



Indonesia: Java-Bali 500-Kilovolt Power Transmission Crossing

Project Name	Java-Bali 500-Kilovolt Power Transmission Crossing								
Project Number	42362-013								
Country	Indonesia								
Project Status	Active								
Project Type / Modality of Assistance	Loan								
Source of Funding / Amount	<table border="1"> <tr> <td colspan="2">Loan 3083-INO: Java-Bali 500 KV Power Transmission Crossing</td> </tr> <tr> <td>Ordinary capital resources</td> <td>US\$ 224.00 million</td> </tr> <tr> <td colspan="2">Loan 8276-INO: Java-Bali 500 KV Power Transmission Crossing</td> </tr> <tr> <td>ASEAN Infrastructure Fund</td> <td>US\$ 25.00 million</td> </tr> </table>	Loan 3083-INO: Java-Bali 500 KV Power Transmission Crossing		Ordinary capital resources	US\$ 224.00 million	Loan 8276-INO: Java-Bali 500 KV Power Transmission Crossing		ASEAN Infrastructure Fund	US\$ 25.00 million
Loan 3083-INO: Java-Bali 500 KV Power Transmission Crossing									
Ordinary capital resources	US\$ 224.00 million								
Loan 8276-INO: Java-Bali 500 KV Power Transmission Crossing									
ASEAN Infrastructure Fund	US\$ 25.00 million								
Strategic Agendas	Inclusive economic growth								
Drivers of Change	Partnerships								
Sector / Subsector	Energy - Electricity transmission and distribution								
Gender Equity and Mainstreaming	No gender elements								
Description	<p>The proposed investment project will strengthen the Java-Bali power transmission grid by constructing 220 km of extra high voltage transmission lines with associated substations. The project forms part of the governments regional economic development master plan and its long-term power development plan. The project will benefit the population in Bali by meeting future demand growth in Bali Island, thus ensuring long-term power supply security to support sustained socio-economic growth and government plan to achieve 90% electrification by 2020.</p>								
Project Rationale and Linkage to Country/Regional Strategy	<p>Power shortage has been a critical infrastructure bottleneck throughout the country and fast track generation programs are being implemented to improve the power generation capacity. However transmission and distribution system has limited capacity to transmit additional power. Hence the transmission and distribution networks need to be developed in a coordinated manner to realize the benefits of the new generation capacities and to provide access to un-electrified areas. Bali is Indonesia's top tourism showpiece. However, the Bali power system suffers from frequent outages and blackouts due to low generation reserve margin and transmission bottlenecks. Transmission of power from East Java to Bali at 500 kV level has been determined as the best option to improve the power supply in Bali based on power system studies and is included in PLN's power development plan. As the power demand in Bali is only about 2.5% of the total demand of the Java-Bali power grid, by coupling it with more efficient generation capacity in Java, this option is considered the most technically and economically feasible option than installing new generation in Bali. The project is an outcome of PLN's least-cost generation expansion plan and long-term transmission development plan.</p> <p>The project will strengthen the power transmission system by connecting Bali with a 500 kV link to Java, thus facilitating efficient utilization of existing and planned power generation plants in Java. This would enable transmitting comparatively cheaper power to Bali from the large power plants in East Java. Currently PLN relies mainly on expensive diesel-based generation to supply electricity in Bali and the proposed transmission line will reduce operational expenditures which will also reduce the subsidy payments made to PLN by the government. PLN's investment in the project is also part of its nationwide plan to increase electrification. The upgrading of the 150/20 kV substations under the project along the proposed route of the transmission line also ensures provision of electricity among the local rural communities in the project area.</p>								
Impact	Long-term energy supply security to support sustained socio-economic growth in Bali								

Project Outcome

Description of Outcome	Increased capacity of Java-Bali power transmission network
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Progress Toward Outcome -

Implementation Progress

Description of Project Outputs

Development of 500 kV transmission networks
Development of 500/150 and 150/20 kV substations
Project management

Status of Implementation Progress (Outputs, Activities, and Issues)

- Retender process for Package 1 and 2 is ongoing and currently in the bid evaluation phase. The contracts are planned to be awarded in Q2-2017.
- Procurement process for Package 3 is completed. Contract is awarded in March 2016.
- Construction for Packages 1 and 2 will commence after contracts are awarded in Q2 and Q3 2017, respectively. Construction for Package 3 is ongoing.
- LARP update is expected to be finalized and disclosed by Q2-2017.
- Based on the review mission in April 2016, supplementary Environment Impact Assessment (EIA) need to be prepared based on site-specific impact assessment focusing on the latest biodiversity condition. This is related to the component 3 (crossing towers), funded by KfW. Supplementary EIA is planned to be finalized and disclosed by July 2017.

Geographical Location

Safeguard Categories

Environment

A

Involuntary Resettlement

A

Indigenous Peoples

C

Summary of Environmental and Social Aspects

Environmental Aspects

The project is classified as environmental category A, the highest environment impact categorization based on the ADB Safeguard Policy Statement 2009 (SPS). This is because the project is associated with two national parks. Broad based assessment of the project's environmental impacts has been carried out for all project components including associated facilities in accordance with the ADB Safeguards Policy. Relevant Indonesian environmental policies, regulations and guidelines were also considered in the preparation of the Environmental Impact Assessment (EIA) by PLN in coordination with ADB. Due consideration was given to environmental issues during the analysis of the interconnection options and selection of final alignment of the transmission line and sites for the two associated substations. Studies were carried out to avoid adverse impacts on (i) Baluran and Bali Barat National Parks which are protected areas; (ii) cultural sites, such as temples and mosques; (iii) physical displacement of people; (iv) public health hazards; and (v) land use. The environmental assessments concluded that most project impacts are short term during construction phase and can be effectively mitigated during implementation by adopting proper measures and procedures. The operational phase impacts are very minimal and a comprehensive package of environmental mitigation and offset measures has been designed to support biodiversity conservation in the two national parks. Draft EIA is available in the ADB website for public comments in accordance with ADB public communications policy.

The Environment Management Plan (EMP) of the EIA forms part of the bidding documents and PLN will administer both the construction contracts and the EMP implementation. PLN will submit regular implementation progress reports and monitoring reports to ADB for review. Project implementation consultants (PIC) are being engaged to assist PLN in the implementation and monitoring. In addition to the PICs an independent monitoring consultant will be engaged for independent monitoring in each quarter.

A grievance redress mechanism has been developed to receive concerns of the affected people / entities about the project's environmental performance and facilitate resolution. PLN's project management unit, project implementation units, contractors, and park authorities will be trained on all aspects of the EMP.

Further, ADB will provide a small-scale capacity building technical assistance for the institutional strengthening of the park authorities in the operational management, implementation of long-term conservation measures and monitoring of the implementation of EMP activities in the two national parks.

Based on the review mission in April 2016, supplementary Environment Impact Assessment (EIA) need to be prepared based on site-specific impact assessment focusing on the latest biodiversity condition. This is related to the component 3 (crossing towers), funded by KfW. Supplementary EIA is planned to be finalized and disclosed by July 2017.

Involuntary Resettlement	<p>There is no any physical displacement of people due to the project (no houses will be totally or partially demolished), however, there are about 128 structures that will be affected, mostly boundary walls located within the right of way of the transmission line.</p> <p>About 717 hectares (ha) of land will be required for the project comprising forestry land (179 ha), PLN-owned land (2 ha), and private or company land (536 ha). About 1,198 households (about 3,892 persons) will be affected by the project in the two provinces (East Java and Bali) due to lose of single or multiple types of land which include residential, crop, and forestry. About 305 affected households are considered vulnerable groups, with 143 affected households are severely affected based on ADB safeguard policy statement (2009). Hence the project is classified as involuntary resettlement category A.</p> <p>A detailed Land Acquisition and Resettlement Plan has been prepared and disclosed in ADB website in accordance with ADB public communications policy. People who are displaced will be given compensation for their affected assets, including crop compensation for the land at the tower locations, in accordance with the provisions in the resettlement plan. A livelihood restoration program has been included to compensate the severely affected people which include training programs to the affected people on relevant skills development. All relevant information regarding the project was disseminated and the opinions of the displaced persons were taken into consideration in developing the entitlement matrix. If, during implementation, additional compensation needs are identified, suitable adjustments will be made in the entitlement matrix in consultation with the affected people.</p> <p>The LARP is currently being updated. It is expected to be finalized and disclosed by Q2-2017.</p>
Indigenous Peoples	<p>There are no indigenous people affected due to the project, hence the project is categorized as category C (lowest impact categorization based on ADB Safeguard Policy Statement (2009).</p>

Stakeholder Communication, Participation, and Consultation

During Project Design	<p>PLN consulted with all project stakeholders, including affected communities, relevant government agencies, NGO/CSOs during the initial design, project preparation stage, and during design changes. Local communities have been consulted as part of the social and resettlement study to gather their views on the project. Additionally, focus group discussions were conducted within the project influence areas. Extensive consultations and participation with government agencies such as Ministry of Forestry, Ministry of Environment, Baluran National Park Authority, Bali Barat National Park Authority, Bali and East Java Provincial Land Agencies, and Bali and East Java Provincial Governments were completed. Detailed information on participation and consultation process during project design is given below.</p> <p>Project Information Booklet translated to local languages was disseminated in project affected areas. Social assessment and focus group discussions were undertaken to address and ensure social concerns in project designing and selection of options for interconnection. As an integral part of safeguard assessment, affected communities and affected people were directly involved in the consultation. All stakeholders and affected people were informed about the project, its potential impacts and benefits. Consultations were also held to ensure participation and minimization of the negative impacts. Given lack of reliable electricity supply public opinion makers were asked whether power interconnection would be a viable alternative to improve existing electricity supply in Bali.</p> <p>In addition to consultation meetings with affected people and communities through survey and focused group discussion (FGD), PLN conducted interactive meetings with various parties including provincial authorities and Ministry of Forestry and Ministry of Environment, to discuss the salient features of the project and its impacts on two National Parks and Coastal area along with its projected benefits to the community of Java and Bali regions. Meetings with district/sub district leaders and religious groups in Bali were also held to find discuss social issues and approval on the project has been obtained from this groups. On the basis of deliberations, a consensus emerged from the survey of affected families, FGD and interactive meetings that the power interconnection project implementation would result in a better alternate to increase access to secured electricity supply with a wide range of benefits to the community.</p>
During Project Implementation	<p>Consultation and Participation was considered as a part of the more extensive land acquisition and resettlement planning exercise. The process together with information dissemination will continue during the implementation of the project where views and concerns of all stakeholders will be taken into consideration and addressed. Local customs, religious practices, and traditional activities have been considered as a fully integrated part of the preparation process to avoid discrimination and/or disruption of activities.</p> <p>Affected people will be consulted on a one-to-one basis through questionnaire surveys during detailed measurement surveys planned in Q1 2015.</p> <p>PLN was guided to establish project communication unit which is being established. PLN will ensure that essential participation process will be continued throughout the project implementation.</p> <p>A consultation and participation strategy is streamlined throughout the project cycle and incorporated in the social safeguard documents to ensure all stakeholders will continue to participate during project implementation. Project implementation consultants are being recruited for assisting PLN and monitoring the implementation of stakeholder participation and consultation.</p>

Business Opportunities

Consulting Services	<p>Project Implementation Consultants and Capacity Building (AWARDED)</p> <p>Independent safeguards monitoring consultants</p> <p>Estimated budget \$0.457 million</p>
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Procurement	International Competitive Bidding Package 1, Lot 1, Transmission Lines, estimated cost \$79.9 million Package 1, Lot 2, Transmission Lines, estimated cost, \$49.5 million Package 2, Lot 1, Extension of Paiton Substation, estimated cost, \$27.1million Package 2, Lot 2, New Antosari Substation, estimated cost, \$49.7 million Package 3, Upgrading of 150/20 kV Substations (AWARDED)
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Responsible Staff

Responsible ADB Officer	Palupi, Ira
Responsible ADB Department	Southeast Asia Department
Responsible ADB Division	Indonesia Resident Mission
Executing Agencies	<i>P.T. Perusahaan Listrik Negara Kepala Dinas Rencana Pendanaan Gd.Timah Lt.III,Jl. Gatot Subroto Kav.18 Jakarta Selatan, Indonesia</i>

Timetable

Concept Clearance	03 Jan 2012
Fact Finding	14 May 2012 to 25 May 2012
MRM	07 Sep 2012
Approval	03 Dec 2013
Last Review Mission	-
Last PDS Update	31 Mar 2017

Loan 3083-INO

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
03 Dec 2013	30 Dec 2013	29 Sep 2014	30 Sep 2019	-	-

Financing Plan			Loan Utilization			
	Total (Amount in US\$ million)		Date	ADB	Others	Net Percentage
Project Cost	385.00		Cumulative Contract Awards			
ADB	224.00		03 Dec 2013	18.19	0.00	8%
Counterpart	161.00		Cumulative Disbursements			
Cofinancing	0.00		03 Dec 2013	9.13	0.00	4%

Loan 8276-INO

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
03 Dec 2013	30 Dec 2013	29 Sep 2014	30 Sep 2019	-	-

Financing Plan			Loan Utilization			
	Total (Amount in US\$ million)		Date	ADB	Others	Net Percentage
Project Cost	25.00		Cumulative Contract Awards			
ADB	0.00		03 Dec 2013	0.00	2.02	8%
Counterpart	0.00		Cumulative Disbursements			
Cofinancing	25.00		03 Dec 2013	0.00	1.01	4%

Project Page	https://www.adb.org/projects/42362-013/main
Request for Information	http://www.adb.org/forms/request-information-form?subject=42362-013
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