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The potentials of 24/7 solar energy

One of the pillars of our sustainability strategy aims to facilitate people enjoying the potentials of 24/7 solar energy. We have therefore promised to foster a culture of clean energy among Chileans by instances and activities in public spaces, community infrastructure, functional organizations and, above all, in the localities where we operate.

Promoting solar energy

We believe in the potential of developing solar energy in the country and we have proposed looking for alternatives to promote its enjoyment, use and investigation so that more and more people every day can begin to use renewable energy as part of their everyday life in the near future. That is why we have worked closely since the beginning with schools and the student community. However, the Covid-19 world health crisis impacted the activities that we had conducted with them in previous years that were intended to promote an understanding and practical use of solar energy.

To make up for the impossibility of holding activities with the school community, we began to interact with the academic environment. We participated in the project entitled "Carriage of Mineral Dust in the north of Chile and deposit in the Andean Cryosphere" of the Geophysics Department of the University of Chile, financed by FONDECYT–ANID. The purpose of this investigation was to determine the patterns of dust circulation in the north of Chile, a phenomenon on which there is little documentation, because it is not known with any certainty where the dust goes and the impacts that it might have. The area of Cerro Dominador was chosen for the case study due to the potential dust emissions from our construction operations and the team of geophysicists were allowed to determine the impact of attenuating the quantity of solar radiation arriving at the surface and of the quantity of dust that sits on the solar panels. The quantity of solar radiation has an impact on production efficiency and the dust on the solar panels impacts maintenance because it defines the frequency of cleaning the panels. The results of this investigation will determine the impact of dust on solar-generated electricity and will help design tools to reduce the impact.

Along the same lines, we participated in the Science, Technology, Knowledge and Innovation (CTCI) Node Project, an initiative sponsored by the National Agency for Innovation and Development (ANID) of the Ministry of Science, Technology, Knowledge and Innovation of Chile. It was implemented by the Scientific Technological Park Foundation of the Catholic University of the North (UCN), a university that supports the initiative together with the University of Tarapaca, Arturo Prat University, University of Antofagasta and the University of Atacama. The goal of this project is to develop sustainable energy alternatives for the mining industry in the regions of Arica and Parinacota, Tarapacá, Antofagasta and Atacama. Members of the public, private, academic and social sectors participated in it, who worked on an analysis and shared vision that will help build a road map to strengthen the capacities in the territory.

Replacing firewood by clean energy

We are working in Talca on a program to allow inhabitants of 200 homes to replace firewood by electricity. The government initiative was in the form of a tender in which we participated together with CGE, a power distribution company, that is installing meters and developing the devices to supply electricity. The initiative will begin operation in the winter of 2022.

Energy tourism

Cerro 4

We know that we are in a privileged position to innovate in promoting solar energy: we are part of an emerging industry that has great potential for growth, and we have a motivated team that has the skills to develop the projects that aim to add value, from the moment they are conceived, to the spaces where we operate.

In May 2021, we inaugurated the Tourist-Scientific Observation Center in the Municipality of María Elena, in the midst of the Atacama Desert. Our Cerro Dominador plant has three sun and universe information stations designed by scientists of the Institute of Astronomy of the Pontifical Catholic University of Chile, University of La Serena and Diego Portales University. These facilities have a mural on the Milky Way created by Silvana Zuñiga, an artist specializing in scientific art, and two imposing sculptures 6 meters high made by Federico Assler, winner of the 2009 National Art Prize. The Cerro Dominador facilities can be seen from the stations and visitors can enjoy the pristine skies of the north of Chile.

These facilities were transferred to the municipality of María Elena at the inaugural ceremony for administration, to whom we reaffirmed our commitment to continue promoting the country's scientific and technological development. The facilities form part of the "Energy Tourism Route," which began at our facilities and is planned to go as far as the Quillagua Oasis. Creating this route will help consolidate a tourism circuit that rescues the cultural and historic heritage of our desert and communicates the way in which solar energy is contributing to the sustainable development of Chile.

Due to the health crisis, access to the center was restricted during 2021, but we expect that the entire community will visit it in 2022 to admire and gain an understanding of the potential of solar energy.

Progress toward goals and objectives

STRATEGY FOCUS	OBJECTIVES	2023 GOAL	2021 STATUS
3. FACILITATE people enjoying the potentials of 24/7 solar energy	Create a technical and touristic 24/7 solar energy production capacity to combat energy poverty.	Invest CLP$5,000,000 annually in solar energy for the public infrastructure of the localities were we operate.	Not started
		Develop tourism projects related to our community-managed infrastructure (per project)	The Tourist-Scientific Observation Center was built and delivered to the María Elena Municipality.
	Contribute to public infrastructure through 24/7 solar energy.	Create competitive funding (schools, neighborhood boards, etc.) to promote the use of solar energy.	The Outlook was delivered to María Elena that describes how the plant works and some aspects of astronomy.