

PROGRESS TRENDS OF WIND ENERGY IN NEPAL

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Alternative Energy Promotion Centre (AEPC) is a Government institution established on November 3, 1996 under the then Ministry of Science and Technology with the objective of developing and promoting renewable/alternative energy technologies in Nepal. Currently, it is under Ministry of Environment. It functions independently, and has a nine member board with representatives from government sector, industry sector and non-governmental organizations.

The mission of AEPC is to make renewable energy mainstream resource through increased access, knowledge and adaptability contributing for the improved living conditions of people in Nepal. An institution recognized as a regional/international example of promoting large-scale use of renewable energy sustainable and a national focal point for resource mobilization". The focus is to make AEPC recognized as an active institution promoting Renewable Energy Technology (RET) in the region.

Subsidy Disbursement Status of SHS & SSHA

Activity	Target for FY 2010/11	Amount, NPR
Solar Home Systems (SHS)	80,000	640,000,000
Subsidy Disbursement till 1/07/2011 to 31/01/2012	25,025	205,971,000
Balance	54,975	434,029,000
Small Solar Home Systems (SSHS)	25,000	50,000,000
Subsidy Disbursement till 1/07/2011 to 31/01/2012	5,224	10,448,000
Balance	19,776	39,552,000
PV Pumping Systems	25	25,000,000
Subsidy Disbursement till 1/07/2011 to 30/11/2011	-	-
Balance	25	25,000,000

Towards the end of 20th and beginning of the 21st centuries, interest has risen in new and renewable energy (RE) sources especially wind energy for electricity generation. The scientists and researchers attempted to accelerate solutions for wind energy generation design parameters. Our life is directly related to energy and its consumption, and the issues of energy research are extremely important and highly sensitive. In a short time, wind energy is welcomed by society, industry and politics as a clean, practical, economical and environmentally friendly alternative.

After the 1973 oil crisis, the RE sources started to appear in the agenda and hence the wind energy gained significant interest. As a result of extensive studies on this topic, wind energy has recently been applied in various industries, and it started to compete with other energy resources. In this paper, wind energy is reviewed and opened for further discussion. Wind energy history, wind-power meteorology, the energy climate relations, wind-turbine technology, wind economy, wind hybrid applications and the current status of installed wind energy capacity all over the world reviewed critically with further enhancements and new research trend direction suggestions

Modern power generative technologies are oriented mainly on incineration of the fossil fuel accumulated by nature for a long period of time. Many Nepalis counted, that such way brings humanity over to the catastrophic consequences, shown above all things in formation of environment useless for life. Very big interest appears to the untraditional sources of receipt of energy, including winding energy.

For the modern technical level of wind energetic options we can use districts with average annual speeds of wind 5 m/s. Therefore the preliminary estimate of wind descriptions of territory of Nepal is given with use of this criterion. 214 weather-stations for a long period of time testify the analysis of these long-term supervisions that in Nepal winds prevail from 0-5 m/s. But experience showed that data was given about average annual speed of wind, got the weather-stations of Nepal, useless for production of electric power by windy power-stations, because there error very often makes 40-70%/ General power of perspective wind power station. Nepal is estimate in 16000 megawatt with the possible annual making of electric power about 30 billion kilowatt-hour.

As for a legal base, on June, 15, 1994 Cabinet of Minister of Nepal adopted the decision. 415 "About building of wind power-stations in Nepal", and on March, 2, 1996 Decree of President of Nepal was accepted 159/96 with the same name, which formed the special fund of building of wind power stations, due to the increase of tariff on electric power in a size 0.75% from the volume of commodity products of production of electric power.

Development of wind energetic of Nepal supports Law of Nepal "About of electro energy", Law of Nepal "About energy supply", Law of Nepal "About alternative energy sources". After average speeds of wind - 5 m/s, it is possible to select 6 districts (Pokhara , Dhangadhi, Bhaktapur, Biratnagar, Nepalgunj) and 2

areas (Kathmandu, Dharan). There are such wind power stations in Nepal: Laakuri Bhanjyaang, Lalitpur and Bhaktapur, Bihar, and also of the stage

of planning — Western- Kathmandu, Pokhara , Near Tibet, Laakuri and other.

Special researches with the purpose of estimation of public thought in behalf

of introduction of wind energetic in Nepal were not conducted. But events of 53

negative plan for all active period, beginning with 1989, place does not take any action.

And judging on the publications in mass Medias, it is possible to do a conclusion about positive perception of this direction. Positive argumentation is based on: receipt of electric power; improvement of ecological situation; creation of alternative to the nuclear power plants; creation of new workplaces. However, there are three fundamental problems in relation to development of wind energetic crisis of economy; unfavorable character of influencing of legislative base; imperfect organizational structure.