



Pacific Renewable Energy Transition

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Who we are What we do

Multilateral development bank

Owned by 67 member countries, including Australia

Infrastructure financing and technical assistance

Sovereign and private sector

>3,000 employees

In 2017;

- approved US\$32.2 billion
- energy sector US\$6.3 billion
- VRE US\$2.04 billion



Pacific: VRE is rapidly expanding

ADB Active Pipeline:

- 22 projects in 9 Pacific countries
- US\$540 million

ADB Forward Pipeline:

- 2018-2020: 18 projects in 13 Pacific countries
- US\$1,080 million

ADB is the largest energy sector financier in the Pacific



Cook Islands Mangaia Solar Plant

- Cook Islands Renewable Energy Sector Project
- 3 of 5 outer islands
- Funded by ADB, Japan, EU, GCF and GEF
- Comm. 28 Nov 2018
- 477kWp solar PV, batteries, diesel backup
- 24-36 hr battery storage
- 95% VRE penetration
- Approx 500 HH's



Energy Transition

CURRENT

- Corporatized state utility model
- Low VRE integration (financially attractive, technically simple, no batteries)
- High RE targets (50-100%)
- Financing
 - mainly grant funded
 - initial utility scale VRE IPP's
- Energy access: Melanesian issue



Energy Transition

SHORT TERM (3yrs)

- Partial unbundling of generation (driven by VRE)
- Staggered VRE investments as battery prices decrease
- Integration limits in weaker utilities
- Financing: Transition from grant to IPP's and commercial financing



Energy Transition

MEDIUM TERM (10 yrs)

- Maturing of IPP PV market (consolidation and reduction)
- Threat of VRE self-generation to utility model
- Some main grids reach >80% VRE integration
- Most provincial grids >80% VRE
- Financing. Transition to commercial funding for VRE
- Electric vehicles



Key Barriers to VRE penetration

- Financing. National and utility borrowing limits
- Costs
 - High battery costs (e.g. Nauru VRE limit 47%)
 - High EPC costs
- Technical
 - Grids not ready
 - External capacity supplementation some utilities



Future Research Work

- Grid mapping/modelling
- Electric Vehicles – initial country assessments
- Engage with Project Management Units for VRE projects in each country



ADB

THANKYOU

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