

- 1/ улсын нэгдсэн төсвийн хөрөнгө оруулалт;
- 2/ сэргээгдэх эрчим хүч болон эрчим хүчний шинэ эх үүсвэрийг ашиглах үйл ажиллагааг дэмжих олон улсын сангийн дэмжлэг тусламж;
- 3/ хүлэмжийн хийн ялгарлыг бууруулах цэвэр хөгжлийн механизмын санхүүжүүлэлтийг ашиглах үйл ажиллагаанаас олох орлого;
- 4/ гадаад, дотоодын хувийн хөрөнгө оруулалт;
- 5/ хандивлагч орнууд, олон улсын байгууллагын хөнгөлттэй зээл, буцалтгүй тусламж;
- 6/ төрийн бус байгууллагуудын хандив, буцалтгүй тусламж.

Арван нэг. Хөтөлбөрийг хэрэгжүүлснээр хүрэх үр дүн

1. Орхоны 100МВт-ын хүчин чадалтай усан цахилгаан станцыг барьж, ашиглалтад оруулснаар төвийн эрчим хүчний системийн үйл ажиллагааны горимыг тохируулах боломжийг уян хатан болгох, бие даасан байдлыг нэмэгдүүлэх нөхцөлийг бүрдүүлнэ.

2. Дөргөн, Тайширын усан цахилгаан станцыг барьж ашиглалтад оруулснаар баруун бүсийн эрчим хүчний хангамжийн бие даасан, найдвартай байдлыг хангана.

3. Хөдөөгийн малчин айл, өрхийг сэргээгдэх эрчим хүчээр хангах "100000 нарны гэр" үндэсний хөтөлбөрийн зорилтыг бүрэн хэрэгжүүлж, 180 гаруй мянган айл, өрхийг сэргээгдэх эрчим хүчний эх үүсвэрээр хангаснаар өрхийн үйлдвэрлэл хөгжиж, хөдөөнөөс хот руу шилжих хөдөлгөөн багасна.

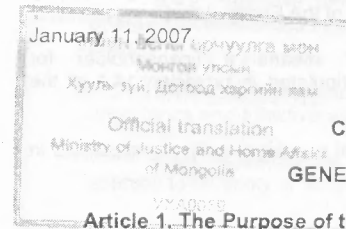
4. Эрчим хүчний төвлөрсөн системээс алслагдсан бүх сум, суурин газрыг сэргээгдэх эрчим хүчний үүсгүүрээр бүрэн хангаснаар хөдөөгийн иргэдийн сурч боловсрох, мэдээлэл авах боломж нэмэгдэн, амьдралын түвшин, ахуй нөхцлөө сайжруулах болон орон нутагт цахим засаглал, мэдлэгт тулгуурласан үйлдвэрлэлийг хөгжүүлэх нөхцөл бүрдэнэ.

5. Салхины эрчим хүчийг ашиглах нөөц сайтай бүс нутагт дунд чадлын (50-100МВт) салхин парк байгуулан, эрчим хүчний төвлөрсөн системд холбон үр ашигтай, найдвартай ажиллах нөхцлийг бүрдүүлнэ.

6. Сэргээгдэх эрчим хүчийг ашиглах, эрчим хүч хэмнэх, салбарын үр ашгийг дээшлүүлэхэд чиглэсэн эрх зүйн таатай орчин бүрдүүлснээр дотоод, гадаадын аж ахуйн нэгж, байгууллага сэргээгдэх эрчим хүчний салбарт үйл ажиллагаа явуулах өргөн боломжийг олгоно.

7. Сэргээгдэх эрчим хүчийг өргөнөөр ашигласнаар эрчим хүчний уламжлалт эх үүсвэр болох органик түлш (нүүрс, нефть зэрэг)-ийг хэрэглэсний улмаас байгаль орчинд хаягдаж байгаа нүүрсхүчлийн хий болон бусад хорт хийн ялгарлыг бууруулан агаарын бохирдолтыг багасгахад үлэмж хэмжээний эерэг нөлөө үзүүлнэ.

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CHAPTER ONE GENERAL PROVISIONS

Article 1. The Purpose of the law

1.1. The purpose of this law is to regulate generation and supply of energy utilizing renewable energy sources.

Article 2. Legislation

2.1. Renewable energy related legislation consists of the Energy Law, this law and other legislative acts adopted in conformity with these laws.

2.2. If an international treaty to which Mongolia is a party provides otherwise, the provisions of the international treaty shall prevail.

Article 3. Scope of the law

3.1. This law applies to legal entities, which generate and supply electricity and heat by using renewable energy sources within the territory of Mongolia.

3.2. Unless otherwise stated in laws, this law shall not apply to renewable energy power sources, which are designed for consumer's own use only.

Article 4. Definitions

4.1 In this law, the following terms shall have the following meanings:

4.1.1 "Renewable energy sources" means naturally restorable or renewable resources such as solar, wind, hydropower, geothermal and biomass;

4.1.2 "Biomass" means plant and organic waste;

4.1.3. "Renewable energy power source" means a facility, which converts renewable energy sources stated in Article 4.1.1 of the law into electricity and heat;

4.1.4. "Renewable energy" means energy produced by using facility stated in 4.1.3 of the law;

4.1.5. "Independent renewable energy power source" [hereinafter called "independent power source"/ means hybrid and/or non-hybrid renewable energy power sources not connected to the transmission network;

7.3.1. deliver produced electricity to local networks using a calibrated meter;

7.3.2. be compensated from the Renewable Energy Fund for any tariff difference induced by supply of electricity to local consumers as indicated in the license.

7.4. Article 7.3.2 of this law is not applicable to a state-funded, renewable energy power source generator.

7.5. An independent power source generator producing renewable energy shall obtain a license for regulated supply of energy.

7.6. An independent power source generator producing renewable energy may be a licenseholder for unregulated supply of energy.

Article 8. Rights and Duties of a Transmission Licensee

8.1. A transmission licensee has the following rights and duties:

8.1.1. purchase electricity supplied by a generator at tariffs approved as set forth in Article 11 of this law;

8.1.2. connect a generator to distribution board of a transmission network in compliance with technical requirements, expand and finance the required capacity expansion.

Article 9. Obtaining a License

9.1. An interested legal entity shall submit an application for a license to construct and/or generate a renewable energy power source to the Energy Regulatory Authority or relevant regulatory boards of aimak and capital city.

9.2. In addition to documents set forth in Article 21.2 of Energy Law, the following shall be attached to the application set forth in 9.1. of this law :

9.2.1. A certified copy of the land ownership license issued for the purpose of establishing renewable energy power source;

9.2.2. A plan for disposal and reprocessing of renewable energy power sources accumulators whose useful life is expired;

9.2.3. Studies on soil, flora, geological and hydro-geological conditions, geographical location, land surface, air pressure, weather, wind regime, and a water study for a construction site of a hydro energy power sources;

9.2.4. A certificate issued by the relevant administrative authority ensuring that equipments and facilities of renewable energy power source meet international and national standards.

9.3. Issues relevant to obtaining a licence, its extension, amendments, renewal, suspension, revocation and license holder liabilities shall be regulated by the Energy Law

Article 10. Power Purchase/Sale Agreement

10.1. Power purchase/sale agreement between a generator and a transmission licensee shall be concluded in compliance with a model agreement approved by the Energy Regulatory Authority.

10.2. Power purchase/sale agreement set forth in Article 10.1 of this law shall specify capacity of electricity generated and delivered, its quality, amount, tariff, location of commercial meters and other measuring devices, their types, model, accuracy, multiplier and serial number, quality indices of electricity to be supplied, payment and settlement conditions, duties of the parties and provisions for termination of the agreement.

CHAPTER FOUR

PRICE AND TARIFF

Article 11. Renewable Energy Tariffs and Prices

11.1. Energy Regulatory Authority shall set tariffs and prices of energy generated and supplied by renewable energy power source connected to a transmission network within the following tariff range:

11.1.1. energy generated and supplied by wind power source is USD 0.08-0.095/kWh;

11.1.2. energy generated and supplied by hydropower station with capacity up to 5 000 kW is USD 0.045-0.06/ kWh;

11.1.3. energy generated and supplied by solar power source is USD 0.15-0.18/kWh.

11.2. Price difference of electricity generated by a power source set forth in Article 11.1 of this law shall be allocated in selling prices of other generators that produce power and deliver to the transmission network.

11.3. Regulatory Boards of Aimags and the Capital City shall set prices and tariffs of energy generated and supplied by independent renewable energy power source within the following tariff range:

11.3.1. energy generated and supplied by wind power source is USD 0.10-0.15/kWh;

11.3.2. energy generated and supplied by hydro power station with capacity up to 500 kW is USD 0.08-0.10/kWh;

11.3.3. energy generated and supplied by hydro power station with capacity of 501-2 000 kWh is USD 0.05-0.06kWh;

11.3.4. energy generated and supplied by hydro power station with capacity of 2 001-5 000 kWh is USD 0.045-0.05kWh;

11.3.5 energy generated and supplied by solar power source is USD 0.2-0.3/kWh.

11.4. Regulatory Boards of Aimag and the Capital City shall consider following features while setting prices of renewable energy generated by an independent power source:

11.4.1. Geographical location, infrastructure services, stages of local economic and social development and;

11.4.2. Price and tariffs shall be affordable to the consumers.

11.5. All other tariffs for renewable energy except those produced and supplied by geothermal, biomass power source and those set forth in Articles 11.1 and 11.3 shall be subject to the competence of the Energy Regulatory Authority with due consideration of the price social impact.

Article 12. Duration of application of prices and tariffs

12.1. Prices and tariffs of renewable energy shall be stable for a period of minimum 10 (ten) years starting with the date of entry into force of this law.

CHAPTER FIVE

RENEWABLE ENERGY FUND

Article 13. Renewable energy fund

13.1. Relations with respect to establishment of a renewable energy fund, generation of fund resources, disbursement and performance reports of renewable energy fund shall be regulated by the law on Government Special Purpose Fund.

CHAPTER SIX

MISCELLANEOUS

Article 14. Dispute Resolution

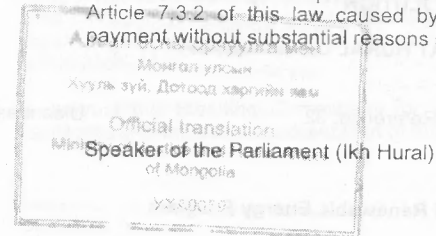
14.1. Any disputes between generation and transmission licensees as well as between a licensee and a consumer shall be resolved in compliance with regulations of the Energy Law.

Article 15. Penalties for Breach of Law on Renewable Energy

15.1. If a breach of law on renewable energy does not constitute a criminal offense, a judge or a state inspector on energy supervision shall impose the following penalties:

15.1.1. Fine of up to MNT 250,000 on a transmitter for breaching Article 8.1.2 of this law;

15.1.2. Fine of up to MNT 50,000 on an official for breach of the Article 7.3.2 of this law caused by rejection or delay of compensation payment without substantial reasons specified by law.



Ts.Nyamdorj

RESOLUTION

OF THE STATE GREAT HURAL OF MONGOLIA

9th June, 2005

Reference: 32

Ulaanbaatar

Official translation
Ministry of Justice and Home Affairs
of Mongolia

On Approval of National Renewable Energy Program

To increase renewable energy penetration in energy system of Mongolia, diversify energy sources, decrease air pollution and achieve social economic sustainable development of rural areas through introduction of reliable energy sources the State Great Hural of Mongolia DECREES:

1. Approve National Renewable Energy Program as attached in appendix number 1.
2. Approve list of soum centers to be supplied by renewable energy in the scope of the plan as attached in appendix number 2.
3. Followings is charged to the Government /Ts.Elbegdorj/ to implement Renewable Energy National Plan:
 - 1/ set required funds for implementation of the plan in yearly state budget;
 - 2/ prepare bi-annual report on implementation of National Renewable Energy Program and present it to the State Great Hural;
 - 3/ organize activities to gain active involvement of international and domestic investors, get support from international donors and financial organization and use clean development mechanisms (CDM);
 - 4/ Develop law drafts in following areas and present them to the fall session 2005 of the State Great Hural:
 - a/ in establishing favorable legal environment to support energy production through utilization of renewable energy sources and to encourage local and international investment;
 - b/ in exempting from import and value added taxes of renewable energy production of main and auxiliary equipment;
 - 5/ take measures to supply hospitals and schools in remotely located soum centers from centralized power grid by renewable energy equipments;
 - 6/ develop subprograms to utilize renewable energy sources for water pumping, grassland and crop field irrigation; and for production of electric and thermal energy by geothermal, hydrogen, fuel cell and biomass; and implement the subprograms step by step;

4. Instruct the Cabinet /Ts.Elbegdorj/ to provide required funds for implementation of goal raised in the "100 000 Solar houses (gers)" National Program to supply rural households, cattle breeding families by renewable energy sources and organize activities to introduce renewable energy sources to all herding families within 2005-2008.

5. Instruct the Standing Committees for Infrastructure, Economy, and Budget respectively to monitor implementation of this Resolution.

Signature

D.Lundeejantsan
Vice-speaker of
Speaker of the Parliament (Ikh Hural)

Албан ёсны орчуулга мөн
Монгол улс
Хууль зүй, Дотоод ажилгууны яаман
NATIONAL RENEWABLE ENERGY PROGRAM
/2005-2020/

Official translation
One: Rationale and prerequisite for development of the Program
of Mongolia

The worldwide trend of the rigorous development renewable energy needs and demands of the country outlines of the utilization of renewable energy source as one of the important development goal.

The utilization of renewable energy has been emphasized as one of the priority areas of the energy industry in the Government policy documents such as the Government Action Plan, Millennium Development Goals, Sustainable Development Program of Mongolia for 21st century, Regional Development Concept, Consolidated Energy System Program of Mongolia and Sustainable Energy Development Strategy of Mongolia for 2002-2010. The Government of Mongolia attaches great importance to the use of renewable energy for improving power supply through research and use of environmentally friendly and new sources of energy for the benefit of rural households who are not fully provided with power and soums and settlements that would require significant amount of resources to get connected to centralized power grids.

Two. Renewable Energy Resource

Mongolia has vast resources of renewable energy and has favorable climatic and weather conditions for effective use of these resources.

1. There are 3800 small and big streams and rivers in our country, which could support 6417.7 megawatts of power and deliver 56.2 billion kilowatt/hours of electric energy in a year.

2. From 270 to 300 days in average year on entire territory of the country are estimated as sunny and yearly average daylight time is estimated as 2250-3300 hours. The yearly radiation is estimated as 1200-1600 kilowatts per square meter and its intensity is estimated as more than 4.3-4.7 kilowatt per hour.

3. As it pointed out in wind energy atlas of Mongolia, the 10 percent of the total territory or 160 thousand square kilometer area is estimated as suitable for wind energy application. It is estimated that 13 aimags have more than 20,000 megawatts of wind potential, and 9 aimags have more than 50,000 megawatts of wind potential, and Omnogobi aimag alone has wind energy potential of over 300,000 megawatts.

4. There are over 40 indications of geothermal manifestations on the territory of Mongolia and from these sites Tsenkher, Khujirt and Shargaljuut, located in the Khangai region, may be used for energy production purposes.

Three. Objective of the Program

The Program is aims to create conditions for ensuring ecological balance, unemployment and poverty reduction, and sustainable social and economic

development by increasing percentage of renewable energy share in the total energy supply of Mongolia, improving structure of energy supply, and by wide application of renewable energy in rural areas power supply.

Four. Scope of the common goals to be reached by the Program

1. Constitute conditions for reliable, independent and effective operation of centralized energy grids and regional power supply systems by increased use of renewable energy.

2. Gradually implement goal in increasing percentage share of renewable energy in the total energy production and reach 3-5 percent share in the national energy by the year 2010, 20-25 percent share by 2020.

3. Decrease losses in overall energy system by 3-5% of current level by the year 2010 and not less than by 10% by the year 2020 by introducing advanced renewable energy technology and increasing conservation and increase efficiency in production, transmission, distribution and operation.

4. Provide power to all distant soums and settlements, which are require significant amount of resources to be connected to centralized power grid system, by introduction of renewable energy generating systems.

5. Develop and implement step by step sub-programs to provide schools, hospitals and public service institutions in remotely located soum centers from the centralized energy grid system with renewable energy sources; to present wide application solar and wind energy in water pumping, irrigation of crops fields, grasslands and pasture, and establish basic conditions for future development of local electronic governance and promote knowledge based production in rural areas.

6. Reach full achievement of objectives raised in the National Program titled "100,000 Solar Gers" to supply all herder household in rural area with renewable energy sources.

7. Based on the results of detailed study of renewable energy (solar, hydro, geothermal, hydrogen, and biomass etc.) potentials of Mongolia develop and implement Master Plan to use these sources.

8. Take measures to perform technical economical feasibility studies of large hydropower stations namely Eg river 220 megawatts station, Artsat 118 megawatts station on Selenge River and Orkhon river 110 megawatts station on rivers with significant hydropower resources such as Selenge, Eg and Orkhon rivers, and to implement these studies.

9. To reduce air pollution in urban areas of Ulaanbaatar and other cities and towns, expand activities to penetrate renewable energy generators to centralized power grid system and increase the percentage share of renewable energy in the total supply stage by stage.

10. Perform surveys to determine locations with significant applicable geothermal resources, develop technical economical feasibility study to utilize geothermal resources for urban areas energy supply and implement these studies.

11. Widely exploit solar water heating technologies and equipments for heating, hot water supply and other purposes to building and constructions.

12. Perform research and introduce of modern techniques and technologies to produce heat and power using hydrogen, fuel cell elements and other new sources of energy.

Official translation Five. Program Implementation Stages

1. "The National Renewable Energy Program (2005-2020)" shall be implemented in two stages:

- First stage for 2005-2010 /near term/
- Second stage for 2011-2020 /mid term/

Six. Near Term Tasks:

1. Complete construction and launch Durgun, Taishir hydropower plants.
2. Launch construction of 100MW Orkhon hydropower plant in the Central Region.
3. Reach full achievement of objectives raised in the National Program titled "100,000 Solar Gers" to supply all herder household in rural area with renewable energy sources.
4. Provide and electrify at least 8 soum centers remotely located from the centralized power grids, proven to have good wind power resources, by wind-diesel or wind-solar-diesel hybrid power stations, and electrify at least 5 soum centers using solar and diesel hybrid powered systems.
5. Perform feasibility studies of hydropower plant construction for electrification of selected 16 soum centers and electrify following 8 soum centers: Bulgan soum of Bayan-Olgii aimag, Batshireet soum of Khentii aimag, Most soum Khovd aimag, Erdenebulgan soum of Khovsgol aimag, Baruunturuun soum of Uvs aimag, Tosontsengel, Tsetsen-Uul, and Zavkhanmandal soums of Zavkhan aimag using hydro energy resource.
6. Conduct detailed survey of medium sized wind parks in sites with high wind energy potentials such as Salkhit hills and Khuitnii Ongotkhai and eastern and southern regions of the country and perform detailed study of use these parks in the centralized power grid system.
7. Widely use solar heating equipment to provide distant soum centers with commercial hot water supply.

Seven. Mid-term Development Tasks:

1. Complete construction and launch 100MW Orkhon hydro power plant.
2. Electrify all remotely located soum centers and settlements, which not connected to the centralized power grid, using renewable energy technique and technology.

3. Expand the use of renewable energy technology to improve energy supply in rural areas and widely use renewable energy to improve power supply of farmer stations, border guarding and defense forces, tourist camps and public service providers.

4. Construct small and medium capacity energy complexes in Ulaanbaatar and other cities and towns to reduce air pollution in these areas using solar, wind, hydrogen and geothermal resources.

5. Construct medium capacity (30-50 megawatts) wind parks in sites with proven wind energy potential and connect to the centralized power grid system creating efficient operation condition.

6. In the scope of international research activities in very large scale PV power generation system, gradually implement pilot project in Gobi region of the country.

Eight. Policy and Measures to Support the Program

1. Include and realize of funds required for implementation of the Program in the annual government centralized budget, maintaining the support policy in the use of long term, soft loans, technical assistance and grants provided by international financial institutions and donor countries and private investors, and take necessary measures to raise funds to achieve the Program objectives.
2. Prioritize renewable energy application and develop to reduce air pollution, improve rural development, promote international and local investment initiatives, establish favorable legal environment to encourage state and private organizations and institutions' renewable energy market involvement.
3. Create economic leverages, price and tariff mechanisms, legal and regulatory environment for fostering and supporting sales of excessive electricity to the centralized power grids by energy producers, - business entities and organizations who use renewable energy, and consumers who satisfy their demand for energy by renewable energy sources.
4. Organize works to develop and adherence the standards and normative for operation and safety of renewable energy equipments and machinery, and for their repair, maintenance to the level compatible with international standards.
5. Introduce energy Service Company (ESCO) activity structure based on concession and/or leasing agreement to create conditions for efficient activity of the organizations, which use renewable energy technology, and to improve their management.
6. Systematically prepare national specialists of renewable energy field in domestic and foreign universities, and train highly qualified technicians and engineers in developed countries.

7. Include in annual government centralized budget and funding of expenditures related to research, development, innovation and testing activities for study and introduction of modern and recent achievements, techniques and technologies in renewable energy utilizations.
8. Set up and operate scientific, technological and production parks of renewable energy to create conditions for extensive introduction of modern technological and scientific achievements for production, storage and transmission of energy using new energy sources such as renewable energy, hydrogen, and fuel cell elements.

Nine. Management of the Program

1. The Government of Mongolia will organize and implement the Program through extensive involvement of international banking and financial institutions, donors, private international and domestic investors and cooperation between the government and non government organizations.
2. Sub-programs aiming at using renewable energy for development of education, health, and agricultural industries will be developed and coordinated with the regional economic and social development plans.
3. Extend bilateral and international cooperation in renewable energy development.

Ten. Funds and Financial Sources required for the Program

1. Finance of the Program will be consisted from the followings:
 - 1/ The central government budget investment;
 - 2/ Support and assistance of international funds to support activities for use of renewable energy and new sources of energy;
 - 3/ Income to be generated from funds devoted for clean development mechanism to reduce green house gas emission;
 - 4/ International and domestic investment;
 - 5/ Soft loans and grants provided by donor countries and international organizations;
 - 6/ Donations and grants provided by foreign, international and domestic non government organizations.

Eleven. Program Outcomes

1. Completion and utilization of 100MW Orkhon river hydropower plant will create flexibility of operational regime of the central power grid and increase its independence.
2. Completion of constructions of Durgun and Taishir hydropower stations will ensure independence and reliability of the Western Region power supply.
3. The Full achievement of objectives raised in the National Program titled "100,000 Solar Gers" and delivery of renewable energy power sources to over 180 thousand herding households will encourage development of household production and reduce the migration from countryside to urban areas.

4. Completion of the task to deliver renewable energy power source to all remote soums and settlements not connected to centralized power grids will result with increasing opportunities for rural inhabitants in education, information access and will create conditions for development of production based on electronic governance and knowledge in rural areas;

Official translation

5. Construction of medium capacity (30-50 megawatts) wind parks in sites with proven wind energy potential and utilization these farms in the centralized power grid will create efficient and reliable operation condition.
6. Creation of favorable legal environment for the use of renewable energy, for energy conservation and for increasing the industry efficiency will result with wide opportunities for domestic and international companies and business entities to work in the renewable energy area.
7. Extensive use of renewable energy will exert significant positive influence in decreasing emissions of waste greenhouse carbon dioxide and other poisonous gases into the environment due to limited use of organic fuel (coal and oil etc.).

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