



**Asia-Pacific
Economic Cooperation**

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**PPP Showcase Project - Soekarno Hatta
International Airport Rail Link Project**

Submitted by: Indonesia



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**Soekarno Hatta International Airport Rail Link Project – DKI Jakarta,
Indonesia**
PPP Showcase Project

1 Project Description

1.1 Background

Ground access to and from the Soekarno-Hatta International Airport (SHIA) is constraining the economic efficiency of the Jakarta metropolitan region. Travelling between the centre of Jakarta and Soekarno-Hatta International Airport is further constrained by the limited number of main routes available. At the moment, there is only one high capacity highway connection which is the Prof. Sedyatmo toll road.

Passenger growth at Soekarno-Hatta International Airport is expected to be robust. Annual passenger throughput in 2012 was in excess of 50 million, making SHIA one of the world's top ten busiest airports. Furthermore, growth in demand at SHIA has been around 16-17% per annum over the past decade, and is expected to continue. Recent projections undertaken on behalf of the airport operator suggest that unconstrained demand at SHIA could reach 90-100 million passengers per year by 2030.

It is clear that access between SHIA and the city of Jakarta cannot be accommodated in future by road based transport modes alone.

The Soekarno Hatta International Airport Rail Link Project ("Project") is a rail-based transportation project serving $\pm 40,000$ pax/day, connecting Soekarno Hatta International Airport (SHIA) and business center districts in Jakarta metropolitan area through 5 in-town stations within 30 minutes end to end journey time.

Project alignment will run mostly on elevated viaduct (except for the alignment within airport area will use underground structure) with total length of 37 km. All in-town stations will be elevated, while Terminal 2 and Terminal 3 stations in SHIA will be underground.

1.2 PPP Project Rationale

Government of Indonesia first considered to provide a rail-based access to SHIA back in 1980's. A first real attempt to develop a feasibility study was undertaken in mid 2000's.

The Project was brought to tender as a PPP in 2008-2009 but there was a gap in expectation between public and private sectors. Government Support and Government Guarantee are the key elements required to improve the financial feasibility and bankability of the Project.

On 31 August, 2010, the Vice President of the Republic of Indonesia decided that the Soekarno-Hatta Airport Rail Link Project would be one of the five show case projects to be procured as PPP. The Ministry of Transportation (MOT) acts as the Government Contracting Agency (GCA) – and is responsible for the whole preparation and transaction of the Project.

1.3 Project Scope

The scope of Project Company (PPP Co) is:

- to undertake the engineering design;
- to construct the civil works (earthworks, structures, rail track, power supply, signalling, train stations, power station, depot and workshop);
- to procure the rolling stock;
- to provide substantial private finance for the initial costs;
- to operate and maintain during a long concession period;
- to collect fare revenue and other income.

1.4 Key Outputs

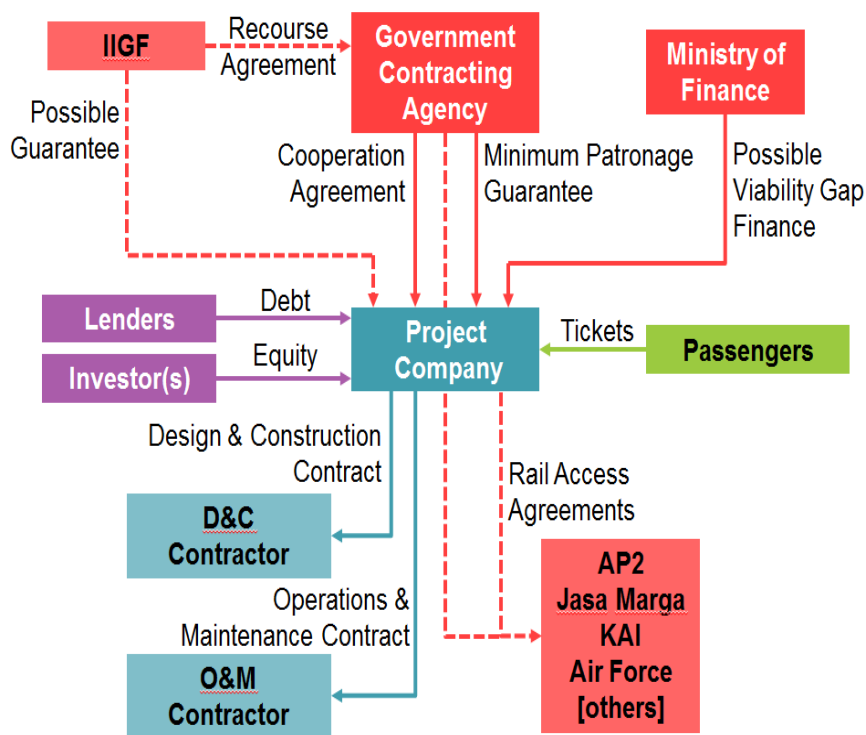
Key outputs expected from the Project implementation are listed below:

- A high quality, dedicated (not mixed with other train services), express rail service between the airport and the city;
- A modern airport rail link comparable to those recently built in Asia:
 - The service is targeted primarily to serve air passenger (with/without baggage), who will place particular importance on speed, reliability and comfort, and who may be expected to pay a premium fare for such a service
 - Provide comfortable environment for passenger to get to and from the airport in about 30 minutes maximum;
- Maximum operation speed is 135 kph;
- Standard rail gauge of 1,435mm;
 - Overhead Electric Supply system (Catenary) with supply voltage of 25KV AC for traction purpose
 - Station and running lines are all elevated above ground with the exception of this section approaching the Airport into Terminals 2 and 3;
- Air conditioning is provided for concourse and platform of all stations.

2 Project Structure

2.1 PPP Scheme

The indicative Project structure is as below



Project concession period is 30 years with 4 years construction period excluded.

2.2 Risk Allocation

Risks identified for the Project were allocated to PPPco, GCA or even shared. The table below consists of Project's risks with high and extreme impact.

No.	Risk	Description	Allocation	Impact
1.1	Land acquisition delay and cost overrun	Unexpected delays and/or cost increases due to land acquisition process	GCA	High
1.2	Incomplete land acquisition	Unable to acquire all land required for Project	GCA	High
1.3	Resettlement process	Cost overruns and/or delays in resettlement process	GCA	High
1.6	Demolition	Unexpected costs and/or delays in demolition of existing structures, etc.	PPP Co	High
1.8	Unusual weather	Unusual weather results in unexpected costs and/or delays	PPP Co	High
1.11	Piling	Greater depth required for piling, resulting in increased cost	PPP Co	High
2.1	Planning	Unexpected costs and/or delays resulting from obtaining full planning	PPP Co	High

No.	Risk	Description	Allocation	Impact
		approval for the Project		
2.5	Delays in construction	Delays in construction lead to unexpected costs and/or loss of revenues	PPP Co	High
2.6	Construction cost overruns	Unexpected costs to complete construction	PPP Co	High
2.7	Commissioning	Unexpected costs and/or delays in commissioning	PPP Co	High
2.8	Unexpected infrastructure	Unexpected existing infrastructure leads to costs or delays	PPP Co	High
2.14	Disruption	Construction results in unexpected disruption of PT KAI's existing rail services	PPP Co	High
3.3	Contractor default	The construction contractor or a subcontractor defaults	PPP Co	High
4.3	Exchange rate	Unexpected changes in foreign currency denominated costs	PPP Co	High
4.4	Inflation	Inflation differing from that projected results in unexpected cost or revenue variation	PPP Co	High
4.5	Interest rate	Unexpected changes in interest rates	PPP Co	High
4.8	Materials cost	Unexpected change in the cost of specific materials or equipment	PPP Co	Extreme
5.7	Operating cost overrun	Unexpected costs of operations	PPP Co	High
5.9	Latent defects	Latent defects result in unavailability or reduced performance	PPP Co	High

2.3 Government Support and Government Guarantee

Government support may be given to a PPP project in the form of a direct fiscal contribution, government guarantee, licensing support, land acquisition, partial construction and/or in another form to the extent permitted by applicable law. The financial model shows that the Project would require a Government Support/Viability Gap Funding (VGF) to be financially viable.

In addition to VGF, to increase Project's bankability, government guarantee is likely to be sought by potential investors/lenders. This guarantee may be provided by Government of Indonesia through Indonesia Infrastructure Guarantee Fund (IIGF) with the intention to primarily mitigate political risk.

Other supports may also be given including non-financial fiscal contributions and land provision.

3 Process Analysis

3.1 Due Diligence

Due Diligence has been conducted by the Consultant, and the result shows that the Project was recommended to proceed to the next stage, the alignment study, for the following reasons as quoted from the Consultant's report:

- a. the Vice President of the Republic of Indonesia decided that the Project be one of the five show case projects in terms of PPP procurement;
- b. the Project is included in the railway national master plan, the DKI Jakarta Perda 1/2012, and the Draft Regional Spatial Plan of Banten Province 2010-2030. In addition, the Director General of Railway has requested to incorporate the Project into Jabodetabekpunjur Spatial Plan and it is also an integral part of the SHIA master plan;
- c. there are several alignment options that appear to be feasible at this stage;
- d. the Project appears to have the potential to capture a significant proportion of airport passengers (although we have not yet undertaken a detailed demand analysis);
- e. there is strong evidence that the Project and the commuter line initiative pursuant to PR 83/2011, the Tangerang line, complement each other and both will be necessary to ensure the expansion plans of SHIA;
- f. there is a reasonable prospect that the VGF funding necessary to make the Project financially viable for private sector investors and lenders (as a proportion of the capital costs of the Project) will be acceptable to the public sector
- g. there is no compelling reason why the Project should not proceed.

3.2 Alignment Decision

After a identification process of the alignment options which involved stakeholders' participation, five options were presented for a multi-criteria appraisal of which method was also consulted to the stakeholders. Following the appraisal, the Consultant then recommended Option 2 – Canal Right of Way, which follows the Airport toll road to Pluit, then follows Kanal Banjir Barat until this joins the existing railway line between Duri and Tanah Abang, then follows the railway line to Manggarai, where it continues south on the railway line to Cawang, turning east on the Inner Ring Road until it reaches Halim.

Ministry of Transportation through the Minister's decree No.KP.1264 on 12 December 2013 has approved the recommended alignment of Option 2 and to have an underground connection with Terminals 2 and 3 of the Soekarno Hatta Airport.

3.3 Pre-Feasibility

The Pre-Feasibility Study (Pre-FS) has been conducted by the Consultant and has been approved by the Ministry of Transportation on 19 September 2014. The Pre-FS shows that the Project is economically and technically viable. However the Project would require a certain amount of VGF to be financially viable.

Focus Group Discussions and public consultations have been conducted and showed that there is a compelling indication of stakeholders acceptance on the Project, including for the use of public fund to part finance the Project.

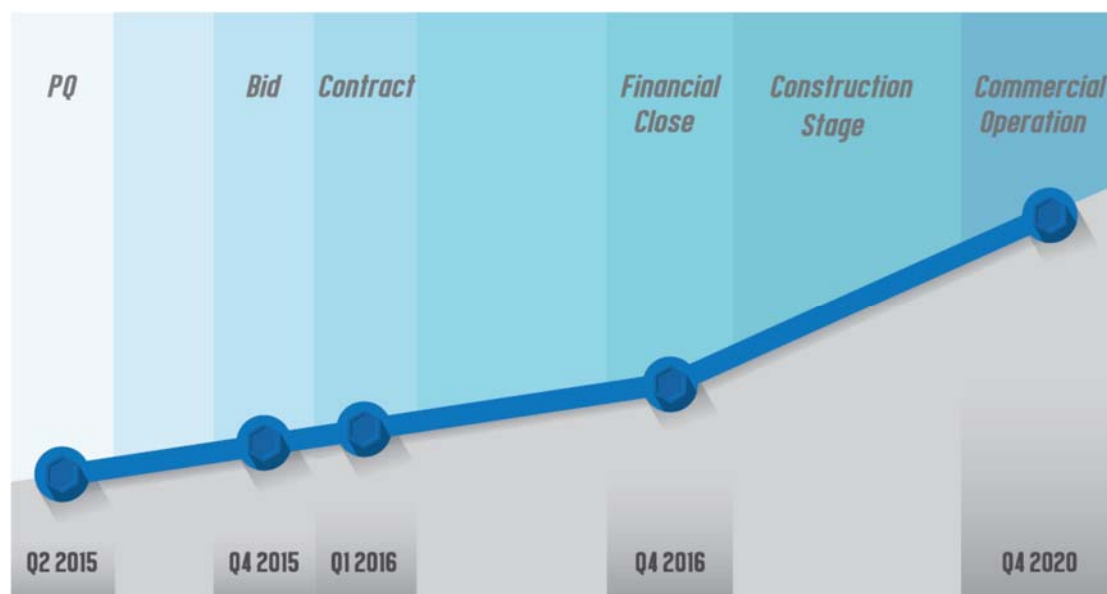
3.4 Transaction

The Project now is under preparation to enter the Transaction stage. The PPP Co will be procured under Presidential Regulation 67/2005 as amended.

4 Financing Information

Investment value is expected to be around Rp 20 Trillion, and using common financial assumptions (also consulted with the market) such as Debt to Equity ratio of 70:30, sensible equity return and commercial debt interest rate, the Consultant has estimated that the Project would require a substantial amount of VGF to make it attractive for investment. Economic *Net Present Value* is calculated to be around Rp 6.8 – 9 Trillion (VGF and land acquisition costs are included).

5 Indicative Project Schedule



6 Key lessons, Experiences and Observations

Subject	Issues	Improvement Areas
Political will & Institutional coordination	Lack of political will to implement PPP	Stronger leadership
	5 year executive & legislative election cycle	

Subject	Issues	Improvement Areas
	Lack of coordination among high level institutions	PPP Unit that has ability to design, plan, fund, implement, support, monitor, enforce, and evaluate past-current-future PPP projects and policies
Regulations	Regulatory dissonance which confines PPP implementation	Regulatory audit
	PPP is not fully supported by current state budgeting mechanism	
	Insufficient authorization of presidential decree	PPP Act Initiation
Government fiscal support	Absence of regulatory framework that support "Availability Payment"	"Availability Payment" to be accommodated in regulatory framework
	Difficulty to implement other forms of fiscal incentives	To consider real implementation of tax holiday, "bundled" TODs, availability payment, currency risk guarantee, etc
Guarantee	Lack of shareholders understanding regarding fiscal guarantee	Streamlining guarantee procedure and mechanism
	Untested guarantee schemes in meeting market investment appetite	
	Congeal and complicated regress mechanism	
Project structure	Government inability to enter direct commercial contract or agreement with private gives inflexibility to project structure	Guidelines for general project structure and its supporting regulations
Sectoral & Regional Government readiness	Lack of PPP understanding within public institutions including GCAs	Capacity building, stronger political will, leadership, and policy enactment
	Lack of resources and capacity to support PPP implementation	
	No incentive & disincentive mechanism	
Project preparation	Hasty identification and preparation for most PPP projects	Reasonable planning
	Lack of local wisdom among international consultants. Lack of PPP knowledge among local consultants	Synergy between local and international consultants

Subject	Issues	Improvement Areas
	Disharmony between Procurement Act and the requirement (especially about consultant procurement)	Dedicated budget for project development
	Mechanism for success fee payment (payable by the bid winner) is hard to be implemented	Stronger regulatory framework to support success fee mechanism