



Vanuatu: Energy Access Project

Project Name	Energy Access Project										
Project Number	49450-008										
Country	Vanuatu										
Project Status	Approved										
Project Type / Modality of Assistance	Grant Loan										
Source of Funding / Amount	<table border="1"><tr><td colspan="2">Grant: Energy Access Project</td></tr><tr><td>concessional ordinary capital resources lending / Asian Development Fund</td><td>US\$ 2.50 million</td></tr><tr><td>Strategic Climate Fund - PPCR</td><td>US\$ 7.00 million</td></tr><tr><td colspan="2">Loan: Energy Access Project</td></tr><tr><td>concessional ordinary capital resources lending / Asian Development Fund</td><td>US\$ 2.50 million</td></tr></table>	Grant: Energy Access Project		concessional ordinary capital resources lending / Asian Development Fund	US\$ 2.50 million	Strategic Climate Fund - PPCR	US\$ 7.00 million	Loan: Energy Access Project		concessional ordinary capital resources lending / Asian Development Fund	US\$ 2.50 million
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Strategic Agendas	Environmentally sustainable growth Inclusive economic growth Regional integration										
Drivers of Change	Knowledge solutions Partnerships Private sector development										
Sector / Subsector	Energy - Renewable energy generation - small hydro										
Gender Equity and Mainstreaming	Effective gender mainstreaming										
Description	The project will increase energy access and renewable energy generation in the two islands of Espiritu Santo and Malekula, being second and third largest population centers after Efate. The project will assist Vanuatu install hydropower generation to replace diesel generation in Malekula and will extend the distribution grid in both Malekula and Espiritu Santo. Project preparatory technical assistance was used in project preparation.										

Project Rationale and Linkage to Country/Regional Strategy

Vanuatu has a population of 234,000 (2009) which is geographically dispersed over more than 80 islands. 75.6% of the population is rural. Economic development is largely focused within urban areas. Access to electricity nationwide is low (33%), however drops even further in rural areas. Low access to reliable, affordable electricity has negative impact on the livelihoods of households, particularly rural households. Where electricity is available in the provinces, it is largely diesel generated. Cost of electricity is high, however, quality of supply is high which is partially due to the electricity grids being operated by the private sector. High cost and limited access to electricity is having a negative impact on economic development, particularly in the provinces. Over-reliance on imported fossil fuels (diesel) also has a negative macro-economic impact. In order to address these issues, the Government of Vanuatu has requested ADB to support development of least-cost renewable energy (hydropower) and grid extensions in targeted provincial centers.

Access to electricity is low. While the national electricity access rate is 33% of households, there is wide variation, from 82% access in urban areas to 17% access in rural areas. Of the 33% households who have access 64% are connected to the grid, while the remainder rely on solar systems or diesel generators. Household access to grid-connected electricity is 21.5% in Espiritu Santo and 8.2% in Malekula. The main reasons for the low access rates are (i) lack of government community service obligation funding for grid extensions, (ii) difficult geography and small, dispersed pockets of population, (iii) low capacity to pay in some areas, and (iv) the high cost of diesel power generation in the provincial centers due to difficult supply chains and small size of grids, which provides a disincentive to increase customers (where generation and supply costs exceed the tariff) particularly given the low lifeline tariff. Significant unmet demand means that people resort to self-generation but would connect to the grid if sufficient capacity were available. The limited reach of the distribution grid is slowing economic growth, particularly in the agriculture and tourism sectors. There is significant opportunity to increase the access rate through extensions of the existing distribution grid to peri-urban areas and establishing sustainable household solar system rollout models.

Provision of modern electricity services to communities through distribution extensions (as opposed to household based solar systems) has been demonstrated to support economic growth, particularly where supporting existing infrastructure is in place, such as (i) access roads to markets, (ii) communication systems, and (iii) agricultural produce suitable for value adding. Social benefits of grid extensions include (i) replacing kerosene lighting with a cheaper form of energy, thereby freeing household expenditure, (ii) enabling household income generation, (iii) improving children's education, and (iv) reducing indoor health and safety issues associated with burning kerosene. Over-reliance on imported diesel for power generation has a negative macro-economic impact. The cost of petroleum product imports typically exceeds 17% of total imports and 85% of the total value of Vanuatu's exports. On a macro-economic level, increasing renewable energy in the national energy mix will (i) improve balance of trade by reducing fossil fuel imports, (ii) improve energy security, and (iii) reduce greenhouse gas emissions which contribute to global warming.

Electricity tariffs are high which is impeding economic growth. Over-reliance on diesel power generation has placed upward pressure on electricity tariffs. Diesel power generation is more expensive than renewable energy options such as hydropower. Renewable energy generation will benefit the economy by (i) placing downward pressure on tariffs, (ii) minimizing tariff volatility by partially converting the national grid to renewable energy, (iii) supporting growth of the private sector, and (iv) reducing household expenditure on electricity.

In order to address the above barriers, the Project will construct the Brenwe Hydropower Plant which would displace an estimated 90% of the diesel generation in Malekula. The Project will increase the residential customer base in Espiritu Santo by 25% and in Malekula by 90%. Hydropower has been assessed to be the least-cost baseload generation option for Malekula.

Sector policy is managed by the Department of Energy (DOE) within the Ministry of Climate Change, Adaptation, Meteorology & Geohazards, Energy, Environment and Natural Disaster Management (MOCC). Vanuatu is unique amongst ADB Pacific Island Member Countries (PICs) as electricity is generated and supplied by the private sector. There are four separate private sector contracts which operate standalone island grids. These consist of three concessions in Efate (Port Vila), Malekula and Tanna held by UNELCO EDF Suez (UNELCO) and one memorandum of agreement in Espiritu Santo (Luganville) held by Vanuatu Utilities and Infrastructure Limited (VUI). The Utilities Regulatory Authority (URA) sets tariffs under the Luganville agreement, while tariffs are set contractually for the other concessions. UNELCO and VUI operations are financed through the electricity tariff and do not receive direct government subsidies. Electricity assets are government-owned and private utility operated (under operation and maintenance contracts).

ADB is experienced in supporting the development of transport and urban infrastructure in Vanuatu and provision of technical assistance for the energy sector. The project is included in ADB's country partnership strategy, 2010-2014 and the country operations business plan, 2014-2016.

The project is integrated into government long term strategic planning. The project supports the government's Priority and Action Agenda (PAA) 2006-2015, which aims to (i) reduce the cost of services, (ii) extend the coverage of rural electrification, and (iii) promote the use of renewable energy. The project is aligned with the government's action document Planning Long, Acting Short, 2009-2012 which aims to (i) ensure that electricity is more widely available at a fair price, and (ii) encourage investment in renewable electricity. The project is included in the Vanuatu National Energy Road Map (NERM) 2014.

Impact Impact the Project is Aligned with:

Project Outcome	
Description of Outcome	Increased supply of clean renewable electricity to households in Malekula and Espiritu Santo

Progress Toward Outcome

Implementation Progress

Description of Project Outputs Brenwe hydropower plant put into operation by the government

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

Geographical Location

Safeguard Categories

Environment B

Involuntary Resettlement B

Indigenous Peoples C

Summary of Environmental and Social Aspects

Environmental Aspects

Involuntary Resettlement

Indigenous Peoples

Stakeholder Communication, Participation, and Consultation

During Project Design

During Project Implementation

Responsible ADB Officer Maxwell, Anthony

Responsible ADB Department Pacific Department

Responsible ADB Division Transport, Energy and Natural Resources Division, PARD

Executing Agencies *Ministry of Finance & Economic Management
P.M.B. 058
Port Vila
Vanuatu*

Timetable

Concept Clearance 18 Dec 2012

Fact Finding 27 Jan 2015 to 30 Jan 2015

MRM 05 Mar 2015

Approval 26 Sep 2017

Last Review Mission -

Last PDS Update 28 Sep 2017

Project Page <https://www.adb.org/projects/49450-008/main>

Request for Information <http://www.adb.org/forms/request-information-form?subject=49450-008>

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