Pacific DMCs - Electricity Access
Ambitious NDC targets

“45% renewable energy by 2025”

“100% coverage by 2020”

“32% reductions in emissions by 2025 compared to 2010 baseline”

“Replace more than one-third of fossil fuels for electricity and transport by 2030”

• Implications for customers
  • Clean energy use
  • Electricity tariff
  • Energy Security
• CASE STUDY 1 – USING ENERGY IN SMALL ISLANDS
  MALDIVES AND PACIFIC SIDS
SOLAR ICE MAKING – MALDIVES

Rural Electrification Support

Fiji
- ADB support under discussion
- Potential to scale up with CIF Renewable Energy Integration Initiative

FSM
- ADB PRF approved
- Design options and future investment support under discussion
• CASE STUDY 2 – MAHARASHTRA RBL
ENERGY AND WATER MANAGEMENT FOR AGRICULTURE
Maharashtra - State

Variations in electricity consumption in rural Maharashtra

Source: Power For All Program for Maharashtra – 2016
Vidharbha – Part of Nagpur Division
Marathwada – Part of Amaravati + Aurangabad Divisions

Area% - population% - Economic Output%
**Support for Agriculture – Rural Maharashtra**

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Result</th>
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<tbody>
<tr>
<td>1</td>
<td><strong>Solar power for rural feeders</strong>&lt;br&gt;1-3 MW of solar power for daytime supply to agriculture</td>
<td>Reduce carbon emissions,&lt;br&gt;distributed clean power generation in the state</td>
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<td>2</td>
<td><strong>New agriculture connections</strong>&lt;br&gt;High voltage distribution system with 11 kV lines to customer doorstep +&lt;br&gt;Upstream strengthening 33/11 kV</td>
<td>Reduced voltage drop and&lt;br&gt;transformer failures, improved&lt;br&gt;operating efficiency of pumps,&lt;br&gt;reduced losses</td>
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<tr>
<td>3</td>
<td><strong>Efficient grid connected pumps</strong>&lt;br&gt;– Ongoing program enhanced through HVDS pilot</td>
<td>Can reduce energy input by ~25% if technical and commercial barriers addressed, awareness improved,&lt;br&gt;pricing signals.</td>
</tr>
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<td>4</td>
<td><strong>Drip Irrigation</strong>&lt;br&gt;– Linked to pilot + other programs</td>
<td>Can reduce energy input by additional ~ 20 - 30% if subsidy administration, customer awareness, deployment improves.</td>
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</tbody>
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TA support - Maharashtra

- Pilot Program
  - 100% HVDS + Efficient pumps + Efficient water usage on an agriculture feeder
  - Reduce electricity use from BAU
  - Partnerships
  - Capacity Building – Aquifer monitoring, water budgeting, energy usage reviews
  - Formulate options for conditional direct benefits transfer

![Illustrative Energy Consumption Pattern](image)

- BAU – Business As Usual