

Project Administration Manual

Project Number: 42362
Loan Number: LXXXX
November 2013

Republic of Indonesia: Java–Bali 500-Kilovolt Power
Transmission Crossing Project

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Project Administration Manual Purpose and Process

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with Government and Asian Development Bank (ADB) policies and procedures. The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The State Electricity Company (Perusahaan Listrik Negara [PLN]) is wholly responsible for the implementation of ADB financed projects, as agreed jointly between the borrower and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by PLN of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At Loan Negotiations the borrower and ADB shall agree to the PAM and ensure consistency with the Loan agreement. Such agreement shall be reflected in the minutes of the Loan Negotiations. In the event of any discrepancy or contradiction between the PAM and the Loan Agreement, the provisions of the Loan Agreement shall prevail.

After ADB Board approval of the project's report and recommendations of the President (RRP) changes in implementation arrangements are subject to agreement and approval pursuant to relevant Government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval they will be subsequently incorporated in the PAM.

ABBREVIATIONS

ADB	-	Asian Development Bank
AIF	-	ASEAN Infrastructure Fund
ASEAN	-	Association of Southeast Asian Nations
EIA	-	environmental impact assessment
EMP	-	environmental management plan
LARP	-	land acquisition and resettlement plan
LIBOR	-	London interbank offered rate
PAM	-	project administration manual
PIU	-	project implementation unit
PLN	-	Perusahaan Listrik Negara (State Electricity Company)
PMU	-	project management unit
RRP	-	report and recommendation of the President to the Board of Directors

I. PROJECT DESCRIPTION

1. **Project's Rationale.** The proposed investment project will support the Government of Indonesia in the development of Java–Bali power transmission network to meet future power demand in Bali while improving the long-term power supply security and efficiency of the Java–Bali power grid.¹ The project will (i) develop the electricity transmission infrastructure by constructing 220 kilometers (km) of extra high voltage (500-kilovolts [kV]) transmission lines with capacity to transmit 1,500 megawatts (MW) of power; (ii) develop 500/150 kV and 150/20 kV substations in Bali and Java; and (iii) support project management.

2. **Impact and Outcome.** The impact of the project will be long-term power supply security to support sustained socioeconomic growth in Bali. The outcome will be increased capacity of the Java–Bali power transmission network.

3. **Outputs.** The project has three outputs: (i) development of 220 km of 500 kV transmission network, (ii) development of 500/150 kV and 150/20 kV substations, and (iii) project management support. The physical activities under the project comprise seven investment components together with project management support as summarized in Table 1.

Table 1: Scope of Project Components

Output	Project Physical Component	Financing Source
Development of 500 kV Transmission Network	Component 1–Construction of 131 km of 500 kV double circuit transmission line between Paiton Substation and Watudodol in Java	ADB, AIF, PLN
	Component 2–Construction of 4 km of 500 kV double circuit transmission line including (2.63 km) aerial crossing at Bali Strait, between Watudodol and Segara Rupek	PLN
	Component 3–Construction of 10 km of 500 kV double circuit transmission line between Segara Rupek and Gilimanuk, around the perimeter of the Bali Barat National Park	PLN
	Component 4–Construction of 75 km of 500 kV double circuit transmission line between Gilimanuk and New Kapal substation at Antosari, Bali	ADB, AIF, PLN
Development of 500/150 kV and 150/20 kV Substations	Component 5–Extension of existing 500 kV Paiton GIS Substation in East Java to facilitate connection of the double circuit transmission line to Bali	ADB, AIF, PLN
	Component 6–Construction of new 500/150 kV, 2 x 500 MVA and 150/20 kV, 2 x 60 MVA Antosari substation in Bali	ADB, AIF, PLN
	Component 7–Extension/Upgrading of 11 number of 150/20 kV substations (5 in Bali and 6 in Java)	ADB, AIF, PLN
Project Management support	Project management support in construction supervision, supervision and monitoring of safeguards implementation, and capacity building.	ADB, AIF, PLN

ADB = Asian Development Bank, AIF = ASEAN Infrastructure Fund, ASEAN = Association of Southeast Asian Nations; GIS = gas insulated switchgear, km = kilometer; kV = kilovolt; MVA = megavolt ampere; PLN = Perusahaan Listrik Negara.

Source: Perusahaan Listrik Negara.

¹ The Asian Development Bank (ADB) provided project preparatory technical assistance. ADB. 2009. *Technical Assistance to the Republic of Indonesia for Preparing Java–Bali 500 kV Power Transmission Crossing Project*. Manila.

II. IMPLEMENTATION PLANS

4. Completed project readiness activities are listed below.

A. Project Readiness Activities

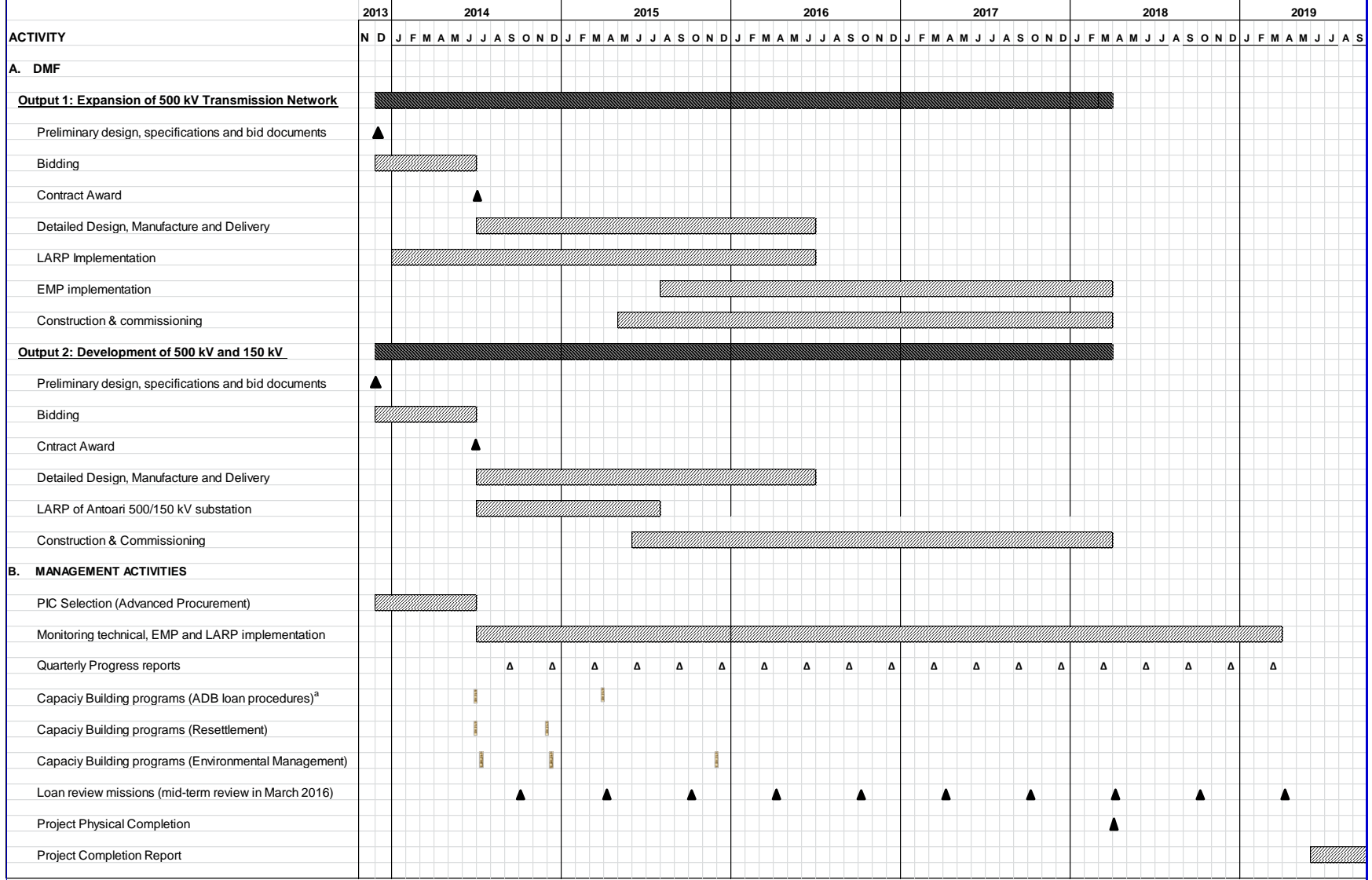
Indicative Activities	Months						Who are responsible
	2013 Nov- Dec	Jan- Feb	Mar	2014 Apr May Jun			
Advance contracting actions							PLN, ADB
Retroactive financing actions							PLN, ADB , MOF
Establish project implementation arrangements	completed in 2011						PLN
ADB Board approval							ADB
Loan signing							MOF, ADB
Government legal opinion provided							MOJ, ADB
Government budget inclusion	Approved for first year in 2013						MOF, BAPPENAS, ADB
Loan effectiveness							MOF, ADB

ADB = Asian Development Bank; MOJ = Ministry of Justice; MOF = Ministry of Finance; PLN = Perusahaan Listrik Negara.

B. Overall Project Implementation Plan

5. Project activities will commence in Q2 2014 and will be completed in 60 months by 31 March 2019. The ADB loan closing date will be 30 September 2019. Figure 1 outlines the overall implementation plan for the project.

Figure 1 - Overall Project Implementation Plan



EMP = environmental plan, EPC = engineer, procure, construct, LARP = land acquisition and resettlement plan, PIC = project implementation consultant

^aADB procedures, including implementation, procurement, use of consultants, disbursement, reporting, monitoring, and prevention of fraud and corruption.

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations – Roles and Responsibilities

6. The Executing Agency will be the State Electricity Company (PLN).² PLN has established a dedicated full-time Project Management Unit (PMU) at its Head Office responsible for management of the implementation of the project. The PMU will manage the procurement and consulting contracts on behalf of PLN. The Project Implementation Unit (PIU) will be PLN's Principal Project Office for Transmission (PLN Unit Induk Pembangunan [UIP] VII) which is responsible for construction of transmission networks in: central and eastern part of Java; and Bali. The roles and responsibilities of project stakeholders are summarized below.

Project implementation organizations	Management Roles and Responsibilities
<ul style="list-style-type: none"> Executing agency State Electricity Company (Perusahaan Listrik Negara [PLN]) 	<ul style="list-style-type: none"> ➤ Responsible for supervising and monitoring of operational performance ➤ Provision of counterpart staff, operational support and budget for project activities ➤ Dissemination and evaluation of project activities and outputs ➤ Quality assurance of project outputs ➤ Providing quarterly progress reports to ADB
<ul style="list-style-type: none"> Project Management Unit (PMU) and Project Implementation Units (PIU) of PLN 	<ul style="list-style-type: none"> ➤ Procurement of goods, works and services ➤ Risks evaluation, identification of mitigation measures and recording ➤ Management of the project implementation ➤ Reporting
<ul style="list-style-type: none"> Asian Development Bank (ADB) 	<ul style="list-style-type: none"> ➤ Main project financier ➤ Administer cofinancing by ASEAN Infrastructure Fund ➤ Project reviews, fiducially monitoring, guidance and facilitate capacity building ➤ Disburse the loan proceeds

B. Key Persons Involved in Implementation

Executing Agency

State Electricity Company
(Perusahaan Listrik Negara [PLN])

Officer's Name: Ms. Syofvi F Roekman
Position: Head of Corporate Planning
Telephone No.: +62 21 725 1234/ Fax: +62 21 739 7359
Email address: syofvi.roekman@pln.co.id
Office Address: 13th Floor, PLN Head Office, JL.
Trunojoy, Blok M/135, Kebayoran Baru

ADB

Energy Division

Staff Name: Chong Chi Nai
Position: Director
Telephone No.: (63-2) 632-6409/Fax: (63-2) 636-2336
Email address: cnchong@adb.org

² PT (Persero) Perusahaan Listrik Negara.

Mission Leader

Staff Name: Aruna K Wanniachchi

Position: Senior Energy Specialist

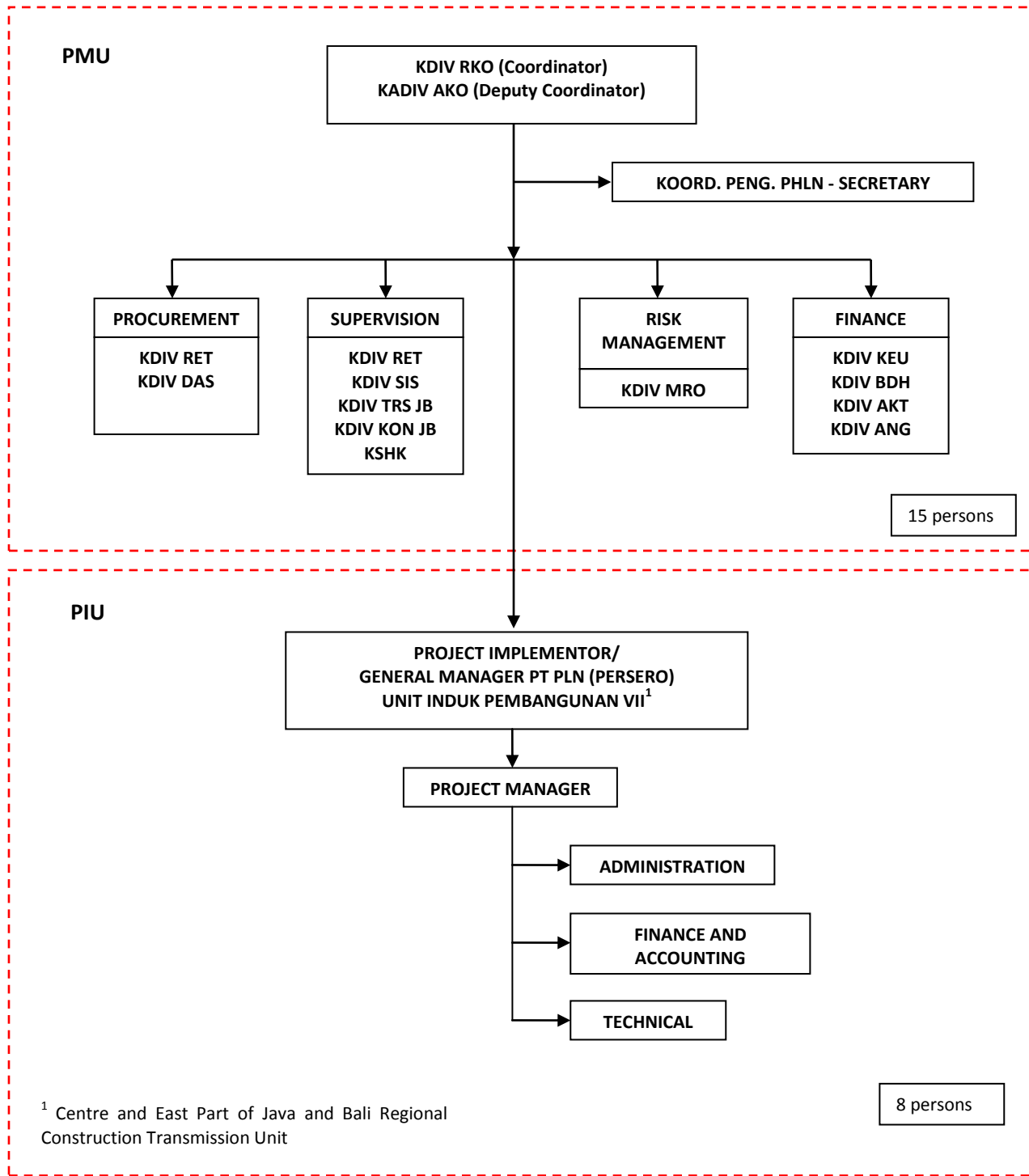
Telephone No.: (63-2) 6325394

Email address: akwanniachchi@adb.org

C. Project Organization Structure

7. PIUs comprising experienced staff and headed by senior officers will be set up in PLN's regional office UIP in Surabaya to undertake day-to-day project implementation activities. The PIU will be responsible for overall project implementation, accounting, quality assurance, social and environmental issues and coordination with concerned agencies. The PMU and the PIU will be supported by (i) a team of project implementation consultants (PIC) and (ii) a team of external safeguards monitoring consultants (SMC). The overall project organization structure is given in Figure 2.

Figure 2: Project Organization Structure



PIU= project implementation unit; PMU= project management unit.

IV. COSTS AND FINANCING

8. The total project cost is estimated at \$410 million, including physical and price contingencies, financing charges during implementation, and taxes and duties. Total estimated loan amount is \$249 million. ADB's ordinary capital resources will finance \$224 million with a 20-year term including a grace period of five years, 5% annuity repayment method, an interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility, a commitment charge of 0.15% per year on the undisbursed balance, and such other terms and conditions set forth in the draft loan and project agreements. ASEAN Infrastructure Fund (AIF) will provide \$25 million with the same tenure as the ADB loan, an interest rate determined in accordance with its LIBOR-based lending facility. The AIF loan will be administered by ADB. The Borrower (government) will relend the loan proceeds to the executing agency, PLN, with a mark-up of 0.50% through subsidiary loan agreements. The interests of both loans include a maturity premium of 10 basis points based on the above loan terms and the government's choice of repayment option and dates.

9. The government will finance \$161 million including all taxes and duties, all financing charges including those relating to relending to PLN, and incremental costs such as counterpart staff for project management and construction supervision, all land acquisition and resettlement costs, and all implementation costs of environmental management plan (EMP). The ADB and AIF loan proceeds will finance equipment and civil works for the transmission lines and substations in Java and Bali and consultancy services. The disbursement of ADB and AIF funds will be done in pro rata basis.

10. The tentative financing plan and indicative terms of financing are summarized in Tables 2 and 3.

Table 2. Financing Plan

Source	(\$ million)	%
Asian Development Bank	224.0	54.6%
ASEAN Infrastructure Fund	25.0	6.1%
Government of Indonesia	161.0	39.3%
Total	410.0	100.0%

Source: ADB project team

Table 3: Indicative Financing Terms

Source	Repayment Period (year)	Grace Period (year)	Rate (%) ^a	Commitment charge %
ADB	20	5	LIBOR + 50 basis points	0.15
AIF	20	5	LIBOR + 200-150 basis points	NA

ADB = Asian Development Bank; AIF = ASEAN Infrastructure Fund, LIBOR = London interbank offered rate; NA = not applicable.

^a The lending rate for the ADB loan will be determined based on the repayment period and method agreed by the government.

Source: ADB Project team.

11. Detailed costs and financing arrangements are shown in Tables 4 to 8. Detailed cost estimates by physical components are given in Appendix 1 of this manual.

A. Detailed Cost Estimates by Expenditure Category

Table 4: Detailed Cost Estimates by Expenditure Category

Item	Rp in million			US \$ in million			% of Total Base Cost
	Foreign Exchange	Local Currency	Total Cost	Foreign Exchange	Local Currency	Total Cost	
A Investment Costs							
1 Civil Works	49,946	510,856	560,803	4.1	42.2	46.3	14.2%
2 Equipment	2,498,889	132,845	2,631,733	206.5	11.0	217.4	66.5%
3 Consulting Services	20,774	19,676	40,449	1.7	1.6	3.3	1.0%
4 Land Acquisition and Resettlement	-	352,077	352,077	0.0	29.1	29.1	8.9%
5 Environmental Management	-	13,690	13,690	0.0	1.1	1.1	0.3%
6 Taxes and Duties	-	358,771	358,771	0.0	29.6	29.6	9.1%
Total Base Cost	2,569,609	1,387,915	3,957,524	212.3	114.7	326.9	100.0%
B Contingencies							
1 Physical	256,961	138,791	395,752	21.2	11.5	32.7	10.0%
2 Price	167,943	215,257	383,200	13.9	17.8	31.7	9.7%
Subtotal (B)	424,903	354,049	778,952	35.1	29.3	64.4	19.7%
C. Financing Charges During Implemen							
1 Interest During Implementation	221,892	-	221,892	17.9	0.0	17.9	5.5%
2 Commitment Charges	9,209	-	9,209	0.8	0.0	0.8	0.2%
Subtotal (C)	231,101	-	231,101	18.7	0.0	18.7	5.7%
Total Project Cost(A+B+C)	3,225,613	1,741,964	4,967,577	266.1	143.9	410.0	125.4%

Source: Asian Development Bank project team

B. Allocation and Withdrawal of Loan Proceeds

Table 5: Allocation and Withdrawal of Loan Proceeds

(a) Allocation and Withdrawal of ADB Loan Proceeds

Category	Item	Total Amount Allocated (\$ million)	Financing Basis
1	Civil Works	28.1	90% of total expenditure claimed ^a
2	Equipment	159.1	90% of total expenditure claimed ^a
3	Consulting Services	3.0	90% of total expenditure claimed ^a
4	Unallocated	33.8	
	Total	224.0	

ADB = Asian Development Bank.

^a Exclusive of local taxes and duties.

(b) Allocation and Withdrawal of AIF Loan Proceeds

Category	Item	Total Amount Allocated (\$ million)	Financing Basis
1	Civil Works	3.1	10% of total expenditure claimed ^a
2	Equipment	17.8	10% of total expenditure claimed ^a
3	Consulting Services	0.3	10% of total expenditure claimed ^a
4	Unallocated	3.8	
	Total	25.0	

AIF = ASEAN Infrastructure Fund.

^a Exclusive of local taxes and duties.

C. Detailed Cost Estimates by Financier

		ADB		AIF		PLN				Total
Item		Amount	%	Amount	%	Amount	Taxes & Duties ^a	Total	%	
A.	Investment Costs									
1	Civil Works									
	Components 1,2,5,6	28.0	81.0	3.1	9.0	0.0	3.5	3.5	10.0	34.6
	Components 3 and 4	0.0	0.0	0.0	0.0	13.5	1.5	15.0	100.0	15.0
	Component 7	0.0	0.0	0.0	0.0	1.6	0.2	1.8	100.0	1.8
	Subtotal (1)	28.0	54.4	3.1	6.1	15.2	5.1	20.3	39.5	51.5
2	Equipment									
	Components 1,2,5,6	143.2	81.0	16.0	9.0	0.0	17.7	17.7	10.0	176.9
	Components 3 and 4	0.0	0.0	0.0	0.0	40.5	4.5	45.1	100.0	45.1
	Component 7	15.9	81.0	1.8	9.0	0.0	2.0	2.0	10.0	19.7
	Subtotal (2)	159.1	65.9	17.8	7.4	40.5	24.2	64.7	26.8	241.6
	Consulting Services	3.0	81.8	0.3	9.1	0.0	0.3	0.3	9.1	3.7
3	Land Aquisition and Resettlement	0.0	0.0	0.0	0.0	29.1	0.0	29.1	100.0	29.1
4	Environmental Management	0.0	0.0	0.0	0.0	1.1311	0.0	1.131	100.0	1.1
5	Total Base Cost	190.2	58.2	21.2	6.5	85.9	29.6	115.6	35.4	326.9
B.	Contingencies	33.8	52.6	3.8	5.9	26.8	0.0	26.8	41.6	64.4
C.	Financing Charges During Implementation	0.0	0.0	0.0	0.0	18.7	0.0	18.70	100.0	18.7
	Total Project Cost (A+B+C)	224.0	54.6	25.0	6.1	131.4	29.6	161.0	39.3	410.0

ADB = Asian Development Bank, AIF = ASEAN Infrastructure Fund, PLN = Perusahaan Listrik Negara

^a Of total \$29.6 million taxes and duties, \$29.3 million will be government contribution as tax exemption, and \$0.3 million value-added and other taxes on consulting services will be PLN financing

Source: ADB project team

D. Detailed Cost Estimates by Outputs

Table 7: Detailed Cost Estimates by Outputs

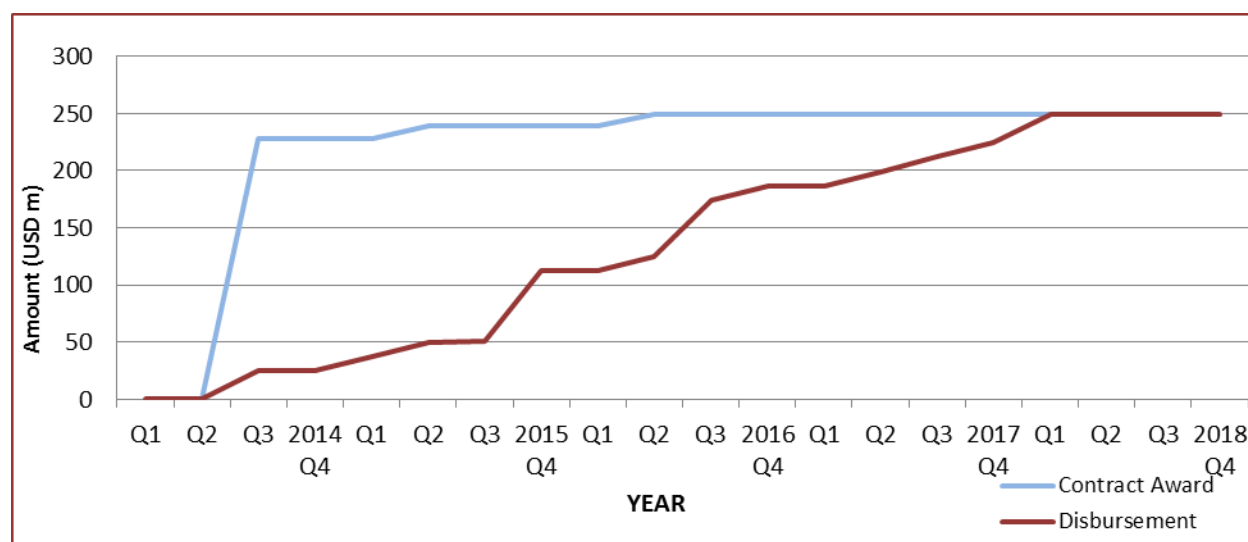
Item	Expansion of Transmission Network		Expansion of Substation Capacity		Project Management		Total Cost (\$ million)	
	Amount (\$ million)	%	Amount (\$ million)	%	Amount (\$ million)	%		
	A. Investment Costs (a)							
1	Civil Works	26.5	57.2%	19.8	42.8%	0.0	0.0%	46.3
2	Equipment	141.9	65.3%	75.5	34.7%	0.0	0.0%	217.4
3	Consulting Services		0.0%	0.0	0.0%	3.3	100.0%	3.3
4	Land Acquisition and Resettlement	19.4	66.6%	9.7	33.4%	0.0	0.0%	29.1
5	Environmental Management	0.7	63.8%	0.4	36.2%	0.0	0.0%	1.1
6	Taxes and Duties	18.9	63.8%	10.7	36.2%	0.0	0.0%	29.6
	Subtotal (A)	207.4	63.4%	116.2	35.6%	3.3	1.0%	326.9
B. Contingencies								
1	Physical (b)	20.7	63.4%	11.6	35.6%	0.3	1.0%	32.7
2	Price (c)	20.2	63.8%	11.1	35.1%	0.3	1.0%	31.7
	Subtotal(B)	41.0	63.6%	22.7	35.3%	0.7	1.0%	64.4
C. Financing Charges During Implementation (d)								
1	Interest During Implementation	9.7	54.4%	8.0	44.6%	0.2	1.0%	17.9
2	Commitment Charges	0.4	54.4%	0.3	44.6%	0.0	1.0%	0.8
	Subtotal(C)	10.2	54.4%	8.3	44.6%	0.2	1.0%	18.7
Total Project Cost(A+B+C)		259.0	63.2%	147.0	35.9%	4.0	1.0%	410.0
Total Project Cost(A+B+C) (Rounded)								
(a) In mid 2013 prices								
(b) Computed at 8% for all type of investment costs								
(c) Computed on the basis of price contingency factor of 4.95% for 2014, 9.73% for 2015, 14.39% for 2016 and 19.08% for 2017 on costs								
(d) Includes interest and commitment charges. Interest during construction has been computed at the average of three-year and five-year forward London interbank-offered rate plus a spread of 0.50%								
Source: ADB project team								

E. Detailed Cost Estimates by Year

Item	\$ million					
	Total Cost	2014	2015	2016	2017	2018
A. Investment Costs						
1 Civil Works	46.3	4.6	13.9	13.9	9.3	4.6
2 Equipment	217.4	21.7	65.2	65.2	43.5	21.7
3 Consulting Services	3.34	0.3	1.0	1.0	0.7	0.3
4 Land Acquisition and Resettlement	29.1	2.9	8.7	8.7	5.8	2.9
5 Environmental Management	1.1	0.1	0.3	0.3	0.2	0.1
6 Taxes and Duties	29.6	3.0	8.9	8.9	5.9	3.0
Total Base Cost	326.9	32.7	98.1	98.1	65.4	32.7
B. Contingencies	64.4	6.4	19.3	19.3	12.9	6.4
C. Financing Charges During Implementation	18.7	0.7	1.9	3.9	5.6	6.7
Total Project Costs(A+B+C)]	410.0	39.8	119.3	121.3	83.8	45.8
% of Total Project Cost	100.0%	9.7%	29.1%	29.6%	20.4%	11.2%

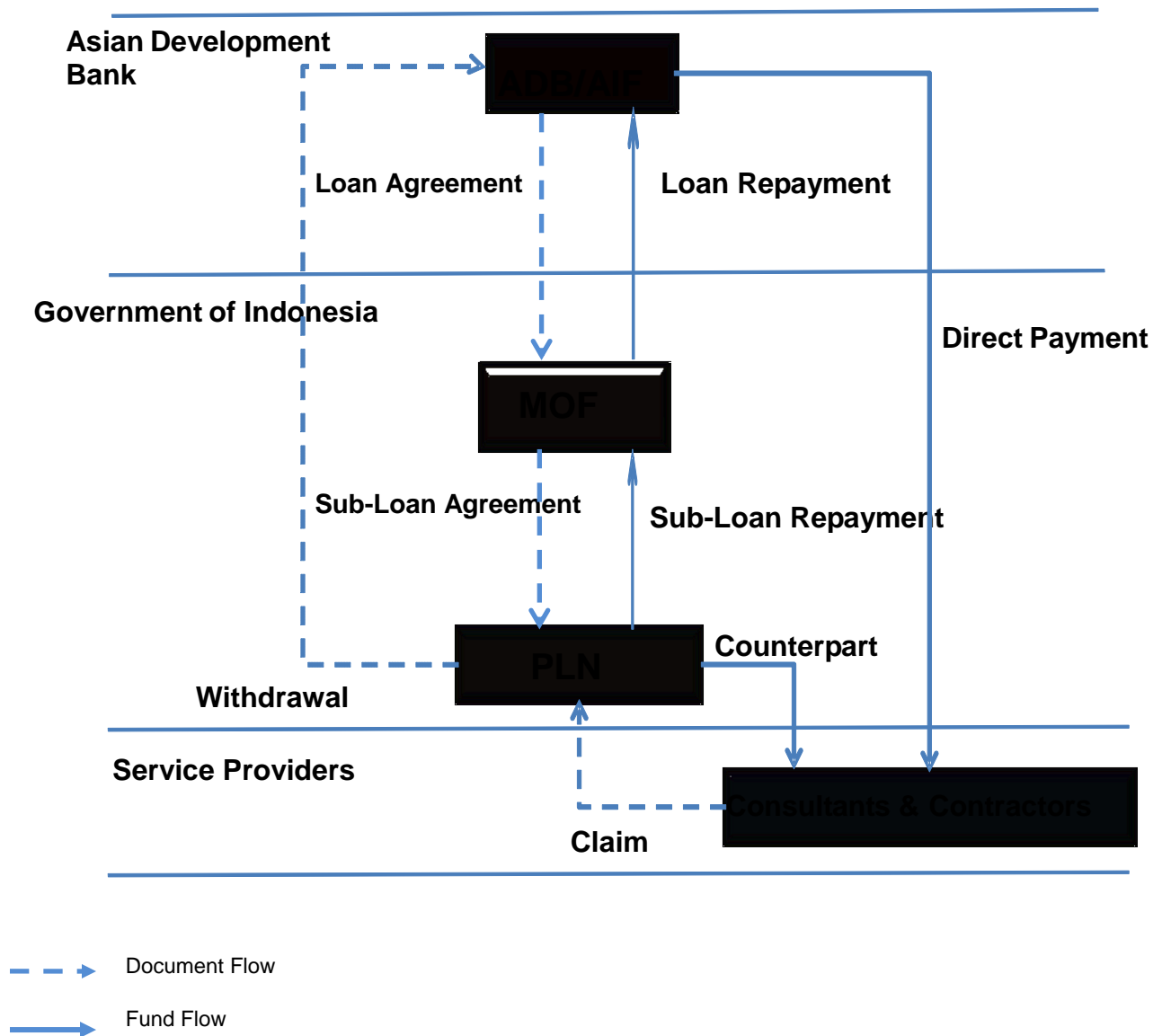
Source: ADB project team.

F. Contract Awards and Disbursement S-curve



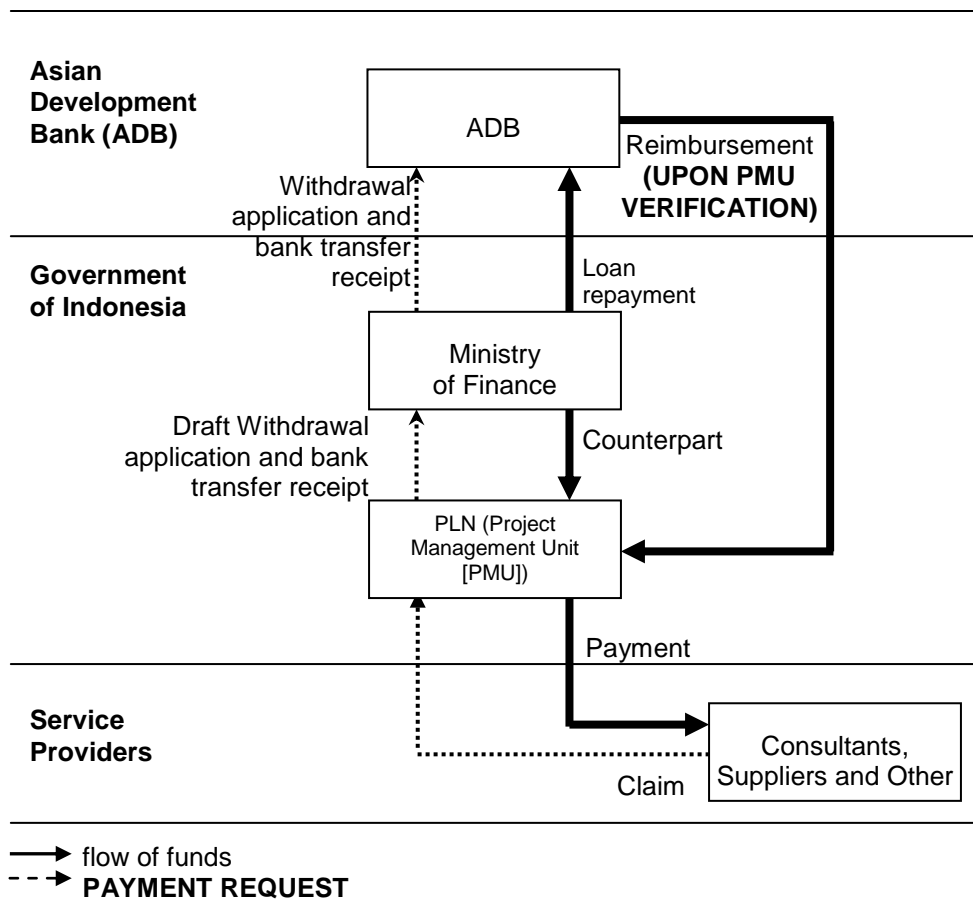
G. Fund Flow Diagram

(a) Fund Flow Diagram for Direct Payment



ADB = Asian Development Bank, AIF = ASEAN Infrastructure Fund, ASEA = Association of Southeast Asian Nations, MOF = Ministry of Finance, PLN = Perusahaan Listrik Negara, PIU = project implementation unit.

(b) Fund Flow Diagram for Reimbursement



V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

12. Financial management assessment of PLN was undertaken in accordance with ADB's *Guidelines for the Financial Management and Analysis of Projects (2005)*³ to assess the financial management capacity of PLN including funds-flow arrangement, staffing, accounting policies and procedures internal and external auditing arrangements, reporting and monitoring, and financial information systems. The assessment concluded that the control risks that exist within PLN are not expected to pose a significant risk to the proper management and implementation of the project. While PLN has significant experience in implementing ADB and World Bank projects and has improved its implementation capacity, there can be areas of improvement in project implementation. The areas requiring improvement include institutional capacity particularly in project management, land acquisition and consultants recruitment.

13. **Funds Flow.** The proposed funds flow and disbursement arrangements have been satisfactorily employed by PLN in completed and ongoing ADB projects demonstrating its capacity to properly manage funds flow and disbursements. Therefore, the control risks associated with the funds flow is assessed as being low.

14. **Staffing.** The Finance Department of PLN is adequately staffed with appropriate functional lines of responsibility and structure. There are five main divisions within the department: corporate finance, budget planning and control, treasury, accounting, tax and insurance and central application. The accounting and finance staff are generally well qualified with most professional officers in the department, particularly the senior staff members, holding degrees in accounting and finance and with extensive experience in business accounting, project accounting and financial management.

15. Most of the accounting and finance staff are regular employees of PLN. There are detailed job descriptions for the various positions in the Finance Department, with clearly defined the roles, responsibilities, and lines of reporting.

16. Some accounting and finance staff have been trained and experienced in ADB loan disbursement procedures. Various in-house training programs in accounting and finance have been organized by PLN's Human Resource Department. Staff also attends external training programs that are conducted by universities and consulting firms.

B. Disbursement

17. The ADB and AIF Loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook (2012, as amended from time to time)*,⁴ and detailed arrangements agreed upon between the government and ADB. The AIF financing will be utilized in conjunction with those financed by ADB for the procurement of goods, works and consultancy services in all project components. The disbursements of ADB and AIF funds will be done on prorated basis (90:10 ratio).

³ ADB. 2005. *Financial Management and Analysis of Projects*. Manila.

⁴ Available at: http://www.adb.org/Documents/Handbooks/Loan_Disbursement/loan-disbursement-final.pdf

18. Pursuant to ADB's *Safeguard Policy Statement (2009 [SPS])*,⁵ ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the SPS. Borrower will also ensure that their investments are in compliance with applicable national laws and regulations, and will apply the prohibited investment activities list (Appendix 5 of the SPS) to subprojects financed by ADB.

19. The ADB and AIF loan proceeds will finance civil works, equipment, and consulting services. Therefore direct payment procedure will be generally used. Commitment Letter and Reimbursement procedures also will be used if necessary. In the event, the commitment procedure in the *Loan Disbursement Handbook* shall be applied in accordance with, and be subject to, Section 5.02 of the General Conditions. Before the submission of the first withdrawal application, government will submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is US\$100,000 equivalent, unless otherwise approved by ADB. Individual payments below this amount should generally be paid by the executing agency / implementing agency and subsequently claimed to ADB through reimbursement. ADB reserves the right not to accept withdrawal applications below the minimum amount.

C. Accounting

20. PLN will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project. PLN will prepare consolidated project financial statements in accordance with the government's accounting laws and regulations which are consistent with international accounting principles and practices.

D. Auditing and Public Disclosure

21. PLN will cause the detailed consolidated project financial statements to be audited in accordance with International Standards on Auditing and with the Government's audit regulations, by an independent auditor acceptable to ADB. The audited project financial statements will be submitted in the English language to ADB within six months of the end of the fiscal year by PLN.

22. PLN will also cause the entity-level financial statements to be audited in accordance with International Standards on Auditing and with the Government's audit regulations, by an independent auditor acceptable to ADB. The audited entity-level financial statements, together with the auditors' report and management letter, will be submitted in the English language to ADB within one month after their approval by the competent authority.

23. The annual audit report for the project accounts will include an audit management letter and audit opinions which cover (i) whether the project financial statements present a true and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting framework; (ii) whether loan and grant proceeds were used only for the purposes of the project or not; and (iii) the level of compliance for each financial covenant contained in the legal agreements for the project.

⁵ Available at: <http://www.adb.org/Documents/Policies/Safeguards/Safeguard-Policy-Statement-June2009.pdf>

24. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor.

25. The Government and PLN have been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements. ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the borrower), or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

26. Public disclosure of the project financial statements, including the audit report on the project financial statements, will be guided by ADB's *Public Communications Policy (2011)*.⁶ After review, ADB will disclose the project financial statements for the project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website. The Audit Management Letter will not be disclosed.

⁶ Available from <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting and Retroactive Financing

27. ADB management approved a request from the borrower for advance contracting actions for procurement of goods and related services, consulting services and retroactive financing up to 20% of the loan amount that may be incurred prior to loan effectiveness but not earlier than 12 months before the date of signing of the related legal agreements. The government and the executing agency have been advised that ADB's approval of advanced procurement action does not commit ADB to approve the proposed loan and that ADB financing will be dependent upon the government's compliance with all aspects of ADB's procedural requirements, including compliance with the relevant provisions of the loan agreement and ADB's guidelines. The retroactive financing applies to both ADB and AIF loans.

28. All advance contracting including those for retroactive financing will be undertaken in accordance with ADB's *Procurement Guidelines* (April 2010, as amended from time to time)⁷ and ADB's *Guidelines on the Use of Consultants* (April 2010, as amended from time to time).⁸ The issuance of invitations to bid under advance contracting and retroactive financing will be subject to prior ADB approval. The borrower and PLN have been advised that approval of bidding documents for advance contracting and retroactive financing does not commit ADB to finance the project.

B. Procurement of Goods, Works and Consulting Services

29. All procurement of goods and works financed from the ADB and AIF loan proceeds will be undertaken in accordance with ADB's *Procurement Guidelines*.

30. Two turn-key procurement packages with four lots (two lots for 500 kV transmission line and two lots for 500/150 kV substations) will be awarded through international competitive bidding (ICB) procedure with domestic preference. One goods package with two lots for upgrading of 150/20 kV substation will be procured through international competitive bidding procedure with domestic preference. Table 9 gives the details of the procurement of goods and works with estimated costs for each procurement package.

⁷ Available at: <http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf>.

⁸ Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>.

Table 9: Procurement of Goods and Works

Output	No. of Packages	Procurement Method	Lots	Contract Value \$ million
Output 1	One	ICB single stage, two-envelope	Lot 1: Goods and works for 131 km transmission line in Bali	83.7
			Lot 2: Goods and works for 75 km transmission line in Bali,	50.8
Output 2	One	ICB, single stage, two-envelope	Lot 1: Extension of Paiton substation	32.9
			Lot 2: Construction of New Kapal Substation	57.4
	One	ICB, single stage, one-envelope	Lot 1: Upgrading of 150/20 kV substations in Java and Bali Lot 2: Upgrading of 150/20 kV substations in Java and Bali	20.6 (two lots each with estimated value of \$10.3 million)

ICB = international competitive bidding.

Note: Exclusive of taxes and duties.

31. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is in Section C.

32. All consultants will be recruited according to ADB's *Guidelines on the Use of Consultants* (April 2010, as amended from time to time).⁹ A team of PICs will advise and assist PLN in the overall implementation of the Project. A consulting firm will be engaged using the quality- and cost-based selection method with a quality to cost ratio of 80:20.

33. An estimated 207 person-months (62 person-months international, 145 person-months national) of PICs will be required to support (i) contract administration, (ii) monitoring and reporting implementation of EMP and land acquisition and resettlement plan (LARP), and (iii) strengthen the institutional and operational capacity of the executing agency as required. In addition, an estimated 48 person-months (6 person-months international and 42 person-months national) of external SMCs will be required for the independent monitoring of the implementation of EMP and LARP. Total estimated cost of consultancy services is around \$3.32 million (\$2.9 million for PIC and \$0.42 million for SMC) without taxes and duties. In addition, PLN will finance taxes and duties from its resources at an estimated cost of \$.3 million. Outline terms of reference for PIC and SMC consultancy services is in Appendix 2.

C. Procurement Plan

Basic Data

Project Name: Java Bali 500 kV Power Transmission Crossing Project

Country: Republic of Indonesia

Executing Agency: State Electricity Company (Perusahaan Listrik Negara [PLN])

Loan Amount: \$249 million

Loan (Grant) Number:

Date of First Procurement Plan: May 2012

Date of this Procurement Plan: September 2013

1. Process Thresholds, Review and 18-Month Procurement Plan

⁹ Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: <http://www.adb.org/documents/handbooks/project-implementation/>.

a. Project Procurement Thresholds

34. Except as ADB may otherwise agree, the process thresholds shall apply to procurement of goods, works and consulting services are outlined in Table 10.

Table 10: Procurement of Goods, Works and Consulting Services

Procurement of Goods and Works	
International Competitive Bidding for Works	Above \$10,000,000
International Competitive Bidding for Goods	Above \$1,000,000
National Competitive Bidding for Works	Between \$100,000 and \$10,000,000
National Competitive Bidding for Goods	Between \$100,000 and \$1,000,000
Shopping for Works	Under \$100,000
Shopping for Goods	Under \$100,000

b. ADB Prior or Post Review

35. Except as ADB may otherwise agree, the prior or post review requirements outlined in Table 11 will apply to the various procurement of goods and works, and consultant recruitment methods under the Project.

Table 11: Applicable Review Requirements

Procurement Method	Prior or Post	Comments
Procurement of goods and Works		
ICB (goods and works)	Prior	
Recruitment of Consulting Firms		
Quality and Cost-Based Selection (QCBS)	Prior	
Recruitment of Individual Consultants		
Individual Consultants	Prior	

c. Goods and Works Contracts Estimated to Cost More Than \$1 Million

36. Table 12 lists goods and works contracts expected to commence within the next 18 months.

Table 12: Procurement Packages

General Description	Contract Value \$ million	Procurement Method	Prequalification of Bidders (Y/N)	Advertisement Date (quarter/year)	Financed by
Turnkey package 1: 131 km transmission line in Java (Lot 1) and 75 km Transmission line in Bali (Lot 2)	Lot 1- 83.7 Lot 2 -50.8	ICB with domestic preference Single-Stage, Two-envelope	N	Q4, 2013	ADB, AIF
Turnkey package 2: Extension of Paiton Substation (Lot 1) and Construction of New Kapal Substation (Lot2)	Lot 1-32.9 Lot 2- 57.4	ICB with domestic preference Single-Stage, Two-envelope	N	Q4, 2013	ADB, AIF
Goods package 1: upgrading of 150/20 kV substations (Lot 1 and Lot 2)	Lot 1-10.3 Lot 2- 10.3	ICB with domestic preference Single stage, One-envelope	N	Q1 2014	ADB, AIF

ADB = Asian Development Bank; AIF = ASEAN Infrastructure Fund; ASEAN = Association of Southeast Asian Nations, ICB = international competitive bidding; km = kilometre; kV = kilovolt.

Note: Exclusive of taxes and duties.

d. Consulting Services Contracts Estimated to Cost More Than \$100,000

37. Table 13 lists consulting services contracts for which procurement activity is either ongoing or is expected to commence within the next 18 months.

Table 13: Consulting Services Package

General Description	Contract Value \$ million	Recruitment Method	Advertisement Date (quarter/year)	International or National Assignment	Finance by
Consulting services for project implementation support and capacity building	2.92	QCBS, FTP 80:20	Q4, 2013	International in association with nationals	ADB, AIF
Consulting services for independent monitoring of EMP and LARP	0.42	QCBS, BTP 80:20	Q4, 2013	International in association with nationals	ADB, AIF

ADB = Asian Development Bank; BTP = biodata technical proposal, EMP = environmental management plan, FTP = full technical proposal, LARP = land acquisition and resettlement plan, QCBS = quality and cost-based selection.

Note: Exclusive of taxes and duties.

2. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000

38. No procurement activity for smaller-value goods, works and consulting services is either on-going or expected to commence within the next 18 months.

3. National Competitive Bidding

a. General

39. The procedures to be followed for national competitive bidding shall be those set forth in Presidential Decree No.54/2010 of the Republic of Indonesia, dated August 6th, 2010 and its Amendments, with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of the Procurement Guidelines.

b. Registration

40. Bidding shall not be restricted to pre-registered firms and such registration shall not be a condition for participation in the bidding process.

41. Where registration is required prior to award of contract, bidders: (i) shall be allowed a reasonable time to complete the registration process; and (ii) shall not be denied registration for reasons unrelated to their capability and resources to successfully perform the contract, which shall be verified through post-qualification.

c. Prequalification

42. Post qualification shall be used unless prequalification is explicitly provided for in the loan agreement or procurement plan. Irrespective of whether post qualification or prequalification is used, eligible bidders (both national and foreign) shall be allowed to participate.

d. Joint Ventures

43. A bidder declared the lowest evaluated responsive bidder shall not be required to form a joint venture or to sub-contract part of the supply of goods as a condition of award of the contract.

e. Preferences

44. No preference of any kind shall be given to domestic bidders or for domestically manufactured goods.

45. Regulations issued by a sectoral ministry, provincial regulations and local regulations which restrict national competitive bidding procedures to a class of contractors or a class of suppliers shall not be applicable.

f. Advertising

46. Invitations to bid (or prequalify, where prequalification is used) shall be advertised in at least one widely circulated national daily newspaper or freely accessible, nationally-known website allowing a minimum of twenty-eight (28) days for the preparation and submission of bids and allowing potential bidders to purchase bidding documents up to at least twenty-four (24) hours prior the deadline for the submission of bids. Bidding of national competitive bidding contracts estimated at \$100,000 or more for goods and related services or \$100,000 or more for civil works shall be advertised on ADB's website via the posting of the Procurement Plan.

47. Bidding documents shall be made available by mail, electronically, or in person, to all who are willing to pay the required fee, if any. Bidders domiciled outside the area/district/province of the unit responsible for procurement shall be allowed to participate regardless of the estimated value of the contract.

48. Foreign bidders from ADB member countries shall not be precluded from bidding.

g. Bid Security

49. Where required, bid security shall be in the form of a bank guarantee from a reputable bank.

h. Bid Opening and Bid Evaluation

50. Bids shall be opened in public, immediately after the deadline for submission of bids. Evaluation of bids shall be made in strict adherence to the criteria declared in the bidding documents. Bidders shall not be eliminated from detailed evaluation on the basis of minor, non-substantial deviations. No bid shall be rejected on the basis of a comparison with the owner's estimate or budget ceiling without the ADB's prior concurrence. The contract shall be awarded to the technically responsive bid that offers the lowest evaluated price.

i. Rejection of All Bids and Rebidding

51. Bids shall not be rejected and new bids solicited without the ADB's prior concurrence. When the number of responsive bids is less than three, re-bidding shall not be carried out without the ADB's prior concurrence.

j. ADB Member Country Restrictions

52. Bidders must be nationals of member countries of ADB, and offered goods and services must be produced in and supplied from member countries of ADB.

D. Consultant's Terms of Reference

53. The terms of reference for the PIC and SMC are in Appendix 2.

VII. SAFEGUARDS

A. Environment

54. The project is classified as environment category A. Extensive assessment of the project's environmental impacts has been carried out for all project components in accordance with ADB's SPS (2009). Relevant Indonesian environmental regulations were also considered in the preparation of this environmental impact assessment (EIA). Draft EIA endorsed by PLN have been disclosed in ADB website since 13 August 2012 which was updated with a supplementary biodiversity study in June 2013.

55. PLN has taken adequate measures to meet national regulatory requirements and minimize adverse impacts on the environment. The national Environment Impact Assessment (*Analisis Mengenai Dampak Lingkungan*) was approved by the Ministry of Environment in 16 April 2013.

56. Due consideration has been given to minimize environmental impacts in the selection of the interconnection options and the selection of the final alignment of the transmission line and sites for substations. The environmental impacts are in the transmission line sections which traverse across Baluran National Park and Bali Barat National Park that are protected areas. Collaborative agreements have been negotiated by PLN with the two park authorities which include mitigation measures for biodiversity conservation and reforestation.

57. The EMP includes general mitigation measures for the overall transmission line as well specific mitigation measures for the sections through the two national parks. The EMP will form part of the bidding documents and will be implemented by the contractors. As part of the bidding process, the contractor will be required to prepare a Contractors EMP which details the measures, budget and schedule for complying with the Project EMP.

58. PLN will supervise the EMP implementation with assistance of the PMU, PIU and the PICs. PLN will ensure that the PMU is staffed with environment safeguards specialist to undertake the day to day supervision. The PIC will also include environment health and safety (EHS) specialists, a biodiversity specialist, and a communications and outreach specialist who will work routinely with the PMU safeguards staff on the safeguards implementation.

59. PLN, its consultants and contractors will coordinate with the Park authorities in the Baluran and Bali Barat National Parks for the implementation of the EMP and ensure that the following are adhered to:

- (i) The construction of any infrastructure needed for site access, including a jetty in the Bali Barat National Park, should be subject to further due diligence review prior to construction, in accordance with ADB's SPS (2009) and any applicable laws and regulations of the Borrower relating to environment, health and safety;
- (ii) No construction of towers from T239 to T242 within the *banteng* (*Bos javanicus*)¹⁰ home range in the Bitakol area within the Baluran National Park should occur during the *banteng* mating season during August to October or the dry season;
- (iii) No construction of towers within the Gilimanuk Bay in the Bali Barat National Park should occur during September to April;

¹⁰ The *banteng* (*Bos javanicus*), also known as tembadau, is a species of wild cattle found in Southeast Asia.

- (iv) In all areas, tower construction should follow the work schedule appended to the EMP;
- (v) Temporary workers camps and facilities (including hot mix and batching plants) should not be located within 500 meters of the national parks;
- (vi) Borrow and disposal pits should not be located within 100 m of the national parks;
- (vii) Heavy equipment and fuels, chemicals, or oils should not be stored inside the national parks; and
- (viii) The transmission line heights in relevant sections of the Baluran and Bali Barat National Parks should be adjusted to avoid any tree trimming or clearance other than in the area of the tower foundations.

60. The Baluran and Bali Barat National Park authorities will be responsible for implementing the respective collaborative agreements. PLN will provide the financing for the implementation of the Collaborative Agreements to the Park Authorities upon Loan inception, and report the implementation progress on these collaborative agreements as part of the semi-annual monitoring reports submitted to ADB.

61. In the event of any change of alignment or the identification of unanticipated environmental impact during project implementation, PLN will revise the EMP and will submit to ADB for approval. PICs are identified and TOR for the consultants are indicated in the PAM.

B. Resettlement

62. The LARP has been prepared based on the preliminary design and tower schedule provided by PLN. Based on impact assessments, the project is categorized as A for Involuntary Resettlement (IR) as per ADB's SPS (2009). The LARP incorporating agreed resettlement entitlements and gender strategy was endorsed by PLN in August 2012 and disclosed in ADB website in September 2012. The estimated budget for resettlement is \$29.1 million equivalent to be funded entirely from government resources.

63. PLN will ensure the timely and adequate implementation of the EMP and the LARP for each project component and will ensure that all activities comply with the applicable national and local environmental laws and regulations, in addition to ADB's SPS (2009). In the event a component requires modifications to its design or configuration prior or during project construction, PLN will ensure to revise and update the EIA and LARPs accordingly, and will submit these to ADB for approval and clearance. The executing agency will assist in promoting environmentally and socially responsible implementation of the contracts. Contracts shall include provisions that comply with host country employment laws and ADB guidance on labor standards, wages and acceptable working conditions, including measures to avoid and prevent discrimination against women in the workplace, equal pay for equal work, and also public awareness and sensitization of the risks and prevention of the spread of HIV/AIDS.

64. The contractors or subcontractors shall submit monthly reports to the PMU and semi-annual progress reports in conformance with the EMP to the executing agency and shall indicate when, how and at what cost the contractors plan to satisfy the requirements as per detailed design. The construction schedules shall detail the resources to be provided or utilized and any related sub-contracting proposed.

65. The mitigation measures will be incorporated into the contractor's contract document. The executing agency will monitor, audit, and report to ADB on the implementation of the EMP for each subproject semiannually during construction and annually during operation. Summary

appraisal reports will be submitted to ADB subsequent to the executing agency's approval. The executing agency will retain qualified and experienced external experts or qualified NGOs to verify its monitoring information.

66. Project implementation will pose minor impacts of a temporary and reversible nature on peoples living in the direct/indirect area of influence of construction sites. The executing agency/implementing agency and its contractors will be responsible for designing and implementing culturally acceptable and sensitive measures to manage and address significant community, health, safety, and labor issues, in consultation with locally affected peoples, and in accordance with national laws and ADB safeguard requirements.

67. Implementation of LARP activities are the sole responsibility of the executing agency or implementing agency (as applicable). Implementation of LARP activities shall be closely monitored by the responsible party and performance shall be reported back to the ADB on a six monthly basis. LARP activities will be carried out in line with applicable ADB policies. During this process, the executing agency/implementing agency will ensure to improve or at least restore the quality of life of all displaced persons.

68. The Borrower shall ensure that the core labor standards and the Borrower's applicable laws and regulations are complied with during Project implementation. The Borrower shall include specific provisions in the bidding documents and contracts financed under the project requiring that the contractors, other provider of goods and services and their subcontractors: (i) comply with the Borrower's applicable labor law and regulations and incorporate applicable workplace occupational safety norms; (ii) do not use child labor; (iii) do not discriminate workers in respect of employment and occupation by providing, inter alia, equal pay for men and women [or people from different ethnic groups] for work of equal value, and to the extent possible, employing women and local people, including disadvantaged people, living in the Project area, provided that the requirements for efficiency are adequately met; (iv) do not use forced labor; (v) allow freedom of association and effectively recognize the right to collective bargaining; and (vi) disseminate, or engage appropriate service providers to disseminate, information on the risks of sexually transmitted diseases, including HIV/AIDS, to the employees of contractors engaged under the project and to members of the local communities surrounding the project area, particularly women. The borrower shall strictly monitor compliance with the labor standards and provide ADB with regular reports.

VIII. GENDER AND SOCIAL DIMENSIONS

69. The alignment of the proposed transmission line will traverse through two provinces i.e. East Java and Bali provinces covering three regencies (Probolinggo, Situbondo and Banyuwangi) in East Java province and two regencies (Jembrana and Tabanan) in Bali province. The total population of these three regencies is 4,106,193 (2008) of which 719,176 are resident in Jembrana and Tabanan regencies, who along with entire Bali region, will benefit from uninterrupted power supply as well as improved economic conditions by overall development of the region. A socio-economic survey was carried out in the project area in 20 villages covering 1210 affected households. The inventory of losses (IOL) was made for all these. Socio-economic survey was done for 344 affected families comprising about 28% of the affected people and for 115 non-affected families. The survey revealed that approximately 21 percent of the people live below national poverty line for year 2010.

70. The project design will seek to promote the needs and priorities of the poor and women, as identified during the survey and consultations, in terms of the following design criteria: (i) the project meets Government and ADB's social, poverty and gender policy objectives; (ii) the project is affordable by, and accessible to the poor; and (iii) the project meets the expressed needs of the beneficiary communities, especially in terms of women and the poor.

71. The poor will be direct beneficiaries of the project in terms of improved quality and sufficient quantity of electricity. The project will result in tangible and positive impacts in terms of improved electricity supply and benefits as a result of improved health and education services and increased work efficiency. This in turn, will, lead to households spending less money on alternative of electricity and improved quality of life.

72. The project aims to maximize the social and poverty benefits, and avoid or minimize negative social impacts through implementation of the safeguard policy. It will contribute in reduction of dependency on alternate energy generation and use of conventional fuels for lighting and other purposes in households and will add to savings due to expenditure on alternates. No impacts on Indigenous Peoples are expected from the project.

73. The project design features include: (i) priorities for employment of local men and women for both physical works and routine maintenance, particularly from poor households; (ii) contractor specifications for provision of HIV/AIDS/STDs awareness and prevention programs for construction crews and surrounding communities; and (iii) a public consultation and participation program linked to different aspects of project preparation and implementation (including participation in monitoring).

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. Project Design and Monitoring Framework

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
<p>Impact</p> <p>Long-term power supply security to support sustained socioeconomic growth in Bali</p>	<p>Bali's projected power demand of 1,619 MW in 2022 met Baseline: 618 MW in 2012</p> <p>Reliability of power supply enhanced by reduction in loss of load probability to 0.274% by 2022 (equates to 1 day/year power interruption) Baseline: 9% in 2012</p>	<p>PLN annual statistics</p> <p>PLN's Power Supply Business Plan, which is revised yearly (RUPTL)</p>	<p>Assumptions</p> <p>Government's support and commitment to the power sector</p> <p>Power development plans (transmission and distribution) in Bali implemented in parallel</p>
<p>Outcome</p> <p>Increased capacity of the Java–Bali power transmission network</p>	<p>Power transmission capacity between Java and Bali increased to 2,260 MVA by 2018</p> <p>Baseline: 230 MVA in 2012</p>	<p>PLN annual statistics</p> <p>PLN operations reports</p>	<p>Assumption</p> <p>Planned additional power generation plants in Java are completed</p>
<p>Outputs</p> <p>1. Development of 500 kV transmission networks between Java and Bali</p> <p>2. Development of 500/150 kV and 150/20 kV substations in Java and Bali</p> <p>3. Project management support</p>	<p>220 km of additional 500 kV transmission lines connected to the Java–Bali grid by 2018</p> <p>2x500 MVA capacity, 500/150 kV new substation added to the Java–Bali grid by 2018</p> <p>Eleven 150/20 kV substations upgraded, adding 600 MVA capacity by 2018</p> <p>Completion of land acquisition and resettlement plan by December 2016</p> <p>Completion of the construction, testing, and commissioning of proposed transmission lines and substations by March 2018</p> <p>Completion of EMP during construction by March 2018</p> <p>20 PLN staff trained on implementation and monitoring of EMP and LARP by June 2015</p>	<p>PLN annual statistics</p> <p>PLN operations reports</p> <p>ADB review missions</p> <p>ADB project mid-term review and completion reports</p>	<p>Assumptions</p> <p>Major environmental impacts mitigated</p> <p>Stakeholders fully support the project</p> <p>Risk</p> <p>Unforeseen delays in acquiring right of way and resettlement</p>

<p>Activities with Milestones</p> <p>1. 500 kV transmission networks developed</p> <p>1.1. Preliminary design, specifications, and bid documents completed and approved by 10 December 2013</p> <p>1.2. EPC contracts awarded by 30 June 2014</p> <p>1.3. LARP implementation in place by March 2014 and completed by December 2015</p> <p>1.4. EMP implementation in place by June 2014 and completed by 31 March 2018</p> <p>1.5. Construction, testing, and commissioning completed by 31 March 2018</p> <p>2. 500/150 kV and 150/20 kV substations developed</p> <p>2.1. Preliminary design, specifications, and bid documents completed and approved by 10 Decemberr 2013</p> <p>2.2. EPC contracts awarded by 30 June 2014</p> <p>2.3. LARP implementation in place by March 2014 and completed by June 2015</p> <p>2.4. EMP implementation in place by June 2014 and completed by 31 March 2018</p> <p>2.5. Construction, testing, and commissioning completed by 31 March 2018</p> <p>3. Project management support</p> <p>3.1 Recruitment of PIC and SMC completed by 15 April 2014</p> <p>3.2 First review mission by 31 December 2014 and follow-up missions every 6 months</p> <p>3.3 Midterm review mission in March 2016</p> <p>3.4 Monitoring of LARP until construction completed 31 March 2018</p> <p>3.5 Monitoring of EMP until construction completed 31 March 2018 and beyond</p> <p>3.6 Training for PLN staff on ADB procedures, including implementation, procurement, use of consultants, disbursement, reporting, monitoring, and prevention of fraud and corruption in June 2014 and March 2015 (3 days, 15 participants)</p> <p>3.7 Capacity building programs on the implementation and monitoring of LARP; first program in June 2014 and second program in November 2014 (3 days each, 10 participants)</p> <p>3.8 Capacity building programs on implementation and monitoring of EMP; first program in June 2014, second program in November 2014, and refreshing program in June 2015 (3 days each, 10 participants)</p> <p>3.9 Issuance of quarterly project progress reports, including separate reports for LARP and EMP implementation</p> <p>3.10 Issuance of semi-annual environment monitoring reports</p> <p>3.11 Issuance of semi-annual resettlement monitoring reports</p> <p>3.12 Issuance of project completion report by December 2019</p>	<p>Inputs</p>			
	<p>Total Inputs:</p>	<p>\$410 .0 million</p>		
	<p>Item</p>	<p>Amount (\$ million)</p>		
	<p>ADB loan:</p>	<p>224.0</p>		
	<p>Civil works</p>	<p>28.1</p>		
	<p>Equipment</p>	<p>159.1</p>		
	<p>Consulting services</p>	<p>3.0</p>		
	<p>Contingencies</p>	<p>33.8</p>		
	<p>ASEAN Infrastructure Fund Cofinancing:</p>	<p>25.0</p>		
	<p>Civil works</p>	<p>3.1</p>		
<p>Equipment</p>	<p>17.8</p>			
<p>Consulting services</p>	<p>0.3</p>			
<p>Contingencies</p>	<p>3.8</p>			
<p>Government Financing:</p>	<p>161.0</p>			
<p>Civil works</p>	<p>15.2</p>			
<p>Equipment</p>	<p>40.5</p>			
<p>Land acquisition and resettlement</p>	<p>29.1</p>			
<p>Environmental management</p>	<p>1.1</p>			
<p>Taxes and duties</p>	<p>29.6</p>			
<p>Contingencies</p>	<p>26.426.8</p>			
<p>Financing charges during implementation</p>	<p>49.418.7</p>			

ADB = Asian Development Bank, ASEAN = Association of Southeast Asian Nations; EMP = environmental management plan; EPC = engineering, procurement, and construction; km = kilometer; kV = kilovolt; LARP = land acquisition and resettlement plan; MVA = megavolt-ampere; MW = megawatt; PIC = project implementation consultant; PLN = Perusahaan Listrik Negara; RUPTL = Rencana Usaha Penyediaan Tenaga Listrik (Electricity Power Supply Business Plan); SMC = safeguards monitoring consultants.

Source: ADB estimates.

B. Monitoring

74. **Project performance monitoring.** The PMU will establish a performance monitoring system for the project. The performance reports for each component will be compiled for preparation of the overall project performance reporting in accordance with established government procedures. Completion reports will be prepared for each component within three months of completion, and overall project completion report will be prepared within six months of project completion. The PIU will prepare quarterly progress reports and submit these to ADB within 45 days of the end of each quarter. These reports will include (i) a narrative description of progress made during the period; (ii) changes in the implementation schedule; (iii) problems or difficulties encountered; (iv) work to be carried out during the next period; (v) progress on environmental and social compliance; (vi) a report on implementation of the EMPs; and (vii) compliance with conditions of the loan and project agreements. The progress reports will include project expenditures during the period and total expenditures to date. Performance will be evaluated on the basis of indicators and targets stipulated in the design and monitoring framework. The ADB project team will prepare periodic and annual reports to inform ADB's board of directors of overall progress, and supplemental progress reports prior to management approval of loan agreements.

75. **Compliance monitoring.** In addition to the standard assurances, compliance with specific assurances will be monitored. Government, through PLN, will ensure that the all components under the project are undertaken and that all project facilities are designed, implemented, operated, and maintained in accordance with all applicable laws and regulations of the government and PLN, and ADB's Safeguard Policy Statement. PLN will monitor, audit, and report to ADB quarterly on implementation of the EMP for the Project. Government will ensure that all associated projects will be constructed and commissioned in compliance with the laws and regulations of government. Independent SMCs will verify the implementation of the EMP and LARP.

76. **Safeguards monitoring.** The Borrower shall do the following or cause PLN to do the following:

- (i) Submit quarterly safeguards monitoring reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission;
- (ii) If any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the EIA, the EMP, and the LARP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and
- (iii) Report any actual or potential breach of compliance with the measures and requirements set forth in the EMP, or the LARP promptly after becoming aware of the breach.

77. ADB will implement a Technical Assistance to provide long term conservation benefits through the strengthening of operational management, monitoring and capacity of the park authorities.

78. PLN will submit progress and completion reports on land acquisition and resettlement through the quarterly progress reports for each project. In addition, the external monitoring report shall be submitted to ADB on a semi-annual basis for review with regard to land acquisition and resettlement.

79. PLN will cause to ensure that prior to land acquisition and any resettlement under each component, the resettlement plan including its update based on consensus of affected people, is disclosed with all necessary information made available to people affected by the project and confirm that it is uploaded onto ADB's web site.

80. **Gender and social dimensions monitoring.** Gender issues are not expected to arise from the implementation of the project hence a gender action plan is not required. The project will have a positive impact on women. Gender impacts of electricity supply projects are generally favorable, as electricity will benefit the population regardless of gender. It is evident that increased access and secured electricity supply services will benefit the women of the area. Their domestic work efficiency will be improved and increase access to key social services, education, health facilities, etc.

81. During the project implementation, the project authority will provide equal employment opportunities to both man and women in the civil works and related services with proper health safeguards. The executing agency will ensure that affected women from the land acquisition are consulted and invited to participate in group-based activities to enable them to gain access to and control over resources. PLN will be responsible for participation of poor female-headed households given special priority.

C. Evaluation

82. ADB and the government will review project implementation jointly at least once a year. In addition, ADB and the government will undertake a comprehensive mid-term review in March 2016. ADB will review the project implementation based on the quarterly progress reports and will field regular review missions every six months to review physical progress including status of contract awards, disbursements, implementation of the LARP and EMP. During the field missions, ADB will meet with PLN and the government to discuss the progress of the individual components and any changes to implementation arrangements or remedial measures required to be undertaken towards achieving the objectives of the projects and the financing facility. If required, special project administration missions will be conducted to address critical issues arising during implementation which need urgent attention.

D. Reporting

83. PLN will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions; (c) updated procurement plan; and (d) updated implementation plan for next 12 months; and (iii) a project completion report within 6 months of physical completion of the Project. To ensure projects continue to be both viable and sustainable, project accounts and the executing agency AFSs, together with the associated auditor's report, should be adequately reviewed.

E. Stakeholder Communication Strategy

84. PLN consulted with stakeholders, including affected communities and government officials, during initial design and project preparation stage. Local communities are consulted as part of the social and resettlement study to gather their views on the proposed projects under the project. All affected people have been consulted on a one-on-one basis through

questionnaire surveys. Additionally, focus group discussions are conducted within the project influence areas. Consultations will continue during the entire project cycle according to a stakeholder participation plan. The stakeholder communications strategy is presented in Table 14.

Table 14: Stakeholder Communication Strategy

Project Information to be Communicated	Means of Communication	Responsible for Communication	Audience	Frequency
Report and Recommendation of the President with linked documents	ADB website	ADB	ADB, government, development partners, civil society, individuals	Once
Project information while planning/ designing	Discussions and stakeholders consultation	PLN	Project beneficiaries	Regular intervals during planning and design
Status of implementation during construction	Boards at sites	PLN/ Contractors	Project beneficiaries	Regular updating at construction sites
Project Performance Reports and Project Information Documents	ADB website	ADB	ADB, government, development partners, civil society, individuals	Quarterly
Quarterly progress reports	PLN website	PLN	ADB, government, development partners, civil society, individuals	Quarterly
Project Completion Report	ADB website	ADB	ADB, government, development partners, civil society, individuals	Once

ADB = Asian Development Bank, PLN = Perusahaan Listrik Negara.
Source: ADB Project team.

X. ANTICORRUPTION POLICY

85. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the Project.¹¹ All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all Project contractors, suppliers, consultants and other service providers. Individuals/entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the Project.¹²

86. To support these efforts, relevant provisions are included in the loan agreement and the bidding documents for the Project.

87. **Governance.** ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government, and PLN. To ensure transparency and good governance, PLN will publicly disclose on its website information on how loan proceeds are being used. For each procurement contract, PLN will disclose (i) the list of participating bidders, (ii) the name of the winning bidder, (iii) basic details on bidding procedures adopted, (iv) the amount of the contract awarded, (v) a list of goods and services purchased, and (vi) the intended and actual utilization of loan proceeds under each contract being awarded.

88. Any individual obtaining information of fraudulent, corrupt or collusive practices will immediately contact ADB's Office of the Auditor General and report the same:

Contact Office of Anticorruption ¹³ and Integrity: ¹⁴	By email: integrity@adb.org or anticorruption@adb.org By phone: +63-2-632-5004 By fax: +63-2-636-2152 By mail at the following address (Please mark correspondence <i>Strictly Confidential</i>) Office of the Anticorruption and Integrity (OAI) Asian Development Bank 6 ADB Avenue Mandaluyong City 1550 Metro Manila, Philippines http://www.adb.org/OAI/default.asp
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¹¹ Available at: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

¹² ADB's Integrity Office web site is available at: <http://www.adb.org/integrity/unit.asp>

¹³ Available at: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

¹⁴ ADB's Integrity Office web site is available at: <http://www.adb.org/integrity/unit.asp>

XI. ACCOUNTABILITY MECHANISM

89. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make a good faith effort to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.¹⁵

Contact Details:	Secretary Compliance Review Panel Asian Development Bank 6 ADB Avenue Mandaluyong City 1550 Metro Manila, Philippines Telephone: +63-2-632-4149 Fax: +63-2-636-2088 Email crp@adb.org Web: www.compliance.adb.org
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¹⁵ For further information see: <http://www.adb.org/Accountability-Mechanism/default.asp>.

XII. RECORD OF PAM CHANGES

90. Approved on 25 October 2013 during loan technical discussions.

Appendix 1

	Rp in million			\$ in million			% of Total Base Cost
	Foreign Exchange	Local Currency	Total Cost	Foreign Exchange	Local Currency	Total Cost	
A Investment Costs							
1. Component 1: Expansion of 500 kV Transmission Network							
Subcomponent 1.1: Paiton Watudodal 500 kV Transmission Line							
1 Civil Works	3,291	91,879	95,170	0.3	7.6	7.9	2.4
2 Equipment	766,228	0	766,228	63.3	0.0	63.3	19.4
3 Land Acquisition and Resettlement	0	112,679	112,679	0.0	9.3	9.3	2.8
4 Environmental Management	0	3,694	3,694	0.0	0.3	0.3	0.1
5 Taxes and Duties	0	96,802	96,802	0.0	8.0	8.0	2.4
Subtotal (1.1)	769,518	305,054	1,074,573	63.6	25.2	88.8	27.2
Subcomponent 1.2: Watudodal-Segara Rupek 500 kV Overhead Sea Crossing							
1 Civil Works	40,391	83,198	123,589	3.3	6.9	10.2	3.1
2 Equipment	357,885	44,340	402,224	29.6	3.7	33.2	10.2
3 Land Acquisition and Resettlement	0	0	0	0.0	0.0	0.0	0.0
4 Environmental Management	0	2,255	2,255	0.0	0.2	0.2	0.1
5 Taxes and Duties	0	59,090	59,090	0.0	4.9	4.9	1.5
Subtotal (1.2)	398,276	188,882	587,158	32.9	15.6	48.5	14.8
Subcomponent 1.3: Segara Rupek-Gilimanuk 500 kV Transmission Line							
1 Civil Works	0	40,173	40,173	0.0	3.3	3.3	1.0
2 Equipment	0	88,505	88,505	0.0	7.3	7.3	2.2
3 Land Acquisition and Resettlement	0	0	0	0.0	0.0	0.0	0.0
4 Environmental Management	0	552	552	0.0	0.0	0.0	0.0
5 Taxes and Duties	0	14,461	14,461	0.0	1.2	1.2	0.4
Subtotal (1.3)	0	143,690	143,690	0.0	11.9	11.9	3.6
Subcomponent 1.4: Gilimanuk-New Kapal 500 kV Transmission Line							
1 Civil Works	6,264	55,421	61,686	0.5	4.6	5.1	1.6
2 Equipment	460,523	0	460,523	38.1	0.0	38.1	11.6
3 Land Acquisition and Resettlement	0	121,636	121,636	0.0	10.1	10.1	3.1
4 Environmental Management	0	2,239	2,239	0.0	0.2	0.2	0.1
5 Taxes and Duties	0	58,685	58,685	0.0	4.8	4.8	1.5
Subtotal (1.4)	466,787	237,981	704,768	38.6	19.7	58.2	17.8
2. Component 2: Expansion of Substations							
Subcomponent 2.1: Paiton 500 kV Substation Extensions							
1 Civil Works	0	77,992	77,992	0.0	6.4	6.4	2.0
2 Equipment	257,395	0	257,395	21.3	0.0	21.3	6.5
3 Land Acquisition and Resettlement	0	0	0	0.0	0.0	0.0	0.0
4 Environmental Management	0	1,438	1,438	0.0	0.1	0.1	0.0
5 Taxes and Duties	0	37,690	37,690	0.0	3.1	3.1	1.0
Subtotal (2.1)	257,395	117,120	374,516	21.3	9.7	30.9	9.5
Subcomponent 2.2: New Kapal 500 kV Substation							
1 Civil Works	0	142,259	142,259	0.0	11.8	11.8	3.6
2 Equipment	442,271	0	442,271	36.5	0.0	36.5	11.2
3 Land Acquisition and Resettlement	0	117,763	117,763	0.0	9.7	9.7	3.0
4 Environmental Management	0	2,506	2,506	0.0	0.2	0.2	0.1
5 Taxes and Duties	0	65,688	65,688	0.0	5.4	5.4	1.7
Subtotal (2.2)	442,271	328,217	770,488	36.5	27.1	63.7	19.5
Subcomponent 2.3: Upgrading of 150 kV Substation Extension							
1 Civil Works	0	19,934	19,934	0.0	1.6	1.6	0.5
2 Equipment	214,587	0	214,587	17.7	0.0	17.7	5.4
3 Land Acquisition and Resettlement	0	0	0	0.0	0.0	0.0	0.0
4 Environmental Management	0	1,006	1,006	0.0	0.1	0.1	0.0
5 Taxes and Duties	0	26,355	26,355	0.0	2.2	2.2	0.7
Subtotal (2.3)	214,587	47,294	261,881	17.7	3.9	21.6	6.6
3. Project Management Support	20,774	19,676	40,449	1.7	1.6	3.3	1.0
Total Base Cost	2,569,609	1,387,915	3,957,524	212.3	114.7	326.9	100.0
B Contingencies							
1 Physical (b)	256,961	138,791	395,752	21.2	11.5	32.7	10.0
2 Price	167,943	215,257	383,200	13.9	17.8	31.7	9.7
Subtotal (B)	424,903	354,049	778,952	35.1	29.3	64.4	19.7
C. Financing Charges During Implementation							
1 Interest During Implementation	221,892	0	221,892	17.9	0.0	17.9	5.5
2 Commitment Charges	9,209	0	9,209	0.8	0.0	0.8	0.2
Subtotal (C)	231,101	0	231,101	18.7	0.0	18.7	5.7
Total Project Cost(A+B+C)	3,225,613	1,741,964	4,967,577	266.1	143.9	410.0	

Source: ADB Project team, Perusahaan Listrik Negara

OUTLINE TERMS OF REFERENCE

PROJECT IMPLEMENTATION CONSULTANTS

A. Objective/Purpose of the Assignment

1. The services will be for 48 elapsed months full-time starting from April 2014, based in either East Java or Bali, Indonesia (precise location to be determined), to manage the State Electricity Company's (PLN)¹⁶ Java–Bali 500-kilovolt (kV) Power Transmission Crossing Project. The project comprises seven investment components outlined below:

- (i) **Component 1:** Extension of the existing Paiton substation in East Java. This is a major 500 kV pooling substation located approximately 100 kilometers (km) southeast of Surabaya on the north coast of East Java. The substation will be expanded through the establishment of two new 500 kV transmission line circuits and two number 50 megavolt ampere reactive (MVAR) switching reactors in an existing empty bay in the substation premises.
- (ii) **Component 2:** Construction of a 131 km 500 kV overhead transmission line from Paiton to Watudodol in East Java. The transmission line will start at the Paiton substation extension and terminate at Watudodol, the location for the Java side Bali Strait crossing tower, and will include an estimated 308 transmission towers. Double circuit, quadruple zebra (400 mm²) conductors will be utilized.
- (iii) **Component 3:** Construction of 4 km (with 2.68 km single span across Bali strait) 500 kV double circuit transmission line overhead crossing of the Bali Strait from Watudodol (Java side) to Segara Rupek (Bali Side).
- (iv) **Component 4:** Construction of a 10 km of 500 kV double circuit transmission line through the Bali Barat National Park from Segara Rupek to Gilimanuk (24 transmission towers in total).
- (v) **Component 5:** Construction of a 75 km 500 kV overhead transmission line from Gilimanuk to New Kapal (Antosari), Bali.
- (vi) **Component 6:** Construction of a new 500/150 kV distribution substation at New Kapal in Bali.
- (vii) **Component 7:** Upgrading eleven 150 kV substations in Java and Bali.

2. PLN requires an international consulting firm to assist in project implementation and administration of various components of the project including assistance to establish project management systems and capacity building.

B. Scope of Work

3. The primary responsibilities of the project implementation consultants (PIC) are: to advise and assist PLN's Project Management Unit (PMU) and the PIU in the management,

¹⁶ PT (Persero) Perusahaan Listrik Negara.

administration and implementation of the physical investments financed under the Project; capacity development PLN staff and coordination with the independent SMCs to be engaged separately.

C. Detailed Tasks

4. Specific tasks will include, but not be limited to the following:

a. Preconstruction Phase

- (i) Review PLN's project management and administration procedures for the project and recommend modifications or additional procedures consistent with Asian Development Bank (ADB) and best international practice.
- (ii) Review project implementation arrangements covering the project organization, payment procedures, and project time schedule and prepare quality assurance program. The consultant will also establish a computerized project monitoring program using appropriate software packages.
- (iii) Prepare an overall disbursement plan
- (iv) Advise and assist the PLN in the review of design changes, design drawings, bills of quantities to properly define the work, ensuring proper technical coordination among separate contract packages.
- (v) Reviewing the land acquisition and resettlement plan (LARP), assessing whether a new affected person (AP) census and impacts assessment is needed, and updating the RP detailing appropriate and possibly additional compensation entitlements in compliance with ADB's *Safeguard Policy Statement (2009)*. Ensure that no construction takes place in the affected areas before the compensation program detailed by the LARP is fully implemented and ADB provides no-objection to contractors' mobilization

b. Construction Phase

- (i) Review and approve the engineering design drawings, calculations, delivery program, and documents submitted by the contractors and provide PLN with technical advice.
- (ii) Develop and implement applicable procedures required to ensure adequate control of the manufacturing, factory tests, delivery, and acceptance of the materials and equipment.
- (iii) Assist PLN in preparing withdrawal applications and submission to ADB, preparing the project accounts, recording the project expenditures, preparing the annual financial reports and reports regarding compliance with loan covenant for submission to ADB.
- (iv) Keep records of all disbursements under the Project. Prepare and update on a regular basis the forecast disbursement schedule.
- (v) Review of Contractors Environmental Management Plan (EMP).
- (vi) Ensure that environmental and social safeguards are implemented in accordance with the contract agreement.
- (vii) Monitor the execution of the project in line with the project time schedules and the work programs provided by the contractors.

- (viii) Advise PLN and seeking approval from ADB for any variation orders to be issued to the contractors.
- (ix) Conduct field visits at regular and appropriate times during construction, testing and commissioning.
- (x) Identify any problem areas during project implementation, proposing remedial actions, and promptly reporting any outstanding issues to the PLN.
- (xi) Advise the PLN on any contractual or technical disputes that may arise between contractors and the PLN during the implementation phase.
- (xii) Review and approve the test reports submitted by the contractors and as required assist PLN in witnessing testing and factory inspections.
- (xiii) Attending the commissioning phase; establishing the list of deficiencies after commissioning; and preparing a time frame for the contractor to remedy the deficiencies, establishing a monitoring program for the use of the PLN.
- (xiv) Review and approve the as-built drawings and operation and maintenance manuals.
- (xv) Prepare and issue provisional acceptance certificate for the works as well as for the spare parts; and prepare the final taking over certificate along with the final payments to be issued by PLN after the end of the warranty period and the remedy of all deficiencies.
- (xvi) Assist PLN in revising the income and livelihood restoration program for the displaced people, grievance redress mechanisms, and monitoring implementation of the same.
- (xvii) Recording of any affected vulnerable people, women headed households etc..
- (xviii) Preparation of Environment Health and safety awareness programs for contractors and conducting and compliance monitoring.
- (xix) Assist PLN and the local government with necessary public consultations, and liaise with PLN and local government to ensure that all compensations are paid in a timely manner.
- (xx) Preparation of stakeholder communication and participation plan.
- (xxi) Consultation of the affected people during the projects implementation according to the stakeholder participation plan.

c. Reporting

- (i) Keep records of all correspondence between PLN, contractors, the consultant, ADB and other co-financiers.
- (ii) Submit monthly reports with respect to the project components, briefly describing physical activities, advisory activities and assistance provided.
- (iii) Assist PLN in preparing all project reports, including quarterly progress reports required to be submitted by PLN to ADB.
- (iv) Assist with the revisions of the LARP and EMP, and ensure that timely reporting on LARPs and EMP implementation is carried out and included in the quarterly report.
- (v) Prepare the project completion report.

d. Capacity Building

- (i) Assess the capacity building requirements of PLN staff and develop capacity building programs appropriate for project implementation, and operation and maintenance of the facilities.
- (ii) Conduct awareness programs to the contractors workman on all safeguards aspects including implementation of EMP, workers environment health and safety.

D. Expected Inputs

5. Total estimated key experts inputs for the consulting services are approximately 207 person-months (62 person-months International and 145 person-months national) as indicated in Table A2.1.

Table A2.1: List of Experts under Project Implementation Consultant

Position/ Area of Expertise		PM Input	
		International	National
a	Team Leader/Transmission Specialist	39	-
b	HVAC Transmission Specialist	-	30
c	HVAC Substation Specialist	10	39 ^a
d	Financial and Contract Administration Specialist	3	12
e	Civil Engineer	3	18
f	Protection and telecommunication Specialist	2	10
g	Social and Resettlement Specialist	2	15
h	Environment Specialist	2	15
l	Environment health and safety expert	1	-
j	Communications and outreach specialist	-	6
	Total	62	145

^a The national substation specialist will be the deputy team leader.

E. Key Positions and Qualifications:

6. The PIC shall deploy a team of international and national specialists. The national experts will co-ordinate with the respective international experts in carrying of their tasks. Key qualifications required by each expert are indicated in Table A2.2.

Table A2.2: Qualifications and Experience Requirements for Consultants

Experts	Key Qualifications
Team Leader / Electrical Engineer/ Transmission Specialist <i>1 international</i>	University degree in engineering; preferably 20 years of professional experience in design and implementation of Extra High Voltage (EHV) transmission and substation projects; preferably 10 years of leadership and experience in management of multi-discipline projects; experience in South East Asia region will be preferred.
Deputy Team Leader/ Electrical Engineer/ HVAC Substation Specialist <i>1 national</i>	University degree in engineering; preferably 20 years of professional experience in design and implementation of EHV transmission and substation projects; preferably 10 years of leadership and experience in management of multi-discipline projects; utility experience and International experience is preferred
Transmission Specialist <i>1 national</i>	University degree in engineering; preferably 10 years of professional experience in design and implementation of EHV transmission projects including large river or sea crossings

Experts	Key Qualifications
Substation Specialist <i>1 international</i>	University degree in engineering; preferably 10 years of professional experience in design and implementation of EHV substations including GIS switchgear
Financial and Contract Specialist <i>1 international</i>	University degree in finance and accounting; preferably 10 years of professional experience managing finances in a power utility including financial analysis of infrastructure projects
Financial and Contract Specialist <i>1 national</i>	University degree in finance and accounting; preferably 8 years of professional experience managing finances in a power utility including financial analysis of infrastructure projects.
Civil Engineer <i>1 international</i>	University degree in Engineering; preferably 12 years relevant experience in civil design of structures and foundations of transmission and substation projects; experience in South East Asia region preferred.
Civil Engineer <i>1 national</i>	University degree in Engineering; preferably 8 years relevant experience in civil design of structures and foundations of transmission and substation projects.
Social and Resettlement Specialist <i>1 international</i>	University degree in social sciences, land management or related disciplines; 10 years' experience in carrying out social assessment and resettlement plans related to infrastructure projects; experience in South East Asia region preferred.
Social and Resettlement Specialist <i>1 national</i>	University degree in social sciences, land management or related disciplines; 8 years' experience in carrying out social assessment and resettlement plans related to infrastructure projects; International experience is preferred.
Environmental Specialist <i>1 international</i>	University degree in Environmental Engineering/Science/Management; preferably 10 years relevant experience in carrying environmental studies including Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA) of infrastructure projects; experience in South East Asia region preferred.
Environment Specialist <i>1 national</i>	University degree in Environmental Engineering/Science/Management; preferably 8 years relevant experience in carrying environmental studies including Environmental Impact Assessment (EIA) and Biodiversity Impact Assessments of infrastructure projects; International experience is an advantage.
Protection and telecommunication specialist <i>1 international</i>	University degree in Electrical Engineering; preferably 7 years relevant experience in the required technical areas (e.g. protection, SCADA, communications, etc.)
Protection and telecommunication specialist <i>1 national</i>	University degree in Electrical Engineering; preferably 7 years relevant experience in the required technical areas (e.g. protection, SCADA, communications, etc.)
Environment health and safety expert <i>1 international</i>	University degree and 6 years general experience and preferably two years relevant experience
Communications and outreach specialist <i>1 national</i>	Related Education qualifications, 6 years general experience and two years specific experience

F. Implementation Arrangement

7. The PIC will work under the overall supervision of the Project Management Unit (PMU) at the PLN headquarters in Jakarta. The consultants will maintain field offices in Bali (Antosari) and East Java (Paiton), and will coordinate with the PIUs at both locations. If necessary, a liaison office may be established at the PLN Surabaya office for PIC staff to work with PIU.

OUTLINE TERMS OF REFERENCE
INDEPENDENT SAFEGUARDS MONITORING CONSULTANTS

A. Objective/Purpose of the Assignment

1. The services will be for three years starting from April 2014, intermittent basis to monitor implementation of environmental management plan (EMP) and land acquisition and resettlement plan (LARP) of PLN's Java Bali 500 kV Power Transmission Crossing Project. The project comprises seven investment components namely:

- (i) **Component 1:** Extension of the existing Paiton substation in East Java. This is a major 500 kV pooling substation located approximately 100 km southeast of Surabaya on the north coast of East Java. The substation will be expanded through the establishment of two new 500 kV transmission line circuits and two number 50 MVAR switching reactors in an existing empty bay in the substation premises.
- (ii) **Component 2:** Construction of a 131 km 500 kV overhead transmission line from Paiton to Watudodol in East Java. The transmission line will start at the Paiton substation extension and terminate at Watudodol, the location for the Java side Bali Strait crossing tower, and will include an estimated 308 transmission towers. Double circuit, quadruple zebra (400 mm²) conductors will be utilized.
- (iii) **Component 3:** Construction of 4 km (with 2.68 km single span across Bali strait) 500 kV double circuit transmission line overhead crossing of the Bali Strait from Watudodol (Java side) to Segara Rupek (Bali Side).
- (iv) **Component 4:** Construction of a 10 km of 500 kV double circuit transmission line through the Bali Barat National Park from Segara Rupek to Gilimanuk (24 transmission towers in total).
- (v) **Component 5:** Construction of a 75 km 500 kV overhead transmission line from Gilimanuk to New Kapal (Antosari), Bali.
- (vi) **Component 6:** Construction of a new 500/150 kV distribution substation at New Kapal in Bali. The substation will allow for onward transmittal of power to 150 kV substations throughout Bali.
- (vii) **Component 7:** Upgrading eleven 150 kV substations in Java and Bali.

B. Scope of Work

2. International independent safeguards monitoring consultants (SMC) will be engaged for: monitoring implementation of EMP and LARP of the Project; and facilitating capacity building. The SMC will provide a total of 48 person-months of services (6 person-months international and 42 person-months national) as indicated in following table.

Position/ Area of Expertise	PM Input	
	International	National
Social and Resettlement Specialist	-	24
Environmental Specialist	6	-
Biodiversity Expert	-	18
Total	6	42

3. The consultant will: (i) verify the information provided by PLN to ADB on EMP and LARP implementation with respect to accuracy, breadth, depth, and relevance; and (ii) in determining if the environmental mitigation and resettlement measures are conducted in thorough and timely manner, and in accordance with the provisions made in the respective plans. These tasks will be undertaken on an intermittent basis over the implementation period covering the construction phase. Monitoring shall be undertaken independently through review of progress reports, site visit and interviews with affected household, local officials and other stakeholders.

C. Detailed Tasks.

4. Specific tasks will include, but not be limited to the following:

- (i) Carry out regular consultations and discussions with the Government, executing agency, implementing agency, project implementation consultants (PIC) and contractors to ensure all parties understand the ADB Safeguard Policy Statement (2009 [SPS]) and requirements;
- (ii) Monitor Implementation of EMP and LARP in accordance with respect to ADB safeguards policy;
- (iii) Assess the capacity and needs of the executing agency in the implementation of EMP and LARP and conduct training programs to upgrade their capacity;
- (iv) Prepare reporting templates during environmental monitoring and guidelines for executing agency staff;
- (v) Assist PLN to prepare corrective action plans following due diligence and monitoring report, mission findings and stakeholder consultation;
- (vi) Advise PLN when social and environmental impacts created by contractors are not being effectively managed;
- (vii) Review the progress and performance of the EMP through environmental and resettlement monitoring reports and covenants;
- (viii) Review and verify the accuracy, breadth, depth and relevance of information provided by PLN to ADB with regard to EMP and LARP implementation;
- (ix) Determine if EMP provisions for mitigation, monitoring and reporting and LARP provisions for resettlement are conducted in a thorough and timely manner and in accordance with the budget provision;
- (x) Submit monthly reports with respect to the project components, describing implementation of EMP and LARP activities, advisory activities and assistance provided; and
- (xi) Carry out social safeguard review missions and/or participate in loan review missions.

D. Key Qualifications

5. The experts will have following key qualifications.

Experts	Key Qualifications
Social and Resettlement Specialist <i>1 national</i>	University degree in social sciences, land management or related disciplines; 12 years' experience in carrying out social assessment and resettlement plans related to infrastructure projects and minimum 4 years' specific experience in safeguards implementation of similar projects.
Environmental Specialist <i>1 international</i>	University degree in Environmental Engineering/Science; preferably 12 years relevant experience in carrying environmental assessments including Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA) of infrastructure projects and minimum 4 years' experience in supervising/monitoring environment safeguards implementation of similar projects, including the monitoring of biodiversity safeguards; experience in South East Asia region preferred.
Biodiversity expert <i>1 national</i>	University degree in Environmental Engineering/Science; preferably 12 years relevant experience in biodiversity assessments, preparation of biodiversity reports environment management and monitoring plans, and monitoring implementation of similar projects, International experience is an advantage.