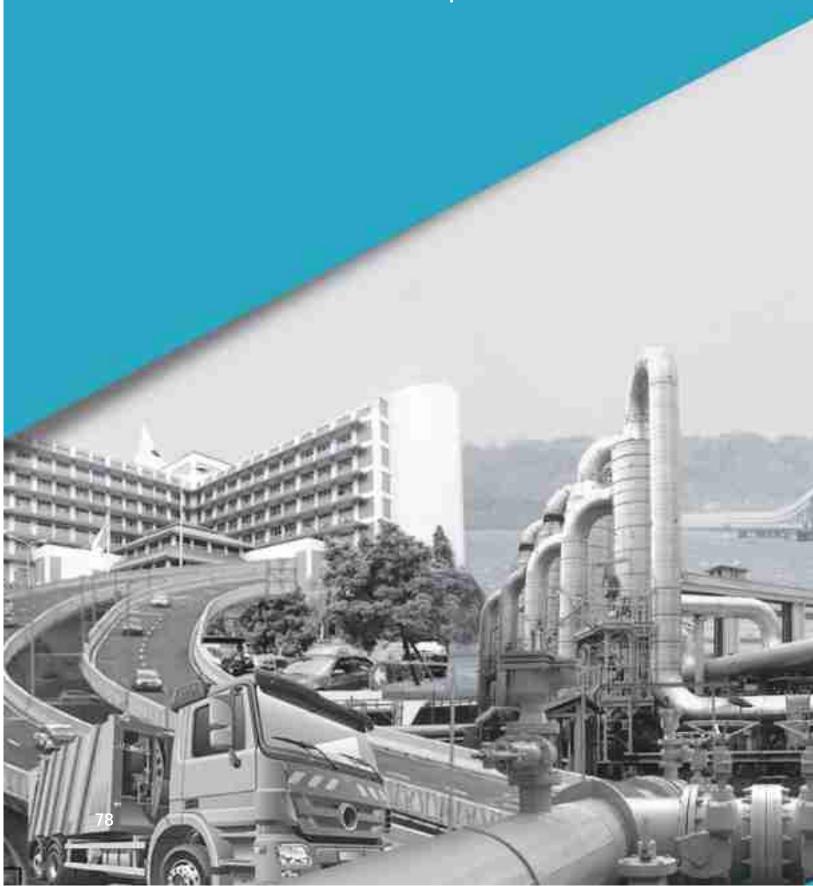
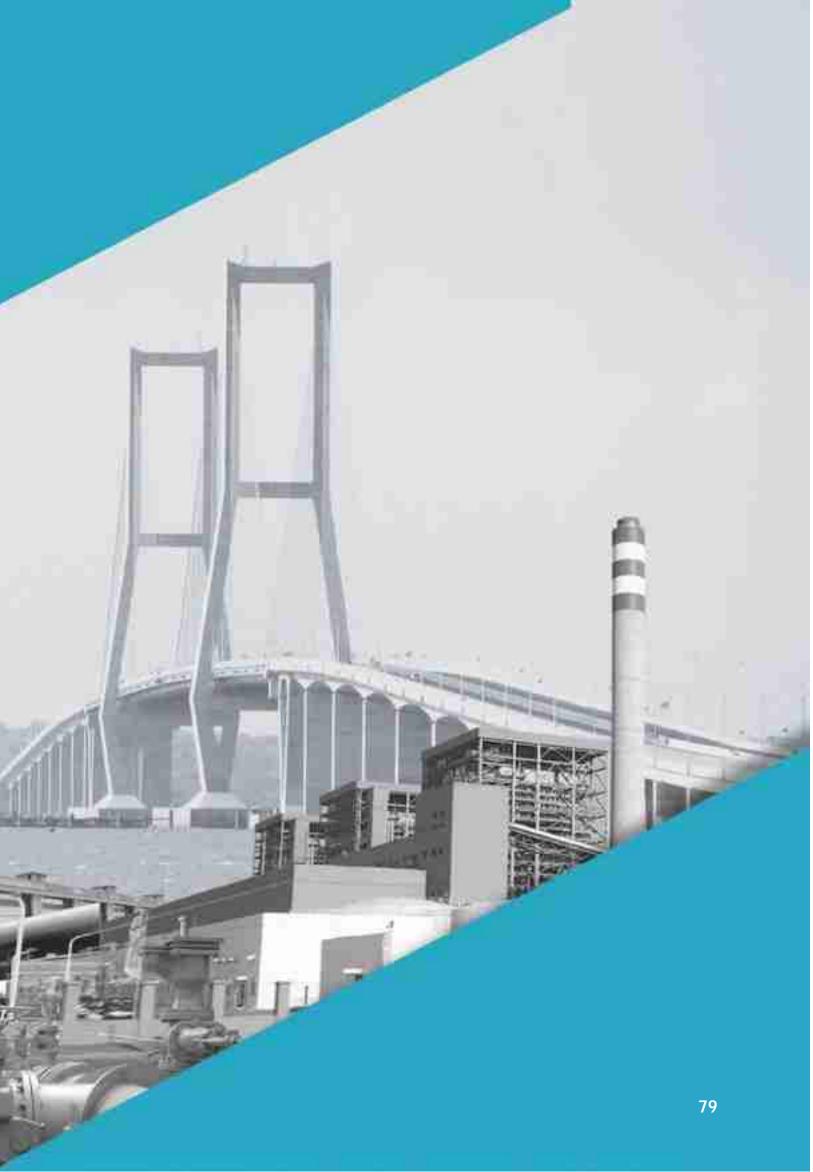
Energy Conservation Sector

1. Surakarta Street Lighting





SURAKARTA STREET LIGHTING

LOCATION: Central Java

Sector: Energy Conservation

Kalaupaten Karanganyar Kalaupaten Karanganyar Kalaupaten Nasatanya Kalaupaten Salauharja

Sub-Sector: Street Lighting

Description:

The Government of Surakarta intends to revitalize the public services of its street lighting. The total length of the streets is estimated at 976 km. Current studies show that the city needs around 31,890 lamp points.

Estimated Project Cost: USD 28.4 Milion

(10 years) or 45.9 Milion (20 years)

Financial Feasibility:

 $\begin{array}{ll} {\sf FIRR} & : & 10.17\% \ (10 \ {\sf years}) \ / \ 10.67\% \ (20 \ {\sf years}) \\ {\sf NPV} & : & {\sf USD} & 0.9 \ {\sf Million} \ (10 \ {\sf years}) \ / \ 2.4 \ {\sf Million} \end{array}$

(20 years)

10 or 20 Years (will be concluded in FBC)

Estimated Concession Period:

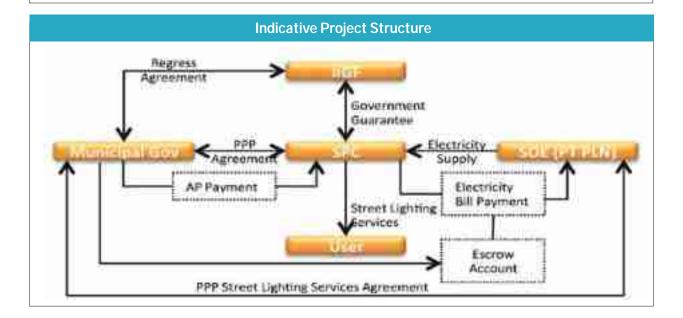
Government Contracting Agency Contact Person

: Mayor of Surakarta City

: Mr. Budi Yulistianto (Surakarta City Regional Secretary);

+62-271-662-266 setda@surakarta.go.id, kpbupju.solo@gmail.com

Indicative Preparation Schedule (Estimated) Of 2018 Final Business Case (FBC) Of 2018 Project Status: The project is currently on Outline Business Case phase. Of 2018 Of 2018 Request for Proposal Of 2018 Of 2019 Financial Close Of 2019 Construction

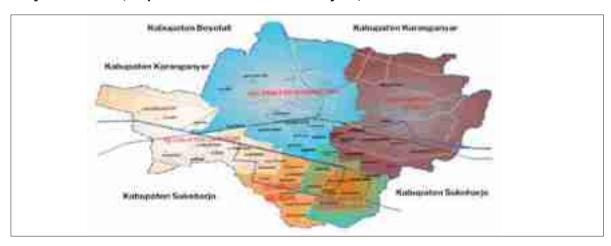


DIGEST PROJECTS

Project Title	: Surakarta Street Lighting
Government Contracting Agency	: Mayor of Surakarta City
Implementing Unit	: Local Government of Surakarta City
Preparation Agency	: 1. Local Government of Surakarta City
	2. Ministry of National Development Planning
Estimated Project Cost	: USD 28.4 Million or 45.9 Million
Estimated Concession Period	: 10 or 20 years
Location	: Surakarta

^{*}Note:The initial assumption is based on ideal calculation with best practice facility (Project Cost calculation is still arranged in FBC stage)

1. Project Picture (Map and/or Illustration of Project)



2. The Opportunity

2.1. Project Background

Based on its vision and mission, The Municipal Government of Surakarta changes its view on the municipal's Public Street Lighting (Penerangan Jalan Umum, or PJU) from merely an asset owned to the municipal to public services. The PJU illuminates the public streets of Surakarta City. The total public roads in Surakarta are around 976 km, based on current assessment by the municipal government.

Based on evaluation done by the municipal government in 2016, the PJU as a public service is still not functioning optimally. Besides not saving electricity, poles and lamps are not uniform and nonstandard. In addition, the lighting has not been evenly distributed along the existing public roads.

Based on this background, the Government of Surakarta intends to revitalize the public services of PJU. For this purpose, following up on last year evaluation, in 2017 the municipal government conducted a study in the preparation of Public Private Partnership for Public Street Lighting (KPBU PJU) project.

2.2. Project Description

The scope of work of the project covers roads in Surakarta City. The total length of the roads is estimated around 976 km, which comprises of: 335 km strategic roads and

641 non-strategic or environment roads. The service level for the Street Lighting will be determined mainly based on: illumination, lumination and glare. For this purpose, the municipal has decided to use Indonesian National Standard (Standard Nasional Indonesia or SNI) on Street Lighting Specification in City Streets, SNI 7391:2008.

The provision of the infrastructure will be conducted using Public Private Partnership scheme according to Presidential Decree No. 38 Year 2015. The contract will be signed by the Major of Municipal Government of Surakarta, as contracting agency, and the winning bidder. Based on the PPP agreement, the winning bidder will be responsible for financing, constructing, operating and maintaining the public service until the end of the contract period.

The revenue of the PPP project company will be in form of Availability Payment. The Availability payment will be given to the PPP project company based availability of service - conducted by the company - according to service level standard stipulated in the PPP agreement.

2.3. Project Objectives

- Increase safety level for road users (reducing traffic accident and reducing criminality)
- Energy management and conservation, and contribute to reduction of greenhouse gas emissions
- · Increase city's productivity growth

3. Business Entity's Opportunity

Interested business entities can bring their knowledge and expertise on street lighting services to give the most competitive offers. The municipal government has already conducted studies related to length of roads, service levels, estimated capital expenditures, operating and maintenance expenses, value for money, and attractive availability payment. Based on the 2016 survey, the total lamp points identified were 21,222 units. However, the current studies shows that the city needs around 31,890 lamp points.

4. Project Technical Specification

- Arranging and providing lamp posts
- Providing lamp points with environmentally friendly low energy consumption lamps
- Street lighting service level (illumination, lumination, and glare) according to standard stipulated in the PPP contract

5. Environmental Impact Assessment (AMDAL) Findings

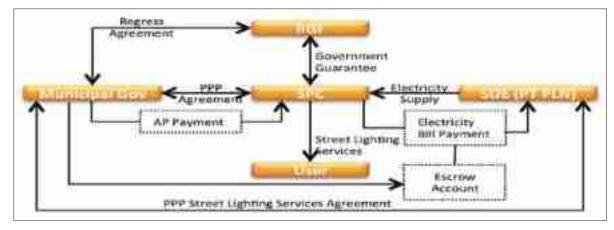
To determine the obligation for the preparation of AMDAL Documents for the business plan and / or activity, the proponent in this case the Municipal Government of Surakarta conducts screening in accordance with the screening procedures is set out in Appendix II of Regulation of the Republic of Indonesia 5/2012. Based on the results of the screening, it can be concluded that the Public Street Lighting Project of Surakarta City does not need have an Analysis of the Environmental Impact Assesment.

6. Land Acquisition and Resettlement Action Plan

Considering the scope of the Surakarta Public Street Lighting Project is only done by government-owned roads, the need for land acquisition documents or LARAP for Environmental and Social Assessments becomes irrelevant

7. Project Structure

Estimated project cost	USD 28.4 Million (10 years) or 45.9 Million (20 years)
Indicative debt to equity ratio	
- Debt level	70% - 80%
- Equity level	20% - 30%
FIRR	10.17% (10 years)/ 10.67% (20 years)



8. Government Support and Government Guarantee

The Municipal Government of Surakarta is considering to propose government guarantee for this project. This guarantee will benefit business entities by increasing the project's credit worthiness. In addition the municipal is also in the process to access central government support related to energy conservation from street lighting. The last instrument may support the municipal fiscal space

9. Project Implementation Schedule



10. Contact Information

Name : Budi Yulistianto Name : Endah Sitaresmi Suryandari : Surakarta City Regional Secretary : Head of Public Works and Position Position : Komplek Balai Kota Surakarta. Spatial Planning Surakarta City Jl. Jendral Sudirman No. 2 Address: Jl. Jend. Urip Sumoharjo Phone : +62-271-662-266 No. 92 - Surakarta Email : setda@surakarta.go.id, Phone

Phone : +62-271-643-050, +62-271-636-285 Email : kpbupju.solo@gmail.com