



RENEWABLE ENERGY FOR MORE SUSTAINABLE MINING

In the face of climate change, mining not only plays a role as a supplier of copper to promote new low-carbon technologies but also presents a challenge to the industry to decarbonise its production of copper. We will achieve our goals of reducing carbon emissions by incorporating renewable energy and energy efficiencies in our processes.

CONTEXT

Antofagasta Minerals' energy use represents almost 21% of cash costs – made up of 14% electricity and 7% fuel – and most of our greenhouse gas (GHG) emissions. There is a direct link between energy use and GHG emissions when energy is generated from fossil fuels.

Chile's energy policy aims to decarbonise its energy matrix. It has set a target for renewable energy to represent 70% of its energy mix by 2050 and provided economic incentives to reach this goal. In 2018 renewable energy represented 47%¹ of the country's energy matrix. We can make a unique contribution towards these efforts not only because copper is vital for clean energy technologies but also by using renewable energy in our processes and decoupling our energy consumption from GHG emissions.

Mining is also very sensitive to the effects of climate change. In recent years we have all been affected by extreme weather events, such as heavy snow, floods and droughts, leading us to adopt an adaptive approach to climate change and focus efforts on technology and innovation.

MANAGEMENT

ENERGY MANAGEMENT

In 2018 Antofagasta Minerals' Executive Committee approved an updated structure and governance of its Energy Management System. The update emphasises energy management as a key variable to be considered in different initiatives across the organisation including innovation, operational excellence, competitiveness and costs, and as a mechanism for GHG reduction.

This involved making adjustments to management structures based on ISO 50001 guidelines and establishing the basis for the new system's operation. For this purpose, we began different key tasks such as preparing consumption profiles for each operation, analysing the portfolio of Operating Excellence projects to determine the projects' contribution to reducing energy consumption and GHG emissions, and defined KPIs to measure new projects.

In addition, in 2018 we continued to drive energy efficiency initiatives including increased performance at the Los Pelambres SAG mill, specific energy consumption improvements at the Centinela electrowinning plant, fuel-use and mining truck utilisation efficiencies at Zaldívar and the evaluation of crusher utilisation rates at Antucoya.

In 2019 our tasks are to prepare an electromobility roadmap, create an online corporate energy portal, develop and promote standards that incorporate energy efficiency into project designs and strengthen the governance structure through the Operating Model and highlight energy as an important variable to be considered in decision-making.



¹ Report on Installed Generation Capacity, National Energy Commission, Chile.