

RISK ASSESSMENT AND RISK MANAGEMENT PLAN

Risk Description	Rating	Mitigation Measures	Responsibility
1. Businesses will not connect to the grid and existing businesses will continue to self-generate.	L	A number of existing businesses in Malekula and Espiritu Santo self-generate electricity as the grid does not extend to their premises. While this guarantees supply and may be cost competitive in the short term, in the medium to long term it is more expensive for businesses to self-generate when considering maintenance and replacement costs for generators. Once the distribution grid is extended it will be important for VPMU to communicate to potential customers regarding improved supply and expanded availability of supply of electricity. A communication plan will be implemented by MOCC-DOE through VPMU to raise awareness of power availability and better service delivery.	VPMU
2. Delay of DSC recruitment.	L	Recruitment of DSC has been delegated to ADB.	ADB
3. Delays in construction of distribution extensions due to reliance on concessionaires for civil works	L	Capacity reviews of concession holders has shown they have significant capacity in civil works construction. Implementation will be closely monitored by VPMU.	VPMU
4. Delays in land acquisition result in delays to construction.	M-H	Land acquisition issues have demonstrated to be one of the largest single risks to economic infrastructure development in Vanuatu. The land at the hydropower site is claimed by 3 separate social groups totaling 7 households (about 36 persons). As permitted by the government law, compensation for the portion of the hydropower site with existing land disputes will be deposited to Custom Owner Trust Account for land acquisition to proceed while dispute resolution is ongoing. A resettlement plan has been prepared based on impact assessment, consultations with affected persons and detailed investigation of affected land and assets at hydropower sites during project preparation. The resettlement plan will be updated following the detailed design. Affected persons will be further consulted during the detailed design and implementation. VPMU will (i) appoint a focal person for land issues; (ii) establish environmental and social safeguard capacity within the PMU; and (iii) coordinate with the Ministry of Lands and Natural Resources, provincial government, and other relevant agencies to implement resettlement activities.	VPMU
5. Extended droughts affect hydropower utilization.	L	The powerplant generation (and therefore revenue) is directly related to streamflow availability. In order to address the potential for extended periods of drought, over 1 year stream flow has been measured from the site and this has been correlated to extended periods of	VPMU

		meteorological data. The project design and infrastructure sizing includes conservative assumptions about flow availability.	
6. Low capacity of local contractors results in low-quality installations.	L	There is a small local contracting industry in Vanuatu. There is a risk that (i) local contracting companies may be overstretched with other projects, and (ii) if local contractors participate they may not have expertise to deliver quality infrastructure. In order to mitigate this (i) bidding documents will require evidence of ongoing commitments, and (ii) bidding documents will require demonstrated experience in delivery of hydropower construction. In order to expand the potential base of contractors and improve address this risk, all procurement will be International Competitive Bidding and will be advertised internationally through ADB systems. Outreach to local contractors will also be undertaken to ensure they are aware of the bidding. It is envisaged that EPC bidders may include a combination of international and national contractors. The VPMU will include experienced international construction engineers to supervise construction.	VPMU
7. Insufficient financial management capacity within MOCC-DOE	L	MOCC will delegate implementation responsibilities to the Vanuatu Project Management Unit (VPMU), with oversight by the Department of Energy (DOE). The VPMU will be responsible for engaging all consulting services and contracts under the project.	VPMU
8. Insufficient financial management capacity within VPMU	L	The PMU will receive training, PMU's financial management will be monitored (including external audits), and the PMU will include external support. The Financial Management Assessment has indicated that MOCC-DOE has insufficient financial management capacity to manage the project. In order to address this, financial management of the project will be managed by the Vanuatu Project Management Unit (VPMU). In order to ensure VPMU adequately manages: <ul style="list-style-type: none"> (i) Project monitoring will be undertaken to ensure financial management processes are established and followed. (ii) The VPMU will be required to maintain separate and adequate project records and accounts. (iii) Independent external auditors acceptable to ADB will audit the consolidated project accounts yearly (iv) Imprest accounts will not be used in order to minimize fund flow monitoring requirements. (v) Capacity building training in financial management will be provided for VPMU. 	VPMU
9. Insufficient procurement capacity in the VPMU	L	The procurement capacity assessment indicated VPMU has adequate capacity for existing operations, however will require additional resources to manage implementation of the proposed project. In order to address this risk, an international procurement	VPMU

		specialist will be included in the VPMU and the VPMU staff will be trained on ADB procurement procedures by June 2016.	
10. URA is unable to negotiate an O&M contract with the concession holders	L-M	The project assets (hydropower plant, transmission and distribution lines) will be owned by the Government who will enter operation and maintenance contracts with the concession holders managing the remainder of the grids. In order to ensure timely conclusion of negotiations, URA will commence early discussions with the concession holders. Civil works contracts for the construction of the Brenwe Hydropower Plant will not commence until the O&M contract has been signed with the concession holders.	URA
11. Poor technical input during development of specifications leads to technical failure.	L	Technical performance of the Brenwe Hydropower Plant is dependent on adequate preparation of technical specifications. In order to address this risk, (i) the VPMU will be adequately staffed to ensure satisfactory technical specifications are prepared for tendering, and (ii) qualified supervision consultants will be engaged under a 90:10 quality cost ratio.	VPMU
12. Staffing of the VPMU is insufficient to manage project construction.	L	Successful implementation will be dependent on the VPMU being adequately staffed during the procurement and installation stages. In order to mitigate this risk; (i) sufficient budget will be allocated to ensure the VPMU will be adequately staffed, and (ii) twice annual project reviews by ADB will assess performance of the VPMU and the need to revise the terms of reference of the design and supervision consultants.	VPMU

H = high, M = moderate, L = low.

ADB = Asian Development Bank, MOCC-DOE = Ministry of Climate Change Adaptation, Meteorology, Geo-Hazards, Environment, Energy and Disaster Management – Department of Energy, O&M = Operation and Maintenance, VPMU = Vanuatu Project Management Unit

Source: Asian Development Bank