

## FINANCING MUNICIPAL LIGHTING PRODUCES SAVINGS

**Is it possible to improve and replace an entire city’s public lighting and save taxpayers’ money at the same time?**

Nine mid-sized municipalities in Chile (Melipilla, Cartagena, San Javier, Villa Alemana, Coyhaique, Til Til, Negrete, San Joaquín, and Recoleta) have shown that indeed you can. The model provides long-term financing to replace traditional lamps with LED lamps so that the savings that LED technology produces in the municipalities’ energy bills covers the replacement costs. The Itelecom company has demonstrated the effectiveness of this system. To date, it has replaced 62,200 streetlights that are already reducing their communities’ spending. The model can be replicated in other cities of Chile, Latin America, and the Caribbean. IDB Invest, the private sector institution of the Inter-American Development Bank (IDB) Group, facilitates and simplifies access to financing for energy service companies (ESCOs), through a Blended Finance structure.



Chile

### FINANCING:

Development and installation of high-efficiency LED technology in public lighting through a financing model structured with third-party participation and blended finance.

### ADVISORY SERVICES:

The introduction of gender perspective in the operation through results-based incentives agreed with C2F<sup>1</sup>.



1. Canadian Climate Fund for the Private Sector in the Americas (C2F).  
2. Clean Technology Fund (CTF).

## THE CLIENT:

**Inversiones y Asesorías en Telecomunicaciones e Informática SpA (Itelecom)** is a Chilean company founded in 2001; its primary focus is telecommunications and computer systems. In recent years it has expanded its activity and is also engaged in installing efficient lighting systems through its GO+ Program, following the Light-as-a Service (LaaS) model.

Itelecom offers complete lighting solutions, including experience in engineering, equipment, installation, maintenance, and long-term financing using an ESCO business model. It structures a comprehensive solution for a municipality's lighting, including the savings achieved with the adoption of a more efficient technology (reduction in energy used and in maintenance expenses). This enables it to offer adequate profitability so the project cost can be treated as an operating expense. This prevents clients from having to use up resources to cover the initial costs.

**Through the GO+ program**, Itelecom has more than 100 public and private clients in Chile, Peru, Argentina, Colombia, Mexico, and the United States and has installed 300,000 lamps to date, lighting an area totaling more than 900,000 square meters.

Its most notable projects include the provision of lighting solutions for: **the Santiago Military Hospital (19,000 lamps and 85,000 m<sup>2</sup>); Telefónica's landmark headquarters (13,000 lamps and 65,000 m<sup>2</sup>); and Chile's Bupa clinics (covering a surface area of 140,000 square meters, one of the world's largest private LED conversion projects).**



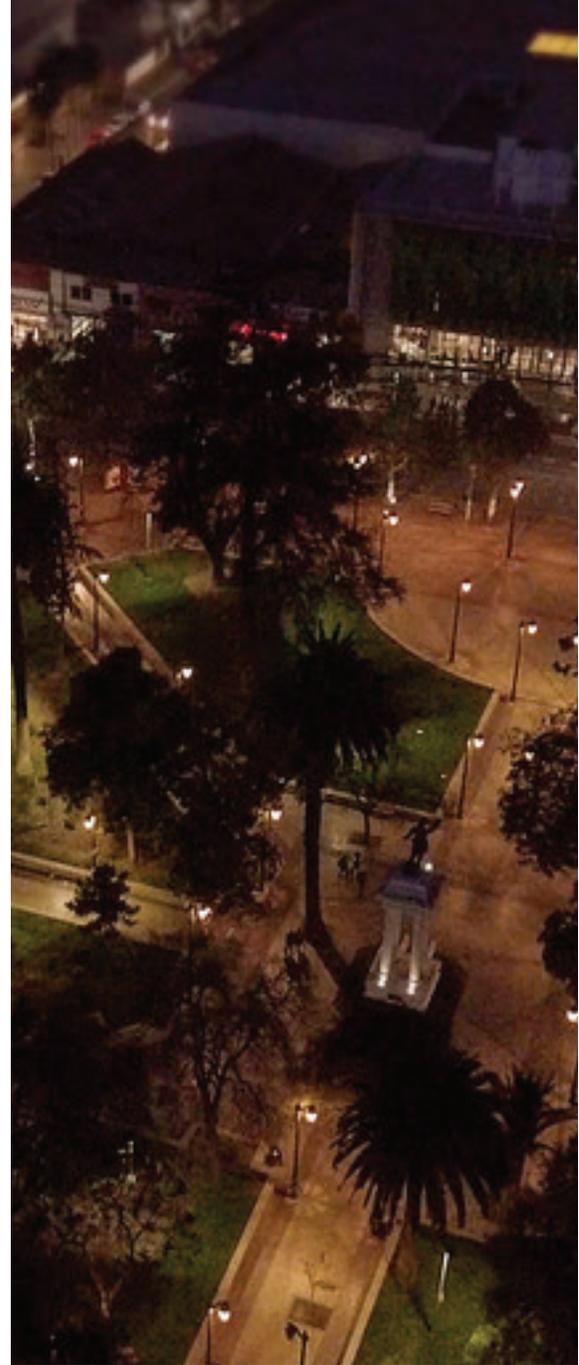
## THE CHALLENGE:

### WILL LED LIGHTING PROVIDE ENOUGH SAVINGS TO RECOVER THE INVESTMENT?

In Chile the country's approximately 350 municipalities are responsible for providing public lighting services. According to Itelecom's calculations, there are some 2.5 million lighting points in the country with total energy demand of 373 megawatts (MW); and most of them operate with high-pressure sodium vapor lamps. The conversion to LED technology would provide better lighting, safer urban public spaces, and taxpayer savings.

At the time the conversion was carried out (2016-2017), the commercial banks contacted by Itelecom were not disposed to provide the long-term financing that the company needed due to the limited size of each project and the banks' limited experience with evaluating the risks associated with LED technology and with municipal services contracts. IDB Invest decided to support Itelecom in this effort and also to incorporate in the project the challenge of reducing the gender gap existing in the provision of energy services.

The perception of risk associated with the solvency of municipalities plus the absence of a track record in terms of grouping together and jointly financing projects on a non-recourse basis (where the only source of income was long-term municipal services contracts) were the two major obstacles to be overcome to make the project fundable according to private sector standards.



**“ This type of projects not only improve the quality and enhance sustainability of public lighting. Without a single event of non-payment from participating municipalities in the more than 30 months of operations so far, the project creates an evidence-based track record of municipal payment capacity and behavior under these type of long-term service contracts, demonstrating they can be bankable counterparts under properly-structured project financing approaches. ”**

Marcelo Lefort, CEO of Itelecom



## THE SOLUTION:

### IDB INVEST'S RISK APPETITE TIED TO BLENDED FINANCE

Municipal credit risk is the main obstacle for public lighting concessions of this kind because there is no municipal source of income (e.g., a public lighting tax to be paid by consumers in their electric bills) allocated to financing the service.

To address this risk, the following measures were taken: (i) risk assessment of the municipalities, including the investment grade rating according to national standards for the initial group of participants; (ii) diversification of Itelecom's portfolio in various municipalities; (iii) definition of structuring parameters and adequate expansions; and (iv) a detailed process of analysis that would place special emphasis on technology and the sponsor's characteristics. Moreover, the use of blended finance served to complete the financial package when commercial sources were still not available; and to provide additional guarantees to increase the credit standing of the operation.

## RESULTS/IMPACT:

### BETTER LIGHTING, SAFER CITIES, GENDER EQUALITY, AND SAVINGS FOR CITIZENS

Replacement of  
**62,200**  
lamps

Energy savings  
**23,200**  
(MWh)\* per year

- Chilean standard certification 3262 of gender equality and reconciliation of work life, family and personal.

Reduction of CO2  
emissions by more than  
**11,000**  
tons per year

In Melipilla, crime has  
been reduced since the  
installation of  
**15,000**  
new LED lamps

- Affiliation to the Gender Parity Taskforce Chile.

- Incorporation of 3 women in installation work in Recoleta project by subcontractor Electric Advanced.

\*Megawatt-hours.