



Environment

Environmental management⁷

We prioritize care of the environment while maintaining a preventive attitude. We care for our natural and social environment and pursue the efficient use of natural resources in all of our activities.

Context

World leaders adopted a set of global objectives to eradicate poverty, protect the planet and ensure prosperity for everyone as part of a new sustainable development agenda in 2015. We espoused these challenges at Transelec, aligning our sustainability Policy and Strategy with SDGs.

Our business is power transmission. It plays an essential role for society and can potentially generate impacts on surrounding areas during construction and operation stages. Given the fact that our high-voltage transmission lines cross different ecosystems -desert in the north and forests in the south, inhabited zones and spaces with high cultural or heritage value- installing a preventive culture is essential when it comes to minimizing our socio-environmental impacts.

Chilean environmental legislation has general¹⁵ and specific application regulating sector operation. The Environmental Impact Evaluation System (SEIA) oversees project development stages. This agency issues specific authorization for large-scale projects known as an Environmental

¹⁵ Law 19,300 on General Environmental Bases, Law N° 20,283 on the Recovery of Native Forest and Forestry Development, archaeology and paleontology legislation.

Qualification Resolution that determines environmental commitments for the project. Considering the fact that our power facilities are located throughout Chile, there are different specific standards that may apply depending on territorial characteristics. These may include territory in some conservation category, leading to the submittal and execution of a management plan to care for and protect the aforementioned areas.

Management

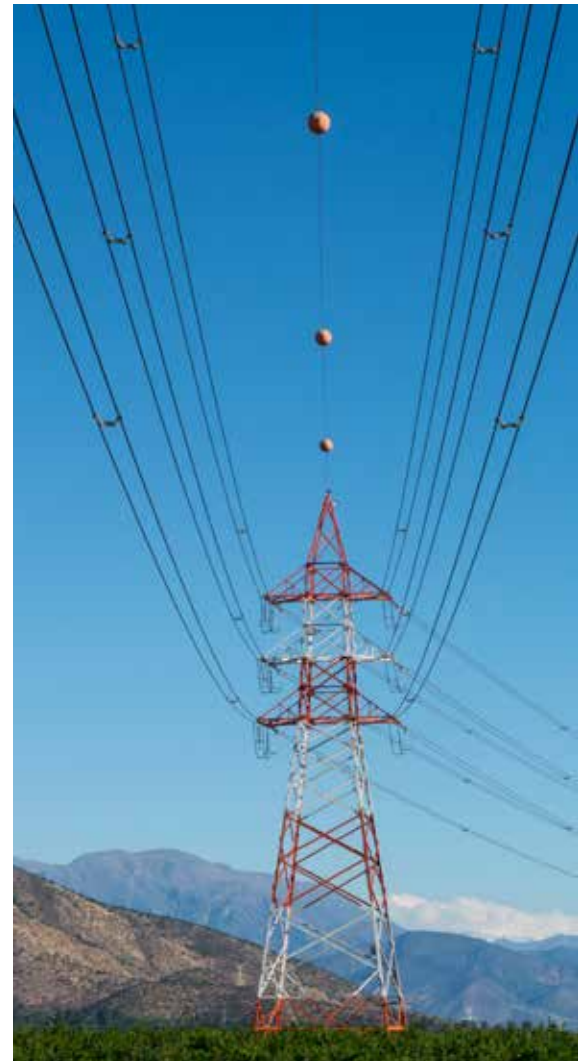
Sustainability and environmental issues are at the core of our management. One of the Company's five pillars is to "contribute to sustainable development". We have consequently implemented sustainable development into all stages, ranging from design and construction to transmission system operation, with a multidisciplinary and preventive outlook that goes beyond legal provisions. This focus enables the identification and timely evaluation of possible environmental impacts, the analysis of route alternatives, verification of standards and the design of appropriate mitigation, compensation and/or restitution measures as required.

Potential environmental impacts of our activity vary depending on business stages and many of our potential impacts can be minimized or avoided during the design stage. One example of this is route deviation in order to minimize the alteration of natural landscapes and/or ecosystems of biodiversity value while reducing the loss of farmland.

Our Environmental Management System, constitutes part of our Integral Management System (IMS), encompasses all operations, including engineering, construction and operating stages. We have designed an Environmental Plan aligned with our sustainability strategy developed in 2018 in order to address our most important environmental issues.

We have an online monitoring and management system (m-Risk platform) for environmental conditions and requirements corresponding to projects that have been indicated in Environmental Qualification Resolutions. We had 73 Environmental Qualification Resolutions (RCAs) in 2018 and these contained nearly 1,300 current commitments and a large number of permits we will be required to monitor.

Environmental aspects related to our activities during the construction, operation and closure of transmission systems are identified and control measures have been implemented in order to prevent and mitigate potential environmental impacts.



0
significant
environmental impacts
in 2018.

Environmental leadership

Considering the fact that environmental issues are transversal for the entire organization, we designed an organizational model in 2018. Environmental leaders were trained in different areas in order to provide additional flexibility and more timely response to these issues. We trained leaders with integral capacities and the ability to manage and take responsibility for different environmental challenges.

“CONSUMA CONCIENCIA” ENVIRONMENTAL RESPONSIBILITY PROGRAM

Consuma Conciencia initially aimed to generate a cultural change for our collaborators and contractors. In 2018, in hand with our Sustainability Strategy, it moved toward an environmental management program for efficient resource use, integral waste management and carbon footprint reduction. It includes education and awareness raising campaigns, as well as action plans for the entire Company to work with in order to meet these three objectives in coming years.



#yoCuido: caring for energy and water resources

#yoReciclo: integral waste management, recycling and waste reutilization

#yoMeMuevo: sustainable transport

Additional information about sustainable transport initiatives has been provided on page 70.

1. Planning and design considering environmental impact

Chile's growth and development require new power transmission infrastructure that implements a precautionary focus starting from the planning and design stages, and which incorporates all environmental aspects from the very start. In addition, thanks to our early community relations and early indigenous citizen participation strategy, we have implemented a system that improves decision making for project analysis and incorporates aspects such as the existence of critical natural resources, spaces of high social value and/or that are highly sensitive from a social perspective and inclusion of communities' opinions in design stages. *Additional information about early relations during projects on page 57.*



220 hectares

has been reforested by
Transelec over the last
ten years.

Our infrastructure can potentially generate negative impacts on biodiversity, cultural and historical heritage and visual aspects, among others. Our strategy focuses on early detection of these potential impacts, placing emphasis on prevention during the project engineering stage. A good example of how to make project engineering compatible with the surrounding area was the Pichirropulli – Tineo Project¹⁶, which featured special vegetation conditions in southern Chile (*see highlighted section*).

In cases of sites with high archaeological value, cultural or historical heritage, early identification makes way for starting mitigation actions, such as route changes or archaeological rescue that requires the intervention of specialists in order to prevent the loss of heritage value.

In terms of visual impact, considering that current projects require the design of large-scale or highly complex structures considering transmission distance and capacity required, we have made headway in terms of determining routes that generate the least impact, which are also discussed with the community ahead of time.

2. Environmental innovation

Innovation is a core issue for our business strategy and this has been incorporated into all company areas, including the environmental area. This enables us to add value for the company and for society, transforming information into key data for decision making and process adaptation and improvement. One example is the app known as “Application - APP - for environmental compliance at our facilities” (*see highlighted section*), which is part of the first wave of innovation project implementation at Transelec and the first environmental initiative that went into a pilot phase in 2018. In addition, we developed other innovative initiatives, which are currently in different innovation process phases. *Additional information about our innovation focus and initiatives on page 26.*

¹⁶ “2x220 kV Pichirropulli-Tineo Power Transmission Line” construction.

PREVENTING IMPACTS ON NATIVE FOREST: THE PICHIRROPULLI - TINEO PROJECT

Prevention is the best ally for protecting natural resources and we apply this focus to our transmission projects at Transelec. Early modelling of the native forest surface area consequently reduced the surface area of native forest to be cleared¹ by 22% in the case of the Pichirropulli Project. A model was formulated that only required trees jeopardizing transmission line operation to be felled. The surface area to be cleared initially calculated at 107 Ha of native forest was consequently reduced to 83 Ha.

1: Reforestation generally considers a ratio of 1:1 between felled and reforested species.

APPLICATION -APP- TO ENSURE ENVIRONMENTAL COMPLIANCE AT OUR FACILITIES

This application is a clear example of how innovation and sustainability go hand in hand. It is focused on improving environmental compliance checklist management and thus making progress in terms of traceability of information pooled on site, managing deviations and providing information in real time to enable timely decision making. This also generates benefits such as reducing risk associated to the occurrence of environmental incidents and/or personnel accidents while minimizing the risk of legal non-compliance. Several tests designed to make progress with the application pilot program were executed in 2018 and the app will be tested, commissioned and incorporated into the Integral Management System in 2019, with subsequent training for site personnel and the support area to ensure appropriate operation.

3. Generation of knowledge and public-private alliances



We understand that we need to work together with others in order to have an environmentally sustainable transmission system.

We have different public-private alliances to address environmental issues such as protecting biodiversity (flora and wildlife) or climate change, among others. Alliances with Universidad de Concepción and CONAF for ecological remediation issues (*see highlighted section*) and the alliance with Aves Chile to study the interaction between birds and power transmission lines are two noteworthy cases.

In addition, in order to contribute to the protection of biodiversity, Transelec has undertaken a series of dissemination, research and protection initiatives. One of these was the publication of "Lonquén, life reserve" and "Biological value, ecosystem services and a plan indicative plan for the for the Lonquén hill and Chena hill priority sites", developed between 2012 and 2015.

As for climate change, we participated in a study conducted by Acción Empresas, which is working to identify and analyze measures implemented by different companies participating in the "Actions for addressing climate change" initiative, a research project being conducted by the UC Global Change Center. *Additional information about our alliances is provided on page 44.*

ALLIANCE FOR ECOLOGICAL RESTORATION WITH ACADEMIA AND THE PUBLIC SECTOR

This alliance between Transelec, Universidad de Concepción and Conaf was forged in 2011 in order to conduct pioneering ecological remediation at the Nonguén National Reserve, Concepción Province. This reserve protects the last important remains of the deciduous forest in the coastal zone of Concepción, which was almost entirely replaced by agricultural and forestry production.

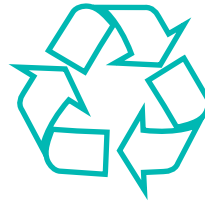
A second stage (2017-2019) started in 2017. This stage includes indicator monitoring, updating the native plant inventory, expanding the remediation area by two hectares and planting 100 copihue specimens, together with another 8,000 native plants. The first stage (2011 – 2012) consisted of removing invasive species and planting over 3,000 seedlings of 14 different native species.

"This project's results indicate that pioneering results for restoration are produced when academia joins a private company. In this case these contribute to recovering important natural heritage in the Nonguén National Reserve", stated Juan Carlos Hinojosa, Regional Director of Conaf Biobío.

4. Waste

We are focusing on minimizing waste generation, ensuring responsible waste management and providing value for waste. We have consequently set hazardous and non-hazardous waste recycling goals for all operation and project areas.

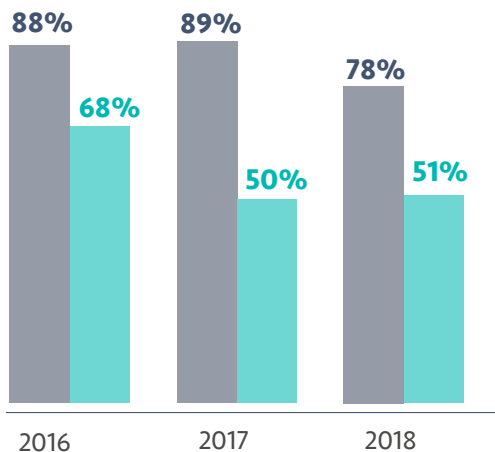
We are especially careful during the construction of new infrastructure, since much of the waste generated can be used for new purposes at other companies. For example, wood, steel, scarified material or surplus soil material from excavation are easily reused. In addition, we have recycled 52 tonnes of hazardous industrial waste at the operation, which has slightly improved our recycling index: this came to 51% in 2018, up from 50% in 2017.



77%
of non-hazardous industrial waste recycled by operations in 2018

ENVIRONMENTAL MANAGEMENT

- Non-hazardous industrial waste recycling
- Hazardous industrial waste recycling



ENVIRONMENTAL INCIDENTS AND FINES

- Incidents with significant environmental impact
Number of significant spills
- Environmental fines Number

