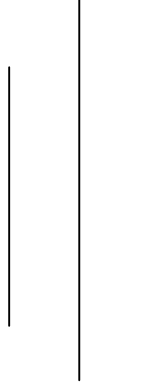
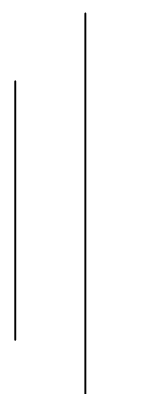


**His Majesty's Government of Nepal**  
**Ministry of Science and Technology**  
**Alternative Energy Promotion Centre**



**Subsidy for Renewable Energy, 2000**



# Subsidy for Renewable Energy, 2000<sup>1</sup>

## 1. Background

The exploitation of various sources of alternative and renewable energy like: biogas, small and micro hydropower, solar energy (Photovoltaic and Thermal), improved cook stove, wind energy, etc has great potentiality in Nepal. His Majesty Government has created the Alternative Energy Promotion Centre (AEPC) with the objective of developing and promoting different sources of renewable energy, considering the fact that the maximum utilization of these renewable energy resources could contribute to environmental protection and sustainable rural development. HMG has already provided subsidy to encourage the use of RETs for exploiting renewable energy resources. It is desirable to make necessary adjustment in the existing system of subsidy for extensive use of RETs. In this context, a seven member taskforce was constituted by the Ministry of Science and Technology. It has submitted its recommendations for improvement in the existing subsidy provision undertaking thorough study. The necessary adjustment in the existing subsidy system has been proposed to make Ret subsidy system more effective. The proposed subsidy system for RETs is based on the taskforce recommendations and the decision made by the high level meeting held on 2057/4/9. The meeting was chaired by vice chairman of the National Planning Commission.

## 2. Objectives

1. To Protect environment by encouraging the use of renewable energy resources and RETs in the rural areas and to provide opportunity to low-income rural households to use RETs.
2. To support rural electrification as well as gradually reduce the growing gap of electricity supply, consumption, etc. between rural and urban areas.
3. To make existing and forth coming grant assistance provided by donors more effective and objective oriented and thereby to attract the donors and other investor in RETs sectors.
4. To support development and extension of RET market by attracting private sector entrepreneurs.
5. To support the envisaged targets of RETs program of the Ninth plan.

## 3. Subsidy

### 3.1 Micro Hydro Power (MHP)

The subsidy amounts for MHP projects/schemes will be follows:

- 3.1.1 A subsidy amount of Rs.55,000 per kW will be made available for new MHP projects of capacity up to 3 kW, mainly the *Peltric* sets. Micro Hydro Projects of capacity above 3 kW to 100 kW will be provided with subsidy of Rs.70,000 per kW.
- 3.1.2 A subsidy at the rate of Rs.27000 per kW will be provided to the add-on electricity generation from *Improve Ghatta* for village electrification.
- 3.1.3 An additional subsidy will be provided for the transportation of equipment and materials of the MHP project. The transportation subsidy will be provided in the basis of walking days by porters to cover the distance from the nearest road head to the project site. The MHP projects will be categorized for transport subsidy as shown below:

Category	Location of MHP projects	Subsidy in NRs. per kW of installed capacity
A	Projects located at the distance of more than 5 days	21,000
B	Projects located at a distance of 2 days to 5 days	8,750
C	Project located at a distance of less than 2 days	No subsidy

<sup>1</sup> Subsidy policy approved by HMG/N on 23 October 2000 by a Cabinet Decision

- 3.1.4 Subsidy of 50% on the estimated cost, but not exceeding Rs. 35,000 will be provided for rehabilitation of MHP projects.

### **3.2 Solar Energy System:**

The subsidy to solar energy related projects and programme will be as mentioned below.

#### **3.2.1 Solar Home System (SHS)**

1. Subsidy will be provided to SHS of 10, 20, and 30 Watt peak or more from now onward.
2. The maximum subsidy for SHS of 30 Watt peak capacity or more will be Rs 8,000 per system.
3. Additional 50% and 25% subsidy per SHS system will be provided to the users in very remote and remote village development committees (VDC) of districts respectively. The classification of VDCs of the remote region will be as per the notification of the Ministry of Local Development (MOLD)/HMG in the Nepal Gazette part IV. The category “A” is very remote VDCs, while category “B” is remote VDCs. The name of VDCs in category “A” & “B” are presented in Annex 1.
4. The SHS lower than 30 Watt peak will be provided subsidy up to 50% of their cost. However such subsidy amount will not exceed Rs.8000 per system.
5. The subsidy amount mentioned above in (2) will be reduced every year by 10%.
6. The subsidy for SHS installed in Public institutions, mainly school, club, health post/centre, VDC buildings, etc. will up to 75% of the cost .

#### **3.2.2 Solar Cooker**

Considering increasing usefulness of the solar cooker the subsidy will be provided up to 50% of its market price but not exceeding Rs.3,750 per cooker.

#### **3.2.3 Solar Dryer**

There may be an extensive use of solar dryers in the rural areas due to fuel wood saving and drying of agriculture products/food without quality deterioration with their use. Solar dryer also may contribute positively in increasing rural household income. Therefore, it is appropriate to provide subsidy to family sized solar dryers as well as the commercial solar dryers that could be used for the commercial purpose.

Among these two types of solar dryers, subsidy to family sized solar dryer will be up to 50% of its cost and subsidy to dryers installed in rural areas for commercial purpose will be up to 70% of the cost. The additional 25% subsidy will be provided to commercial dryer scheme installed in the remote areas.

#### **3.2.4 Solar Water Pump**

Solar water pump could be very useful for micro-irrigation scheme and drinking water supply in rural areas that are not electrified yet. Not only the agricultural product would be increased but also the income of the poor farmers’ will be increased if irrigation facility can be provided to the high-flat lands in hills and mountains. Investigations carried out by institutions like Water and Energy Commission, International Centre for Integrated Mountain Development (ICIMOD), etc have demonstrated that solar energy based water pump could be feasible in Nepal. Similarly, they can also be feasible for rural drinking water supply. Therefore, in other to promote solar PV use in the productive activities, the subsidy will be provided to solar pumps of capacity up to 500 Wp at the rate of 75% of its cost.

### 3.3 Biogas

Among all the Renewable Energy Technologies, biogas has begun to occupy important role in rural areas. Subsidy has been given to biogas plants to benefit the rural households under biogas programme since a long time back. The Biogas Support Programme (BSP) has been implemented with joint funding of HMG/N, KfW and SNV/Nepal. The subsidy is being provided to family sized plant under this programme.

	Subsidy Allowed				Subsidy Allowed				Subsidy Allowed			
Name of districts/places	1. All districts of Terai as decided by His Majesty's Government (HMG) 2. All Municipalities of Kathmandu valley 3. Hetauda Municipality 4. Dang & Chitwan Districts				1. VDCs out of Kathmandu valley Municipalities 2. Hilly districts like Sindhuli, Udaypur, Makwanpur excluding Hetauda Municipality as decided by HMG				1. Excluding Dang & Chitwan and the districts headquarters connected by road but districts not connected by road by the end 2053/4/1. The districts are: Terahthum, Sankhuwashbha, Bhojpur, Solukhumbu, Okhaldhunga, Khotang, Ramechhap, Manang, Mustang, Myagdi, Rukum, Dailekh, Jajarkot, Rolpa, Jumla, Kalikot, Mugu, Humla, Bajura, Bhajang, Accham, Darchula			
Plant size	4 cu.m	6 cu.m	8 cu.m	10 cu.m	4 cu.m	6 cu.m	8 cu.m	10 cu.m	4 cu.m	6 cu.m	8 cu.m	10 cu. m
Subsidy per plant	7,000	7,000	6,000	6,000	10,000	10,000	9,000	9,000	12,000	12,000	11,000	11,000

The biogas program is under implementation as a joint venture of HMG, KfW and SNV. Considering the popularity of biogas plants, its huge potential and benefits, the present subsidy policy will be continued with the support of other potential donors and funding agencies, after the end of present biogas support program.

The present subsidy is limited to the plant size less than 10 cu.m. family size plants. Feasibility study of community biogas plants based upon biomass products and solid waste beside cow dung will be undertaken with the objective of supplying gas and electricity to neighbouring areas.

### 3.4 Improved Cook Stove (ICS)

No direct subsidy has been provided to improved cook stoves.

Many institutions are involved in the development of ICS. These institutions have been providing various kinds of supports. Close relationship or contact with NGOs and donors will be established to make the direct and indirect support to ICS made by them more effective.

### 3.5 Wind Energy

Consider the topography and climate of Nepal, the energy demand can be met to some extent by exploiting wind energy. Mechanical and electrical energy can be generated by wind energy. However, potential areas for wind energy exploitation need to be identified, for which wind data will be collected and wind map will be prepared. Subsidy to small-scale wind energy schemes will be promoted by attracting the investors in this area. Decision in respect of wind energy subsidy will be undertaken after the receipt of project proposal.

### 3.6 Working Procedure

- 3.6.1 In the above mentioned renewable energy systems, the Energy Sector Assistance Programme (ESAP) under the assistance the Royal Danish Government will provide 90% of subsidy amount in the micro hydro and solar energy subsidy, while 10% of the subsidy amount will be born by the HMG/N.
- 3.6.2 Necessary amount of loan for renewable energy sector will be made available through mobilizing financial institutions of HMG/N.
- 3.6.3 Alternative Energy Promotion Centre will deliver the subsidy by preparing mechanism for delivery of subsidy.
- 3.6.4 The first review of the subsidy policy will take place after one year and successive review will take place at the interval of 2 years.

## Annex to Appendix 1

S/N	Districts	Category "A" VDCs	Category "B" VDCs
1	Solukhumbu	Khumjung, Namche, Chaurikharka, Jubing, Pawai, Chheskam, Bung, Gudel, Lokhim, Waku, Sotang.	Kerung, Gora, Tapting, Makanje, Chaulakharka, Goli, Taksindhu, Beni, Loding, Salleri, Kaku, Wasa, Jubu, Panchan, Kagel, Maile, Mukli, Deusa, Garma, Nechaweldhari, Nechabatashe, Salyan, Tinla.
2	Manang	Dhyaru, Pisang, Bhraka, Khangsar, Manang, Tangkimanang, Nar, Phu.	Thoche, Dharapani, Chame, Bagarchhap.
3	Mustang	Dhami, Charang, Lomrathang, Chhondup, Chhoser, Surkhang.	Kagbeni, Chhusand, Muktinath, Lete, Marpha, Kunjo, Jhong, Kowang, Tukuche, Jomsom.
4	Rukum	Rangshi, Taksera, Hukam, Ranmamekot, Gotamakot, Shyalagadhi, Athbis, Sisne, Kangkri, Dada, Gaoun, Ghetma, Pwang, Kada, Morawang, Kole, Pang, Mahat, Athbiskot.	Pokhara, Chunwang, Sangkh, Shyalapakh, Pipal, Chokhawang, Chhiwang, Nuwakot, Waphalikot, Jhula, Shobha, Khara, Rutha, Malancha, Nushikot, Chaurjahari, Purtimkangda, Kholagaoun, Peutha, Muru, Arma, Simli, Garayala, Magma, Duli.
5	Dolpa	Juphal, Majhphal, Suhung, Tripurakot, Pahada, Likhu, Lhang, Kalika, Narku, Sarmi, Rimi, Kaigaon, Phoksundo, Raha, Bhijer, Saldang, Tinge, Lawan, Gho, Shahartara, Chharka, Mukot, Dunai.	————
6	Mugu	Karkiwada, Pina, Shreenagar, Magri, Rowa, Ruga, Mugu, Pule, Dolphu, Kimari, Jim, Natharpu, Phatu, Mihi, Rara, Kale, Dhain, Hyanglu, Kotdanda, Sukhadhik, Shreekot, Seri, Rmale, Gumtha.	————

S/N	Districts	Category “A” VDCs	Category “B” VDCs
7	Humla	Wargaon, Hewapa, Dandaphaya, Syada, Khagalgaon, Madna, Muchu, Limi, Theh, Khapunath, Chhipra, Lali, Shreemasta, Rodikot, Gothi, Melchhap, Darma, Mimi, Waraigaon, Rowa, Saya, Shreenagar, Kalika, Maila, Jair, Simikot, Sarkideu.	_____
8	Jumla	Patarasi, Tamti, Malika, Kalika, Dhapa, Pandawagupha, Birat, Mahadev, Anigau, Narakot	Mahatgau, Taliuma, Chhumachaur, Guthichur, Ganyang Kot, Depal Gau, Kartik, Swami, Haku, Lamra, Tatopani, Lihi, Hatacinja, Chutha, Bunmramadi, Chaur, Dillichara, Wadako, Kudari, Matamara, Chandananath
9	Kalikot	Daha, Pakha, Badalkot, Nanikopt, Syawa, Sipkhana, Mumra, Raku, Rupca, Kumalgau, Lalu, Marta, Sukatiya, Mugraha, Gala, Ollanku, Chabra, Jubitha, Rachuli , Thripu, Khin, Mamma, Ramnacoat, Fukot(Kakot), Mahalmudi, Kotwada, Chilkhama, Foemmahadev , Ghailacoat, Malcoat	
10	Taplajung	Oolangchunggola, Papung, Yamfudin, Lalap	Iekhabu, Tapatok
11	Sankhuwasabha	Pawakhola, Hatia, Chapuwa, Num Kimathanka, Sisuya, Wala, Makalu, Wangtewa, , Yafu, Tamku, Mathivara	
12	Dolakha	Bigu, Aalampu Gorshankar, Lamabagar	
13	Rasuwa	Thuman, Timara, Lamtang, Chilima	Bridim, Haku Gatlang, Golgung
14	Gorkha	Lho, Samagau, Prok, Bihi, Chuchat, Chakampar	Sidhewas, Ueya, Kkaraujakasi, Gau, Manwula, , Prack, Gumda, Lapu
15	Rolpa	Kurali Thawang Mirul, Rangcoat, Pachawang, Rak, Pakhapani Wot Talawang, Pang, Gharti Gau Corchagwang Rangci, Dhawang, Ginawang, Eriwang	
16	Acham	Kalakada, Tadigara, , Pullitora, Sutar, Santada, Wawala, Bhatakatiya, Batulasain	Duni, Patal, Budakot, Sidhaswore, Ghugharcoat, Devasthan, Kuskoat, Thathi, Rishidaha, Warala, Soda Bindabashani Nandagada,
17	Sindhupalchok	Gumba, Phoolpingkati, Tatopani	
18	Dhading	Lapa, Tpling	

S/N	Districts	Category “A” VDCs	Category “B” VDCs
19	Jajarkot	Ramidanda, Sakiya, Kowang, Madaroo, Nayakwada, Deha, Majkoat, Suwa, Guga, Naulli, Salma, Thapachaur, Sakala, Thalarekar, Bhagwati, Khagainakoat, Ragda, Dadagaau, Talagau, Ghapra Rokayayagau, Garkha, Thera, Thime	Sima, Karkigaun, Khalanga, Gagatipur, Bhur, Panama
20	Bajura	Gotri, Katila, Wai, Jukat, Sapata, Biche, Dehakoat, Bhanakoat, Rugin	Budhiganga, Martadi, Gugada, Gagnath, Wandu, Pandusen, Atichaur, Kada, Barabese, Kuldeumandu, Tolideval, Dogadi, Gudukhati, , Jayabageswori, Brahmatoala, Kailashmandu, Chatra, Kalti
21	Baghang	Kada, Bhamchaur, Baagh, Sunkuda, Syadi, Deulicoat, Kafalseri, Pipalcoat, Dehabagar, Khiratadi	Surma, Dolichaur, Rithapata, Chainpour, Sunikoat, Dhamena, Datal, Mailpesaune, Rilun, Mastadev, Luyata, Bhatekhola, Katdeval, Kailash, Hemantabada, Luyata, Gadrai, Patadevel, Kalukhati, Maghigaun, Malatola, Pauwagadi, Malumala, Katbhairab, Parakatna, Dangaji, Subada, Matala, Kadal, Byasi, Lekgaun, Chaudhari, , Maulali, Senpasela, Bhairavnath, Royal, Deulekh, Koiralakoat
22	Darchula	Tapoban, Sairi, Kate, Kata, Lali, Uku, Khalanga, Shapa, Lattu, Malikarjun, Dhari, Bharmadev, Chapari, Dhaulakot, Huti, Pipalchaur, Wyasa, Rapla, Sunsera, Sitaula, Gulgar, Khandeswari, Ghusha	Ranishikhar, Dethala, Shikhar, Khar, Aircoat, Sipy Dhuligard, Sarvoli Rithachapat, Boharri, Gaun, Aaguani, Gokulaswar, Shankarpur, Dadakoat, Hunanath, Kharkahada, Bhagbati, Hikila, Laltine