



German Cooperation with Afghanistan

Afghan – German Technical Cooperation Energy Sector

Afghanistan Energy Program – Energy Supply for Rural Areas (ESRA)

Zabiullah Tahirzada

GIZ-ESRA Afghanistan

**CONSULTATION WORKSHOP ON VOCATIONAL TRAINING &
SKILLS BUILDING FOR RURAL ELECTRIFICATION**

10th March 2014

Implemented by:
تطبيق کننده:

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

KfW



German Cooperation with Afghanistan



• Afghanistan Energy Program

Objective: To improve the access of the Afghan population to environmentally and climate friendly energy for the economic development of the country and to reduce poverty

giz

Technical Cooperation

Energy Supply for Rural Areas
(ESRA) Program

KFW

Financial Cooperation

Regional power grids and hydroelectric
power generation Projects

Implemented by:
تطبيق کننده:

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

KFW

Energy Supply for Rural Areas (ESRA)

Program Objective (2010 – 2014): A sustainable decentralized electricity supply focussing on renewable energy technologies is improved



German Cooperation with Afghanistan

Energy Supply for Rural Areas (ESRA) Program

What is ESRA Program doing?

**Regulation
Policy
Planning
Coordination**



**Electro
Mechanical
Standards**



**Operator models
Customer Service
Pilot projects**



**Training of
Trainers and
Technicians**



Energy Supply for Rural Areas (ESRA)

Regulation Policy Planning Coordination



Regular Framework for renewable energy

Rural Energy Policy; Rural Energy Strategy; Renewable Energy guidelines; Energy Supply Law; Renewable Energy Policy; Tariff guidelines

Electrification Planning

Provincial Electrification Concepts; Provincial Energy Working Groups; Renewable Energy Database; Organizational development of Renewable Energy Department; National energy planning; decentralized ministry structure

Coordination

Inter-ministerial & Donor Coordination (RECC); Reporting and communication channels between national & provincial level;

Energy Supply for Rural Areas (ESRA)

Electro Mechanical Standards

Standards adoption

Effective National Electro-technical Committee (NEC);
Ministry of Energy and Water (MEW) Standards
Committee; Electricity standards adoption procedures;
National Power Code



Compliance with adopted standards

Web-database on standards; Government Capacity to
promote and monitor application of standards; Private
manufactures' capacity to comply with standards

Testing and certifying electro-technical products

Testing laboratory; Certification schemes

Energy Supply for Rural Areas (ESRA)

Sustainable private operation of power plants

Business plans for privately operated renewable energy schemes; System for sustainable operation and maintenance of schemes; System for technical performance monitoring; Review and testing of private operator models

Electricity customer services

Customer service centres; Electricity awareness campaigns; Productive use of electricity; gender and electricity

Renewable energy pilot projects

Mini-Hydro schemes , Solar PV schemes and wind

Operator models
Customer Service
Pilot projects



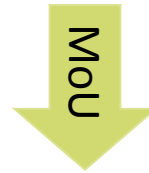
German Cooperation with Afghanistan

MEW Vocational Training Centre's Training Capacity

GIZ contribution with the Ministry of Energy and
Water- Vocational Training Center in Kabul

German Cooperation with Afghanistan

Energy Training Centre



Afghan Ministry of Energy
and Water, Vocational
Training Centre (MEW –
VTC)

Siemens Afghanistan
(Contribution till December
2015)

Afghanistan Energy
Program Renewable Energy
Supply for Rural Areas
Deutsche Gesellschaft für
Internationale
Zusammenarbeit GmbH

MEW-VTC Background Information

- The Ministry of Energy and Water – Vocational Training Centre (MEW-VTC) in Kabul was established in 1985.
- Trains all electrical engineering assistance employees for the MEW, the national power utility (Da Afghanistan Breshna Sherkat -DABS), and the Ministry of Rural Rehabilitation and Development (MRRD). It also meets the needs of training for the private sector (around 30%).
- MEW-VTC teaches electricity supply, transmission and distribution in the medium to high voltage range. The MEW-VTC currently offers programs of two years (entrance after 12th grade) and five years (entrance after 10th grade).
- Currently there are about 800-1,000 students enrolled with an outcome of around 150 – 200 graduates per year with the title “Assistant Electrical Engineer”
- Additionally, the MEW-VTC has established a new department for renewable energy.

PPP with MEW-VTC

GIZ Contribution

Siemens Contribution

The software to operate training courses, including curricula, training material and skilled teachers is available

The infrastructure and operational structure of an Energy Vocational Training Centre attached to the Ministry of Energy and Water is available

German Cooperation with Afghanistan

Scope of Cooperation:

The main collaboration of all the three parties' is mentioned in the PPP concept paper

MEW-VTC Contribution:

- Provide the land for the Energy Training Centre (ETC) building
- Provide technicians for the Energy Training Centre who will be trained as multipliers and who will conduct the practical trainings for the students
- Takeover to the new ETC building which will be constructed by Siemens
- Takeover of all the provided equipment for the energy training center within this agreement
- Conduct short term trainings and workshops for expert groups (DABS, MEW, MRRD, private sector)

Siemens Afghanistan Contribution

- Design, and construct the new building for the Energy Training Centre
- Purchase and installation of the equipment
- Train the two technicians of VTC on the installation and handling of all the laboratory equipment at ETC
- Organize study tour to Karachi / Pakistan for high qualified national engineers
- Train national engineers as Train of trainers (ToT) for the different training courses applying by ETC such as: small hydropower plants (≥ 500 kW) and solar photovoltaic systems

GIZ-PPP contribution

- Conduct study on institutional set up of the Energy Training Centre
- Define the institutional set up of the Energy Training Centre
- Enhancement of existing training materials considering local circumstances and existing curriculum
- Develop a modular training program for graduates of the hydropower course
- Develop Training material for modular training program
- Update the existing training materials for hydropower course of the MEW-VTC

German Cooperation with Afghanistan

Contribution of Energy Supply for Rural Areas (ESRA) to VTC

Training of Trainers and Technicians

MEW Vocational Training Centre's Training Capacity

Curricula + training materials for renewable energy vocational training; Training of teachers



Piloting hydro power vocational trainings

Piloting vocational training course including guest lectures, study tours and trainings

German Cooperation with Afghanistan

Thank
you

Zabiullah.tahirzada@giz.de