

March 20, 2019

# Afghanistan Energy Study

## STATUS REPORT



# Afghanistan Energy Study

## **Development objectives:**

Provide a comprehensive understanding of Afghanistan's energy sector to inform future investments and to support the government of Afghanistan in its plans to increase access to affordable and sustainable energy. This six-part study conducts a series of complementary assessments and surveys that provide technical input pertaining to off- or on-grid energy connectivity and capacity, delivery mechanisms, renewable energy technology options, household-level energy demand and consumption patterns, highlighting constraints and opportunities, and capacity building needs.

- Designed as a 3-year comprehensive Technical Assistance Program

# Afghanistan Energy Study

## ■ Main Funding Sources

### ■ TF0A3055 from ESMAP

- **Grant activation date:** July 21, 2016
- **Grant closing date:** June 30, 2019
- **Amount transferred:** US\$545,000
- **Disbursements:** US\$294,537.41; **Commitments:** US\$225,295.00 (as of February 7, 2019)

### ■ TF0A2969 from Australian Trustfund

- **Grant Effective Disbursement Date:** 07/06/2016
- **Grant End Disbursement Date:** 12/31/2018 (Study will continue after TF closing date)
- **Amount transferred:** US\$607,548
- **Disbursements:** US\$604,885.32 as of 12/31/2018

- **ESMAP and Australian Trust Fund on Strengthening Community-Level Service Delivery in Afghanistan** leveraged ASTAE, a climate trust fund; and World Bank budget. As of December 20, 2018, US\$1.27 million had been spent toward the Afghanistan Energy Study.

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## **An integrative study that works closely with relevant stakeholders**

The Afghanistan Energy Study (AES) has adopted an integrative approach with the government and a broad group of stakeholders, who are involved at every step in the decision-making process. To this end key, officials from the Ministry of Energy and Water, the Ministry of Rural Rehabilitation and Development, DABS—the National Power Utility of Afghanistan, and representatives from academia were nominated by government to form the AES Committee.

Subordinate to the AES Committee, a geospatial working group was set up, comprising geographic information system (GIS) experts from Afghan governmental institutions and academia. (Several activities use GIS data as a fundamental tool for further analysis.) Dedicated training workshops were held in New Delhi in February 2017, and in Dubai in July 2017.

A series of knowledge exchange events have been conducted, including nine AES Committee meetings and a series of knowledge products to guide subsequent activities. See

[https://energypedia.info/wiki/Afghanistan\\_Energy\\_Study](https://energypedia.info/wiki/Afghanistan_Energy_Study).



# Afghanistan Energy Study



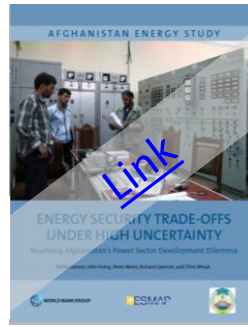
## Activities

1. Knowledge Products
2. Financial Economics and Community Modality Assessment
3. Households and Enterprise Energy Diaries
4. Least-Cost Electrification Plan
5. Institutional Assessment
6. Afghanistan Renewable Energy Study

# Afghanistan Energy Study

## Activity 1: Knowledge Products

- AES Committee meetings
- Knowledge exchange events
- Knowledge products



Solar off-grid electrification workshop, Bangladesh (January 2017)



## Activity 2: Financial Economics and Community Modality Assessment



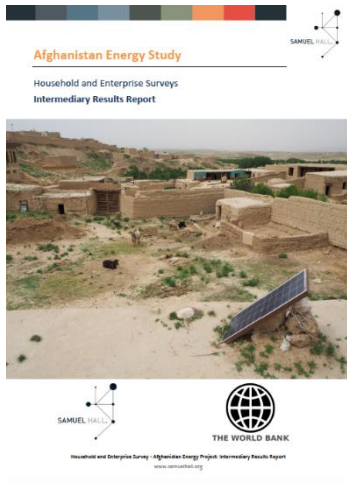
Decision tool for selecting appropriate technology and delivery modalities to provide electricity services to rural communities based on lessons learned from past experiences.

- Terms of reference (ToR)
- Planned - *needs to be canceled*

# Afghanistan Energy Study

## Activity 3. Households and Enterprise Energy Diaries

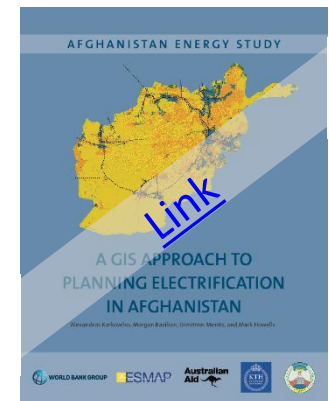
Assessment of energy consumption patterns of rural and peri-urban households, community institutions and small-scale enterprises, and financial implications and opportunities for scaling up energy services provision



- ToR
- Inception report
- Baseline report
- Intermediary Report
- Energy diaries (ongoing)
- Final report (June 2019)

## Activity 4. Least-Cost Electrification Plan

- Geospatial workshops:
  - New Delhi, Feb 2017
  - Dubai, Jul 2017
- Knowledge product
- Phase 2: Development of a least-cost electrification plan, investment prospectus, and associated training (planned) - *canceled*





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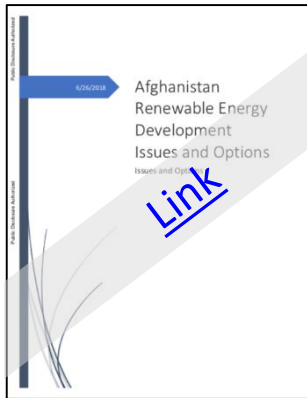
## Activity 5. Institutional Assessment

Two areas of institutional reform needed further action:

- Governance reform of DABS; and
- Reform of the institutional framework for rural energy provision.



Two stakeholder workshops were held in May and July 2018, to support governance reforms for DABS, which led to a governance reform paper on DABS. A partnership agreement was then developed between DABS and the Ministry of Finance, which became effective on November 14, 2018, to help DABS improve its performance and finances. Additional activities on rural energy are planned for 2019.



## Activity 6. Afghanistan Renewable Energy Study

- Knowledge products, working groups, and stakeholder consultations
- Hands-on support to identify solar on-grid projects through a GIS-based modeling tool
- Assistance to the government to develop a 2,000-MW solar development vision.

