



MANAGEMENT
APPROACH
DISCLOSURE

ENERGY AND EMISSIONS

9 INDUSTRY,
INNOVATION AND
INFRASTRUCTURE



13 CLIMATE
ACTION



Energy and Emissions*

Related GRI Contents	103-1; 103-2; 103-3
Related Sustainable Development Goals	SDG 9
Related Performance Data	Environment
Related Management Approach Disclosures	Climate
Other related documents	Sustainable Development Policy ; Environmental Policy
Future Commitments	<ul style="list-style-type: none"> + Continue implementation of our TCFD roadmap + Continue implementing metrics and indicators to define efficiency goals across our operations. + Incorporate our environmental data for Olaroz Lithium Facility and Borax Argentina in InteleX with monthly entry of information provided by respective data-owners, to increase information consistency and quality.
Related Material topics	<ul style="list-style-type: none"> + Environmental Management + Climate change Risk

Strategic significance

Orocobre's sustainability strategy is focused on three aspects: Safe and sustainable operations, thriving communities, and responsible products that promote the transition to a net zero carbon future.

By enhancing the energy efficiency of our operations (i.e. ensuring maximum production output for every unit of energy consumed), Orocobre not only minimises impact on the environment, but also reduces operational expenses while maximising production figures and associated revenues.

As a lithium carbonate producer facilitating the global transition to a clean energy future, it is essential that we listen to our stakeholders. Increasingly, our customers are requiring low carbon products and our investors want to see transparency about our exposure to transitionary risks and opportunities associated with climate change. Orocobre has been working on improving measurement of greenhouse gases for both the Olaroz Lithium Facility and Borax Argentina. This is resulting in the targeted implementation of energy efficiency programs and reductions in the emission intensity of our production processes.

Impact boundary

This management approach disclosure refers to the activities of both Sales de Jujuy (Olaroz Lithium Facility) and Borax Argentina (Borax Argentina).

Orocobre's commitment to energy and emissions reduction extends across the Company's entire value chain. Our primary focus is on reducing the energy and emissions associated with our operations as this is where the impact is greatest.

Orocobre acknowledges the opportunities to also monitor and reduce indirect energy consumption and emissions (e.g. corporate activities, transport and distribution of materials, products and personnel and other emissions associated with our supply chain). We are progressively expanding our energy and emissions reporting boundary over time to include these additional sources.

(*) This Document is part of Orocobre's Sustainability Report and should be understood as part of itself. Understanding Sales de Jujuy as Sales de Jujuy S.A., SDJ or Olaroz Lithium Facility and Borax Argentina as Borax Argentina S.A or BRX.

Management approach

As part of Orocobre's commitment to advancing the Sustainable Development Goals and in line with [SDG 9: Industry, Innovation and Infrastructure](#), the Company is constantly reviewing opportunities to 1) upgrade infrastructure and processes to enhance resource-use efficiency and 2) adopt clean and environmentally sound technologies and processes.

Policies that demonstrate the Company's commitment to energy and emissions reduction include:

- [Environmental Policy](#)
- [Sustainable Development Policy](#)



Management Systems

Orocobre's operations have an ISO certified Environmental Management System (ISO14001), for both the Olaroz Lithium Facility and Borax Argentina, which provides a solid foundation for the management of energy and environmental performance.

The Company's continuous improvement program allows all employees and site-based operators to propose opportunities for improved performance across all aspects of its operations. This enables the Company to regularly review emission reduction opportunities.

Monitoring and Reporting

The first detailed emissions inventory and specific methodology for the Olaroz Lithium Facility was defined in FY18. The FY18 emissions inventory constitutes the baseline year for energy and emissions performance. The first emissions inventory for Borax Argentina, was completed in FY20, providing a baseline for carbon dioxide equivalent emissions.

We evaluate the effectiveness of our management approach through regular monitoring and reporting of representative data and metrics, tracking progress against predefined objectives and targets. We fully comply with environmental laws aimed at controlling generated emissions. Internal data and reporting processes include daily operational updates, fuel consumption, weekly operational performance reviews, and monthly reporting on progress against operational targets.

Orocobre monitors and reports on climate-related indicators annually in its [Sustainability Report](#) and in investor surveys such as the CDP Climate Survey and the S&P Global [Corporate Sustainability Assessment \(CSA\)](#).

Up until FY19, Orocobre had only provided information related to the Olaroz Lithium Facility in the Sustainability Report. From FY20, we have expanded this scope to also include Borax Argentina. Data reported includes the total tonnes of carbon dioxide equivalent emissions under Scopes 1, 2 and (selected) scope 3.

Our most recent performance against these and other environmental metrics are included in the Orocobre Environment Performance Data, available on our [website](#).

Responsibility

At an operational level, responsibility for energy and emissions performance – including the evaluation and implementation of reduction initiatives – sits with the Chief Operating Officer.

The Risk Management Manager monitors performance and works in close collaboration with departments of greatest impact (including the Process, Logistics and Supply Chain teams) to identify and evaluate opportunities for performance improvement. Engineering and Projects areas are also involved when working on the design and implementation of new technologies.

Accountability

With targets now defined for energy and emissions performance at the Olaroz Lithium Facility, the Company is integrating KPIs into the performance evaluation process for specific managers and employees at an operational level, incorporating sustainability concepts to the operating sector goals. This work is ongoing for Borax Argentina.

Orocobre's Executive performance assessments are also being reviewed to incorporate energy and emissions related performance goals into their short term and long-term incentive criteria.

FY20 update

SALES DE JUJUY (Olaroz Lithium Facility)

The Olaroz Lithium Facility increased its focus on operational efficiency in FY20, particularly regarding fuel consumption for energy generation. This is an important component in operational costs so opportunities were sought to reduce consumption both in the short and long term.

A key challenge was restructuring data collection and reporting processes to ensure energy and emissions information related to operation and expansion activity could be clearly delineated. The intensity emissions data is broken down into total intensity and operational intensity, making it possible to compare information related to emissions from industrial processes year on year. Managing this KPI becomes essential to ongoing tracking once the second expansion stage is complete and to generate historical data that will be useful to implement more detailed and effective emission reduction programs.

Interruptions in production due to the COVID-19 pandemic contributed to a slight decrease in overall energy consumption during the year. However, the continued improvement in operational emissions intensity during FY20 is evidence that our initiatives to improve efficiency are being effective.

Only indicators which could be clearly delineated as being associated with either operation or construction activities (process heat, heavy vehicle fuel consumption, and stationary diesel consumption in new construction zones on site) were used to determine the difference between operations and expansion performance metrics.

New information sources included this year have resulted in an improved emissions inventory at the Olaroz Lithium Facility as compared to the previous year. Relevant emission factors were also revised and updated in accordance with Argentina's energy matrix, thus complying with international guidelines on greenhouse gas emissions.

Air quality monitoring is performed on a quarterly basis and includes, but is not limited to, the pollutants set out in Law No. 24.585, supported by provincial Law No. 5.063. Based on outcome assessments it can be concluded that the emissions are compliant with applicable air quality regulations. This information is an integral part of the biennial update of the Environmental Impact Report for the Olaroz Lithium Facility.

Given increased demand from Orocobre's direct and indirect customers for information regarding the carbon intensity of operations, we will continue focusing our efforts on increasing our energy and emissions efficiency and monitoring and reporting on progress.

Preliminary targets have been set for improving energy and emissions intensity at the Olaroz Lithium Facility.

These are included in the [Climate Management Approach](#) disclosure. For information on our annual performance, see the [Environment Performance Data](#) available on the Orocobre website.

BORAX ARGENTINA

Energy use and emissions data for the Borax Argentina operations was incorporated in the sustainability reporting for the first time this year. The main sources of GHG emissions for Borax Argentina are scope 1 emissions associated with Intermediate Fuel Oil ("IFO") used at our Tincalayu mine and plant. Other scope 1 emissions sources are the natural gas used at Campo Quijano and Diesel used at Sijes and Tincalayu.

Development of the GHG inventory for Borax Argentina has highlighted opportunities for reducing emissions. These include installation of a domestic Effluent Treatment Plant (ETP) powered with photovoltaic renewable energy at Sijes field. This would result in reduced energy costs and be more aligned with Orocobre's corporate strategy.

Other potential initiatives include the construction of a gas pipeline running from the existing pipeline to the west to the Tincalayu mine and processing plant. This would replace the current use of IFO and diesel fuel at the plant. Although natural gas is derived from a non-renewable resource, the emissions resulting from the use of this fuel are significantly lower than those resulting from the use of IFO and diesel. IFO contributes over 50% of the carbon dioxide equivalent emissions, so managing this key issue in the coming years is essential to reducing overall emissions.

Borax Argentina's operational emissions intensity for FY20 is 0.44 tCO₂e/tonne of total product. There are not currently any expansion activities associated with Borax Argentina so all emissions reported are operational. For calculating the total tonnes of product, all products of boric acid, borax refined and fused products, and mineral concentrates have been included.

Power consumption within Scope 2 comprises both the electricity consumed in the administrative office located in a building separate from the production plant and the electricity used in the plant itself. Differentiating the consumption between the offices and the plant by installing another electricity meter is an opportunity for improvement.

No emissions reduction targets have been set at this time for Borax Argentina as we focus on establishing the baseline and improving reporting processes.

For information on energy and emissions performance, see [Environmental Performance Data](#).