



Mongolia National Renewable Energy Program

MINISTRY OF NATURE AND ENVIRONMENT OF MONGOLIA



Current Status of Electricity Access

Electricity Access as of 2004

- Total installed electricity capacity is 878.4 MW
- Power supplied to 19 aimags and 187 soum centers

Mongolia Integrated Power System (MIPS)

- to develop reliable and affordable energy supply
- to contribute to regional development
- to improve energy security



Issues

- **The limited public resources**
- **High initial investment costs**
- **Specific Mongolian features**
 - **remote location**
 - **small population (consumption)**
- **Different policy approach**
- **Financing and implementation arrangements**
- **Conceptually new mechanisms to encourage the wider use of Renewable energy sources**



Actions taken by the Government of Mongolia

In recent years many efforts has been undertaken by the Government of Mongolia jointly with the international community to facilitate the development of renewable energy in Mongolia. However, one third of the total population still do not have access to electricity, and lack of clean, safe cooking fuels and depend on traditional biomass sources;



“A National Renewable Energy Program”

- **On 9 June’ 2005, the Parliament of Mongolia approved “A National Renewable Energy Program” to facilitate the wider use of renewable energy in Mongolia. The strategy for development of renewable energy for the period 2005-2020 has been set by the Government of Mongolia**



“National Renewable Energy Program (2005-2020)”

The main objective of the “National Renewable Energy Program /2005-2010/” is to improve Mongolia energy sector structure by increasing the percentage of renewable energy in total national energy supply, to increase the economic effectiveness and reduce unemployment and poverty reduction, as well as to provide sustainable environmental conditions to create sustainable social growth.



“National Renewable Energy Program (2005-2020)”

“National Renewable Energy Program /2005-2020/” will be implemented in two stages:

- ✓ NEAR-TERM DEVELOPMENT GOAL (2005-2010)
 - ✓ MID-TERM DEVELOPMENT GOAL (2011-2020)
- Ministry of Fuel and Energy of Mongolia is in charge for the implementation of the program



Goal of the National Renewable Energy Program

According to the “National Renewable Energy Action Program /2005-2020/” it is expected *to achieve* following goals:

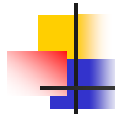
- ✓ As results of wider utilization of renewable energy technologies, the total installed capacity generated by renewable energy power sources should reach 3-5% by 2010 and 20-25% by 2020 respectively in the total energy production;
- ✓ It is planned to decrease the overall energy loss reduction by 5% in 2010 and by 10% in 2020 by introducing of advanced energy efficiency and renewable energy technologies ;
- ✓ To speed up the activity of decentralized electrification of remote rural villages and it is expected that more than hundred off-grid Soum centers will be electrified with renewable energy power sources;
- ✓ It is planned to achieve the main target of the “100 000 Solar Gers” National program to provide 100 000 households by 2010 and every rural families by 2020.



National Renewable Energy Program

To achieve main goals reflected at the “National Renewable Energy Program” the Government of Mongolia is looking forward to mobilize internal resources and establish a legal framework for the further development of Renewable energy to ensure that the entire program can be realized

In order to explore the potential for cooperation in the area of renewable energy with international organizations, private sector and donor community, and seek new forms of financing for future projects Government of Mongolia has organized “Mongolia Renewable Energy Stakeholders Meeting” in Ulaanbaatar on October 6-7, 2005.



The problems for the Renewable energy development and utilization:

-Up to present, Mongolia’s energy supply is overly dependent on coal, and Renewable Energy utilization has not been considered to the strategic importance given to conventional energy development

Lack of economic incentive policies and no effective investment and financing mechanisms

- Limited by the technologies’ level, higher costs of Renewable Energy and lack of competitive capability
- Not enough public attention on the significance of Renewable Energy development and utilization



The goals of the Renewable energy law will be to:

- to confirm the important role of renewable energy in Mongolia's national energy strategy
- remove barriers to the development of the renewable energy market/ create a market
- set up a financial guarantee system for the development of renewable energy
- create a social atmosphere conducive to renewable energy



Mongolia - Necessity for financial assistance

- to support Government of Mongolia as well as local banks and financial institutes through a low-interest soft loan on long term basis for initiation of financially viable new and renewable energy projects
- to initiate new bi-or multilateral international collaboration to promote renewable energy program of Mongolia
- to consider to continue and extend/ or to initiate new bi- or multilateral international collaboration to promote renewable energy program of Mongolia



***The PV-Wind hybrid system at Tariat soum, Atkhangai aimag,
installed under JICA project (Japan)***



**200 kW PV-Diesel hybrid system at Noyon soum installed under
NEDO Research project The demonstrative research project on
dispersed type PV power generation system in Mongolia**



***100kW Wind-Diesel hybrid System
installed at Erdentsagaan soum, Sukhbaatar aimag***



***The PV/Wind hybrid system
at Naran som, Mongolia***



Data acquisition system

***8kW Wind-Photovoltaic Power System
installed at Naran soum, Sukhbaatar aimag under
Korean-Mongolian Joint Project***

