ASIAN DEVELOPMENT BANK

Nauru: Electricity Supply Security and Sustainability

Project Name	Electricity Supply Security and Sustainability
Project Number	46455-001
Country	Nauru
Project Status	Closed
Project Type / Modality of Assistance	Technical Assistance
Source of Funding / Amount	**TA 8524-NAU: Electricity Supply Security and Sustainability** Technical Assistance Special Fund — US$ 500,000.00
Strategic Agendas	Inclusive economic growth
Drivers of Change	Governance and capacity development Private sector development
Sector / Subsector	**Energy** - Energy utility services
Gender Equity and Mainstreaming	No gender elements
Description	The impact of the Project will be improved livelihoods of households and businesses served by NUC. The outcome of the Project will be increased reliability and lower cost of electric power service in Nauru. The outputs of the project will be (i) new diesel-fired generation put into service to supply reliable base-load power for NUC, (ii) improvements to existing powerhouse structure, specifically repair/replacement of the existing roof and structural reinforcements (e.g. support columns) as identified.

Project Rationale and Linkage to Country/Regional Strategy	1. The proposed Electricity Supply Security and Stability grant project will improve the quality and reliability of electricity service of Nauru''s electric utility (Nauru Utilities Corporation, NUC) to its customers. This will be achieved through the delivery and installation of new diesel-fired generation to provide reliable base-load power for NUC, allowing NUC to retire older generation assets and perform scheduled refurbishment of existing units to extend their service lives. The project will also include improvements to the existing structure housing NUC''s generation units (the powerhouse). 2. NUC''s power sector operations have been the subject of considerable study and review by external development agencies over the past three years. The poor state of NUC's physical assets, and weaknesses of its management systems, are well documented. Nauru''s current diesel-fired generation fleet remains dilapidated, unreliable, and extremely inefficient. All of NUC''s installed generators are operating at far below their capacity, and are nearing the end of their useful lives. The powerhouse is likewise in poor condition, which represents a vulnerability to Nauru''s supply security. While Nauru is virtually 100% electrified, service reliability is extremely poor. Unscheduled and often prolonged interruptions are frequent. As in other parts of the Pacific where significant intermittent renewable generation sources are being introduced into legacy diesel-based systems, Nauru will remain reliant on diesel generation for its baseload and for system stability and reliability for the foreseeable future. 3. The Australian Government has provided millions of dollars of support to NUC over the past decade to cover recurring costs and the procurement of distribution and generation assets. Recently, the Australian Government has shifted its support to build NUC''s capacity by funding the appointment of expatriate management-level personnel to address long-term systemic shortcomings within NUC. The European Union has recently extended a $1.3 million grant for NUC to fund the procurement and installation of distribution transformers, conductors, poles, and essential maintenance and safety equipment for linemen to bolster network reliability and efficiency. 4. Urgent investment requirements have been identified as high priorities to improve service reliability and mitigate the risk of catastrophic failure of NUC''s power generation. Among NUC''s investment priorities are structural improvements to the powerhouse and the introduction of 2.8-3.0 MW (estimated) of new diesel-fired generation to replace existing generation, improve reliability, and reduce fuel costs. NUC estimates that this will result in a 20% improvement in generation efficiency from the current 3.4 kWh to 4.1 kWh generated per liter of diesel consumed. The introduction of reliable and more efficient diesel generation will also allow NUC to schedule retirement or rehabilitation of existing, ageing assets and provide for improved reliability. 5. In consideration of the above, and following extensive consultation with Nauru stakeholders, the focus of the proposed grant will be to address the reliability of Nauru''s diesel-fired generation, which is vital to the functioning of Nauru''s economy. Procurement of new, fuel efficient generation capacity will serve near-term system reliability needs, and is entirely consistent with Nauru''s policy orientation in favor of the introduction of significant renewable (solar) capacities, as Nauru''s power system will continue to rely on diesel for baseload generation. 6. The proposed project is included in the ADB Country Operations Business Plan for Nauru (2014-2016), which prioritizes investment in improving the energy-efficiency of Nauru''s economy, characterized as the least energy-efficient in the Pacific. The project is entirely consistent with the Government of Nauru''s policy priorities and draft Energy Road Map (expected to be formally adopted in Q4 2013). The proposed project aligns well with other donors' support to Nauru''s energy sector. Australian Government support to NUC''s management is expected to continue. The European Union''s program for distribution system upgrades and rehabilitation addresses corresponding investment requirements in network capacity, reliability, and loss reduction. Improvement in reliability and efficiency of Nauru''s base-load diesel generation fits with Nauru''s long-term sector objective of increasing generation from renewable sources.
Impact	

Project Outcome

Description of Outcome
Progress Toward Outcome
Implementation Progress
Description of Project Outputs
Status of Implementation Progress (Outputs, Activities, and Issues)
Geographical Location

Summary of Environmental and Social Aspects

Environmental Aspects
Involuntary Resettlement
Indigenous Peoples
Stakeholder Communication, Participation, and Consultation
During Project Design

During Project Implementation	Project was completed October 2014.

Business Opportunities

Consulting Services	The PPTA will require five international consultants (ten months) and one national consultant (two months) to be hired through a consulting firm. Consultants will be engaged by ADB in accordance with the Guidelines on the Use of Consultants (2013, as amended from time to time). The consulting firm will be engaged through the quality- and cost-based selection method (quality-cost ratio of 90:10) using a simplified technical proposal. The procurement of equipment by consultants under the technical assistance will follow ADB's Procurement Guidelines (2013, as amended from time to time). The proceeds of the technical assistance will be disbursed in line with ADB's Technical Assistance Disbursement Handbook (2010, as amended from time to time). The equipment procured under the technical assistance will be turned over to NUC upon technical assistance completion.
Procurement	The project will be implemented over a two-year period. The Ministry of Commerce, Industry and Environment (MCIE) will serve as the Executing Agency. NUC will serve as the Implementing Agency, and will host a Project Management Unit (PMU), to be supported by implementation consultants. A Project Steering Committee (PSC) will be established to oversee project implementation. The PSC will comprise NUC general manager for power operations, a representative of the European Union, and representatives of other contributing donor agencies (if any). Consultants will be recruited per ADB's Guidelines on the Use of Consultants (2013, as amended from time to time), through a consulting firm. Procurement of works, goods, equipment, and other services will be carried out in accordance with ADB's Procurement Guidelines (2013, as amended from time to time) and will likely be conducted through international competitive bidding (ICB), national competitive bidding (NCB) or shopping procedures (international), as appropriate. Universal procurement will apply. Project disbursements will be in accordance with ADB's Loan Disbursement Handbook (2012, as amended from time to time).

Responsible Staff

Responsible ADB Officer	Trainor, James Michael
Responsible ADB Department	Pacific Department
Responsible ADB Division	Transport, Energy and Natural Resources Division, PARD
Executing Agencies	*Ministry of Commerce, Industry and Environment* *Government House, Yaren Nauru*

Timetable

Concept Clearance	-
Fact Finding	-
MRM	-
Approval	28 Nov 2013
Last Review Mission	-
Last PDS Update	28 Nov 2014

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Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
28 Nov 2013	10 Jan 2014	10 Jan 2014	30 Jun 2014	31 Oct 2014	-

Financing Plan/TA Utilization							Cumulative Disbursements	
ADB	Cofinancing	Counterpart				Total	Date	Amount
		Gov	Beneficiaries	Project Sponsor	Others			
500,000.00	0.00	0.00	0.00	0.00	0.00	500,000.00	28 Nov 2013	364,285.00

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