Third cycle rural electrification by solar PV/diesel mini-grids 3.6MW project. For people like Mrs. Cabouret (pictured here), who takes care of basic medical supplies in a rural village in Burkina Faso, access to electricity from a local solar PV plant for the village is essential.

(Photograph: IRENA/Seleha Lockwood)
What is the Facility?

» A partnership between IRENA and the Abu Dhabi Fund for Development (ADFD).

» Commitment of **USD 350 million** in concessional loans from ADFD over 7 annual project selection cycles to promising renewable energy projects in developing countries recommended by IRENA.

✓ Independent international Panel of Experts evaluate projects
✓ Strategic Advisory Committee select evaluated projects to recommend

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**Diagram Description:**
- **Executive Project Summary Stage**:
  - Project Applicants
  - Panel of Experts
  - Advisory Committee
  - Action: submit, shortlist, select
  - Duration: 7 months

- **Full Project Proposal Stage**:
  - Project Applicants
  - Panel of Experts
  - Advisory Committee
  - Action: submit, shortlist, recommend

- **Final Selection Stage**:
  - ADFD
  - Action: final decision

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## First phase of process

<table>
<thead>
<tr>
<th>Evaluation by experts (weighting 100%)</th>
<th>Executive Project Summary – applicants submit <em>mid-Feb annually</em></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Technical merit (40%)</strong></td>
<td>- Objectives of project</td>
</tr>
<tr>
<td></td>
<td>- Design</td>
</tr>
<tr>
<td></td>
<td>- Management</td>
</tr>
<tr>
<td><strong>Economic/financial viability (30%)</strong></td>
<td>- Project cost</td>
</tr>
<tr>
<td></td>
<td>- Revenue sources</td>
</tr>
<tr>
<td></td>
<td>- Business plan</td>
</tr>
<tr>
<td><strong>Socio-economic &amp; environmental impacts (30%)</strong></td>
<td>- Social benefits</td>
</tr>
<tr>
<td></td>
<td>- Economic benefits</td>
</tr>
<tr>
<td></td>
<td>- Environmental benefits</td>
</tr>
<tr>
<td></td>
<td>- Stakeholder engagement</td>
</tr>
</tbody>
</table>
## Second phase of process

<table>
<thead>
<tr>
<th>Evaluation by experts (weighting 100%)</th>
<th>Full Project Proposal including <strong>full feasibility study</strong> + <strong>Government guarantee letter</strong> – shortlisted applicants submit early May to end June annually</th>
</tr>
</thead>
</table>
| **Technical merit (40%)**             | - Detailed project design and output  
- Resource assessment  
- Implementation plan and operational arrangements  
- Technical risk mitigation measures  
- Organizational and management capabilities  
- Monitoring and evaluation |
| **Economic/financial viability (30%)** | - Full economic/financial feasibility study  
- Co-finance agreements  
- Economic/financial risks and mitigation options |
| **Socio-economic & environmental impacts (30%)** | - Stakeholder engagement  
- Accessibility  
- Affordability  
- Job creation  
- Risk mitigation  
- Energy security  
- Environmental / health / gender empowerment |
Experts overall considerations on a project:

- Transformative
- Replicable/scalable
- Improve energy access
- Address energy security

Advisory Committee selection and recommendation of projects is based on:

- Geographic spread
- Diversity of technologies
- Alignment with government priorities and availability of a government guarantee
Feasibility study requirements

- Country and sector
- Project, description, outline, identification of risks, implementation plan, information on land ownership
- Cost estimates
- Economic and financial assessment (EIRR)
- Social and environmental assessment
Online dashboards

- Applicants
- Panel of Experts
- Advisory Committee
- Post selection monitoring
- Funds
- Management

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How to apply - online

Accessible finance for renewable energy projects in developing countries

The International Renewable Energy Agency (IRENA) and the Abu Dhabi Fund for Development (ADFD) have collaborated on a joint Project Facility to support replicable, scalable and potentially transformative renewable energy projects in developing countries. ADFD committed USD 350 million in concessional loans, over seven annual funding cycles, to renewable energy projects recommended by IRENA.

7th cycle is open for application preparation online. Submission period - 12 Nov 2018 to 14 Feb 2019.

Apply here

Background information on the Facility is available in English, French (Français), Spanish (Español) and Arabic (عربية).

“"The IRENA/ADFD Project Facility has identified path breaking renewable energy projects providing sustainable and

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ADFD requirements

There will be a bilateral engagement between the ADFD and the project proponent after selection. The final terms and conditions of the loan will be set by ADFD. Note the sequence of activities below:

- Loan Offer and Letter of Consent
- Onsite Appraisal
- Loan Agreement
- Loan Ratification and Declaration
- Approval of Project Implementation Unit
- Tendering and Procurement
- Loan Disbursement
Widespread deployment, models

Outcome over six cycles:

24 projects selected for funding

USD 245 million from ADFD and USD 450 million from other sources: government, development funds and private sector

More than 7.5 million people benefiting

Over 150 MW renewable capacity

Thousands of jobs being created

3 million t/CO2e each year reduced/avoided
Overview

• 602 proposals received over 7 years including 95 in 7th cycle by Feb 2019
• Over 90 independent experts engaged
• Reduction in loan rates from 2-6% to 1% and 2%
• Over USD 100 million available in the 7th funding cycle

Total loans requested: **USD 5.9 billion**
Total project costs: **USD 20.7 billion**
7th cycle submissions
Loans requested: **USD 1.0 billion**
Project costs: **USD 3.0 billion**

Allocations
1st cycle: USD 41 million
2nd cycle: USD 57 million
3rd cycle: USD 46 million
4th cycle: USD 44.5 million
5th cycle: USD 25 million
6th cycle: USD 31 million
LDCs and SIDS

- Over half of all project submissions have been from LDCs and SIDS
- Over USD 3 billion in loans requested from ADFD over 7 cycles

Technology diversity of LDCs and SIDS projects

- Solar PV: 58%
- Bioenergy: 17%
- Hybrid: 12%
- Hydropower: 7%
- Wind: 5%
- Geothermal: 1%

Demand for funding in LDCs and SIDS over seven annual cycles

- Concessional Loan Requested: USD 9.87 billion
- Total Project costs: USD 10.78 billion
- USD 3.11 billion
- USD 2.81 billion
Example project: Mali at construction

<table>
<thead>
<tr>
<th>Rural Electrification Agency (AMADER), Local developer ACCESS</th>
<th>4 MW solar PV/diesel mini-grids for 32 villages</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADFD loan: USD 9 million</td>
<td>Total costs: USD 18 million</td>
</tr>
</tbody>
</table>

Development impacts

- Increasing energy access in rural communities from 10% to 25%, benefitting 123,000 people in 32 villages
- Catalysing employment and creating 2,000 direct and indirect jobs
- 5,000 tCO₂e emissions avoided annually

Project Co-funders
Example project: Antigua and Barbuda at construction

Transformation of the water and government sectors with RE - Department of Environment

4 MW hybrid wind and solar PV

ADFD loan: USD 15 million

Total costs: USD 35 million

Development impacts

- Providing access to clean water to the 90,000 inhabitants of Antigua
- Mitigating 8,275 tCO₂e emissions annually
- Improving national energy security by reducing dependency on imported fossil fuels
- Making electricity more affordable for 33,000 customers

Project Co-funders

- Italian Government
- Government of Antigua and Barbuda
IRENA tools and platforms

**Project concept**
- Feasibility
- Investor ready
- Pre-feasibility
- Deployment

**Success stories**
Country profiles

**Site characterization**
Global Atlas

**Resource**
Your source for renewable energy information

**Sustainable Energy Marketplace**
IRENA tools and platforms

**Deployment**
- Assistance to financial closure and debt facility

**Pre-feasibility**
- Project pipelines
- Corridors, SIDS
- Lighthouse Initiative
- RE Roadmaps
- Readiness Assessments

**Feasibility**
- Bankable project development guidelines

**Investor ready**
- Evaluate, technical assistance

**www.irena.org/adfd**
HIGHLIGHTS

- Effective framework for evaluating renewable energy projects on technical, economic and sustainable development impact
- Projects now reaching construction stage, with commissioning expected in 2019

USD 245 million
Allocated by ADFD

USD 450 million
Mobilised from other sources

157 MW
New renewable energy capacity created

* As of November 2018

Over 500 applications
70 global experts engaged
229 projects shortlisted
24 projects selected for funding by ADFD

Mali
4 MW • USD 9m loan
Solar PV mini-grids

Antigua and Barbuda
4 MW • USD 15m loan
Solar PV and wind

Cuba
10 MW • USD 15m loan
Solar PV parks

Mauritania
1 MW • USD 5m loan
Wind mini-grids

Maldives
4 MW • USD 6m loan
Waste-to-energy plants

Seychelles
5 MW • USD 8.5m loan
Solar PV park

Sierra Leone
6 MW • USD 9m loan
Solar PV park

SEVEN PROJECTS AT CONSTRUCTION STAGE

Replicable
Scalable
Transformative

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Annex:
Global Data + IRENA’s broader RE finance and policy support to developing countries
Global Landscape of Renewable Energy Finance

Global renewable energy investment, by technology, 2013-2016

Source: IRENA and CPI (2018)
Private sources provide the bulk of direct investments in renewables – averaging 87% through 2013-2016.

Source: IRENA and CPI (2018)
Sources of Renewable Energy Finance - Private

Project developers account for the largest portion of private capital.

Source: IRENA and CPI (2018)
Sources of Renewable Energy
Finance - Public

Public finance institutions accounted for 85% of public direct investment in 2013-2016 ($35bn p.a.).

Source: IRENA and CPI (2018)
Latest IRENA data

Yearly Public Investments in RE to LDC, LLDC or SIDS by funding source

(Period total: $176.1 billion, 2016 USD)

- China
- Other international donors

Bar chart showing investments from 2000 to 2017.
Renewable energy investment in LDCs (exc. large hydropower) USDm

USD million

Source: BNEF, 2019
Barriers to Financing RE Transitions

- Non-transparent frameworks (policy, regulatory, institutional)
- Undeveloped financial markets
- Lack of capacity to develop investor ready projects
- Perceptions of elevated risk (currency, offtake, political)
- Transaction cost

As renewables become increasingly cost-competitive, it is imperative to overcome these barriers to seize opportunities.
Unlocking Renewable Energy Investments

Enabling policies & tools
- Supportive policies & regulations
- Project preparation & development
- Engage national FIs: On-lending and co-lending

Risk mitigation instruments (RMIs)
- Resource risk mitigation
- Guarantees and liquidity facilities (political, offtaker risk)
- Currency hedging instruments

Structured finance & capital market
- Standardisation
- Aggregation
- Innovative instruments and business models (e.g. green bonds)
Policies to Achieve the Energy Transition – New Classification

Note: FIT = feed-in tariff, FIP = feed-in premium, RPO = renewable purchase obligations, RPS = renewable portfolio standards.