

1. Overview of Scope of IIC E&S Review

The environmental and social due diligence for Itelecom was based on a desk review of pertinent documentation and no site visit has been undertaken. The documentation reviewed included inter alia:

- Quality management system and occupational health and safety management system certifications
- Applicable national laws for waste management, occupational health and safety and labor conditions
- Policies, rules and regulations for Itelecom's human resources, the installation process and contractors, safety and emergency measures.

2. Environmental and Social Categorization and Rationale

The proposed operation is categorized as a Category C according to the IIC's Environmental and Social Sustainability Policy, as it is likely to result in very limited or no adverse environmental or social impacts or risks.

3. Environmental and Social Context

Itelecom is a Chilean company with more than 140 employees, providing services to technology companies, particularly in the areas of energy efficiency, telecommunications, and IT. Following a public tendering process, Itelecom has been awarded ten-year operations and maintenance contracts which entail purchasing and installing the equipment as well as providing limited, but ongoing operation and maintenance of the public lighting systems. The project is expected to consist of the purchase and installation of high efficiency LED technology for public lighting in the Chilean municipalities of Melipilla, Cartagena, Villa Alemana, San Javier, and Coyhaique. The energy efficiency projects will reduce energy consumption and therefore lighting expenses, providing monetary savings to the municipalities. The main project outputs will be the replacement of approx. 37,700 luminaries with high efficiency LED technologies. The main outcomes of the project include reductions in energy costs, energy use, and GHG emissions in the municipal public lighting systems. The Project will reduce CO₂ emissions across the three municipalities by more than 70,000 tons over the first 10-years of useful life of the fixtures. The lighting system's electricity consumption will be reduced by approximately 55 percent, saving over 100,000 MWh over the same period. The Project will also increase luminosity by more than 100%, improving the quality and quantity of street lighting.

The project consists of mainly retrofitting existing public municipal lighting systems (about 95% of total installations) in urban and suburban areas. The principal risk of this project is likely connected to the installation activities for the retrofit and the implementation of adequate procedures for waste management and disposal specifically of high-pressure sodium (HPS) lighting during installation activities.

4. Environmental Risks and Impacts and Proposed Mitigation and Compensation Measures

4.1 Assessment and Management of Environmental and Social Risks and Impacts

a. E&S Assessment and Management System

Itelecom has an ISO 9001:2008 certified quality management system and an organizational health and safety management system that is certified to OHSAS 18001:2007 standard, and is currently in

an advanced stage of achieving ISO 14001 certification. While the company does not currently have a specific environmental and social policy, relevant specifications are laid out and implemented following the “Procedures for the Control of Contractors and Providers” from 2015, as well as the updated version from March 2016. The management system for environmental, social, health and safety issues also includes the Internal Order, Hygiene and Security Regulation; a Human Resources Policy; the Program for Risk Prevention and Health at Work; a Manual of Procedures for Security at Work; and special regulations for sub projects such as “In Building”.

b. Identification of Risks and Impacts

Relevant risks and their mitigants are identified and monitored through the companies “Procedure for the Implementation of LED Street Lightning”, which has been adopted in November of 2015 and updated in April of 2016; as well as the above-mentioned Procedure for Contractors and Providers. The company established a detailed matrix identifying any dangers and risks, which is being implemented since 2014, for the work in offices, storage facilities, during installation and other special projects; as well as mitigation measures for each.

c. Organizational Capacity and Competency

Itecom has two duly qualified and licensed staff in charge of environmental and social matters, the Manager for Integrated Management Systems and the external Lead Auditor who acts as the company’s lawyer. Through the process of licensing with the above-mentioned ISO and OHSAS standards, the firm has developed an adequate organizational capacity and competency in dealing with environmental and social risks.

d. Emergency Preparedness and Response

Itecom has a Plan and Protocol in place for Emergencies, which has been updated in 2014. The Plan encompasses provisions for all the firm’s staff, contractors and visitors as well as potentially affected neighbors.

e. External Communication and Grievance Mechanisms

Itecom has developed and applies a procedure for Internal and External Communication (approved in January 2015), which describes channels of communication and procedures for engagement and communication with external parties. The plan includes communication activities related to risks, compliance with legal requirements and emergency response activities; as well as the handling of claims and complaints. Itecom established and maintains a system for external parties to provide service or other claims and suggestions in the communities where it will provide the LED lightning.

f. Ongoing Reporting to Affected Communities

4.2 Labor and Working Conditions

a. Working Conditions and Management of Worker Relationships

i. Human Resources Policies and Procedures

The company applies a Human Resources Policy approved in January 2011 and an accreditation protocol for new personal. The latter lays out, inter alia, the courses and capacitation requirements for new staff. Labor and working conditions are further regulated by the Program for Risk

Prevention and Health at Work and the Manual of Procedures for Security at Work, which are binding for both staff and contractors and include, for example, procedures relevant for the specific installation requirements such as working in heights and with electric equipment.

ii. Grievance Mechanism

The above-mentioned Regulation for Internal and External Communication also regulates channels of communication and responsibilities regarding different corporate issues for internal audiences. It includes a procedure as well as a digital registry for the handling of complaints and claims by staff.

b. Occupational Health and Safety

Itelecom has a procedure in place for the installation of LED street lightning. It defines responsibilities; identifies potential risks and relevant mitigants; provides stipulations about occupational health and safety, security measures for installation activities; as well as requirements for employees and contractors; among others. All contractors are validated by the company's Department of Risk Mitigation prior to any work engagement; and the company has in place a procedure for the control of contractors and providers since May 2015, which describes the obligations for those parties.

4.3 Resource Efficiency and Pollution Prevention

a. Resource Efficiency

i. Greenhouse Gases

As an energy efficiency project, the objective is precisely to achieve a savings effect in the energy consumption and thus greenhouse gas emissions originated by public street lightning. The lighting system's electricity consumption will be reduced by approximately 55 percent, saving over 100,000 MWh over the first 10-years of useful life. These results are considered to be conservative since the useful life of LED luminaires is estimated to be 20 years.

b. Pollution Prevention

i. Wastes

Replacing high pressure sodium (HPS) fixtures with light emitting diodes (LED) luminaires is also expected to reduce mercury pollution from the lamp fixtures. Adequate waste management and specifically disposal of high-pressure sodium (HPS) lighting during installation activities is a key mitigant for this project. The company recycles industrial and electronic waste, specifically used light bulbs, through specialized and duly certified Chilean recycling companies for non-hazardous waste, and provides recycling certifications for those transactions. Electronic waste is disarmed and classified; recoverable raw materials such as metals and plastics are reinserted in the corresponding production cycle.

ii. Hazardous Materials Management

Some electronic waste items contain toxic products, among which are CRT screens and batteries, which are delivered to authorized disposal plants. Itelecom is also required to comply with the applicable Chilean law that is Decree 148: Health regulation on hazardous Waste Management; and Law 19300 "General Rules of Law on the Environment".

4.4 Community Health, Safety and Security

The installation of LED lighting into already existing street lighting infrastructure itself presents no or very low risks to the communities, which are urban in nature. The above-mentioned Regulation for the installation of LED Street lighting, the emergency response plan and external communication regulation, as well as the protocols for waste and hazardous materials management together are an adequate system to ensure community health, safety and security.

5. Local Access of Project Documentation

<http://www.melipilla.cl/2015/07/14/concejo-municipal-de-melipilla-adjudico-licitacion-para-el-recambio-de-mas-de-15-mil-luminarias-publicas-a-sistema-led/>

<http://www.municipalidaddecartagena.cl/index.php/noticias/109-firman-contrato-para-nuevas-luminarias-led>

<http://www.acee.cl/licitaciones/suministro-para-el-recambio-masivo-de-luminarias-de-alumbrado-publico-en-la-comuna-de-villa-alemana/>