listed on Nasdaq Global Select Market under the ticker symbol "AY". Our assets generated in 2019 revenues of \$1,011 million and an adjusted EBITDA including unconsolidated affiliates of \$822 million. Atlantica had 425 employees as of December 31, 2019, 26% of which were women.

In 2019, 75% of our revenues and 74% of our adjusted EBITDA including unconsolidated affiliates were generated by our renewable energy assets including solar and wind and we helped to avoid up to 4.7 million tons of CO₂ compared with a 100% fossil fuel-based generation plant. Our goal is to reduce our emission rate per unit of energy generated by 10% by 2030. Our Board is committed to maintaining 80% of our adjusted EBITDA including unconsolidated affiliates from low-carbon footprint assets including our renewable, transportation and transmission infrastructure and water assets.

As of December 31, 2019, Atlantica owns or has interests in 25 assets, comprising 1,496 MW of renewable energy generation, 343 MW of efficient natural gas power generation, 10.5 M ft³ per day of water desalination and 1,166 miles of electric transmission lines. All of our assets have contracted revenues (regulated revenues in the case of our assets in Spain and Chile TL3) with long-term off-takers that collectively have a weighted average remaining contract life of approximately 18 years as of December 31, 2019.

According to Bloomberg New Energy Finance 2019, global power demand is expected to grow by 62% between 2019 and 2050, or 1.5% annually. At the same time, renewable energy cost continued decreasing, already offering lower cost solutions than new large-scale coal and gas plants in many markets. By 2050, renewable energy penetration is expected to reach 92% of

the electricity mix in Europe and 43% in the United States. In addition, we have confidence that water is going to be the next frontier in a transition towards a more sustainable world. New sources of water are needed worldwide, and water desalination and water transportation infrastructure should help make that possible.

We intend to grow our business by investing in sustainable infrastructure, with a focus on high-quality, long-term agreements. We believe that we can create more value over time by investing mostly in assets that avoid greenhouse gas emissions, including energy efficiency and renewable energy assets. We intend to leverage our growth strategy on favorable trends in clean power generation, transmission and transportation and water sectors globally, including energy scarcity. Our portfolio and our strategy focus on renewable energy, but also on storage, efficient natural gas, water infrastructure, and transmission networks as enablers of a sustainable future.

As a United Kingdom company, Atlantica is subject to, and is in compliance with the requirements of the Climate Change Act 2008 for greenhouse gas emissions reporting. Additionally, our greenhouse gas emissions management complies with the requirements of the Commission Regulation (EU) No 601/2012.

As part of its commitment with sustainability, Atlantica joined the United Nations Global Compact (the “UNGC”) initiative in January 2018 and has formally adopted the United Nations Global Compact Ten Principles. Atlantica is committed to orient its action to 6 of the 17 Sustainable Development Goals (SDG). The core goals for Atlantica include SDG13 (Climate Change), where we believe we can have a significant impact. We are determined to have the UNGC and its principles an integral part of our strategy, culture and day-to-day operations.

In the last 12 months we have continued our good progress on our ESG commitments. This has been corroborated by Sustainalytics’ ESG Risk Rating assessment. Atlantica has been ranked as the best company within both the renewable power production and the broader utility industry, and in the top 1% within the global rating universe. According to Sustainalytics, “Atlantica is at negligible risk of experiencing material financial impacts from ESG factors due to its medium exposure and strong management of material ESG issues”.

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
Reporting year	January 1, 2019	December 31, 2019	No

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

- Algeria
- Canada

Chile
Mexico
Peru
South Africa
Spain
United States of America
Uruguay

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-EU0.7

(C-EU0.7) Which part of the electric utilities value chain does your organization operate in? Select all that apply.

Row 1

Electric utilities value chain

Electricity generation
Transmission

Other divisions

Battery storage

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
Chief Executive Officer (CEO)	<p>The CEO acting as Director of the Board has a leading position and responsibility over climate-related issues. The Board has ultimate responsibility over climate-related issues, as the ultimate decision making body.</p> <p>Atlantica's CEO is responsible for formulating and submitting to the Board for approval climate-related initiatives, including climate-related targets.</p> <p>In this regard, the CEO has proposed to the Board and the Board has approved targets on climate change: (1) the Board is committed to maintaining 80% of adjusted EBITDA including unconsolidated affiliates generated from low-carbon footprint assets including its renewable, transportation and transmission infrastructure and water assets and, (2) the Board is also committed to reducing our emission rate per unit of energy generated by 10% by 2030.</p> <p>When evaluating investments, the CEO and the Board of Directors take into consideration the impact of such investments on our climate change related targets. The achievement of these targets is reviewed by top management in our ESG Committee, which is held once a month. We also report to our Board periodically on the progress of our ESG plan, including climate-related issues when applicable. The Board reviews periodically the risk map, which includes climate-related risks. We report semi-annually on the main environmental indicators, including GHG emissions, water and waste.</p> <p>Growth is a key part of our strategy. Investment opportunities are presented to the Board after approval by our Investment Committee, which includes the CEO. As an example of climate-related decisions made by the CEO and the Investment Committee in 2019, the Company implemented a carbon pricing system when evaluating investments.</p> <p>In the bid for Monterrey (an efficient natural gas plant in Mexico where we have a 30% stake), we considered different measures aimed at reducing GHG emissions. Other potential investment opportunities have been rejected due to the negative impact they may have on our climate-related targets. In addition, in 2020 we have set a carbon price of approximately \$15-\$25 per ton of CO₂ to evaluate investment opportunities.</p> <p>As an additional example:</p> <ul style="list-style-type: none"> - The CEO confirmed Atlantica's commitment against climate change at the 25th Conference of the Parties (COP25) held in Madrid, Spain in December 2019.

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 business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	ESG issues are included in the agenda of every board meeting while climate related-issues are included in some board meetings agendas. The Board of Directors of Atlantica is responsible for the oversight of climate-related risks and opportunities. Atlantica's Board is committed to maintaining 80% of its adjusted EBITDA including unconsolidated affiliates generated from low-carbon footprint assets including its renewable, transportation and transmission infrastructure and water assets. The Board of Directors is also committed to reduce Atlantica's emission rate per unit of energy generated by 10% by 2030. The achievement of these targets is reviewed by top management in our ESG Committee, which is held once a month. We also report to our Board at least semi-annually on the progress of our ESG plan, including climate-related issues and on the main environmental indicators (GHG emissions, water and waste). In addition, when the Board of Directors evaluates a potential investment, emissions and environmental factors are taken into account. Particularly, the CEO, acting as Director of the Board and who has a leading position over climate-related issues, leads and submits to the Board of Directors for approval the following actions: <ul style="list-style-type: none"> - Raises to the Board for approval sustainability and ESG policies and targets, including those related to climate change. - Sets goals for climate-related issues and submits those goals to the board for approval. - Monitors and oversees progress against objectives. - Recommends the implementation of best practice initiatives in relation to climate change. - Reviews periodically climate-related risks and opportunities and informs the Board. The Board approves the action plan to manage risks and

		opportunities. - Leads the preparation of the ESG Report for approval by the Board on an annual basis.
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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
Other, please specify Business Unit VPs	Both assessing and managing climate-related risks and opportunities	Quarterly
Other, please specify Head of Operations	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly
Other, please specify Head of Internal Audit and Risk	Assessing climate-related risks and opportunities	More frequently than quarterly
Other, please specify Head of ESG	Assessing climate-related risks and opportunities	More frequently than quarterly
Other, please specify ESG Committee	Assessing climate-related risks and opportunities	More frequently than quarterly
Other, please specify Operations, Health and Safety, and Quality and Environment Committee	Assessing climate-related risks and opportunities	More frequently than 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).

i. Where in the organization this position lies

The Board of Directors is the highest level of responsibility for climate change since is the ultimate decision-making body. The Board of Atlantica is responsible for the oversight of climate-related risks and opportunities. The Board also oversees the implementation of our environmental and ESG initiatives and prioritizes our internal resources committed to the advancement of our ESG objectives. The Board reviews periodically material ESG aspects including environmental and climate change matters.

At the management level we have established an ESG Committee which meets monthly. The Committee members are our CEO, VPs of each geography, our Head of Operations and our Head of ESG. The committee is represented by the most senior level of management due to the importance of the matters under its responsibility. It allows visibility, prioritization and immediate action on environmental and climate change issues. The committee provides VPs of each geography an opportunity to address, discuss and agree on solutions in their geographies with involvement and intermediation of the CEO.

Responsibilities of each position and/or committee with regard to the assessment and monitoring of climate-related issues include:

- The CEO, acting as Director of the Board and who has a leading position over climate-related issues leads and submits to the Board for approval the following actions: (1) raise to the Board for approval sustainability and ESG policies and targets, including those related to climate change, (2) sets goals for climate-related issues and submits those goals to the board for approval, (3) monitors and oversees progress against objectives, (4) recommends the implementation of best practice initiatives in relation to climate change, (5) reviews periodically climate-related risks and opportunities and informs the Board, (6) leads the preparation of the ESG Report for approval by the Board on an annual basis. The CEO is a member of the ESG Committee.
- Business unit VPs hold full responsibility over assets they manage, including environmental and climate-related issues. Business VPs report to the CEO and are members of the ESG Committee.
- The Head of Operations is responsible for all operations aspects across assets, including environmental aspects and emissions. He calculates emissions, identifies measures to reduce emissions, audits the assets from an environmental aspect and monitors KPIs. The Head of Operations reports to the CEO and is one of the members of the ESG Committee.
- The Head of Internal Audit and Risk participates in identifying and monitoring climate change risks with the business VPs. In addition, he prepares and agrees with VPs and the CEO the risk map including climate change risks. The Head of Internal Audit and Risk reports to the Audit Committee.
- The Head of ESG identifies sustainability best practices, proposes actions to the CEO, VPs and ESG Committee and monitors the implementation status of approved proposals. The Head of ESG is a member of the ESG Committee.

At the asset level, there is an Operations, H&S, and Quality and Environment committee between the corporate operations department and each asset manager. The responsibility of the committee includes following-up Health and Safety and Environmental KPIs, audits' status, implementation of best practices, accidents and the management system review of each asset.

ii. A rationale of why responsibilities for climate-related issues have been assigned to this position

Under English law, the Board is responsible for management, administration and representation of all matters concerning the relevant business, subject to the provisions of

relevant constitutional documents, applicable law and regulations, and resolutions duly adopted at General Shareholders meetings.

The Board has delegated the leadership on climate related issues to the CEO.

An ESG Committee was created to discuss environmental-related matters (including climate-related issues) between Business VPs, who have full responsibility over their business units, the Head of Operations, as responsible for all operations aspects across assets, including environmental aspects and emissions and, the Head of ESG as the highest corporate responsible to identify sustainability best practices. The Head of Internal Audit and Risk Management as highest corporate responsible for identifying and assessing business risks meets regularly with Business VPs and the Head of ESG to discuss climate-related risks.

The ESG Committee holds a key position to provide the Board with relevant information to consider climate-related risks and opportunities in strategic decision making.

At the asset level, the Operations, H&S, and Quality and Environment committee is responsible for identifying and reviewing the implementation of best practices in environmental aspects, including climate-related issues. This committee implements decisions taken by the ESG Committee.

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	<p>In 2019 approximately 50% of our management and 28% of our employees have a variable compensation linked to Environment, Social and Governance performance. This includes health and safety, compliance, and environment matters (including climate-related matters).</p> <p>In addition, part of the short-term variable remuneration of the CEO and other members of the Management Committee is linked to closing accretive investments and these investments have to be aligned with our climate-related goals.</p> <p>We plan to introduce additional ESG (including climate-related incentives) within our employees' compensation going forward.</p> <p>In addition, in 2019 we issued our annual "Environmental Awards" to the asset with the best environmental performance and the asset with best Management of Change (MOC) proposal.</p>

		Examples of monetary rewards hereinafter could include incentives for the corporate executive team, management group, buyers/purchasers or all employees with variable compensation.
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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
Chief Executive Officer (CEO)	Monetary reward	Other (please specify) Environmental criteria included in investments	Part of the short-term variable remuneration of the CEO is linked to closing accretive investments and these investments have to be aligned with our climate-related goals.
Other, please specify Business Unit VPs	Non-monetary reward	Other (please specify) Environmental performance	In 2019 we issued our annual "Environmental Awards" to the asset with the best environmental performance and the asset with best Management of Change (MOC) proposal.
Environment/Sustainability manager	Monetary reward	Emissions reduction project Emissions reduction target Efficiency project Behavior change related indicator	In 2019 we included monetary rewards for implementing initiatives that reduce the environmental impact of our operations including initiatives to reduce emissions. We plan to continue introducing new climate-related monetary rewards going forward.
Other, please specify Head of ESG	Monetary reward	Emissions reduction project Emissions reduction target Behavior change related indicator	In 2019 we included monetary rewards for identifying and/or implementing measures to position Atlantica as a leader in climate change. Examples of variable compensation includes: neutralizing GHG emissions, implementing the use of carbon pricing, assessing the potential implementation of Science Based Targets, etc. We plan to continue introducing new climate-related monetary rewards going forward.

Management group	Monetary reward	Other (please specify) Environmental criteria included in investments	Part of the short-term variable remuneration of certain members of Management is linked to closing accretive investments and these investments have to be aligned with our climate-related goals.
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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	1	2	Being a renewable energy company, environmental matters are an integral part of our strategy and operations, hence we consider them on the same time horizons as any other strategic and capital planning. We consider 1-2 years as a short-term horizon in our planning.
Medium-term	2	5	We consider 2-5 years as a medium-term horizon in our planning.
Long-term	5	30	We consider a long-term horizon periods over 5 years.

C2.1b

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

We employ a risk map which adopts a multidisciplinary approach to identify risks in different areas, assigning probability distributions and measuring economic impacts.

A substantive impact means a real and measurable risk that has a significant or relatively significant effect at the corporate or asset level. This may include operational, financial or strategic (including climate-related) issues that may undermine the entire business or part of the business.

Cash Available for Distribution is one of Atlantica's key metrics. CAFD is defined as cash distributions received by Atlantica Sustainable Infrastructure plc from its subsidiaries minus cash expenses of the Company, including debt service and general and administrative expenses. Most of our investors consider our CAFD metric to measure Atlantica's performance.

CAFD pre -corporate debt service refers to cash distributions received by Atlantica Sustainable Infrastructure plc from its subsidiaries after general and administrative expenses.

We categorize risks depending on their potential impact on CAFD pre-corporate debt service and on the net present value of the company:

- (1) Extreme >20%
- (2) Major 10-20%,
- (3) Moderate 5-10%
- (4) Minor 1-5%
- (5) Insignificant <1%.

We categorize a substantive impact as a Major or Extreme impact on our CAFD pre-corporate debt service or on our net present value.

A substantive impact usually affects at least of one of these indicators:

- Cash Available for Distribution.
- Revenues.
- Adjusted EBITDA including unconsolidated affiliates.
- Operational performance of our assets.
- Growth strategy.
- Ability to raise additional capital or ability to repay existing debt.
- Reputation.

We believe that key climate-related substantive impacts could be mainly driven by: (i) acute or chronic physical risks, (ii) current and emerging regulation, (iii) legal risks, (iv) investments in new technologies or, (v) market (global-trend) opportunities.

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
- Downstream

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

The management of the risks associated with climate change is integrated in the company's general risk management strategy and is promoted by its Board of Directors.

Atlantica has an Enterprise Risk Management (ERM) in-place that consists of a collaborative and comprehensive process across all its geographies that involves the identification, assessment, mitigation and communication of risks to achieve our strategic, financial and operational objectives.

We employ a risk map which adopts a multidisciplinary approach to identify risks in different areas, assigning probability distributions and measuring economic impacts. Once all the information is compiled, key conclusions are outlined in a report. This report includes the risk assessment, mitigation strategies, deadlines and responsible person(s). The Risk Management function is fully integrated with the Internal Audit and Compliance Programs to efficiently identify, assess and respond to risks.

The process is generally as follows:

- 1) Business unit VPs, asset managers or asset compliance managers and, Corporate responsables (e.g. environmental, operations, legal or tax managers) identify risks based on their day-to-day activities, regulation, market practices, etc. and report them to the Head of Internal Audit and Risk. This process is performed at least on a quarterly basis.
- 2) Periodic meetings are held with the parties involved to address and clarify potential questions.
- 3) The Internal Audit and Risk department completes Atlantica's risk map on a quarterly basis.
- 4) Once the risk map is completed, conclusions are shared with business unit VPs and presented to the management committee on a quarterly basis.

Once the risks have been agreed with VPs (including climate related risks), management responsibility is assigned depending on the nature of each risk, likelihood, potential financial impact and the time horizon covered (short, medium or long-term). Potential decisions to manage risks may be: (i) internal management or (ii) transfer through insurance policies.

Climate risks generally entail:

- Physical risks: variation in average and extreme temperatures, change in the patterns of extreme events, rise in sea level, etc.
- Regulatory risks: climate policies arising from international decarbonisation

commitments and objectives, reporting and/or emissions reduction objectives, etc.
- Other risks: impact on the supply chain, effect on habitats and ecosystems, changes in customer behaviour, etc.

Atlantica's risks procedures define 5-levels of risks as a function of its potential substantive financial impact and its likelihood.

A) In terms of financial impact (as previously stated) we define: (1) Extreme >20%, (2) Major 10-20%, (3) Moderate 5-10%, (4) Minor 1-5%, (5) Insignificant <1%. B) In terms of likelihood we define: (1) Almost certain >95%, (2) Likely 50-95%, (3) Possible 20-50%, (4) Unlikely 1-20%, (5) Rare <1%.

Environmental Management is an integral part of our planning, maintenance and operation of our assets. Our Environmental System holds certification under ISO 14001 standard. Our integrated management system guarantees that we comply with the regulations in force and with our policies, in each of the markets we operate. We measure the environmental impact of our activities, monitoring, identifying and implementing action plans to reduce that impact at each of our assets. Atlantica has defined the requirements to be fulfilled by the operation and maintenance supplier of each of our assets, in order to allow an optimal control and management: environmental audits and inspections, monitoring of environmental permits, authorizations, licenses and applicable regulatory conditions and, implementing best environmental practices.

When we evaluate potential investments, the Investment Committee and more specifically the Head of Risk Management evaluates all potential risks related to the potential investment. The Head of Internal Audit and Risk is a member of the Investment Committee. The Investment Committee also evaluates how the potential investment would impact Atlantica's emissions and climate-related commitments and targets.

Climate change also represents a growth opportunity. We believe that renewable energy should represent the majority of new power generation in the short and mid-term and eventually should be the only way to generate our power. We intend to grow our business by investing in sustainable infrastructure, with a focus on North and South America and Europe). We believe that we can create more value over time by investing mostly in assets that avoid greenhouse gas emissions, including energy efficiency and renewable energy assets.

Example of climate-related physical risk management:

In October 2018, Hurricane Leslie was the first hurricane to hit the Iberian Peninsula since the 19th century. Winds above 150 km/hour were registered in certain areas. Our automatic alerts, based on the Spanish Meteorology System (AEMET), informed about high winds, but did not warn about the hurricane. Leslie finally changed its direction to the North of Spain causing no damages to our plants. We learnt that AEMET models were not sufficient for us to manage this type of risk.

This risk was reported by the operations team to the internal audit team as part of the risk map process. Several meetings were held to clarify questions. To mitigate the risk, business unit VPs agreed to improve our physical risk management procedures by:

(1) Updating our automatic alerts system to include information from the U.S. National Hurricane Center and,

(2) Preparing a new set of procedures for extreme weather events.

As a result, we now have a reliable system in-place informing us about potential hurricanes and a complete set of procedures on extreme weather events.

Example of climate-related transitional risk:

Climate change is causing an increase in environmental regulation in the sectors where we operate. For example, in the U.S., our solar plants are subject to the permits under the Clean Air Act among others. The Clean Air act is a U.S. federal law designed to protect human health and the environment from the effects of air pollution. Our risk would be non-compliance with the environmental regulation that could result in penalties of approximately \$10,000 per day. This was reported by the U.S. team as part of the risk map process. Several meetings were held to clarify questions. To mitigate the risk, business unit VPs agreed to designate teams that monitor operations at the plant and to conduct prevention activities to manage and react quickly to any environmental incident under the plans of emergency rehearsed at the facilities. In addition, the equipment is subject to preventive and corrective maintenance to avoid any environmental spills and abnormal emissions into the atmosphere. As a result of these actions, we have a complete set of procedures in-place to comply with the Clean Air Act.

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	Existing regulation is always considered in the risk assessments of Atlantica. Non-compliance with current regulation could represent a critical risk for the company. Atlantica considers that current regulation is a relevant risk and accounts for it in the risk map. Atlantica is directly affected by environmental regulation in all our assets. This includes climate-related risks driven by laws, regulation, taxation, disclosure of emissions and other practices. Environmental regulation, among other things, requires us to obtain and maintain regulatory licenses, permits and other approvals and comply with the requirements of such licenses and permits. We are also required to perform environmental impact studies on projects. Our risk would be non-compliance with the current environmental regulations. Certain assets are subject to regulation regarding air quality, permits as well as GHG documentation and reporting by different agencies in each geography and under the EU ETS carbon regulation. In the United States, our 2 solar plants with a total capacity of 560 MW are subject to the permits under the Clean Air Act. In addition, as a United Kingdom company, Atlantica is subject to, and is in compliance with the requirements of the Climate Change Act

		<p>2008 for greenhouse gas emissions reporting. Our greenhouse gas emissions management also complies with the requirements of the Commission Regulation (EU) No 601/2012.</p> <p>Example: If for any reason Atlantica failed to comply with all the environmental and climate-related regulation in place, it could face fines and penalties that could range between \$5,000 to \$3,250,000 as explained in Section C2.3.a (Risk 1).</p> <p>Nevertheless, we also believe that more stringent regulation on emissions and environment will represent an opportunity for us, since we focus on technologies that avoid emissions.</p>
<p>Emerging regulation</p>	<p>Relevant, always included</p>	<p>Risks related to emerging regulation are always considered in our risk management system. Emerging regulation could have a negative impact on Atlantica's growth or cause an increase in costs. Renewable energy projects currently benefit from various U.S. federal, state and local governmental incentives. These policies have had a significant impact on the development of renewable energy and they could change. These incentives make the development of renewable energy projects more competitive by providing tax credits, accelerated depreciation and expensing for a portion of the development costs. This allows to decrease the costs associated with developing such projects or create demand for renewable energy assets through Renewable Portfolio Standards (RPS) programs. A reduction in such incentives could decrease the attractiveness of renewable energy to developers, utilities, retailers and customers. Nevertheless, we believe that the cost of the technologies we use will continue decreasing and will make them fully competitive without any support versus conventional generation sources.</p> <p>Example 1: Environmental and tax policies in the U.S. could create regulatory uncertainty in the clean energy sector and lead to a reduction of various clean energy programs and initiatives designed to curtail climate change. For example, some U.S. states with RPS targets have met, or in the near future will meet, their renewable energy targets. California, where we have one of our largest solar assets, is poised to meet its current mandate of 33% renewable energy by 2020 with already-proposed new renewable energy projects, will be required to meet the higher renewable energy mandate of 60% by 2030 and 100% by 2045. If, as a result of achieving these targets, these and other U.S. states did not increase their targets in the near future, demand for additional renewable energy could decrease.</p> <p>Example 2: A higher degree of uncertainty over the implementation of the Paris Agreement could reduce capital investments in climate change mitigation projects in developing countries. Nevertheless, we believe that given the cost reduction and reliability we have seen in renewable energies it is highly likely that renewable energy will continue growing even if incentives were limited. For example, in</p>

		<p>Europe, the green deal is setting a goal of net zero carbon emissions by 2050, and a 50%-55% cut in emissions by 2030 compared with 1990 levels. Similar measures have been adopted in many geographies.</p>
Technology	Relevant, always included	<p>Investment in new technologies and/or the potential impacts of our existing technology becoming less efficient than new technologies are always considered in our risk assessment. New technologies applied to new renewable assets developed and built currently allow to produce electricity in a more efficient manner and at lower costs than what we can achieve with our assets. For example, the cost of PV panels has significantly reduced in the last few years. As a result, changes in technology may impair the value of our power plants.</p> <p>In our case, all the assets we own are contracted or regulated over a long period of time (18 years in average as of December 2019). Our clients need to comply with existing contracts, hence limiting our technology risk exposure associated with not running the most competitive available technology.</p> <p>Emerging technologies may over time affect change in capacity markets and the energy industry overall with the inclusion of distributed generation and clean technology, for example. Some emerging technologies like distributed renewable energy technologies, broad consumer adoption of electric vehicles and energy storage devices could affect the price of energy.</p> <p>Regarding new projects, we can work with any technology and we therefore plan to run the most competitive technology at any point in time.</p> <p>In addition, cybersecurity is also a risk for the operation of our businesses. Cybersecurity incidents, in particular, are constantly evolving and include malicious software, attempts to gain unauthorized access to data and other electronic security breaches that could lead to disruptions in systems, unauthorized release of confidential or otherwise protected information and to the corruption of data. A cyber-attack could cause Atlantica to incur significant losses of revenues or other substantial liabilities. Nevertheless, we are constantly monitoring potential cyber-attacks and working to put in place the appropriate measures to control cybersecurity risks.</p>
Legal	Relevant, always included	<p>Atlantica considers that legal aspects are a relevant risk and accounts for it in the risk map. If we did not comply with the existing environmental and climate-related regulation in place and regulation to be adopted in upcoming years, we could be subject to fines, penalties, legal claims and proceedings, requests for arbitration as well as regulatory enforcement actions.</p>

		<p>Example 1: We comply with water regulation in all the areas where we operate and we have limits for water consumption based on the characteristics of the area, extent of the land, water uses, etc. Although today we consume approximately half of the water we are allowed to, if these limits were to be reduced, our operating costs would increase as a result of increased needs of chemical products to purify water.</p> <p>Example 2: In the United States, our two solar plants are subject to the permits under the Clean Air Act among others. Non-compliances could result in maximum penalties of approximately \$10,000 per day. In addition to eventual fines, a repetitive event of non-compliance where the Company does not demonstrate best efforts to prevent it and to minimize its consequences could cause an event of default under the project finance agreement or the requirement to stop temporarily plant operations.</p> <p>To mitigate the risk, we have designated teams that monitor operations at the plant, conduct prevention activities and manage and react quickly to any environmental incident under the plans of emergency rehearsed at the facilities. The equipment is subject to preventive and corrective maintenance to avoid any environmental spills and abnormal emissions into the atmosphere. We estimate that the risk of violations resulting in fines to be manageable, but we need to maintain our high control standards to keep this potential risk under control.</p>
Market	Relevant, always included	<p>Global trends in the market due to climate change can affect Atlantica and as such they are always included in our risk management system.</p> <p>Higher demand for renewable energy has created an increase in competition and drop in the cost of renewable generation. In some markets (for example: in the United States of America), it is becoming more difficult to find power purchase agreements similar to those that we have in-place: the length of the new contracts is decreasing, and the prices are becoming lower.</p> <p>Our assets have in general contracted revenues (regulated revenues in the case of our assets in Spain and Chile TL3) and are underpinned by long-term contracts. As of December 31, 2019, our assets had a weighted average remaining contract life of approximately 18 years. As a result, the risk on our existing portfolio is limited.</p>
Reputation	Relevant, always included	<p>Reputation is key for our business in order to maintain a good relationship with all our stakeholders, including clients, suppliers, banks, investors and other partners. Reputation risk is always included in our risk assessment. Atlantica considers that maintaining a good reputation is a relevant risk and accounts for it in the risk map. There is a shift in the global society towards sustainability and sustainable way</p>

		<p>of doing business. We believe that maintaining a good reputation affects many aspects of the company. We are already seeing how climate change and ESG are becoming important criteria for shareholders and investors. Many investors have integrated climate change in their investment analysis, numerous companies are selecting their suppliers preferentially based on the environmental impact of their products or services and, customers are proactively and voluntarily improving their ESG and climate change commitments.</p> <p>Atlantica intends to distribute as dividend most of the cash it generates. Growth initiatives over time will require us to access the capital markets, issuing either debt or equity. Access to capital is an important part of our growth strategy and our plan of investments. If our reputation as a renewable and green company worsened, access to capital may become more difficult.</p> <p>In addition, while a significant part of our business portfolio consists of renewable assets, we also own assets that can be considered less environmentally friendly, currently consisting of a 300 MW cogeneration plant in Mexico which uses natural gas and a 30% stake in a gas-fired engine facility also in Mexico. Given that most of our business comes from renewable assets, many of our stakeholders, current investors and potential investors see Atlantica as a clean energy company. If we increase our exposure to natural gas, this could damage our reputation as a sustainable infrastructure company.</p> <p>As long as we maintain an 80% of our Adjusted EBITDA generated by low-carbon footprint assets, including renewable assets, transmission and transportation infrastructure and water assets, we could also acquire or increase our investment stake in gas assets which can have a negative reputation impact on Atlantica as a renewable energy company. This could affect our corporate image, may deteriorate the perception of investors towards Atlantica and may result, for example, in a higher cost of capital.</p>
Acute physical	Relevant, always included	<p>Atlantica's business consists of operating sustainable infrastructure. Physical risks which may affect those infrastructure are critical and are always considered in our risk management process. Climate change is causing an increasing number of severe and extreme weather events which are a risk to our facilities, including days of severe winds and rains, hail, hurricanes, cyclones, droughts, risk of fires and floods, among others. For example:</p> <ul style="list-style-type: none"> - Severe floods could damage our plants, especially our transmission lines or our solar generation assets. If an unexpected flood runs close to an existing transmission tower it could cause the fall of one or more

		<p>transmission towers. In particular, some of the towers in our transmission lines are located in areas where we have seen floods in the past. Similarly, floods can damage the solar field in our solar plants.</p> <ul style="list-style-type: none"> - Severe winds could cause damage in the solar fields in our solar assets. In 2016, the solar field of Solana was damaged by a wind micro-burst and similar events could happen in the future in our assets. - Storms with intense lightning activity could damage our plants, especially our wind assets. Our wind farms have already experienced some damages in the past and our assets could be affected again. - Severe droughts could result in water restrictions or in a deterioration of water properties. Droughts may affect the cooling capacity of our power projects. A deterioration of the quality of the water would have an impact on chemical costs in our water treatment plants within our generation capabilities. - If our transmission assets caused a fire, we may be found liable for the damage caused by that fire. <p>Furthermore, components of our equipment and systems, such as structures, mirrors, absorber tubes, blades, PV panels or transformers are susceptible to being damaged by severe weather, including for example hail. In addition, replacement and spare parts for key components may be difficult or costly to acquire or may be unavailable and may have long lead times.</p> <p>Any of those extreme weather events could cause damage to our assets and/or business interruptions.</p>
Chronic physical	Relevant, always included	<p>Physical risks which may affect our sustainable infrastructure are critical and are always considered in our risk management process. Continuing shifts in climate have turned into a chronic problem and are driving up current and future costs, putting new strains on long-term investments and economic growth. The Intergovernmental Panel on Climate Change confirms that the scientific evidence for warming of the climate system is unequivocal. The Emissions Gaps Report issued by the United Nations Environment Program in November (UNEP) 2019 states that even if all unconditional Nationally Determined Contributions (NDCs) under the Paris Agreement are implemented, we are on course for a 3.0-3.5 degrees Celsius rise during the 21st century. This means an average increase of 0.033°C/year. The evidence of the rapid change is supported by global temperature rise, warming oceans, shrinking ice sheets, glacial retreat, decreased snow cover, sea level rise, declining arctic sea ice and extreme events.</p> <p>For example: One of the chronic effects of climate change is a change in precipitation patterns. A reduction in mean precipitation may lead to reduction in available water from aquifers and could also modify main</p>

		<p>water properties. Water is used mainly in our generation facilities for cooling and cleaning through a technology that minimizes the use of water. A reduction of mean precipitations may result in a reduction of availability of water from aquifers and could also modify main water properties.</p> <p>We have historically withdrawn approximately 50% of the total water permitted by the regulatory limits in our generating facilities. We believe, that even if the water limits were to be reduced, we still have margin to withdraw enough water to keep our plants working properly. To mitigate this risk we have, for example, water basins and tanks to store water in many of our facilities. If water limits were reduced to a point where we could not maintain the required level of water in the plants, we would need to use more chemical products to purify water and to guarantee a good performance of the plant. In that case, an increase of 10% in the consumption of chemicals in our generation facilities would have an estimated yearly impact on operational costs of approximately \$0.77 million. This has been calculated for those plants where we assume chemical costs (i.e., not assumed by the operator) considering current chemical consumption costs.</p>
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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?

Direct operations

Risk type & Primary climate-related risk driver

Current regulation

Mandates on and regulation of existing products and services

Primary potential financial impact

Increased direct costs

Company-specific description

Atlantica is directly affected by the environmental regulation on our power generating assets (U.S., Mexico, Uruguay, Spain and South Africa), electric transmission lines (Peru and Chile) and desalination plants (Algeria). This includes climate-related risks driven by laws, regulation, taxation, disclosure of emissions and other practices. Environmental regulation, among other things, requires us to obtain and maintain regulatory licenses, permits and other approvals and comply with the requirements of such licenses and permits.

Our assets need to comply with strict environmental regulation on air emissions, water usage and contaminating spills, among others. Some specific examples of environmental regulation includes:

- (1) Our solar plants in the U.S. are subject to the permits under the Clean Air Act.
- (2) As a U.K. company, we are subject to the requirements of the Climate Change Act 2008 for greenhouse gas emissions reporting.
- (3) Our GHG emissions comply with the requirements of the Commission Regulation (EU) No 601/2012.

We believe that we are currently in material compliance with all applicable regulations. In the past, we have experienced some environmental accidents and we have been found not to be in compliance with certain environmental regulations and have incurred fines and penalties associated with such violations which, to date, have not been material in amount. In 2019 we suffered an environmental accident in one of our solar assets in Spain. We undertook all necessary measures to minimize its impact, informed public authorities, performed a root-cause analysis, implemented corrective actions to remediate contaminated soils, thus reducing its impacts and, internally shared the lessons learned.

If for any reason Atlantica failed to comply with all the environmental and climate-related regulation in place, it could face fines and penalties. Environmental regulation has changed rapidly in recent years, and it is possible that we will be subject to even more stringent environmental standards in the future. Particularly, we believe environmental and climate-related regulation would mostly affect our assets located in Europe and North America. If so, we may be required to increase our compliance costs. Nevertheless, we believe that more stringent regulation on emissions and environment will help our business as we focus on technologies that avoid emissions including renewable energy.

Time horizon

Short-term

Likelihood

Unlikely

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)

5,000

Potential financial impact figure – maximum (currency)

3,250,000

Explanation of financial impact figure

Potential fines and sanctions are different by geography and depend on many different variables.

As a reference, in Spain, the estimated financial impact figure in one of our 50MW installed capacity solar assets could range between \$0 (if contractual agreements or existing laws provide a cure period and not come about in the form of fines if remediated) and, up to approximately \$2,250,000 fine (i.e., the highest potential sanction to one our plants due to a non-compliance with the Spanish Environmental Responsibility Law amounts to \$2,250,000). Historical claims in our plants in Spain have typically amounted to \$5,000 per event. However, the highest existing proposed sanction (not yet firm), which has been experienced, is \$50,000. In addition to that, we would be required to restore the affected area conditions. We estimate that restorations costs of an environmental accident could go up to \$1,000,000.

Under a worst case scenario, the potential financial impact could add up to \$3,250,000 (\$2,250,000 + \$1,000,000). We currently have a comprehensive set of preventive and control measures to mitigate this risk.

In the United States, maximum penalties are in the range of \$10,000 per day (based on the notifications received by our U.S. subsidiary). In addition to eventual fines, a repetitive event of non-compliance where the Company does not demonstrate best efforts to prevent it and to minimize its consequences could cause an event of default under the project finance agreement or the requirement to stop temporarily plant operations.

Base on the disclosed information we have determined:

Potential financial impact figure – maximum: \$3,250,000 (based on the highest sanction to one our plants due to a non-compliance with the Spanish Environmental Responsibility Law plus, potential restoration costs due to an environmental accident in Spain).

Potential financial impact figure – minimum: \$5,000 (based on historical claims in our plants in Spain).

Cost of response to risk

2,500,000

Description of response and explanation of cost calculation

We have a strong compliance system in-place. Our Compliance Committee has designated employees in charge of compliance in each geography. Compliance risks and matters are monitored on an on-going basis at the asset level and at the corporate level. To mitigate the risk we periodically and systematically review risks at various internal working groups and management committees. At each of the assets, we have designated teams that monitor operations at the plant, review compliance with environmental regulation and internal best practices, conduct environmental prevention activities and manage and react quickly to any environmental incident under the plans of emergency rehearsed at the facilities. In addition, key equipment is subject to preventive and corrective maintenance to avoid any environmental spills and abnormal emissions into the atmosphere.

We have monthly KPIs on H&S, operations and maintenance, environmental metrics, equipment availability and overall plant performance. In addition, we have an ERP-software that enables us to have strict control over our inventory, spare parts, work orders, work permits, accounting, etc. We perform internal audits of our assets aimed at reviewing compliance with our best practices and promoting constant improvement. The Operations Department audits all our assets at least every two years. The purpose of these audits is to review operational, maintenance, engineering, health and safety and environmental indicators as well as to comply with reporting requirements. Audit findings are discussed between the Business VPs and the Operations Director.

We have external audits in-place (ISO 9001, 14001 and OHSAS 18001). Environmental and Quality Management System are also audited annually by an external third party.

The cost of response to this risk is an estimation of internal budgeted costs (\$2.0 million) and external expenses (\$0.5 million).

Estimated internal costs amount to approximately \$2.0 million (\$1.1 million + \$0.9 million). We have estimated this as a percentage of our budgeted costs at the asset and corporate level:

- 10% of budgeted costs at asset level (North and South America, EMEA): \$1.1 million (i.e., 10% of \$10.6 million).
- 15% of budgeted costs at corporate level (Operations, Health and Safety, and Quality and Environment, Legal and Compliance, Internal Audit): \$0.9 million (i.e., 15% of \$6.0 million).

Estimated external costs amount to \$0.5M (hiring third party legal consultants).

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical
Rising mean temperatures

Primary potential financial impact

Increased direct costs

Company-specific description

The Emissions Gaps Report issued by the United Nations Environment Program (UNEP) in November 2019 states that even if all unconditional Nationally Determined Contributions (NDCs) under the Paris Agreement are implemented, we are on course for a 3.0-3.5 degrees Celsius rise during the 21st century. This means an average increase of 0.033°C/year.

We consider that the main impact of rising temperatures would be associated with:

- A lower turbine efficiency in our efficient natural gas asset.
- A reduction of efficiency in our solar photovoltaic generation.
- Lower air density could have an impact on our wind facilities.
- Higher consumption of chemicals used for operational purposes in our desalination plants.

Rising temperatures could cause a material adverse effect in our business, financial condition, results of operations or cash flows.

Time horizon

Long-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)

50,000

Potential financial impact figure – maximum (currency)

550,000

Explanation of financial impact figure

We consider that the main impact of rising temperatures would be associated to the reduction of the cycle efficiency of our turbines, which is partially offset by the lower

thermal losses in our solar assets. A 1°C temperature rise could cause yearly losses between 0.04% and 0.21% depending on cooling technology, turbine specifications and site meteorological conditions. The associated financial impact of this potential temperature rise would be approximately \$0.3 million per year in revenues, if no additional measures were taken.

Regarding photovoltaic plants, module efficiency is reduced above a certain temperature threshold. When the temperature of the solar panel increases, its output slightly increases while the voltage output is reduced linearly, therefore panel power decreases. A 1°C temperature rise would imply a module efficiency reduction of 0.39%. The associated financial impact of this measure would be approximately 50 thousand dollars in revenues.

A mean temperature rise would also have an impact in our wind facilities. Wind energy is dependent on the air density among other factors. A 1°C temperature rise would imply a reduction on the air density of 0.34% and a reduction of yearly wind generation of approximately 1.2 GWh. The associated financial impact of this measure would be approximately \$0.1 million in revenues.

Our desalination plants could also be affected by a temperature increase that would imply higher consumption of chemicals used for operational purposes. A 1% increase of chemical consumption would imply extra yearly costs of approximately \$0.1 million.

Based on the previous information, if no additional measures were implemented a 1°C temperature rise could cause a minimum associated financial impact of 50,000 dollars and a maximum associated financial impact of 550,000 dollars considering our solar, wind and desalination plants. This potential financial impact could be extrapolated if temperature rose 3°C (vs. 1°C).

Cost of response to risk

245,000

Description of response and explanation of cost calculation

Our Operations Department monitors closely the performance of each of our assets to try to identify any potential measure which could improve efficiency. We believe that by improving efficiency, we could potentially offset the potential negative impacts of an increase in temperatures previously described. Internal audits of our assets aim to review compliance with our best practices and promoting constant improvement. The Operations Department audits all our assets at least every two years. The purpose of these audits is to review operational, maintenance, engineering and environmental indicators among others.

We have designed specific checklists for our Asset Managers to complete on a regular basis. These checklists include analyzing initiatives to improve efficiency, reduce costs and minimize our environmental footprint.

In addition, we have implemented an Advanced Analytics team to improve the

performance of our existing technologies. A timely identification of potential maintenance issues allows to address them quickly and control potential negative impacts. As an example of this team's success, in early 2020 we received the "Pump Industry Excellence Award for Innovation and Technology" from the Hydraulic Institute, the largest association of pump industry manufacturers in North America. We were recognized for our leadership in driving digital innovation in artificial intelligence, machine learning and anomaly detection for predictive maintenance of critical equipment. Our in-house Advanced Analytics team worked, jointly with Sulzer, a global leader in fluid engineering, in the deployment of Sulzer's BLUE BOX , an advanced analytic solution on operational performance of critical pumps. Since mid-2019, several pilots programs were developed at two of our solar power plants. The results of the enhanced artificial intelligence capabilities have helped us to prevent anomalies, hence reduce our operational risks and improve uptime going forward. The Advanced Analytics team consider chronic physical issues as part of their plan to improve the performance of our existing technologies.

The costs of response to this risk are included in our recurring general and administrative expenses and correspond basically to a 10% of the budgeted costs of our Operations, Health and Safety, and Quality and Environment department (i.e., 10% of \$2.45 million). We do not expect hiring third parties in the next two years to address this risk.

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical

Changes in precipitation patterns and extreme variability in weather patterns

Primary potential financial impact

Increased direct costs

Company-specific description

There are two main types of water use in our operations:

- Power generation in our renewable assets, which use cycled water in the turbine circuit and in refrigeration processes.
- Generation of drinking water for local communities and industries through desalination of seawater.

Atlantica is an investor in two assets that are located in areas considered to be high

Baseline Water Stress as classified by the World Resources Institute (WRI) Water Risk Atlas Tool, Aqueduct. These assets are Honaine, one of our desalination plants that withdraws water from the sea and Solana, our solar plant in Arizona. We do not have any assets in areas considered as Extremely High.

In general, in our assets we have water permits which limit total water withdrawals based on the characteristics of the area, extent of the land, water uses, etc. Since we are committed to limiting water consumption as much as possible, we operate our assets well below these limits. In 2019, our renewable assets only withdrew 50% of the limits allowed by water permits. In the case of Solana, the water withdrawn is even lower: in 2019 we withdrew 46% of our water rights. We believe, that even if the water limits were to be reduced, we still have margin to withdraw enough water to keep our plants working properly. To mitigate this risk we have, for example, water basins and tanks to store water in many of our facilities.

In our generating assets water is mainly used for cooling and for mirrors and panel cleaning through a technology that minimizes the use of water. A reduction of mean precipitations may result in a reduction of water availability from aquifers; it could also modify main water properties. If water limits were reduced to a point where we could not use the amount of water required by the plants, we would need to use more chemical products to purify water and to guarantee a good performance of the plant. In that case, we would have an impact on operational costs due to the increase in the use of certain chemicals or due to the costs required to adapt water properties to the ones required in our water treatment plants. An increase of 10% in the consumption of chemicals in our generation facilities would have an estimated yearly impact on operational costs of approximately \$0.77 million. This has been calculated for those solar and water plants where we assume chemical costs (i.e., not assumed by the operator) considering current chemical consumption costs.

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

770,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

In our case, based on our experience, we estimate that an increase of 10% in the consumption of chemicals in our main generation plants would have a yearly impact on operational costs of \$0.77 million. This has been calculated for those solar and water plants where we assume chemical costs (i.e., not assumed by the operator) and considering current chemical consumption costs.

Breakdown of the estimated chemical cost impact:

- Solar plants in the U.S.: \$3.4 million
- Solar plant in Spain: \$0.5 million
- Water plant: \$3.8 million

Total: \$7.7 million

10% of \$7.7 million = \$0.77 million. We believe 10% represents the maximum consumption of chemical increase we could have in our main generation plants.

Cost of response to risk

245,000

Description of response and explanation of cost calculation

In our generating assets, we control water quality and we constantly try to monitor and improve the efficiency of our water treatment plants within our entire fleet of assets.

The amount of water we withdraw and return is measured by the installed water meters at the pumping equipment of the plants. The reported volumes represent the total readings measured by the water meters of all our assets without adjusting for our interest in the assets. The water meters are sealed and are normally subject to audit by the inspector representing the local water authorities. We have met the requirements and regulations of the applicable local regulatory authorities in geographies in which we operate. We report the results of our water statistics to local water agencies on a periodic basis.

In 2019 we analyzed and implemented certain initiatives, such as an air-dry cooling system instead of cooling towers to refrigerate the condensers in one of our solar plants. This solar plant is located in an area with water scarcity problems and this system reduces the water demand.

In addition, in 2019 an external company performed a water efficiency audit at one of our solar assets in Spain to identify potential actions to improve water-use efficiency. The potential measures identified would result in limited improvement in the assets.

In 2020, we are analyzing the mirror cleaning process in our solar assets to reduce water consumption and potentially recycle water. The results of the study will be shared with the different areas involved within the business activity so it will potentially be taken into account in the current operation and possible future developments.

The costs of response to this risk are included in our recurring general and administrative expenses and correspond basically to a 10% of the budgeted costs of our Operations, Health and Safety, and Quality and Environment department (i.e., 10% of \$2.45 million). We do not expect hiring third parties in the next two years to address this risk.

Comment

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Increased severity and frequency of extreme weather events such as cyclones and floods

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

Climate change is causing an increasing number of severe and extreme weather events which are a risk to our facilities, including severe winds and rains, hurricanes, cyclones, droughts, risk of fires and floods, hail, among others.

Our assets were designed and built by third parties complying with technical codes, local regulations and environmental impact studies. Technical codes should consider extreme weather events based on historical information and should include design safety margins. However, an increased severity of extreme weather events such as floods could have an impact on our assets.

- Severe floods could damage our plants, especially our transmission lines or our generation assets. If an unexpected flood runs close to an existing transmission tower it could cause the fall of one or more transmission towers. Similarly, floods can damage the solar field in our solar plants.
- Severe winds could cause damage in the solar fields in our solar assets. In 2016, the solar field of Solana was damaged by a wind micro-burst and similar events could happen in the future in our assets.
- Storms with intense lightning activity could damage our plants, especially our wind assets. Our wind farms have already experienced some damages in the past.
- Severe droughts could result in water restrictions or in a deterioration of water

properties. Droughts may affect the cooling capacity of our power projects. A deterioration of the quality of the water would have an impact on chemical costs in our water treatment plants within our generation capabilities.

- If our transmission assets caused a fire, we may be found liable for the damage caused by that fire.
- Changes in temperature extremes could also affect feed water process temperature in desalination plants, causing an increase in the chemical products consumption and generating other risks within the facilities.

Furthermore, components of our system, such as structures, mirrors, absorber tubes, blades, PV panels or transformers are susceptible to being damaged by severe weather, including for example hail. In addition, replacement and spare parts for key components may be difficult or costly to acquire or may be unavailable and may have long lead times.

Time horizon

Long-term

Likelihood

Unlikely

Magnitude of impact

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)

200,000

Potential financial impact figure – maximum (currency)

3,500,000

Explanation of financial impact figure

There is a wide range of acute physical events which could affect our assets and difficult to assess the economic financial impact this may have.

If we evaluate a potential loss of production caused by an acute physical event, for example, having one of our solar assets in Spain producing for one month at an availability level of 60% because of a cyclone, could result in average in a loss of revenue of approximately \$0.2 million per 50MW installed capacity solar asset.

In addition, having one of our wind assets producing for one month at an availability level of 60% because of a cyclone would result in an average loss of revenue of approximately \$0.6 million per 50MW installed capacity wind asset. However, an extreme weather event would generally be considered as a “force majeure” event under

our transmission contracts and as a result, it would not reduce our revenues.

The financial impact figures have been calculated based on contractual agreements. We believe having one of our solar assets producing for one month at an availability level of 60% represents a good example of an extreme weather event based on the solar field damages caused by micro-burst severe winds in 2016 at Solana, one of our U.S. solar assets.

Worst-case scenario: loss of revenue in one of our assets in the U.S.

Having one of our solar assets producing for one month at an availability level of 60% because of a cyclone, could result in average in a loss of revenue of approximately \$3.5 million.

Based on the disclosed information we have determined:

Potential financial impact figure – maximum: \$3,500,000 (i.e., average loss of revenue for one month at a 60% availability level in one of our largest solar power plants.)

Potential financial impact figure – minimum: \$200,000 (i.e., average loss of revenue for one month at a 60% availability level per 50 MW installed capacity wind asset).

Cost of response to risk

5,700,000

Description of response and explanation of cost calculation

Our personnel at the asset level and our Operations Department monitor constantly and on real time weather conditions in each of the assets to take the required protection measures if necessary. As a result of the 2016 weather event in Solana (previously mentioned in this risk), we applied our risk management process and decided to review our wind management procedures, including:

- (1) development of new automated wind trigger based on local weather forecasting and,
- (2) modification of the stow position and the control logic in order to reduce stow times.

In addition, we have:

- 1) An insurance in-place covering (i) physical damage and, (ii) operational business interruption.
- 2) A crisis management procedure in-place defining concrete actions plans in all our assets. The Crisis management procedure is reviewed at least once a year.
- 3) An automatic alert system using information from U.S. National Agencies.
- 4) A specific procedure for extreme weather in-place. Procedure for extreme weather is reviewed at least once a year.

The cost management is calculated as a percentage of the insurance cost (approximately \$5 million) and the budgeted internal costs (approximately \$0.7 million) at corporate level in charge of monitoring those type of events, including the insurance department and all the people in charge of managing acute physical risks in the organization, primarily lead by our Operations, Health and Safety, and Quality and Environment department.

Estimated external cost: \$5 million (approximately 20-25% of the insurance cost)
Estimated internal costs: \$0.7 million
- 60% of the Insurance department budgeted costs: \$0.2 million (i.e., 60% of \$0.3 million).
- 20% of Operations, Health and Safety, and Quality and Environment department budgeted costs: \$0.5 million (i.e., 20% of \$2.4 million).
Total estimated cost: \$5.7 million

Comment

Identifier

Risk 5

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Reputation

Increased stakeholder concern or negative stakeholder feedback

Primary potential financial impact

Decreased access to capital

Company-specific description

There is a shift in the global society towards sustainability and a sustainable way of doing business. Climate change and ESG are becoming important criteria for shareholders and investors. In the last quarter of 2019 and in 2020, we are seeing an increased number of funds investing in renewable energy companies and a significant increase in the number of ETFs with a focus on clean energy and ESG investment. Many investors have integrated climate change in their investment analysis, numerous companies are selecting their suppliers preferentially based on the environmental impact of their products or services and, customers are proactively and voluntarily improving their ESG and climate change commitments. While a significant part of our business portfolio consists of renewable assets, we also own assets that can be considered less environmentally friendly, currently consisting of a 300 MW cogeneration plant in Mexico which uses natural gas and a 30% stake in a gas-fired engine facility also in Mexico.

We intend to grow our portfolio maintaining at least an 80% of our Adjusted EBITDA including unconsolidated affiliates generated by clean assets, including renewable assets, transmission and transportation infrastructure and water assets. In addition, we target to reduce our emission rate per unit of energy generated by 10% by 2030. As long as we maintain this proportion, we could also acquire efficient natural gas assets; however, this may have a negative reputation impact on Atlantica as a renewable energy company. Additionally, growth initiatives generally have to be financed accessing

the capital markets, issuing either debt or equity. Access to capital is a vital part of our growth strategy and our plan of investments. If our reputation as a renewable and green company worsened, our cost of capital could increase and our access to capital may become more difficult.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

3,240,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

According with MSCI's study related to ESG and the cost of capital, companies with a low ESG rating have a higher cost of capital than companies with a high rating. In the MSCI World Index, the average cost of capital of the highest-ESG-scored quintile was 6.16%, compared to 6.55% for the lowest-ESG-scored quintile, which is a difference of 0.39%.

Our gross corporate debt amounted to approximately \$830 million as of June 30, 2020. If the average cost increased by 0.39% (i.e., based on the difference between the highest and the lowest average cost of capital disclosed in MSCI's study), it could result in an annual impact of approximately \$3.24 million.

Cost of response to risk

600,000

Description of response and explanation of cost calculation

Sustainability has been a core part of our DNA since our creation.

We are a participant in the UNGC. Atlantica reaffirms on a yearly basis its support to the Ten Principles of the UNGC in the areas of Human Rights, Labour, Environment and Anti-Corruption. We are committed to aligning our actions to 6 of the 17 Sustainable Development Goals, including Affordable and Clean Energy and Climate Action.

Our good progress on our ESG commitments has been corroborated by Sustainalytics' ESG Risk Rating assessment. Atlantica has been ranked as the best company within both the renewable power production and the broader utility industry, and in the top 1% within the global rating universe.

We have been able to leverage our positioning in ESG to close over \$500 million in new Green Financing in the last 12 months. We intend to use the green proceeds to refinance or finance, in whole or in part, the investment in new or ongoing assets or projects which meet certain eligibility criteria in accordance with our Green Finance Framework, published on our website. The issuances have been made with the support of a Second Party Opinion delivered by Sustainalytics, also published in Atlantica's website.

- In July 2020, we closed a \$100 million green exchangeable unsecured senior notes.
- In April 2020, we closed a Green Private Placement (GPP) of approximately \$320 million (€290 million) Senior Secured Notes in Euros issued in compliance with the Green Bond Principles.
- In April 2020, we closed a Green Project Finance that resulted in net proceeds of approximately \$143 million. The green non-recourse financing was issued in compliance with 2018 Green Loan Principles.
- In June 2019, we obtained our first ESG-linked financial guarantee line with a limit of approximately \$39 million. The cost is linked to our environmental, social and governance performance under Sustainalytics' methodology.

Additionally, we intend to grow our portfolio maintaining at least an 80% of Adjusted EBITDA generated from low-carbon footprint assets, including renewable assets, transmission lines and water plants.

The costs of response to this risk (\$0.6 million) are included in our recurring G&A expenses and correspond basically to:

- 15% of the budgeted costs of the Investor Relations and ESG department: \$0.24 million (i.e., 15% of \$1.6 million).
- 15% of the budgeted costs of the Operations, Health and Safety, and Quality and Environment department: \$0.36 million (i.e., 15% of \$2.4 million).

Comment

Identifier

Risk 6

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Chronic physical

Rising mean temperatures

Primary potential financial impact

Increased credit risk

Company-specific description

Some of our clients are large utilities or industrial corporations, which are also exposed to significant climate change related risks. These companies are heavily regulated and subject to certain environmental and climate-related risks, including heavy regulation, acute and chronic physical risks.

For example, one of our off-takers is PG&E, a large utility in California which filed for bankruptcy protection under Chapter 11 due to large liabilities caused by its potential involvement in wildfires in California in 2017 and 2018. PG&E is the off-taker for our Mojave asset. The U.S. National Climate Assessment report released in 2013 discussed the increasing risk of fires in California, indicating that numerous fire models project more wildfires as climate change continues, with up to 74 percent more fires in the region. According to this report, rising temperatures and droughts are increasing the frequency and intensity of fires in California. On July 1, 2020, PG&E emerged from Chapter 11. However, we believe that our clients and in particular utilities, could face climate-related risks similar to the ones we face and may be subject to potential insolvency or bankruptcy risks. A negative financial impact from a climate-related risk on our clients can cause their inability to comply with their obligations under our existing contract.

Time horizon

Short-term

Likelihood

Unlikely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

122,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Worst-case scenario: If climate-related risks affected one of our largest assets, for example ACT, our efficient natural gas, the impact could be a loss of \$122 million in yearly revenue. This amount represents ACT revenue in 2019.

Cost of response to risk

400,000

Description of response and explanation of cost calculation

It is difficult to assess the cost of response to potential risks related to our clients as they may be very different in nature and may require different responses. If due to climate-related risks one of our clients faced an insolvency situation, for example, based on our past experience we estimate that external legal expenses could be approximately \$0.4 million per year. This amount could change depending on the specific situation, country and time horizon among others.

Comment

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

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

According to Bloomberg New Energy Finance 2019, global power demand is expected to grow by 62% between 2019 and 2050, or 1.5% annually. At the same time, renewable energy costs continued decreasing, already offering lower cost solutions than new large-scale coal and gas plants in many markets. By 2050, renewable energy penetration is expected to reach 92% of the electricity mix in Europe and 43% in the United States. In addition, water is going to be the next frontier in a transition towards a

more sustainable world. Vast regions worldwide need new sources of water and water desalination and water transportation infrastructure should help to make that possible.

The opportunity for Atlantica is huge. In order to make this transition in the power mix, every region will need to complement investments in renewable energy with investments in efficient natural gas, in transmission networks and in storage. We intend to grow our business by investing in sustainable infrastructure, with a focus on high-quality, long-term agreements. We believe that we can create more value over time by investing mostly in assets that avoid greenhouse gas emissions, including energy efficiency and renewable energy assets.

Some of our key competitive advantages (vs. other companies) to grow our business are:

- Our asset portfolio has a stable, predictable cash flow profile consisting of predominantly long-life electric power generation and electric transmission assets that generate revenues under long-term fixed priced contracts or pursuant to regulated rates. Additionally, our facilities have minimal or no fuel risk. The off-take agreements for our assets have a weighted average remaining duration of approximately 18 years as of December 31, 2019, providing long-term cash flow stability and visibility.
- Our exposure to international markets should allow us to pursue greater growth opportunities and achieve higher returns than we would have if we had a narrow geographic or technological focus. Our portfolio of assets uses technologies that we expect to benefit from these long-term trends in the electricity sector. Our renewable energy generation assets generate low or no emissions and serve markets where we expect growth in demand in the future. Additionally, our electric transmission lines connect electricity systems to key areas in their respective markets and we expect significant electric transmission investment in our geographies.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

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)

250,000,000

Potential financial impact figure – maximum (currency)

515,000,000

Explanation of financial impact figure

We intend to invest approximately \$200 million - \$300 million in equity value per year with a majority of these investments in renewable energy depending on different assumptions. We are estimating that approximately 80% of our total investments would be in low-carbon footprint assets (i.e., \$160 million - \$240 million in equity value). This 80% would represent 250 to 515 million dollars additional revenues over a five-year period while maintaining at least an 80% of our Adjusted EBITDA including unconsolidated affiliates generated by clean assets, including renewable assets, transmission and transportation infrastructure and water assets.

We have calculated the additional revenues based on the following hypothesis and considering \$160 million to \$240 million in equity value per year:

[(1) Investment = Equity (33%) + Debt (66%) -> Equity (\$160 million - \$240 million) + Debt (\$320 million - \$480 million) = \$480 million to \$720 million.

(2) EBITDA = (Investment / 10x to 12x) -> EBITDA = \$40 million to \$72 million.

(3) Revenues = (EBITDA / 70% to 80%) -> Revenue = \$50 million to \$103 million.

Additional revenues over a five-year period would represent approximately 250 to 515 million dollars (i.e., \$50 million x 5 years = \$250 million; \$103 million x 5 years = \$515 million).

Hypothesis used are based on our business expertise and market estimations.

In the last months we have unfolded significant opportunities:

- In July 2020 our Board approved exercising the option to acquire the tax equity investor's equity interest in Solana. Total investment is estimated to be approximately \$290 million. The Solana solar plant is a 280 MW gross solar electric generation facility located in Arizona.
- In April 2020 we made an investment to create a renewable energy platform in Chile, together with local financial partners. The first investment includes the investment in a 50 MW solar PV plant with excellent solar resource and good operating track record.

Cost to realize opportunity

3,500,000

Strategy to realize opportunity and explanation of cost calculation

We believe that we can achieve organic growth through optimizing the existing portfolio, through price escalation factors in many of our assets, and through expanding existing assets, particularly our transmission lines. The transition towards a sustainable generation mix with a majority of renewables is going to require significant investments in transmission lines. We currently own three transmission lines in Peru and four in Chile. We believe that current regulations in Peru and Chile provide a growth opportunity. These opportunities consist of: (i) new clients that need to use our current assets, in situations where virtually no investments are required from us, while we will get additional revenues from these new business opportunities and, (ii) expansion of current transmission lines to grant access to new clients. We have materialized

investments like this in the past, for example: ATN Expansion 1 and ATN Expansion 2 (connecting a solar PV asset and a wind plant to the grid).

In addition, we expect to acquire assets from third parties, leveraging the local presence and network we have in geographies and sectors in which we operate. Our focus on three core geographies, North America, South America and Europe, helps to ensure exposure to markets in which we believe the renewable energy, efficient natural gas and transmission and transportation sectors will continue growing significantly. We have also entered into and intend to enter into agreements or partnerships with developers or asset owners to acquire assets in operation, under construction or in development. We have done this in the past: we own a 12.5% stake in Ten West Link, a 114-mile transmission line in the U.S., currently under development. We may also invest directly or through investment vehicles with partners in assets under development or construction. In addition, we have in place exclusive agreements with AAGES and Algonquin. Algonquin is our largest shareholder and currently holds approximately a 44% equity stake in us.

The costs of response to this opportunity (\$3.5 million) correspond basically to:

- \$2.5 million external costs to finance these investments (1% of \$250 million equity investments = \$2.5 million).
- 70% of the budgeted costs of the Corporate Development department: \$1.0 million (i.e., 70% of \$1.4 million).

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Other, please specify

Access to capital markets

Primary potential financial impact

Increased access to capital

Company-specific description

We believe stakeholders prefer sustainable products and services such as low-carbon and renewable energy rather than non-renewable energy. We are already seeing how climate change and ESG are becoming important criteria for shareholders and investors. Many investors have integrated climate change in their investment analysis,

numerous companies are selecting their suppliers preferentially based on the environmental impact of their products or services and, customers are proactively and voluntarily improving their ESG and climate change commitments.

Atlantica relies on debt and equity capital markets to fund its growth strategy. Having access to a larger number of investors is key for our business development. We have already expanded sources of financing to financial products available through green financing (green bonds, green loans, etc.).

We believe the access to green financing will help us expand our financing options to execute on our growth strategy. In the last 12 months we have been able to leverage our positioning in ESG to close over \$550 million in new green financing. We intend to use the green proceeds to refinance or finance, in whole or in part, the investment in new or ongoing assets or projects which meet certain eligibility criteria in accordance with our Green Finance Framework, published on our website. The issuances have been made with the support of a Second Party Opinion delivered by Sustainalytics, also published in Atlantica's website.

- In July 2020, we closed a \$100 million green exchangeable unsecured senior notes.
- In April 2020, we closed a Green Private Placement (GPP) of approximately \$320 million (€290 million) Senior Secured Notes in Euros.
- In April 2020, we closed a Green Project Finance that resulted in net proceeds of approximately \$143 million. The green non-recourse financing was issued in compliance with 2018 Green Loan Principles.
- In June 2019, we obtained our first ESG-linked financial guarantee line with a limit of approximately \$39 million. The cost is linked to our environmental, social and governance performance under Sustainalytics' methodology.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

3,240,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

According with MSCI's study related to ESG and the cost of capital, companies with a low ESG rating have a higher cost of capital than companies with a high rating. In the MSCI World Index, the average cost of capital of the highest-ESG-scored quintile was 6.16%, compared to 6.55% for the lowest-ESG-scored quintile, which is a difference of 0.39%.

Our gross corporate debt amounted to approximately \$830 million as of June 30, 2020. If the average cost increased by 0.39% (i.e., based on the difference between the highest and the lowest average cost of capital disclosed in MSCI's study), it could result in an annual impact of approximately \$3.24 million.

Cost to realize opportunity

480,000

Strategy to realize opportunity and explanation of cost calculation

Climate change mitigation is core to our strategy. We invest in and manage a sustainable portfolio of assets that reduce carbon emissions. As a result, we have set targets to:

1. Maintain 80% of our adjusted EBITDA including unconsolidated affiliates generated from low-carbon footprint assets including renewable energy, transportation and transmission infrastructure and water assets.
2. Reduce our emission rate per unit of energy generated by 10% by 2030.

We have improved and intend to continue improving our sustainability related reporting and disclosure. In June 2020, we issued our Sustainability Report for 2019 with data for the three consecutive periods of 2017, 2018 and 2019 in accordance with (1) GRI standards at its Core Option, (2) SASB for electric utilities, (3) SASB for solar energy and, (4) followed recommendations issued by the Task Force on Climate-Related Financial Disclosures (TCFD).

Several sustainability related data providers (Bloomberg ESG, Sustainalytics, Corporate Knights, etc.) have increased their assessment of Atlantica as a result of our improved reporting. Our good progress on our ESG commitments has been corroborated by Sustainalytics' ESG Risk Rating assessment. In February 2020, Atlantica was ranked as the best company within both the renewable power production and the broader utility industry, and in the top 1% within the global rating universe. In addition, we have been selected by RBC as one of the three "ESG Darlings" companies under their utility equity research coverage.

We continue working to increase our exposure and perception by third party agencies to secure green financing. In 2020, we will undertake our first "SAM Corporate Sustainability Assessment (CSA)".

The costs of response to this opportunity (\$0.48 million) are included in our recurring G&A expenses and correspond basically to:

- 30% of the budgeted costs of the Investor Relations and ESG department: \$0.48 million (i.e., 30% of \$1.6 million).

Comment

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Other, please specify

Increased revenue through demand for lower emissions products and services

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description

At Atlantica we believe transmission lines have a central role in energy transition. Renewable energy is going to represent the majority of new power generation in the short and mid-term. However, in the short and mid-term large investments will be required in new “smarter” transmission and distribution networks that can support renewable generation over the mid-term. The expected increase in renewables is a challenge for current transmission grids in many regions and investments will be necessary. We currently own three transmission lines in Peru and four in Chile, as well as a minority interest in a transmission line under construction in the United States. We believe that current regulations in Peru and Chile provide a growth opportunity by expanding transmission lines to connect new clients. In Peru we own two large backbone transmission lines. If a potential new client needs access to our lines, we could build the required equipment, such as a substation and a new portion of line for example, to allow that connection and we become the owner of that new asset. This is what we call “expansions” of our lines. In addition, we can get contacted by potential customers building renewable assets who need a connection to the grid. In 2019, we closed the second expansion to our ATN transmission line in Peru (approximately \$20 million dollars investment). The new line is already in operation, generating additional revenues for Atlantica. We believe we can achieve organic growth through similar opportunities.

Time horizon

Short-term

Likelihood

Likely

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)

25,000,000

Potential financial impact figure – maximum (currency)

150,000,000

Explanation of financial impact figure

We estimate that we can do expansions of our transmission lines investing in the range of \$15 to \$25 million per year.

Based on our historical transmission line expansions investments (i) ATN Expansion 1 and, (ii) ATN Expansion 2 (connecting a solar PV asset and a wind plant to the grid), we expect this type of investments could translate in an increase in our revenues in the range of \$5 to \$10 million per year. This can represent \$25 to \$50 million over the next five years (i.e., \$5 million per year x 5 years = \$25 million; \$10 million per year x 5 years = \$50 million).

Additionally, we expect to have opportunities to invest in new transmission lines. If for example, we were able to invest externally twice what we expect to invest through expansion, that could represent up to \$100 million in additional revenues coming from new transmission lines over a five-year period.

Revenues could be increased over a five year period by: (1) Transmission line expansions (\$25 to \$50 million) and, (2) new transmission lines (up to \$100 million).
Consequently:

Potential financial impact figure – minimum: \$25 million.

Potential financial impact figure – maximum: \$150 million.

Cost to realize opportunity

700,000

Strategy to realize opportunity and explanation of cost calculation

Our Local Development Team is very active analyzing growth and investments opportunities and work closely with our Corporate Development team to identify this type of opportunities. The joint efforts of both teams have materialized in, among others, the following investments in low-carbon footprint assets:

- In April 2020 we made an investment to create a renewable energy platform in Chile, together with local financial partners. First investment in a 50 MW solar PV plant with excellent solar resource and good operating track record.

- In October 2019 we closed the investment in ATN Expansion 2 in Peru, connecting a

solar PV asset and a wind plant to the grid.

The costs of response to this opportunity (\$0.7 million) correspond basically to:

- \$0.2 million external costs to finance these investments (1% of \$20 million equity investments = \$0.2 million).
- 35% of the budgeted costs of the Corporate Development department: \$0.5 million (i.e., 35% of \$1.4 million).

Comment

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization’s strategy and/or financial planning?

Yes

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?

Yes, qualitative and quantitative

C3.1b

(C3.1b) Provide details of your organization’s use of climate-related scenario analysis.

Climate-related scenarios and models applied	Details
<p>Other, please specify</p> <p>We base both our planning and our investment analysis on certain climate-related scenarios where we assume, among other things, that emissions will cost.</p>	<p>At Atlantica, our purpose is to support the transition towards a more sustainable world by investing in and managing sustainable infrastructure, while creating long-term value for our investors, customers, employees and local communities. In 2019, 75% of our revenues and 74% of our adjusted EBITDA including unconsolidated affiliates were generated by our renewable energy assets including solar and wind and we helped to avoid up to 4.7 million tons of CO2 compared with a 100% fossil fuel-based generation plant.</p> <p>Climate change mitigation is core to our strategy. As a result, we have set targets to maintaining 80% of our adjusted EBITDA including unconsolidated affiliates generated from low-carbon footprint assets including renewable energy, transportation and transmission infrastructure and water assets and, reducing our</p>

emission rate per unit of energy generated by 10% by 2030.

We are determined to be part of the solution to climate change as a key pillar of our long-term strategy:

-We are committed to investing in renewable energy assets, as well as in transmission, natural gas and storage as enablers of the energy transition. We expect to achieve our long-term strategy through organic growth, acquire assets from third parties, entering into agreements or partnerships with developers or asset owners and. through exclusive agreements with AAGES and Algonquin.

-The environment will remain a priority in planning our business through innovation and eco-efficiency initiatives and, the gradual reduction of environmental impacts of all our activities.

Our business strategy: Our strategy is clearly focused on sustainable infrastructure. We currently have operating facilities in North and South America and EMEA. Atlantica has had sustainability as a core value since its inception. We understand climate change is a real challenge and we continue to be part of the energy transition towards a sustainable model through investments in renewable energy, transmission, storage and digital transformation.

Evidence: In the last years we have increased our MW of renewable capacity in operation. We expect to continue expanding our renewable capacity while complying with our environmental targets. For a company that is focused on renewable energy like ours, targeting a reduction of our GHG emissions demonstrates our robust commitment to climate change.

Influence on our strategy: We believe clean technologies are decisive for fighting against climate change and minimizing the dependence on carbon fossil fuel. Environmental management is one of the most important pillars in the Company's business development.

Advantage over competitors: (i) Highly diversified portfolio by geography and technology with strong presence in key markets where renewables are expected to significantly grow, (ii) stable and predictable long-term cash flows, (iii) a clear sustainable growth strategy and, a (iv) experienced senior management.

Influence on business decisions: Atlantica's strategy is focused on generating stable cash flows while investing in assets that are

	<p>environmentally sustainable and manage them sustainably.</p> <p>It is crystal clear that climate change has influenced our strategy, influences our day-to-day business decisions and is part of our DNA. In the last years, we have analyzed and implemented sustainable investment growth scenarios. These scenarios consider climate-related issues, risks and opportunities Atlantica may face going forward. Among others, we have included rising mean temperatures, changes to existing regulation, changes in precipitation patterns and extreme variability in weather patterns and, increased severity and frequency of extreme weather events. In our decision making process, we are incorporating a scenario with a carbon price between \$15-25 per ton of CO2. We intend to further develop our climate-scenario analysis in the next two years following recognized climate-related standards, starting in 2020 and based on our know-how.</p>
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C3.1d

(C3.1d) 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	<p>This is an impact from Opportunity 1.</p> <p>Description: Stakeholders generally prefer sustainable products/services, such as renewable energy supply, rather than non-renewable energy supply.</p> <p>According to Bloomberg New Energy Finance 2019 approximately 50% of the world's power generation by 2050 is expected to come from renewable sources. Global installed capacity is expected to shift from 57% fossil fuels today to approximately two-thirds renewables by 2050. A 12-terawatt expansion of generating capacity is estimated to require approx. \$13.3 trillion of new investment between now and 2050 of which approximately 77% is expected to go to renewables. Another approximately \$11.4 trillion of investment goes to transmission and distribution during that period. In addition, new sources of water are needed worldwide and water assets should help transition towards a more sustainable world.</p>

		<p>Climate change mitigation is core to our strategy. As a result, we have set targets to: maintain 80% of our business generated from low-carbon footprint assets and, reduce our emission rate per unit of energy generated by 10% by 2030.</p> <p>We believe that we can create more value over time by investing mostly in assets that avoid greenhouse gas emissions, including energy efficiency and renewable energy assets.</p> <p>In the last 12 months we have materialized among others, the following investments:</p> <ul style="list-style-type: none"> - Chile PV I: we have created a renewable energy platform in Chile with local partners where we own approximately a 35% stake and have a strategic investor role. The first investment was in a 55 MW solar PV plant in an area with excellent solar resource (Chile PV I). The platform intends to make further investments in renewable energy in Chile. Our Corporate Development team is constantly analyzing growth opportunities, prioritizing renewables given our climate-related targets. This investment is an example of how we intend to grow our portfolio in the renewable segment. - ATN Expansion 2 in Peru. We currently own three transmission lines in Peru. The Peruvian regulation provides growth opportunities for us through the expansion of current transmission lines to grant access to new clients. We have expanded ATN by connecting a solar asset and a wind plant to the grid. We have grown in a core sector and geography while meeting our internal investment criteria. <p>Time horizon: short term.</p>
<p>Supply chain and/or value chain</p>	<p>Yes</p>	<p>This is an impact from Risk 2 "Rising mean temperatures".</p> <p>Description: our suppliers and customers are impacted by climate change in similar ways than we are. Potential weather adverse effects of climate change in their operations could negatively impact our own operations. Our suppliers and customers may be affected by changes in environmental regulation, extreme weather conditions, natural disasters arising from the climate change and global warming. Some of the offtakers of our long-term contracts are utilities, which are companies heavily regulated and subject to certain environmental and climate related risks, including heavy regulation and acute physical risks.</p>

		<p>Example: In January 2019, PG&E, a large utility in California and our offtaker for the Mojave asset, filed for bankruptcy protection under Chapter 11 due to large liabilities caused by its potential involvement in wildfires in California in 2017 and 2018. The U.S. National Climate Assessment report released in 2013 discussed the increasing risk of fires in California, with up to 74% more fires in the region. According to this report, rising temperatures and droughts are increasing the frequency and intensity of fires in California. In July 2020 PG&E emerged from Chapter 11 and we did not have any financial impact. However, in the future our clients can face climate-related risks, which could have a negative impact on their financial situation and eventually on their ability to comply with their obligations under our contract.</p> <p>Substantive strategic decision: When we evaluate potential investments, the Investment Committee evaluates all potential risks related to the potential investment. In 2019 the committee discarded certain investments in business sectors which were not aligned with our climate related targets. For example, we have discarded potential investments of generating assets because of their potential negative impact in our emissions reduction target. In some cases, the Investment Committee concluded that the client was exposed to significant climate-related risks which could not be mitigated at a reasonable cost. In other cases, when the cost of managing such climate-related risks has been factored in the model, the Investment Committee has decided that the potential investment was not reaching the minimum returns required for the specific sector and geography.</p> <p>Time horizon: short term</p>
Investment in R&D	No	<p>We are a sustainable infrastructure company that owns a diversified portfolio of operational renewable energy, efficient natural gas, electric transmission and water assets.</p> <p>Our business model relies on using third parties proven technologies at our assets and we therefore do not plan to invest significant amounts on R&D. Nevertheless, we do work on certain innovative technologies that can help us to better manage our assets and maximize their value.</p> <p>In particular, we have implemented an Advanced Analytics</p>

		<p>team for Machine Learning and Predictive Maintenance. Since mid-2019, this team has worked, jointly with Sulzer, a global leader in fluid engineering, in the deployment of Sulzer's BLUE BOX , an advanced analytic solution on operational performance of critical pumps. Several pilots programs were developed at two of Atlantica's solar power plants.</p> <p>In early 2020 we received the "Pump Industry Excellence Award for Innovation and Technology" from the Hydraulic Institute, the largest association of pump industry manufacturers in North America. We were recognized for the deployment of Sulzer's BLUE BOX at two of our solar power plants, which enabled us to reduce our operational risks, improve critical pumps uptime going forward, hence reducing our CO2 emissions.</p> <p>Time horizon: we plan to continue improving our machine learning and predictive capabilities. We do not expect any financial impact in the next two years. We expect our strategy in this area to be affected by climate-related issues in the long-term.</p>
Operations	Yes	<p>This is an impact from risks 2"Rising mean temperatures", 3"Changes in precipitation patterns and extreme variability in weather patterns", and 4 "Increased severity of extreme weather events such as cyclones and floods".</p> <p>Our local teams at the asset level, our corporate Operations teams and our Risk management team monitor closely all risks related to climate change including risks arising from an increase in mean temperature, increase in risks of severe weather events or decrease in mean precipitations, among others.</p> <p>Over the last few years we have seen events of extreme wind. In 2016, Solana's solar field was damaged after a severe wind event and the plant operated at a reduced capacity for several weeks. Damage and business interruption was covered by insurance after customary deductibles.</p> <p>Substantive strategic decision: As a result of this event we have improved our wind management procedures including the development of new automated wind trigger based on local weather forecasting, and the modification of the stow position and the control logic in order to reduce stow times.</p>

		<p>In 2018, Hurricane Leslie was the first hurricane to hit the Iberian Peninsula since the 19th century.</p> <p>Substantive strategic decision: We learnt that the Spanish Meteorology System (AEMET) models were not sufficient for us to manage this type of risk. Consequently, we updated our automatic alerts system to include information from the US National Hurricane Center, updated our crisis management procedure defining concrete actions plans in all our assets and updated procedure for extreme weather.</p> <p>Time horizon: We expect our strategy in this area to be affected by climate-related issues in the long-term.</p>
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C3.1e

(C3.1e) 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	Revenues Acquisitions and divestments Access to capital	<p>Related to Opportunity 2. Access to capital markets.</p> <p>We believe stakeholders prefer sustainable products and services such as low-carbon and renewable energy rather than non-renewable energy. There is an increasing number of governments, private companies and investors publicly stating their commitment to support the environment through their business decisions. Certain investors have developed ESG specific funds, in which Atlantica fits perfectly due to its business model. Our exposure to international markets should allow us to pursue greater growth opportunities and achieve higher returns than we would have if we had a narrow geographic or technological focus. Our portfolio of assets uses technologies that we expect to benefit from these long-term trends in the electricity sector. Atlantica relies on debt and equity capital markets to fund its growth strategy. Having access to a larger number of investors is key for our business development.</p> <p>In order to create value for our shareholders, we need to have a low cost of capital. If Atlantica does not meet investors requirements on ESG disclosures our access to capital markets can decrease. If we are not able to access capital, this may limit our growth plans. In addition, cost of debt could be higher if our ESG rating worsened.</p> <p>We believe the access to green financing will help us expand our financing options to execute on our growth strategy. Our good progress</p>

	<p>on our ESG commitments has been corroborated by Sustainalytics' ESG Risk Rating assessment. Atlantica has been ranked as the best company within both the renewable power production and the broader utility industry, and in the top 1% within the global rating universe.</p> <p>Financial planning considering climate related: We have leveraged on our strong ESG focus to raise over \$550 million in green financing in the last 12 months. The methodology for the fund allocation process is defined in the "Framework" designed for green finance issuances and it is available in Atlantica's website. The issuances have been made with the support of a Second Party Opinion delivered by Sustainalytics, also published in Atlantica's website.</p> <p>Acquisitions and divestments. Related to Opportunity 1: Development and/or expansion of low emission goods and services.</p> <p>1. According to Bloomberg New Energy Finance 2019, global power demand is expected to grow by 62% between 2019 and 2050, or 1.5% annually. At the same time, renewable energy costs continued decreasing, already offering lower cost solutions than new large-scale coal and gas plants in many markets. By 2050, renewable energy penetration is expected to reach 92% of the electricity mix in Europe and 43% in the United States. In addition, water is going to be the next frontier in a transition towards a more sustainable world. Vast regions worldwide need new sources of water and water desalination and water transportation infrastructure should help to make that possible. We are also present in water through water desalination and intend to play an active role in the water development which is underway.</p> <p>The opportunity for Atlantica is huge. We believe renewable energy will represent in most markets the majority of new investments in the power sector. In order to make this transition in the power mix, every region will need to complement investments in renewable energy with investments in efficient natural gas, in transmission networks and in storage. We intend to grow our business by investing in sustainable infrastructure, with a focus on high-quality, long-term agreements. We believe that we can create more value over time by investing mostly in assets that avoid greenhouse gas emissions, including energy efficiency and renewable energy assets. We intend to leverage on our competitive advantage to materialize future investments.</p> <p>2. The use of public-sector incentives could benefit our growth opportunities. Most countries base their commitments on the development and expansion of renewable energy and intend to reach the Paris Agreement goals through different types of incentives to support renewable energy. For example, in Europe, the green deal is setting a</p>
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	<p>goal of net zero carbon emissions by 2050, and a 50%-55% cut in emissions by 2030 compared with 1990 levels. Similar measures have been adopted in many geographies.</p> <p>3. Access to new markets can contribute to increasing revenues. We intend to take advantage of favorable trends in the power generation and electric transmission sectors globally, including energy scarcity and a focus on the reduction of carbon emissions. We are currently focused on North and South America and EMEA. We have identified new market opportunities in different countries within these regions, and in sectors where we have a smaller presence today.</p> <p>In the last months we have unfolded significant opportunities:</p> <ul style="list-style-type: none"> - A 51% stake in Tenes, a water desalination plant that is similar in several aspects to our Skikda and Honaine plants. We closed this transaction through one of our "Right of First Offer (ROFO)" Agreements in-place. As a result, we have increased our presence in one of our core businesses. - ATN Expansion 2 (connecting a solar PV asset and a wind plant to the grid). - Exercised the option to acquire the tax equity investor's equity interest in Solana, our solar asset in Arizona. - Invested in Chile PV I, a 55MW solar asset through the Renewable Energy Platform created in Chile. <p>- Revenues: Increase in revenues thanks to our growth opportunities in renewable and low-carbon footprint assets described in Opp. 1 "Development and/or expansion of low emissions goods and services". In 2019, almost 90% of our business was in low-carbon footprint assets, including renewable energy, transmission lines, efficient natural gas energy storage and water. Renewable energy represented a 75% of our revenues, \$761.1 million. We plan to grow our business maintaining an 80% of our portfolio in low-carbon assets. In order to meet our growth targets, we intend to invest approximately \$160 to \$240 million per year in investments in sustainable infrastructure assets, projects and businesses, in terms of equity value. This could result increase our revenues in the range of approximately \$250M to \$515M in the upcoming 5 years as described in Opportunity 1 in section 2.4a.</p> <p>Example 1: As a result of our investment in Tenes, we expect our revenues from our water business to increase more than 100% by 2021.</p> <p>Example 2: ATN Expansion 2 in Peru. We currently own three transmission lines in Peru. The Peruvian regulation provides growth opportunities for us through the expansion of current transmission lines to grant access to new clients. We have expanded ATN by connecting a solar asset and a wind plant to the grid. With this transaction, we have</p>
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		grown in a core sector and geography. As a result, we estimate electric transmission revenues to increase approx. a 5% vs. 2019.
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C3.1f

(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

Non applicable

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

2019

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1

Intensity metric

Metric tons CO₂e per megawatt hour (MWh)

Base year

2018

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

0.19

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure

100

Target year

2030

Targeted reduction from base year (%)

10

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

0.171

% change anticipated in absolute Scope 1+2 emissions

51

% change anticipated in absolute Scope 3 emissions

35

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

0.17

% of target achieved [auto-calculated]

105.2631578947

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

Please explain (including target coverage)

Our objective is to reduce our GHG Emission rate per unit of energy generated by 10% in 2030 (vs. 2018 base year). It is important to remember that being a company focused from our birth on renewable energy our emissions are significantly lower than our peers. As a result the scope for reduction, when we start from a much lower base of emissions, is more limited.

In 2018, our GHG Emission Rate per Unit of Energy Generated amounted to 0.19 tons of CO₂e/ MWh.

In 2019, our GHG Emission Rate per Unit of Energy Generated amounted to 0.17 tons of CO₂e/ MWh. However, in 2019 ACT, our efficient natural gas plant in Mexico had a major overhaul. As a result, production was lower and emissions were lower as well, hence temporarily reduced our intensity ratio to 0.17. Our expectation is that in a year without major overhaul in ACT emissions will be higher. We intend to reduce our emissions over time by implementing CO₂ emissions reduction initiatives and also through investments in and acquisitions of low-carbon intensity assets.

For a company that is heavily focused on renewable energy like ours, defining targets using the methodologies included in the Science Based Targets (SBT) is not appropriate. We have analyzed SBT target setting methods: (1) Absolute Contraction Approach or, (2) Sectorial Decarbonization Approach (SDA Sector: Power) and the

"Science-Based Target Setting Tool" results state that by 2030 we should reduce approximately 60% our GHG emissions vs 2018 base year. This sounds reasonable for many of our peers who have legacy fossil fuel generation, but we believe that it is not applicable for a company that generates using renewable energy.

In 2018, our GHG Emission Rate per Unit of Energy Generated amounted to 0.19 tons of CO₂e/MWh. This is already a very low rate of emissions per unit of electricity produced, well below the average in traditional utilities. In 2019, renewable energy represented 75% of our revenues. With this generation mix, our starting point is very different from an average utility for example. Since our portfolio does not include old legacy coal plants, we cannot have a strategy of closing such plants. For a company like Atlantica, we have concluded that it is not reasonable to reduce emissions by a 60% and as a result, we are not defining a Science Based Target.

C4.2

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

Other climate-related target(s)

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number

Oth 1

Year target was set

2018

Target coverage

Company-wide

Target type: absolute or intensity

Intensity

Target type: category & Metric (target numerator if reporting an intensity target)

Other, please specify

Other, please specify

Adjusted EBITDA including unconsolidated affiliates generated from low-carbon footprint assets including our renewable, transportation and transmission infrastructure and water assets. In USD and at the end of the reporting period.

Target denominator (intensity targets only)

Other, please specify

Total adjusted EBITDA including unconsolidated affiliates in USD and at the end of the reporting period

Base year

2018

Figure or percentage in base year

89

Target year

2030

Figure or percentage in target year

80

Figure or percentage in reporting year

87

% of target achieved [auto-calculated]

22.2222222222

Target status in reporting year

Underway

Is this target part of an emissions target?

To further demonstrate that climate change mitigation is core to strategy and our commitment with climate change, our Board reiterated in 2019 its commitment to maintain 80% of our adjusted EBITDA including unconsolidated affiliates generated from low-carbon footprint assets including our renewable, transportation and transmission infrastructure and water assets.

This commitment stands in addition to reducing our GHG Emission rate per unit of energy generated by 10% in 2030 (vs. 2018 base year).

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain (including target coverage)

In 2019 and 2018 we managed to grow our portfolio while maintaining at least 80% of our adjusted EBITDA including unconsolidated affiliates generated from low-carbon footprint assets including our renewable, transportation and transmission infrastructure and water assets.

In U.S. millions	2019	(%)	2018
(%)			
Renewables	604,079	74%	664,429
77%			
Efficient Natural Gas	109,200	13%	93,858

11%				
Transportation and transmission	85,658	10%	78,463	
9%				
Water		22,619	3%	21,967
3%				
Total		821,556		
858,717				
Low-carbon footprint assets	712,356	87%	764,859	
89%				

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	1	0
To be implemented*	4	2,000
Implementation commenced*	0	0
Implemented*	1	8,549
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

Energy efficiency in production processes

Other, please specify

Implementation of Maximum Use of Gas Policy

Estimated annual CO2e savings (metric tonnes CO2e)

8,549

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

210,000

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

0

Payback period

<1 year

Estimated lifetime of the initiative

16-20 years

Comment

We have implemented a maximum use of gas policy to reduce the gas consumption in our assets. We have implemented this initiative at no cost while saving approximately \$200K per year.

The GHG emissions are subject to the European Union Emissions Trading System (EU ETS) control. According to current regulation, our installations subject to EU ETS do not receive emission rights free of charge. In other words, our installations must purchase emissions in the market via public auctions.

By implementing a maximum use of gas policy, we have reduced the amount of emission rights that we need to buy in public auctions.

Monetary savings have been calculated using the average EU ETS price from January to July 2020 (\$26).

C4.3c

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

Method	Comment
Dedicated budget for other emissions reduction activities	<p>We are a company that owns, manages, and acquires renewable energy, efficient natural gas, transmission lines and water assets and intends to take advantage of favorable trends in the power generation and electric transmission sectors globally, including energy scarcity and a focus on the reduction of carbon emissions.</p> <p>We estimate to invest in new clean energy assets by investing approximately \$160 - \$240 million in equity value annually during the next five years. We estimate that most of these investments will be</p>

	<p>low-carbon footprint assets.</p> <p>Historically, in our bids we have included assumptions of carbon price at some point during the life of the asset. For example, in the bid for Monterrey (an efficient natural gas plant in Mexico where we have a 30% stake), we considered different measures aimed at reducing GHG emissions.</p>
Dedicated budget for low-carbon product R&D	<p>Delivering solid operational performance is key for us. We have internally implemented an Advanced Analytics team to strengthen our machine learning capabilities and improve our real-time predictive maintenance. Our goal is to reduce our operational risks, improve critical equipment uptime and efficiency, thus reducing our Scope 1 GHG emissions.</p>
Internal incentives/recognition programs	<p>In 2019 approximately 50% of our management and 28% of our employees have a variable compensation linked to Environment, Social and Governance performance. This includes health and safety, compliance, and environment matters (including climate-related matters).</p> <p>In addition, part of the short-term variable remuneration of the CEO and other members of the Management Committee is linked to closing accretive investments and these investments have to be aligned with our climate-related goals.</p> <p>Monetary rewards include the identification and/or implementation of measures to position Atlantica as a leader in climate change. Examples of variable compensation includes: neutralizing GHG emissions, analyze implementing a carbon pricing, analyze setting Science Based Targets, implementing action plans to reduce the environmental impact of our operations, etc. We plan to continue introducing new climate-related monetary rewards going forward.</p> <p>Non-monetary rewards include our annual “Environmental Awards” to the asset with the best environmental performance and the asset with best Management of Change (MOC) proposal. We plan to continue introducing new climate-related non-monetary rewards going forward.</p>
Financial optimization calculations	<p>Each VP is encouraged to invest in new equipment or make changes to existing installations to improve performance and/or energy efficiency, provided that the investment is profitable within a reasonable period of time.</p>
Internal price on carbon	<p>In the past, when evaluating potential investments, we have taken into consideration potential costs related to emissions. For example, when we analysed our Monterrey 30% investment, we considered different measures aimed at reducing GHG emissions.</p>

	In addition, in 2020 we have set an internal price on carbon to evaluate potential investments which is in the range of \$15-\$25 per ton of CO ₂ .
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C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Group of products

Description of product/Group of products

In 2019, 88% of our revenue and 87% of our adjusted EBITDA from unconsolidated assets came from low carbon footprint assets including renewable energy, transmission and transportation infrastructure and water assets. We are committed to maintaining 80% of our adjusted EBITDA including unconsolidated affiliates from low-carbon footprint assets including our renewable, transportation and transmission infrastructure and water assets and to reducing our emission rate per unit of energy generated by 10% by 2030.

Our focus on renewables and sustainable technologies allows Atlantica to have greenhouse gas emissions rates at significantly lower levels than those normally produced by fossil fuel-power plants. In fact, last year we avoided almost 5 million tons of CO₂ only in power generation versus the emissions that an equivalent fossil fuel fleet would have generated. Our twenty five assets consist of: (i) fifteen renewable plants with a total capacity of 1,496 MW , (ii) six transmission lines of 1,166 miles in length, (iii) two water desalination plants with a total capacity 10m cubic feet a day and, (iv) two efficient natural gas assets: one cogeneration plant of 300 MW and a 30% stake in a 142 MW gas-fired engine facility (i.e., 43MW).

All our assets except for our efficient natural gas plants are considered low carbon footprint assets. The natural gas used at the ACT cogeneration plant is a waste-grade product provided free-of-charge by the off-taker and upcycled by ACT into thermal power.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Low-Carbon Investment (LCI) Registry Taxonomy

% revenue from low carbon product(s) in the reporting year

88

Comment

The 88% revenue from low carbon products in 2019 includes:

Renewables: \$761.1 million (75%)

Transmission: \$103.5 million (10%)

Water: \$24.6 million (3%)

Efficient Natural Gas: \$122.3 million (12%)

Total: \$1,011.5 million

C-EU4.6

(C-EU4.6) Describe your organization's efforts to reduce methane emissions from your activities.

Methane emissions are not relevant in our activities as technologies we employ do not result in a notable level of emissions of this type of gas.

In 2019, CH₄ amounted to 343 ton and N₂O amounted 2,78 ton compared to 1,648K ton of CO₂. CH₄ emissions represent 0,02% of CO₂+CH₄ emissions, as such, we do not consider it necessary to establish methane emission reduction targets at this time.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

January 1, 2018

Base year end

December 31, 2018

Base year emissions (metric tons CO₂e)

1,811,177

Comment

As a United Kingdom company, Atlantica is subject to, and is in compliance with the requirements of the Climate Change Act 2008 for greenhouse gas emissions reporting. Additionally, our greenhouse gas emissions management complies with the requirements of the Commission Regulation (EU) No 601/2012. Emissions figures on

this report are quantified and reported according to the guidelines of the ISO 14064. In accordance with this international standard, which was compiled according to the Green House Gas Protocol, we classified our emissions into 3 groups:

- Scope 1: Emissions of greenhouse gas from sources that are owned or controlled by the Company and the Group.
- Scope 2: Indirect emissions of greenhouse gas from consumption of purchased electricity, heat or steam.
- Scope 3 emissions are emissions associated to the supply chain or to transport.

Scope 2 (location-based)

Base year start

January 1, 2018

Base year end

December 31, 2018

Base year emissions (metric tons CO₂e)

149,471

Comment

As a United Kingdom company, Atlantica is subject to, and is in compliance with the requirements of the Climate Change Act 2008 for greenhouse gas emissions reporting. Additionally, our greenhouse gas emissions management complies with the requirements of the Commission Regulation (EU) No 601/2012. Emissions figures on this report are quantified and reported according to the guidelines of the ISO 14064. Our Scope 2 emissions are indirect emissions of greenhouse gas from consumption of purchased electricity, heat or steam.

Scope 2 (market-based)

Base year start

January 1, 2018

Base year end

December 31, 2018

Base year emissions (metric tons CO₂e)

144,605

Comment

As a United Kingdom company, Atlantica is subject to, and is in compliance with the requirements of the Climate Change Act 2008 for greenhouse gas emissions reporting. Additionally, our greenhouse gas emissions management complies with the requirements of the Commission Regulation (EU) No 601/2012. Emissions figures on this report are quantified and reported according to the guidelines of the ISO 14064. Our Scope 2 emissions are indirect emissions of greenhouse gas from consumption of purchased electricity, heat or steam.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

ISO 14064-1

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

The Greenhouse Gas Protocol: Public Sector Standard

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)

1,533,029

Comment

Scope 1: Emissions of greenhouse gas from sources that are owned or controlled by the Company.

98% of our scope 1 GHG emissions are generated by ACT, our efficient natural gas plant in Mexico.

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 are reporting a Scope 2, market-based figure

Comment

Scope 2: Indirect emissions of greenhouse gas from consumption of purchased electricity, heat or steam.

Over 95% of our scope 2 GHG emissions are generated by: (i) solar power plants and, (ii) a water plant .

C6.3

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

Reporting year

Scope 2, location-based

117,139

Scope 2, market-based (if applicable)

113,210

Comment

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?

Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source

GHG Scope 1 and Scope 2 emissions generated at our offices are within our selected reporting boundary, but have not been included in our disclosure.

Reason: office emissions are not relevant.

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not relevant

Explain why this source is excluded

We have excluded the emissions generated in our offices.

Our offices Scope 1 and Scope 2 emissions represent a 0.004% of Atlantica's total GHG

Scope 1 and 2 emissions.

This source of emissions has been excluded. Not relevant.

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

Relevant, calculated

Metric tonnes CO₂e

62,964.7

Emissions calculation methodology

Purchased goods and services emissions have been calculated using an economic input / output analysis using 2019 economic data and relevant emission factors obtained from the CEDA's 5 database.

CEDA stands for "Comprehensive Environmental Data Archive", a set of databases designed to assist on environmental system analysis throughout the supply chain.

Purchased goods and services represents approximately a 9% of our Scope 3 total GHG emissions.

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

0

Please explain

Purchased goods and services emissions have been calculated using an economic input / output analysis using 2019 economic data and relevant emission factors obtained from the CEDA's 5 database. No data has been obtained from suppliers or value chain partners.

Capital goods

Evaluation status

Not relevant, calculated

Metric tonnes CO₂e

1,763.5

Emissions calculation methodology

Capital goods represents a 0.2% of Scope 3 total emissions.

We have calculated Scope 3 using an economic input / output analysis of the reporting

period.

We have identified six Scope 3 categories that are not relevant (each represents less than 1% of total 2019 Scope 3). These are:

Category 2: Capital Goods

Category 4: Upstream transportation and distribution

Category 5: Waste Generated in Operations

Category 6: Business Travel

Category 7: Employee Commuting

Category 8: Upstream leased assets

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

0

Please explain

Capital goods emissions represents a 0.2% of our Scope 3 total GHG emissions. Not relevant.

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

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

571,474.3

Emissions calculation methodology

Fuel-and-energy-related activities (not included in Scope 1 or 2) mainly includes stationary combustion, mobile combustion and electricity consumption and have been calculated following the guidelines of the GHG Protocol standard.

We have divided the emissions of this category into three activities: (1) "Well to Tank" emissions from fossil fuels (diesel, natural gas and pooling vehicles); (2) Emissions "Well to Tank" of the purchased electricity ; (3) Emissions due to the Generation and Transmission and Distribution of electricity purchased based on the emission factors of Scope 1 and 2 and the WTT factors of DEFRA. This percentage has been applied to the emission factors of Scope 1 and 2 used by Atlantica to estimate the emissions of this category.

WTT DEFRA stands for "Department of Environment Food and Rural Affairs", GHG conversion factors from resource extraction, production and delivery.

Fuel-and-energy-related activities (not included in Scope 1 or 2) represents approximately an 80% of our Scope 3 total GHG emissions.

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

100

Please explain

Fuel-and-energy-related activities (not included in Scope 1 or 2) mainly includes stationary combustion, mobile combustion and electricity consumption and have been calculated following the guidelines of the GHG Protocol standard.

The emissions have been calculated using third party information.

Upstream transportation and distribution

Evaluation status

Not relevant, calculated

Metric tonnes CO₂e

39

Emissions calculation methodology

Upstream transportation and distribution represents a 0.01% of Scope 3 total emissions.

We have calculated Scope 3 using an economic input / output analysis of the reporting period.

We have identified six Scope 3 categories that are not relevant (each represents less than 1% of total 2019 Scope 3). These are:

Category 2: Capital Goods

Category 4: Upstream transportation and distribution

Category 5: Waste Generated in Operations

Category 6: Business Travel

Category 7: Employee Commuting

Category 8: Upstream leased assets

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

0

Please explain

Upstream transportation and distribution represents a 0.01% of our Scope 3 total GHG emissions. Not relevant.

Waste generated in operations

Evaluation status

Not relevant, calculated

Metric tonnes CO₂e

815

Emissions calculation methodology

Waste generated in operations represents a 0.11% of Scope 3 total emissions.

We have calculated Scope 3 using an economic input / output analysis of the reporting period.

We have identified six Scope 3 categories that are not relevant (each represents less than 1% of total 2019 Scope 3). These are:

Category 2: Capital Goods

Category 4: Upstream transportation and distribution

Category 5: Waste Generated in Operations

Category 6: Business Travel

Category 7: Employee Commuting

Category 8: Upstream leased assets

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

100

Please explain

Waste generated in operations represent a 0.1% of our Scope 3 total GHG emissions.
Not relevant.

Business travel

Evaluation status

Not relevant, calculated

Metric tonnes CO₂e

883.4

Emissions calculation methodology

Business travel represent a 0.1% of Scope 3 total emissions.

We have calculated Scope 3 using an economic input / output analysis of the reporting period.

We have identified six Scope 3 categories that are not relevant (each represents less than 1% of total 2019 Scope 3). These are:

Category 2: Capital Goods

Category 4: Upstream transportation and distribution

Category 5: Waste Generated in Operations

Category 6: Business Travel

Category 7: Employee Commuting

Category 8: Upstream leased assets

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

97.7

Please explain

Business travel represents a 0.1% of our Scope 3 total GHG emissions. Not relevant

Employee commuting

Evaluation status

Not relevant, calculated

Metric tonnes CO2e

135.4

Emissions calculation methodology

Employee Commuting represents a 0.02% of Scope 3 total emissions.

We have calculated Scope 3 using an economic input / output analysis of the reporting period.

We have identified six Scope 3 categories that are not relevant (each represents less than 1% of total 2019 Scope 3). These are:

Category 2: Capital Goods

Category 4: Upstream transportation and distribution

Category 5: Waste Generated in Operations

Category 6: Business Travel

Category 7: Employee Commuting

Category 8: Upstream leased assets

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

0

Please explain

Employee Commuting represent a 0.02% of our Scope 3 total GHG emissions. Not relevant.

Upstream leased assets

Evaluation status

Not relevant, calculated

Metric tonnes CO2e

5,025.7

Emissions calculation methodology

Upstream leased assets represents a 0.7% of Scope 3 total emissions.

We have calculated Scope 3 using an economic input / output analysis of the reporting period.

We have identified six Scope 3 categories that are not relevant (each represents less than 1% of total 2019 Scope 3). These are:

Category 2: Capital Goods

Category 4: Upstream transportation and distribution

Category 5: Waste Generated in Operations

Category 6: Business Travel

Category 7: Employee Commuting

Category 8: Upstream leased assets

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

0

Please explain

Upstream leased assets represents a 0.7% of our Scope 3 total GHG emissions. Not relevant.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Please explain

Atlantica does not offer tangible products. This category is not relevant.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Please explain

Atlantica does not offer tangible products. This category is not relevant.

Use of sold products

Evaluation status

Not relevant, explanation provided

Please explain

Atlantica does not offer tangible products. This category is not relevant.

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Please explain

Atlantica does not offer tangible products. This category is not relevant.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

There are no assets of the company leased to other entities during 2019 not included in Scope 1 and 2.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

Atlantica does not own franchises. This category is not relevant

Investments

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

76,062.9

Emissions calculation methodology

This investment category includes emissions associated with Atlantica's equity method investments (i.e., those investments where we do not have a controlling stake).

These investments include:

1. 25% stake in the Honaine plant, a water plant.

Honaine's GHG emissions disclosure:

Scope 1: not relevant.

Scope 2: We have primary data on electricity consumption to calculate Scope 2 emissions. This information has been provided by the O&M contractor.

We have added a 25% of Honaine's Scope 2 emissions to Atlantica's scope 3 GHG emissions

2. 30% stake in Monterrey, a 142 MW gas-fired engine facility including 130 MW installed capacity and 12 MW battery capacity. The investment was closed on August 2, 2019 hence we have added a 30% of Monterrey's emissions from August to December 2019. All Monterrey's emissions correspond to Scope 1 emissions. The information was provided by our partner.

This category represents approximately 10.5% of Atlantica's total Scope 3 emissions.

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

100

Please explain

This investment category includes emissions associated with Atlantica's equity method investments. I.e., non-controlling interest in a desalination plant and in an efficient natural gas plant.

The investment category has been calculated using data obtained from the O&M contractor or our partners.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Please explain

Atlantica has no other upstream emissions than those previously explained.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Please explain

Atlantica has no other upstream emissions than those previously explained.

C6.7

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

No

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

0.00163

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

1,646,239

Metric denominator

unit total revenue

Metric denominator: Unit total

1,011,452,000

Scope 2 figure used

Market-based

% change from previous year

13.1

Direction of change

Decreased

Reason for change

Numerator: Scope 1 GHG emissions have decreased mainly due to a reduction of our natural gas consumption in ACT, our efficient natural gas plant, which generates approximately 91% of our total GHG Scope 1 and Scope 2 emissions. In 2019, this plant had a major overhaul. As a result, production was lower and emissions were lower as well. In 2018, Scope 1 emissions had increased with respect to 2017 mainly due to an increase in natural gas consumption in ACT. In 2018, ACT operated at partial load for a higher number of hours at the request of our client. In this asset we have a tolling agreement according to which we receive water and natural gas from the client and give them back electricity and steam in the amount they request.

Denominator: Revenue decreased by 3.1% to \$1,011.5 million for the year ended December 31, 2019, compared to \$1,043.8 million for the year ended December 31, 2018. The decrease was primarily due to the effect of the depreciation of the euro and the South African rand against the U.S. dollar. The decrease in revenue was also due in part to lower production from our U.S. solar assets, resulting from lower solar radiation in the first half of 2019, longer than expected maintenance stops in the first quarter and reduced capacity in Mojave in the second half of the year. These effects were partially offset by an increase in revenues from our investments in wind and transmission assets and solid operational performance in the rest of our assets.

In this 2020 CDP questionnaire we have disclosed our Scope 2 GHG emissions both location and market-based. We consider our scope 2 GHG emissions not be material in our overall scope 1+2 GHG emissions.

Intensity figure

0.18

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

1,646,239

Metric denominator

megawatt hour generated (MWh)

Metric denominator: Unit total

8,938,797

Scope 2 figure used

Market-based

% change from previous year

9.1

Direction of change

Decreased

Reason for change

This ratio is calculated considering our Scope 1 and Scope 2 GHG emissions of our generation assets. I.e., solar, wind, efficient natural gas and hydro.

In 2018 the intensity figure amounted to 0.2. In 2019 the intensity figure amounted to 0.18. This 9.1% decrease is mainly due to:

- A decrease of our Scope 1 GHG emissions in our efficient natural gas asset (ACT).
- A reduction in this year generation in our (i) efficient natural gas asset and, (ii) U.S. solar assets (lower solar radiation in the first half of 2019).

Scope 1 GHG emissions have decreased mainly due to a reduction of our natural gas consumption in ACT, our efficient natural gas plant, which generates approximately 98% of our total Scope 1 emissions. In 2019, this plant had a major overhaul. As a result, production was lower (and emissions were lower as well). The decrease in generation was also due in part to lower production from our U.S. solar assets, resulting from lower solar radiation in the first half of 2019, longer than expected maintenance stops in the first quarter and reduced capacity in Mojave in the second half of the year.

Scope 2 GHG emissions include the emissions based on location and market. We consider our scope 2 GHG emissions (i.e., 113,210 tons of CO₂) not to be material in our overall scope 1+2 GHG emissions.

Intensity figure

0.17

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

1,533,029

Metric denominator

megawatt hour generated (MWh)

Metric denominator: Unit total

8,938,797

Scope 2 figure used

% change from previous year

8.6

Direction of change

Decreased

Reason for change

We have included the intensity ratio calculated as: "Scope 1 GHG Emissions / Total Generation in GWh per year"

We have disclosed this ratio as our commitment is to reduce our emission rate per unit of energy generated by 10% by 2030 considering Atlantica's Scope 1 GHG Emissions.

In 2018 the intensity figure amounted to 0.19. In 2019 the intensity figure amounted to 0.17. This 8.6% decrease is mainly due to:

- A decrease of our Scope 1 GHG emissions in our efficient natural gas asset (ACT).
- A reduction in this year generation in our (i) efficient natural gas asset and, (ii) U.S. solar assets (lower solar radiation in the first half of 2019).

Scope 1 GHG emissions have decreased mainly due to a reduction of our natural gas consumption in ACT, our efficient natural gas plant, which generates approximately 98% of our total Scope 1 emissions. In 2019, this plant had a major overhaul. As a result, production was lower (and emissions were lower as well). The decrease in generation was also due in part to lower production from our U.S. solar assets, resulting from lower solar radiation in the first half of 2019, longer than expected maintenance stops in the first quarter and reduced capacity in Mojave in the second half of the year.

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	1,524,888	IPCC Fifth Assessment Report (AR5 – 100 year) D ₁
CH4	7,209	IPCC Fifth Assessment Report (AR5 – 100 year) D ₂
N2O	862	IPCC Fifth Assessment Report (AR5 – 100 year)

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¹ACT GHG emissions are calculated using GWP IPCC Fifth Assessment Report (AR5-100 year): 1; 28 ; 265. For solar, wind and water assets, we have used GWP IPCC Second Assessment Report (SAR-100 year). ACT GHG emission are 98% of total Atlantica Scope 1 GHG emissions.

²ACT GHG emissions are calculated using GWP IPCC Fifth Assessment Report (AR5-100 year): 1; 28 ; 265. For solar, wind and water assets, we have used GWP IPCC Second Assessment Report (SAR-100 year). ACT GHG emission are 98% of total Atlantica Scope 1 GHG emissions.

³ACT GHG emissions are calculated using GWP IPCC Fifth Assessment Report (AR5-100 year): 1; 28 ; 265. For solar, wind and water assets, we have used GWP IPCC Second Assessment Report (SAR-100 year). ACT GHG emission are 98% of total Atlantica Scope 1 GHG emissions.

C-EU7.1b

(C-EU7.1b) Break down your total gross global Scope 1 emissions from electric utilities value chain activities by greenhouse gas type.

	Gross Scope 1 CO2 emissions (metric tons CO2)	Gross Scope 1 methane emissions (metric tons CH4)	Gross Scope 1 SF6 emissions (metric tons SF6)	Total gross Scope 1 emissions (metric tons CO2e)	Comment
Fugitives	203	316	0	6,841	Fugitives emissions
Combustion (Electric utilities)	1,523,923	27	0	1,525,407	Emissions from stationary combustion
Combustion (Gas utilities)	0	0	0	0	We do not own gas utilities. Our efficient natural gas asset in Mexico has been included in row Combustion (Electric utilities)
Combustion (Other)	747	0.05	0	780	Emissions from mobile combustion
Emissions not elsewhere classified	0	0	0	0	

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Mexico	1,514,391
Spain	16,423
United States of America	1,500
Peru	80
South Africa	533
Chile	23
Algeria	40
Uruguay	39

C7.3

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

- By business division
- By facility
- By activity

C7.3a

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

Business division	Scope 1 emissions (metric ton CO2e)
EMEA	16,996
North America	1,515,891
South America	142

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
ACT	1,514,391	17.1015	-93.115738
Solana	1,216	32.921313	-112.979356
Mojave	284	35.013945	-117.329381
Kaxu	533	-28.880494	19.592857
Cadonal	27	-33.59827	-56.67504
Palmatir	1	-32.593125	-56.440168

Helioenergy1	1,451	37.578953	-5.157337
Helioenergy2	1,406	37.578953	-5.157337
Solaben3	1,060	39.229261	-5.398317
Solaben2	998	39.229261	-5.398317
Solacor1	536	37.959243	-4.502332
Solacor2	569	37.959243	-4.502332
Helios2	937	39.238787	-3.475009
Solnova4	1,200	37.416607	-6.274359
Solaben6	2,234	39.229261	-5.398317
Solaben1	1,308	39.229261	-5.398317
Helios1	1,111	39.238787	-3.475009
Solnova1	1,077	37.416607	-6.274359
Solnova3	799	37.416607	-6.274359
PS20	1,507	37.44317	-6.254752
Hidrocanete	9	-13.070436	-76.307338
PS10	228	37.44317	-6.254752
Estrellada	11	-32.603579	-54.229284
Sevilla PV	0	37.44317	-6.254752
Skikda	40	36.883394	6.966264
Transmission lines Chile	23	-38.001798	-71.473991
Transmission lines Peru	70	-10.299471	-76.646968

C7.3c

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

Activity	Scope 1 emissions (metric tons CO2e)
Renewable Energy	18,505
Efficient Natural Gas	1,514,391
Transmission	93
Water	40

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
Electric utility activities	1,532,896	This represents our gross Scope 1 GHG emissions expressed in CO2e from our electric generation activities (I.e., Solar, Wind, Efficient Natural Gas and Hydro). Our total Scope 1 GHG emissions amount to 1,533,029 tons of CO2, hence our generating assets represent approximately 100% of our total scope 1 GHG total emissions .

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)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Mexico	2	2	4.32	0
Spain	30,445	26,517	98,210	0
United States of America	17,000	17,000	47,426	0
Peru	13	13	34	0
South Africa	7,479	7,479	8,042	0
Chile	1	1	2	0
Algeria	62,057	62,057	121,920	0
Uruguay	141	141	391	0

C7.6

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

- By business division
- By facility
- By activity

C7.6a

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

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
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EMEA	99,982	96,053
North America	17,002	17,002
South America	155	155

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)
ACT	2	2
Solana	14,076	14,076
Mojave	2,924	2,924
Kaxu	7,479	7,479
Cadonal	44	44
Palmatir	56	56
Helioenergy1	2,285	1,990
Helioenergy2	2,189	1,906
Solaben3	2,167	1,887
Solaben2	2,093	1,823
Solacor1	1,947	1,696
Solacor2	1,951	1,699
Helios2	3,083	2,685
Solnova4	2,095	1,824
Solaben6	2,193	1,910
Solaben1	2,286	1,991
Helios1	2,602	2,267
Solnova1	1,998	1,740
Solnova3	2,313	2,014
PS20	599	522
Hidrocanete	13	13
PS10	644	561
Estrellada	41	41
Sevilla PV	0	0
Skikda	62,057	62,057
Transmission lines Chile	1	1

Transmission lines Peru	0	0
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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)
Renewable Energy	55,078	51,149
Efficient Natural Gas	2	2
Transmission	1	1
Water	62,057	62,057

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?

Decreased

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	0	No change	0	Our online renewable energy consumption in our renewable assets did not change versus last year.
Other emissions reduction activities	8,549	Decreased	0.44	The gross global emissions (Scope 1 + 2) of Atlantica for this reporting year are 1,646,239 metric tons of CO2e. Our gross global emissions for the previous reporting year were 1,955,780 metric tons of CO2e. This means that the total change in emissions is 309,541 metric tons of CO2e, equal to a 15.83% decrease.

				<p>The change from 1,955,780 metric tons of CO₂e to 1,646,239 metric tons of CO₂e is attributed to two reasons:</p> <p>(1) Emissions reduction activities: We have implemented a maximum use of gas policy to reduce the gas consumption in our assets, hence we have reduced our scope 1 GHG emissions by 8,549 tons in 2019 vs. 2018. This represents a 0.44% decrease vs. 2018 Scope 1 and 2 GHG emissions.</p> <p>(2) Change in physical operating conditions (reported further down in this subsection): We have reduced our scope 1 GHG emissions due to a reduction of our natural gas consumption in AC, our efficient natural gas plant, which generates approximately 91% of our total GHG Scope 1 and Scope 2 emissions. In 2019, this plant had a major overhaul. As a result, production was lower and emissions were lower as well. In 2018, Scope 1 emissions had increased with respect to 2017 mainly due to an increase in natural gas consumption in ACT. In 2018, ACT operated at partial load for a higher number of hours at the request of our client. In this asset we have a tolling agreement according to which we receive water and natural gas from the client and give them back electricity and steam in the amount they request.</p> <p>The reduction of our natural gas consumption in ACT has reduced our scope 1 GHG emissions by 300,992 metric tons of CO₂e. This represents a 15.39% decrease vs. 2018 Scope 1 and 2 GHG emissions.</p>
Divestment	0	No change	0	

Acquisitions	0	No change	0	
Mergers	0	No change	0	
Change in output	0	No change	0	
Change in methodology	0	No change	0	
Change in boundary	0	No change	0	
Change in physical operating conditions	300,992	Decreased	15.39	<p>The gross global emissions (Scope 1 + 2) of Atlantica for this reporting year are 1,646,239 metric tons of CO₂e. Our gross global emissions for the previous reporting year were 1,955,780 metric tons of CO₂e. This means that the total change in emissions is 309,541 metric tons of CO₂e, equal to a 15.83% decrease.</p> <p>The change from 1,955,780 metric tons of CO₂e to 1,646,239 metric tons of CO₂e is attributed to two reasons:</p> <p>(1) Emissions reduction activities (previously reported in this subsection): We have implemented a maximum use of gas policy to reduce the gas consumption in our assets, hence we have reduced our scope 1 GHG emissions by 8,549 tons in 2019 vs. 2018. This represents a 0.44% decrease vs. 2018 Scope 1 and 2 GHG emissions.</p> <p>(2) Change in physical operating conditions: We have reduced our scope 1 GHG emissions due to a reduction of our natural gas consumption in AC, our efficient natural gas plant, which generates approximately 91% of our total GHG Scope 1 and Scope 2 emissions. In 2019, this plant had a major overhaul. As a result, production was lower and emissions were lower as well. In 2018, Scope 1 emissions had</p>

				<p>increased with respect to 2017 mainly due to an increase in natural gas consumption in ACT. In 2018, ACT operated at partial load for a higher number of hours at the request of our client. In this asset we have a tolling agreement according to which we receive water and natural gas from the client and give them back electricity and steam in the amount they request.</p> <p>The reduction of our natural gas consumption in ACT has reduced our scope 1 GHG emissions by 300,992 metric tons of CO₂e. This represents a 15.39% decrease vs. 2018 Scope 1 and 2 GHG emissions.</p>
Unidentified	0	No change	0	
Other	0	No change	0	

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?

Market-based

C8. Energy

C8.1

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

More than 5% but less than or equal to 10%

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	No
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	7,545,780	7,545,780
Consumption of purchased or acquired electricity		0	276,029	276,029
Consumption of self-generated non-fuel renewable energy		308,758		308,758
Total energy consumption		308,758	7,821,809	8,130,567

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	No
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No

Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

C8.2c

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

Fuels (excluding feedstocks)

Diesel

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

8,794

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.0741

Unit

metric tons CO2 per MWh

Emissions factor source

The emission factor source is IPCC 2007, Chapter 2

Comment

In 2019, Atlantica did not consume diesel for self-generation of heat.

Fuels (excluding feedstocks)

Natural Gasoline

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

2,561

MWh fuel consumed for self-generation of heat

2

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.069

Unit

metric tons CO2 per MWh

Emissions factor source

The emission factor source is IPCC 2007, Chapter 2.

Comment

In 2019, Atlantica primarily consumed natural gasoline to fuel our cars (i.e., 2,559 MWh).

Remaining 2 MWh was used for emergency generators and emergency pumps.

Fuels (excluding feedstocks)

Propane Gas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

285

MWh fuel consumed for self-generation of heat

285

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.0636

Unit

metric tons CO2 per GJ

Emissions factor source

The emission factor source is IPCC 2007, Chapter 2.

Comment

In 2019, Atlantica consumed propane gas to generate heat in HTF boilers.

Fuels (excluding feedstocks)

Liquefied Natural Gas (LNG)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

7,534,143

MWh fuel consumed for self-generation of heat

44,480

MWh fuel consumed for self-cogeneration or self-trigeneration

7,489,661

Emission factor

0.0561

Unit

metric tons CO2 per GJ

Emissions factor source

The emission factor source for ACT calculation is IPCC 2006, Chapter 2

Comment

Atlantica consumes LNG during the cogeneration process and to generate heat in HTF boilers.

The emission factor source (0.0561) for ACT calculation is based on IPCC 2006, Chapter 2.

The emission factor source (0.0564) for solar plants calculation is based on IPCC 2007, Chapter 2.

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	5,647,090	358,119	3,543,552	308,758
Heat	0	0	0	0
Steam	3,596,112	0	0	0
Cooling	0	0	0	0

C-EU8.2d

(C-EU8.2d) For your electric utility activities, provide a breakdown of your total power plant capacity, generation, and related emissions during the reporting year by source.

Coal – hard

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Not applicable. We do not own assets based on coal technology

Lignite

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Not applicable. None of our plants use lignite

Oil

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO₂e)

0

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0

Comment

Not applicable. We do not own assets based on oil.

Gas

Nameplate capacity (MW)

300

Gross electricity generation (GWh)

2,103.53

Net electricity generation (GWh)

2,054.18

Absolute scope 1 emissions (metric tons CO₂e)

1,514,390.59

Scope 1 emissions intensity (metric tons CO₂e per GWh)

737.23

Comment

The ratio of Scope 1 per GWh of electricity is 737.23 tons CO₂e/GWh.

In addition to electricity, our cogeneration plant (ACT) also generates steam (3,596,112 MWh in 2019).

The ratio of Scope 1 per GWh generated (considering both electricity and steam generation) amounts to 268.02 tons CO₂e/GWh.

Biomass

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO₂e)

0

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0

Comment

Not applicable. We do not own assets based on biomass.

Waste (non-biomass)

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO₂e)

0

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0

Comment

Not applicable. We do not own assets based on waste.

Nuclear

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO₂e)

0

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0

Comment

Not applicable. We do not own assets based on nuclear technology.

Fossil-fuel plants fitted with CCS

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO₂e)

0

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0

Comment

Not applicable. We do not own assets based on fossil- fuel plants fitted with CCS.

Geothermal

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO₂e)

0

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0

Comment

Not applicable. We do not own assets based on geothermal technology.

Hydropower

Nameplate capacity (MW)

4

Gross electricity generation (GWh)

27.87

Net electricity generation (GWh)

27.87

Absolute scope 1 emissions (metric tons CO₂e)

9

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0.32

Comment

Our hydropower plant produced 27,87 GWh of electricity in 2019.

Wind

Nameplate capacity (MW)

150

Gross electricity generation (GWh)

488.41

Net electricity generation (GWh)

488.41

Absolute scope 1 emissions (metric tons CO₂e)

39

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0.08

Comment

We own 3 wind assets with an installed capacity of 50 MW each one.

Solar

Nameplate capacity (MW)

1,342

Gross electricity generation (GWh)

3,027.27

Net electricity generation (GWh)

2,719.8

Absolute scope 1 emissions (metric tons CO₂e)

18,456

Scope 1 emissions intensity (metric tons CO₂e per GWh)

6.79

Comment

We own eleven solar assets with a total installed capacity of 1,342 MW located in North America and EMEA.

Marine

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO₂e)

0

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0

Comment

Not applicable. We do not own assets based on marine technology.

Other renewable

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO₂e)

0

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0

Comment

Not applicable. We generate renewable energy from solar, wind and hydro.

Other non-renewable

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO₂e)

0

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0

Comment

Not applicable. We generate non-renewable energy from our efficient natural gas asset in Mexico (previously disclosed).

Total

Nameplate capacity (MW)

1,796

Gross electricity generation (GWh)

5,647.08

Net electricity generation (GWh)

5,290.26

Absolute scope 1 emissions (metric tons CO₂e)

1,532,895

Scope 1 emissions intensity (metric tons CO₂e per GWh)

289.8

Comment

Our total installed capacity from our generating assets amount to 1,796MW. Some key facts include:

Technologies: solar, wind, natural gas and hydro assets.

Location: North America and EMEA.

The total GHG scope 1 emissions from generating assets amount to 1,532,896 metric tons CO₂e.

Atlantica's total GHG scope 1 emissions amount to 1,533,029 metric tons CO₂e.

Remaining metric tons CO₂e are generated in our water and transmission lines. Not material.

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method

None (no purchases of low-carbon electricity, heat, steam or cooling)

Low-carbon technology type

Country/region of consumption of low-carbon electricity, heat, steam or cooling

MWh consumed accounted for at a zero emission factor

Comment

C-EU8.4

(C-EU8.4) Does your electric utility organization have a transmission and distribution business?

Yes

C-EU8.4a

(C-EU8.4a) Disclose the following information about your transmission and distribution business.

Country/Region

Chile

Voltage level

Transmission (high voltage)

Annual load (GWh)

1,175

Annual energy losses (% of annual load)

5

Scope where emissions from energy losses are accounted for

Scope 2 (location-based)

Emissions from energy losses (metric tons CO₂e)

1

Length of network (km)

140

Number of connections

4

Area covered (km²)

2.2

Comment

The 1,175 GWh Annual Load does not include a 6-mile transmission line. Not material.

Atlantica does not own distribution networks, Atlantica owns and operates transmission lines and does not deliver electricity to end-users. Considering this, it does not deliver electricity to a certain area of the country. We also own a small transmission line that

delivers electricity to one single off-taker (not significant). As a result, we have disclosed the area covered by our right of ways within the "area covered (km2)" section.

Country/Region

Peru

Voltage level

Transmission (high voltage)

Annual load (GWh)

12,240

Annual energy losses (% of annual load)

5

Scope where emissions from energy losses are accounted for

Scope 2 (location-based)

Emissions from energy losses (metric tons CO2e)

0

Length of network (km)

1,740

Number of connections

42

Area covered (km2)

79

Comment

Atlantica does not own distribution networks, Atlantica owns and operates transmission lines and does not deliver electricity to end-users. Considering this, it does not deliver electricity to a certain area of the country. In Peru, ATN and ATS are part of the national interconnected transmission system. ATN2 delivers electricity to one single off-taker. As a result, we have disclosed the area covered by our right of ways within the "area covered(km2)" section.

C9. Additional metrics

C9.1

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

Description

Other, please specify

Water withdrawal for renewable power

Metric value

3.39

Metric numerator

cubic meters of water withdrawn

Metric denominator (intensity metric only)

MWh generated

% change from previous year

0.45

Direction of change

Decreased

Please explain

In 2019, we withdrew 11.0 million cubic meters of fresh water at our power generation plants and we returned 1.9 million cubic meters (17%) back to the source. In 2018, we withdrew 10.4 million cubic meters of fresh water and returned 2.2 million cubic meters (21%) back to the source. The water returned to the environment is tested by independent external laboratories on a periodic basis to ensure its quality.

Our efforts to improve our water management beyond compliance is a main factor behind the reduction of withdrawal volumes per MWh in 2019 (3.39) compared to 2018 (3.41). We implemented better water-use practices in operation and maintenance of our solar plants, such as adjustments in the operating cycles of the water-cooling towers. In 2019, we withdrew 11.0 million cubic meters which represented 50% of the limits allowed by our water permits. The difference between the water permit limits and actual water withdrawn represents water savings.

Water withdrawn in 2019 was higher than in 2018 mainly due to higher production in our renewable assets. Additionally, whenever we foresee potential drought periods we fill the water deposits of our renewable assets as a preventive measure. In 2019, some of our solar assets in Spain had drought alerts and water deposits were filled.

Description

Other, please specify

Water withdrawal for desalination

Metric value

2.26

Metric numerator

cubic meters of water withdrawn

Metric denominator (intensity metric only)

Hm3 produced

% change from previous year

2.39

Direction of change

Increased

Please explain

Our water segment includes two desalination plants. We withdraw sea water for desalination purposes as specified in the concession agreements of our two desalination plants.

In 2019, we withdrew 228.7 million cubic meters of sea water, which went through the desalination process of salt and minerals removal in our water treatment facilities to prepare it for human use. We produced 101.2 million cubic meters of desalinated water and returned 127.5 million cubic meters (56%) back to the sea. In 2018, we withdrew 220.2 million cubic meters and returned 120.4 million cubic meters (55%) back to the sea. The difference between water withdrawn from and returned to the sea is the desalinated potable water delivered to the water utility, as specified by our take-or-pay concession agreements for consumption needs of approximately 2.2 million people.

Description

Other, please specify
Water discharges (renewable power)

Metric value

0.57

Metric numerator

cubic meters of water discharged

Metric denominator (intensity metric only)

MWh generated

% change from previous year

21.4

Direction of change

Decreased

Please explain

Our efforts to improve our water management beyond compliance is a main factor behind the reduction of withdrawal and discharged volumes in 2019 compared to 2018. We implemented better practices for use of water in operation and maintenance of our solar plants, such as adjustments in the operating cycles of the water cooling towers.

In addition, In 2019 an external company performed a water efficiency audit at one of our Spanish solar assets to identify potential actions to improve water-use efficiency. The potential measures identified would result in limited improvement in the assets. In 2020, we are analyzing the mirror cleaning process in our solar assets to reduce water consumption and potentially recycle water.

Description

Other, please specify
Water discharges (desalination)

Metric value

1.26

Metric numerator

cubic meters of water discharged

Metric denominator (intensity metric only)

Hm3 produced

% change from previous year

4.36

Direction of change

Increased

Please explain

Description

Waste

Metric value

10,543

Metric numerator

tons of hazardous waste

Metric denominator (intensity metric only)

not applicable

% change from previous year

325

Direction of change

Increased

Please explain

The increase in hazardous waste in 2019 is mainly due to an environmental accident in one of our solar assets in Spain. We undertook all necessary measures to minimize its impact, informed public authorities, performed a root-cause analysis, implemented corrective actions to remediate contaminated soils, thus reducing its impacts and, internally shared the lessons learned. In 2019, 12% of the total hazardous waste generated was reused or recycled and the remaining 88% was disposed in landfills. We are analyzing several initiatives to reduce our hazardous waste. These include improving our leak detection capabilities, enhancing employees' waste-related training, updating our leaks procedure with best practices and lessons learned and, building bioremediation areas for contaminated soil. We expect to conclude the analysis during 2020.

Description

Waste

Metric value

19,836

Metric numerator

tons of non-hazardous waste

Metric denominator (intensity metric only)

non applicable

% change from previous year

9

Direction of change

Decreased

Please explain

The non-hazardous waste produced in our assets derives from the wastewater treatment plants and the reuse of the wastewater before the discharge. Most of the non-hazardous waste was generated in Solana, Mojave and Helios and comes from water treatment (filter cake). We make important efforts to find alternative uses to landfill. For example, in Solana, nearly two thirds of non-hazardous waste is used as organic fertilizer by a local farmer. Additionally, we are analyzing other initiatives to reduce non-hazardous waste, mainly by reducing our chemical consumption in the water treatment process in our U.S. solar assets. We expect to conclude the analysis during 2020.

C-EU9.5a

(C-EU9.5a) Break down, by source, your total planned CAPEX in your current CAPEX plan for power generation.

Primary power generation source	CAPEX planned for power generation from this source	Percentage of total CAPEX planned for power generation	End year of CAPEX plan	Comment
Solar	2,730,000	99	2020	Our capex plan is achieved mainly through acquisitions or investments in new assets or businesses. Our maintenance capex is not significant since most of the maintenance capex costs are included in our operation and maintenance agreements and recorded as operating expenses. 2020 capex investment in solar power assets mainly relate to preheaters and buckets
Hydropower	21,200	1	2020	Our capex plan is achieved mainly through acquisitions or investments in new assets or businesses. Our maintenance capex is not significant since most of the maintenance capex costs are included in our operation and maintenance agreements and recorded as operating expenses.

C-EU9.5b

(C-EU9.5b) Break down your total planned CAPEX in your current CAPEX plan for products and services (e.g. smart grids, digitalization, etc.).

Products and services	Description of product/service	CAPEX planned for product/service	Percentage of total CAPEX planned products and services	End of year CAPEX plan
Other, please specify Renewable assets	The capex represents the improvements we planned for 2019 at our renewable assets to increase production, reduce costs or improve operations.	2,751,200	100	2020
Other, please specify Transmission lines	The capex represents the improvements we planned for 2019 at our transmission line	3,800,000	100	2020

	assets to reduce costs or improve operations.			
Other, please specify Water plants	The capex represents the improvements we planned for 2019 at our water assets to increase production, reduce costs or improve operations.	860,000	100	2020

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	<p>At Atlantica, delivering solid operational performance is key. We believe that by investing in our monitoring and predictive capabilities, we will improve our asset performance. As such, we have implemented an Advanced Analytics team for Machine Learning and Predictive Maintenance to improve the performance of our existing technologies.</p> <p>In addition, our Operations Department dedicates its efforts to identify potential measures to improve efficiency in our assets, which would result in a reduction of emissions. The team also has targets to identify measures to reduce emissions.</p>

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
Digital technology	Full/commercial-scale demonstration	≤20%		In 2019, we improved our online monitoring and diagnosis capabilities with new sensors to detect anomalies in our equipment, such as raising

			<p>temperatures. In 2020, we expect to continue installing sensors and/or remote diagnosis systems in certain key equipment such as power transformers, turbines and water feed pumps.</p> <p>Also in 2019, our Advanced Analytics team for machine learning and predictive maintenance worked with Sulzer, a global leader in fluid engineering, in the deployment of Sulzer’s BLUE BOX, an advanced analytic solution on operational performance of critical pumps. Several pilot programs were developed and implemented at two of Atlantica’s solar power plants.</p> <p>As proof of success, in 2020 Atlantica received the “Pump Industry Excellence Award for Innovation and Technology” from the Hydraulic Institute, the largest association of pump industry manufacturers in North America. We were recognized for the deployment of Sulzer’s BLUE BOX, which enabled us to reduce our operational risks and to improve critical pumps uptime and efficiency going forward.</p> <p>The cost is already included in our recurring general and administrative expenses and correspond basically to the costs of our: (i) Operations, Health and Safety, and Quality and Environment department and (ii) Advanced Analytics team.</p>
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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	No third-party verification or assurance

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

 CO2EmissionsSolarPlants2019rev01.pdf

Page/ section reference

Solar power plant: Solnova 1.

File: "CO2EmissionsSolarPlants2019rev01.pdf". Page 2.

Solnova 1 scope 1 verified emissions amount to 699 tCO₂. This represents 0.05% of Atlantica's scope 1 emissions.

Relevant standard

European Union Emissions Trading System (EU ETS)

Proportion of reported emissions verified (%)

0

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

 CO2EmissionsSolarPlants2019rev01.pdf

Page/ section reference

Solar power plant: Solnova 3.

File: "CO2EmissionsSolarPlants2019rev01.pdf". Page 2.

Solnova 3 scope 1 verified emissions amount to 566 tCO₂. This represents 0.04% of Atlantica's scope 1 emissions.

Relevant standard

European Union Emissions Trading System (EU ETS)

Proportion of reported emissions verified (%)

0

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

 CO2EmissionsSolarPlants2019rev01.pdf

Page/ section reference

Solar power plant: Solnova 4.

File: "CO2EmissionsSolarPlants2019rev01.pdf". Page 2.

Solnova 4 scope 1 verified emissions amount to 700 tCO₂. This represents 0.05% of Atlantica's scope 1 emissions.

Relevant standard

European Union Emissions Trading System (EU ETS)

Proportion of reported emissions verified (%)

0

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

 CO2EmissionsSolarPlants2019rev01.pdf

Page/ section reference

Solar power plant: Helioenergy 1.

File: "CO2EmissionsSolarPlants2019rev01.pdf". Page 3.

Helioenergy 1 scope 1 verified emissions amount to 957 tCO₂. This represents 0.06% of Atlantica's scope 1 emissions.

Relevant standard

European Union Emissions Trading System (EU ETS)

Proportion of reported emissions verified (%)

0

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

 CO2EmissionsSolarPlants2019rev01.pdf

Page/ section reference

Solar power plant: Helioenergy 2.

File: "CO2EmissionsSolarPlants2019rev01.pdf". Page 3.

Helioenergy 2 scope 1 verified emissions amount to 913 tCO₂. This represents 0.06% of Atlantica's scope 1 emissions.

Relevant standard

European Union Emissions Trading System (EU ETS)

Proportion of reported emissions verified (%)

0

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

 CO2EmissionsSolarPlants2019rev01.pdf

Page/ section reference

Solar power plant: Solacor 1.

File: "CO2EmissionsSolarPlants2019rev01.pdf". Page 3.

Solacor 1 scope 1 verified emissions amount to 351 tCO₂. This represents 0.02% of Atlantica's scope 1 emissions.

Relevant standard

European Union Emissions Trading System (EU ETS)

Proportion of reported emissions verified (%)

0

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

 CO2EmissionsSolarPlants2019rev01.pdf

Page/ section reference

Solar power plant: Solacor 2.

File: "CO2EmissionsSolarPlants2019rev01.pdf". Page 3.

Solacor 2 scope 1 verified emissions amount to 371 tCO₂. This represents 0.02% of Atlantica's scope 1 emissions.

Relevant standard

European Union Emissions Trading System (EU ETS)

Proportion of reported emissions verified (%)

0

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

 CO2EmissionsSolarPlants2019rev01.pdf

Page/ section reference

Solar power plant: Helios 1.

File: "CO2EmissionsSolarPlants2019rev01.pdf". Page 3.

Helios 1 scope 1 verified emissions amount to 414 tCO₂. This represents 0.03% of Atlantica's scope 1 emissions.

Relevant standard

European Union Emissions Trading System (EU ETS)

Proportion of reported emissions verified (%)

0

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

 CO2EmissionsSolarPlants2019rev01.pdf

Page/ section reference

Solar power plant: Helios 2.

File: "CO2EmissionsSolarPlants2019rev01.pdf". Page 3.

Helios 2 scope 1 verified emissions amount to 412 tCO₂. This represents 0.03% of Atlantica's scope 1 emissions.

Relevant standard

European Union Emissions Trading System (EU ETS)

Proportion of reported emissions verified (%)

0

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

 CO2EmissionsSolarPlants2019rev01.pdf

Page/ section reference

Solar power plant: Solaben 1.

File: "CO2EmissionsSolarPlants2019rev01.pdf". Page 4.

Solaben 1 scope 1 verified emissions amount to 568 tCO₂. This represents 0.04% of Atlantica's scope 1 emissions.

Relevant standard

European Union Emissions Trading System (EU ETS)

Proportion of reported emissions verified (%)

0

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

 CO2EmissionsSolarPlants2019rev01.pdf

Page/ section reference

Solar power plant: Solaben 2.

File: "CO2EmissionsSolarPlants2019rev01.pdf". Page 4.

Solaben 2 scope 1 verified emissions amount to 617 tCO₂. This represents 0.04% of Atlantica's scope 1 emissions.

Relevant standard

European Union Emissions Trading System (EU ETS)

Proportion of reported emissions verified (%)

0

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

 CO2EmissionsSolarPlants2019rev01.pdf

Page/ section reference

Solar power plant: Solaben 3.

File: "CO2EmissionsSolarPlants2019rev01.pdf". Page 4.

Solaben 3 scope 1 verified emissions amount to 497 tCO₂. This represents 0.03% of Atlantica's scope 1 emissions.

Relevant standard

European Union Emissions Trading System (EU ETS)

Proportion of reported emissions verified (%)

0

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

 CO2EmissionsSolarPlants2019rev01.pdf

Page/ section reference

Solar power plant: Solaben 6.

File: "CO2EmissionsSolarPlants2019rev01.pdf". Page 4.

Solaben 6 scope 1 verified emissions amount to 1,729 tCO₂. This represents 0.11% of Atlantica's scope 1 emissions.

Relevant standard

Proportion of reported emissions verified (%)

0

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

 CO2EmissionsSolarPlants2019rev01.pdf

Page/ section reference

Solar power plant: PS 20.

File: "CO2EmissionsSolarPlants2019rev01.pdf". Page 2.

PS 20 scope 1 verified emissions amount to 813 tCO₂. This represents 0.05% of Atlantica's scope 1 emissions.

Relevant standard

European Union Emissions Trading System (EU ETS)

Proportion of reported emissions verified (%)

0

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

 14064_Verification_ACT_Energy 2019.pdf

Page/ section reference

Efficient natural gas plant: ACT.

File: "14064VerificationACTEnergy2019.pdf". Page 1.

ACT scope 1 verified emissions amount to 1,514,391 tCO₂. This represents 99.0% of Atlantica's scope 1 emissions.

Relevant standard

NMX-SAA-14064-3-IMNC: Instituto Mexicano de Normalización y Certificación A.C

Proportion of reported emissions verified (%)

99

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

 14064_Verification_ACT_Energy 2019.pdf

Page/ section reference

Efficient natural gas plant: ACT.

File: "14064VerificationACTEnergy2019.pdf". Page 1.

ACT scope 2 verified emissions amount to 2 tCO₂. This represents 0.002% of Atlantica's scope 2 emissions.

Relevant standard

NMX-SAA-14064-3-IMNC: Instituto Mexicano de Normalización y Certificación A.C

Proportion of reported emissions verified (%)

0

Scope 2 approach

Scope 2 market-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

 GHG Scope 2 Verification Report.pdf

Page/ section reference

Scope 2 emissions verification for our CSP solar assets in Spain and Skikda (water asset).

File: "Scope 2 Verification Report.pdf". Page 7.

CSP solar assets in Spain and Skikda scope 2 verified emissions amount to 88,574 tCO₂. This represents 78% of Atlantica's scope 2 emissions.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

78

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.

EU ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

EU ETS

% of Scope 1 emissions covered by the ETS

1

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2019

Period end date

December 31, 2019

Allowances allocated

0

Allowances purchased

9,441

Verified Scope 1 emissions in metric tons CO₂e

9,607

Verified Scope 2 emissions in metric tons CO₂e

0

Details of ownership

Facilities we own and operate

Comment

Our assets under the EU ETS are solar plants in Spain: PS20, Solnova1, Solnova3, Solnova4, Helioenergy1, Helioenergy2, Solacor1, Solacor2, Helios1, Helios2, Solaben1, Solaben2, Solaben3 and Solaben6.

At each of our assets under the EU ETS, the emissions are subject to control. Each asset maintains documentation related to: (1) the methodology used to calculate the greenhouse gas emissions and (2) their activities that have contributed to the greenhouse gas emissions, including the data and system controls in-place.

RENADE, is the National Registry for Greenhouse Gas Emission Allowances in Spain. According to the regulation, our installations subject to EU ETS do not receive emission rights free of charge. Our installations must purchase rights in the market via public auctions.

The asset owner is responsible for the greenhouse gas emissions control and accounting rights. The asset owner must comply with the requirements established by the Greenhouse Emissions Authority in Spain (AEGEI).

C11.1d

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

The EU emissions trading system (EU ETS) is a cornerstone of the EU's policy to combat climate change and its key tool for reducing greenhouse gas emissions cost-effectively. It is the world's first major carbon market and remains the biggest one. It works on the "cap and trade" principle. Within the cap, companies buy emission allowances which they can trade with one another as needed. The EU ETS was set up in 2005. It targets to reduce emissions from the sector covered by the system by 21% since 2015 to 2020 and by 43% to 2030. At each of our assets under the EU ETS, the emissions are subject to the control under the regulation. According to the regulation, starting 2013, our installation subject to EU ETS do not receive emission rights free of charge. Our installations must purchase them in the emissions rights market via public auctions.

Each of our solar plants in Spain has an AEGEI (Greenhouse Emissions Authority in Spain), which establishes the requirements related to the control and accounting over the emissions rights of the owner of the asset. Atlantica maintains documentation describing the methodology of the calculation of the greenhouse gas emission in each plant, complying with these authorizations. Each year, Atlantica performs internal audits to verify that GHG emissions calculations have been carried out according to the procedures and each authorization (AEGEI). Then, an external audit (AENOR) carries out the official verification of GHG emissions (Scope 1) in compliance with the EU emissions trading system (EU ETS). The reports of these verifications are sent to the environmental authority before the 28th of February of each year. Before the end of April, each asset must purchase emissions allowances needed to be sent to RENADE (National Registry for Greenhouse Gas Emission Allowances). For example, this year we have purchased 9,941 to comply with the total amount of 9,941 tons of CO₂e verified. (Our

plants Solnova 3 and Solnova 4 had available emissions allowances from the first assignment in 2010).

In Mexico, emissions of our 300 MW plant is subject to the Mexico carbon tax. However under the local regulation, the emissions are audited and controlled as emissions of Pemex, our offtaker for whom ACT generates electricity and steam under a tolling agreement. We report the emissions to Pemex who in turn consolidates them and gets them audited and reported to the local regulator. The documentation and responsibility of these emissions is furnished under Pemex not Atlantica.

C11.2

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

Yes

C11.2a

(C11.2a) Provide details of the project-based carbon credits originated or purchased by your organization in the reporting period.

Credit origination or credit purchase

Credit purchase

Project type

CO2 usage

Project identification

Solar Assets in Spain

Verified to which standard

CDM (Clean Development Mechanism)

Number of credits (metric tonnes CO2e)

9,441

Number of credits (metric tonnes CO2e): Risk adjusted volume

9,441

Credits cancelled

Not relevant

Purpose, e.g. compliance

Compliance

Credit origination or credit purchase

Credit origination

Project type

Wind

Project identification

Palmatir

Verified to which standard

VCS (Verified Carbon Standard)

Number of credits (metric tonnes CO2e)

12,973

Number of credits (metric tonnes CO2e): Risk adjusted volume

12,973

Credits cancelled

No

Purpose, e.g. compliance

Voluntary Offsetting

Credit origination or credit purchase

Credit origination

Project type

Wind

Project identification

Cadonal

Verified to which standard

VCS (Verified Carbon Standard)

Number of credits (metric tonnes CO2e)

126,103

Number of credits (metric tonnes CO2e): Risk adjusted volume

126,103

Credits cancelled

No

Purpose, e.g. compliance

Voluntary Offsetting

C11.3

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

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

- Navigate GHG regulations
- Drive energy efficiency
- Drive low-carbon investment
- Stress test investments

GHG Scope

Scope 1

Application

We apply a carbon price when we evaluate investment in assets with long-term useful life. Depending on its risk level, the scenario posed by the carbon price can be accepted, mitigated, transferred or avoided.

Actual price(s) used (Currency /metric ton)

20

Variance of price(s) used

\$15-\$25 per ton of CO₂
Price evolving with time, according with estimations in Europe, North America and South America.

Type of internal carbon price

Shadow price

Impact & implication

We apply a carbon price when we evaluate investments in assets with long-term useful life. The economic impact is evaluated as an additional cost.

Historically, in our bids we have included assumptions of carbon price at some point during the life of the asset. For example, in the bid for Monterrey (an efficient natural gas plant in Mexico where we have a 30% stake), we considered different measures aimed at reducing GHG emissions. Other potential investment opportunities have been rejected due to the negative impact they may have on our climate-related targets. In addition, in 2020 we have set a carbon price of \$15-\$25 to evaluate investment opportunities.

This shadow price encourages investments in low carbon footprint assets, in line with our commitments to (i) maintaining at least an 80% of our Adjusted EBITDA including unconsolidated affiliates generated by low carbon footprint assets, including renewable assets, transmission and transportation infrastructures and water plants, and (ii) reducing our emission rate per unit of energy generated by 10% by 2030. Investment opportunities where we could have decided to move forward in the process have been discarded after applying the internal carbon price.

C12. Engagement

C12.1

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

Yes, our suppliers

C12.1a

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

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

2

% total procurement spend (direct and indirect)

60

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

1

Rationale for the coverage of your engagement

In 2019 we reinforced the environmental certification of our suppliers through a two-step process:

1. Internal homologation process: Atlantica's internal compliance team reviews the suppliers' financial information, environmental initiatives, tax compliance, and bank account certificates, etc.

2. External homologation process: We have engaged the services of external provider Ecovadis to evaluate our key suppliers in terms of: (i) environment (including climate-related issues), (ii) fair labour and human rights, (iii) ethics, and (iv) sustainable procurement. This evaluation is renewed on a yearly basis enabling us to periodically

monitor and pinpoint the suppliers' improvements in terms of i) environment (including climate-related issues), (ii) fair labour and human rights, (iii) ethics, and (iv) sustainable procurement.

2019 was the first year we have worked with Ecovadis on implementing a suppliers' certification process. During this first year we have been able to certify approximately 60% of the company's annual expenses (i.e., most of the suppliers who were engaged). In addition, 56% of our O&M annual expenses comply with the standard ISO 14001.

In 2020 we plan to continue increasing the percentage of suppliers verified through Ecovadis. Particularly, we plan to certify 75% of the company's annual expenses during the next two years.

Impact of engagement, including measures of success

Ecovadis is a recognized international company to evaluate suppliers in terms of: (i) environment (including climate-related issues), (ii) fair labour and human rights, (iii) ethics, and (iv) sustainable procurement. Ecovadis applies an in-house methodology built on international Corporate Social Responsibility (CSR) standards including the Global Reporting Initiative, the United Nations Global Compact, and the ISO 26000 and issues a rating per supplier.

The process to engage with suppliers through the Ecovadis certification process is as follows:

- Ecovadis provides us with rating per supplier which can be: (a) Platinum, (b) Gold, (c) Silver or (d) Bronze medal.
- Atlantica sets action plans to those vendors who do not obtain a Platinum rating. Those vendors shall work with Ecovadis to implement established action plans.
- Since Ecovadis rating is valid for a year, at Atlantica we are able to monitor progress made by each supplier.
- Ecovadis evaluation is paid by both Atlantica and the vendor.

During this first year we have been able to certify approximately 60% of the company's annual expense. We have realized that most suppliers have done their best to obtain a good grade and have stated their intention to keep improving. The questionnaire specifically asks questions on: environmental policies, environmental KPIs, response to CDP's Climate Change questionnaire, measures to reduce energy consumption and GHG emissions, waste management and GHG disclosures, etc. We believe that certifying over a 50% of the company's annual expense to be a measure of success for this engagement. We plan to continue increasing our suppliers' engagement to continue working with our suppliers to increase their rating under Ecovadis.

Comment

The comments provided within this engagement also serves as an explanation to "Engagement and Incentivization (changing supplier behaviour)". In 2020 we will follow-up with the suppliers evaluated by Ecovadis. Action plans have been defined with the suppliers which were evaluated. In 2020, we will continue considering suppliers' environmental policies, environmental KPIs, responses to CDP Climate Change

questionnaire, measures to reduce energy consumption and GHG emissions, waste management and GHG disclosures, as part of our suppliers' evaluation.

Type of engagement

Compliance & onboarding

Details of engagement

Other, please specify

Adherence to Atlantica's Supplier Code of Conduct

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

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

100

Rationale for the coverage of your engagement

According to our Code of Conduct, we seek to work with third parties who operate under high ethical principles, and we have a Suppliers' Code of Conduct. Atlantica's purchasing requirements establish some principles for all external companies in order to become its suppliers. All suppliers adhere to our Suppliers Code of Conduct (available at our website www.atlantica.com). We include our requirements in our contractual arrangements with suppliers that are similar to those set in the Code of Conduct.

Impact of engagement, including measures of success

Nearly 100% of suppliers' registrations in the company's procurement system have accepted our Suppliers Code of Conduct. We have smaller suppliers who are working to fully comply with our Code. . Example of positive outcome: In 2019, 0 contracts were cancelled due to non-compliance.

We measure the success of this engagement through the involvement in the initiative: in 2019 nearly 100% of our suppliers accepted our Suppliers Code of Conduct and 0 contracts were cancelled due to non-compliance.

Comment

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Direct engagement with policy makers

Trade associations

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Clean energy generation	Support	In the last 12 months we have participated in different conferences and summits to support the development of renewable energy, sustainable infrastructures and the transition to a clean energy mix among others. Among others, Atlantica participated in the 25th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP25) in Madrid, Spain and in a solar technology conference that took place in Sacramento, California. Our CEO discussed the role of renewables and storage in the evolving energy market.	Several initiatives were discussed to foster deployment of renewables, transmissions and distribution grids and energy storage. These included grid issues, implementing carbon pricing mechanisms that function across the world, channelling financing and investment in low carbon activities and developing new Government incentives.
Clean energy generation	Support	We have worked directly or indirectly with policy makers in different countries where we are present to address clean energy issues.	In 2019 we participated in meetings with policy makers and had conversations with regulators regarding among others, support to renewable energy, regulatory schemes applicable to our assets and regulation on transmission.
Clean energy generation	Neutral	We contribute as a volunteer to the Voluntary Environmental Stewardship Program (VESP) sponsored by the Arizona Department of Environmental Quality (ADEQ). ADEQ through this program identifies and rewards organizations that have a good history of compliance with environmental requirements, and try to go above and beyond legal requirements. ADEQ strives to complement existing programs with new tools and strategies that not only protect people and the environment, but also recognize opportunities for reducing cost and encouraging technological innovation.	The efforts do not directly contribute to a legislative solution however we believe that our contribution, in the long term, will have an impact on the processes, approaches and perception that may have a footprint in the legislative solutions.

Clean energy generation	Neutral	As owners of a solar plant we are continuously in communication with the County Air Quality Department and their policy and regulation makers explaining the different processes of our plant concerning VOCs and HAPs emissions as well as the implementation of the technologies there is to control them.	The efforts do not directly contribute to a legislative solution however we believe that our contribution will, in the long term, have an impact on the processes, approaches and perception that may have a footprint in the legislative solutions.
Mandatory carbon reporting	Support	We are a supporter of the Task Force on Climate-Related Financial Disclosures and we have continued to support their recommendations in our 2019 ESG Report. For the first time, we have prepared the report in accordance with the GRI standards (Core Option). We also voluntary report our Scope 3 emissions.	The efforts do not directly contribute to a legislative solution however we believe that our contribution will, in the long term, have an impact on the processes, approaches and perception that may have a footprint in the legislative solutions.

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

Atlantica is one of the four Vice-presidents of Protermosolar and is a member of the Board.

Protermosolar is an association that supports renewable energy and particularly, promotes CSP energy in Spain. This Association has more than 50 members and it is at the vice-presidency of Estela, the European association. Protermosolar aims to promote CSP energy within a stable regulatory framework. It intends to support technology development and collaborate with state and central government to obtain efficient support programs. This association promotes the macroeconomic advantages that the use of this kind of technology has in the society and how this technology contributes to combat climate change.

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The main objectives of Protermosolar, besides the defence of the interest of its associated members on regulatory issues, are:

- To promote the deployment of CSP plants in Spain, informing policy makers of the advantages of dispatchability and thermal storage as the most current feasible way to reduce the need of fossil fuel backup.
- To increase the support of research and development programs of Public Administrations at regional, national and European level and to orientate the application of resources towards an efficient use of public funding.
- To disseminate knowledge and best practices and the strong advantages to contribute to mitigate to climate change objectives.

How have you influenced, or are you attempting to influence their position?

One of Atlantica's core values is Sustainability. Atlantica, as a Vice-president and a member of the Board of directors Protermosolar has a relevant role on the definition of the strategy and activities of the Association.

Trade association

ESTELA is the European Mediterranean CSP Industry Association.

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

ESTELA is the counterpart of the EU Commission and Parliament in discussion and elaboration of Energy and R&D policies regarding Renewables. ESTELA is a highly recognized stakeholder of the International Energy Agency - being member of its Renewable Industry Advisory Board and strong partner in the SolarPACES Implementing Agreement. ESTELA's opinions are also requested by other organizations such IRENA, REN21, World Bank, and many policy makers of the Sunbelt countries around the Globe.

How have you influenced, or are you attempting to influence their position?

Protermosolar is a founding member of ESTELA and one of the most active members within its Executive Committee. Atlantica has, therefore, an influential position through Protermosolar in the activities of ESTELA.

Trade association

Uruguayan Association of Electric Energy Generation

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

This Association contributes to the Energy diversification of Uruguay and we work to promote the development of renewable energy.

How have you influenced, or are you attempting to influence their position?

We are a member of the association and actively participate in decision-making processes. However, we are not a member of the Association's Board.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Atlantica has management policies and internal procedures in place to ensure that all activities that influence policy are consistent with its strategy.

The corporate principles that Atlantica adopts with respect to climate change are applicable to all of our businesses and countries where we are present.

Atlantica ensures that the entire management team, including VPs and the ESG, Operations, Compliance and Risks departments are fully aligned with activities and initiatives related to climate change. This is done through business and corporate committees where the CEO (who is also a Director of the Board) is a member. ESG and Climate related topics are discussed at our Management Meetings regularly. In addition, the top management of the company, including our Business VPs are members of the ESG Committee. All activities that may influence our policies require an authorization that has to be approved at several levels, ensuring that these activities will be aligned with the Company's strategy with respect to climate change.

- The CEO has a leading position and responsibility over climate-related issues. The CEO coordinates and leads (1) raising to Board level sustainability and ESG policies and targets, (2) identifying and implementing best practices, (3) setting, monitoring and overseeing progress against objectives, (4) annually preparing the ESG report for approval by the Board.
- VPs hold full responsibility over the assets they manage.
- Head of Internal Audit and Risk is the highest corporate responsible for identifying and assessing business risks.
- Head of Operations is the highest corporate responsible for sustainability. climate related issues.
- Head of ESG is the highest corporate responsible to address sustainability issues with investors, rating agencies, analysts and other climate-related stakeholders.

These Management Areas also participate in Atlantica's Management Model training in order to discuss with all employees our long-term strategy (including the importance of climate-related issues) and business model, our recent milestones, our growth strategy, and our values, policies and procedures

ESG issues (including climate-related issues) are included periodically in the agenda of Board meetings. The Board of Directors is the highest level of responsibility for climate change since is the ultimate decision-making body, including the oversight of climate-related risks and opportunities.

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

Complete

Attach the document

 2019 ESG Report_www.atlantica.com.pdf

Page/Section reference

Section: Message from the CEO

Section 1.2: About this Report

Section 1.3: Our Business Model and Strategy

Section 1.4: Key Business Highlights

Section 2.1: Environmental Policy

Section 2.2: Task Force on Climate-Related Financial Disclosure: Risks and Opportunities Related to Climate Change

Section 2.3: Greenhouse Gas Emissions

Content elements

Governance

Strategy

Risks & opportunities

Emissions figures

Comment

2019 ESG Report

Publication

In mainstream reports

Status

Complete

Attach the document

 Atlantica-2019-UK-Annual-Report.pdf

Page/Section reference

Pages: 35, 36, 47, 49, 50, 51, 52, 53, 54, 76, 77, 78, 93

Content elements

Strategy
Risks & opportunities
Emissions figures
Emission targets

Comment

2019 U.K. Annual Report

Publication

In mainstream reports

Status

Complete

Attach the document

 AS-FILED-Atlantica-20-F-12-31-2019.pdf

Page/Section reference

Pages: 22, 28, 37, 38, 39

Content elements

Risks & opportunities

Comment

Atlantica Form-20F submitted to the Securities Exchange Commission (SEC)

C15. 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.

Non applicable

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Santiago Seage (CEO and Director on Board)	Director on board

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission
I am submitting my response	Investors	Public

Please confirm below

I have read and accept the applicable Terms