

A YEAR IN REVIEW

NYF 2069/70 (July '12 - July'13)

Making Renewable Energy
Mainstream Supply to Rural Areas of Nepal



Government of Nepal
Ministry of Science, Technology & Environment
Alternative Energy Promotion Centre

Table of Content

| | |
|--|----|
| Executive Summary | 2 |
| 1. Energy Situation in Nepal | 4 |
| 1.1. Energy Data | 5 |
| 1.2. Sources of Cooking Fuels | 5 |
| 1.3. Sources of Lighting | 6 |
| 1.4. RET Installation Data | 6 |
| 2. AEPC at a Glance | 7 |
| 2.1. Brief Introduction of AEPC | 8 |
| 2.2. Our Approach and Modality | 8 |
| 2.3. Our Partners | 9 |
| 2.4. Our Staff | 9 |
| 3. Introduction to AEPC's Programmes | 11 |
| 3.1. National Rural and Renewable Energy Program (NRREP) | 12 |
| 3.2. Programmes/ Projects under NRREP Framework | 15 |
| 3.3. Renewable Energy for Rural Livelihood (RERL) | 16 |
| 3.4. Enhanced Rural Energy Service Programme-Kabeli Transmission Project | 17 |
| 3.5. Wind Energy Development Activities | 17 |
| 3.6. Regional Centre of Excellence in Micro Hydro (RCEMH) | 17 |
| 4. Annual Performance of AEPC | 18 |
| 4.1. Pico/Micro Hydropower Energy | 19 |
| 4.2. Solar Energy | 20 |
| 4.3. Biogas Energy | 21 |
| 4.4. Biomass Energy | 21 |
| 4.5. Productive Energy Use | 22 |
| 4.6. Institutional Support Activities | 23 |
| 4.7. Carbon Financing | 23 |
| 4.8. Activities related to Clean Development Mechanism (CDM) projects: | 23 |
| 4.9. Gender Equality and Social Inclusion (GESI) | 23 |
| 4.10. Monitoring and Quality Assurance Activities | 22 |
| 4.11. Wind Energy | 24 |
| 4.12. Establishment of RCEMH Office | 24 |

| | |
|---|----|
| 5. Renewable Energy Initiatives | 26 |
| 5.1. Renewable Energy Week 2013 | 27 |
| 5.2. Nepal Renewable Energy- Waste to Energy Bazaar 2013 | 27 |
| 5.3. Formation of Nepal Alliance for Clean Cook stove (NACC) | 28 |
| 5.4. Clean Cooking Market Place 2013 | 28 |
| 5.5. Celebration of 500,000 plus ICS dissemination | 29 |
| 5.6. Mini Grid Initiatives | 29 |
| 6. Manuals/Guidelines/Studies/Surveys/Trainings | 30 |
| 6.1. List of Manuals/Guidelines | 31 |
| 6.2. List of Trainings/Workshops | 32 |
| 6.3. List of Studies/Survey & Design | 33 |
| 6.4. List of Pilot Initiatives | 33 |
| 7. Best Practices | 34 |
| 7.1. Bringing Water to the Farmers: Lift Irrigation Powered by Micro Hydro | 35 |
| 7.2. Improved Cooking Stove: Small, But Powerful Tool for Woman Empowerment | 35 |
| 7.3. My Life Has Changed: Has Yours? | 36 |
| 8. Financial Inputs and Expenditures | 37 |
| 8.1. Summary of Funds | 38 |
| 8.2. AEPC's Programmes/Projects Fund Utilization | 38 |
| 8.3. NRREP's Fund Utilization | 39 |
| 9. Annex Part | 42 |
| 9.1. Annex 1: Districtwise RETs Installation in 2069/070 (2012/2013) | 43 |
| 9.2. Annex 2: List of DPs/ Service Providers/ PQ Companies of RETs | 58 |
| 9.3. Annex 3 : Associations of Private Sector involved in RETs | 75 |
| List of Figures | |
| Figure 1: Sources of Energy | 5 |
| Figure 2: Traditional Sources of Energy | 5 |
| Figure 3: Commercial Sources of Energy | 5 |
| Figure 4: Sources of Cooking Fuels | 5 |
| Figure 5: Existing Sources of Lighting | 6 |
| Figure 6 : AEPC PPP Model | 8 |
| Figure 7 : AEPC's Existing Programmes/ Projects | 9 |
| Figure 8 : Region wise Installation of Pico/Micro Hydro Plants (2012-13) | 19 |
| Figure 9: District wise IWMs Installations (2012-2013) | 19 |

| | |
|---|----|
| Figure 10 : NRREP: Region wise SHS Installation (2012-2013) | 20 |
| Figure 11: Region wise SSSHS Installation | 20 |
| Figure 12 : Region wise ISPS Installations (2012-2013) | 20 |
| Figure 13 : Region wise Biogas Plants Installtion (2012-2013) | 21 |
| Figure 14 : Ecological Zones wise ICSs Installtions (2012-2013) | 21 |
| Figure 15 : Region wise ICSs Installation (2012-2013) | 22 |
| Figure 16 : Region wise MICSSs Installation (2012-2013) | 22 |
| Figure 17 : Identified Types of Enterprises | 22 |
| Figure 18 : Gender Ownership of RETs Installed (2012-2013). | 24 |
| Figure 19 : Summary of Annual Budget (2069/070) | 38 |
| Figure 20 : NRREP's component-wise fund utilization | 39 |
| Figure 21 : NRREP's Fund Utilization | 40 |
| Figure 22 : NRREP's technology-wise fund utilization | 41 |

List of Tables

| | |
|---|----|
| Table 1 : RET Installation data(as of July 15,2012) | 6 |
| Table 2: Funding Partners | 12 |
| Table 3 : Key Targets of NRREP (July, 2012-July, 2017) | 14 |
| Table 4: List of Manuals/Guidelines | 31 |
| Table 5: List of Trainings/Workshops | 32 |
| Table 6: List of Studies/Design/Surveys | 33 |
| Table 7: List of Pilot Innitiatives | 33 |
| Table 8: AEPC's Planned and Spent Funds in 2069/070 (2012/2013) | 38 |
| Table 9: AEPC's Prgramme/Projects Funds | 38 |
| Table 10: NRREP's Fund Details (2012-2013) | 39 |
| Table 11: NRREP's Donor-wise fund utilisation (2012-2013) | 40 |
| Table 12: NRREP's Subsidy Disbursement Details | 41 |

Abbreviations

| | |
|--------|---|
| AEPC | Alternative Energy Promotion Centre |
| ADB | Asian Development Bank |
| CCS | Clean Cooking Solution |
| CCU | Climate Carbon Unit |
| CE | Community Electrification |
| CEDB | Clean Energy Development Bank |
| CREF | Central Renewable Energy Fund |
| DCEP | District Climate and Energy Plan |
| DDC | District Development Committee |
| DEEU | District Energy and Environment Unit |
| DFID | UK Department for International Development |
| ESAP | Energy Sector Assistance Programme |
| FY | Fiscal Year |
| GIZ | German International Cooperation |
| GoN | Government of Nepal |
| GESI | Gender Equality and Social Inclusion |
| HH | Household |
| ICS | Improved Cooking Stove |
| IGA | Income Generating Activities |
| IICS | Institutional Improved Cooking Stove |
| IAP | Indoor Air Pollution |
| ISPS | Institutional Solar Photo Voltaic System |
| IWM | Improved Water Mill |
| Kfw | German Development Bank |
| KWh | Kilo Watt hour |
| LPO | Local Partner Organisation |
| M & E | Monitoring and Evaluation |
| MHDF | Micro Hydro Debt Fund |
| MHP | Micro Hydropower Plant |
| MICS | Metallic Improved Cooking Stove |
| MoSTE | Ministry of Science, Technology and Environment |
| MoE | Ministry of Energy |
| MoFALD | Ministry of Federal Affairs and Local Development |
| MoU | Memorandum of Understanding |
| MOA | Monitoring and Quality Assurance |
| MSME | Medium, Small and Micro Enterprise |

| | |
|--------|--|
| MW | Mega Watt |
| NEA | Nepal Electricity Authority |
| NGO | Non Governmental Organisation |
| NPR | Nepalese Rupee |
| NRREP | National Rural and Renewable Energy Programme |
| NMHDA | Nepal Micro Hydro Development Association |
| O&M | Operations and Maintenance |
| PEU | Productive Energy Use |
| PPP | Public Private Partnership |
| PQ | Pre Qualified |
| PV | Photo Voltaic |
| PVPS | Photo Voltaic Pumping System |
| PSC | Programme Steering Committee |
| RE | Renewable Energy |
| REF | Renewable Energy Fund |
| RERL | Renewable Energy for Rural Livelihoods |
| RET | Renewable Energy Technology |
| RETS | Renewable Energy Test Station |
| RSC | Regional Service Centre |
| SAF | Subsidy Application Form |
| SEMAN | Solar Electricity Manufacturer's Association Nepal |
| SE | Solar Energy |
| SGBP | Saheri Gharelu Biogas Plants |
| SHS | Solar Home System |
| SNV | Netherlands Development Organization |
| SOD | Strategic and Organizational Development |
| SREP | Scaling UP Renewable Energy Programme |
| SSHS | Small Solar Home System |
| TA | Technical Assistance |
| ToR | Terms of References |
| TRC | Technical Review Committee |
| UK | United Kingdom |
| ULAB | Used Lead-Acid Battery |
| UNCDF | United Nations Capital Development Fund |
| UNFCCC | United Nations Framework Convention for Climate Change |
| UNDP | United Nations Development Programme |
| USD | United States Dollars |
| VDC | Village Development Committee |
| WWF | World Wildlife Fund |



FOREWORD BY EXECUTIVE DIRECTOR

The Alternative Energy Promotion Centre's (AEPC) activities in the fiscal year 2069/070 (July 2012 - July 2013) have created new momentum in the growth of the renewable energy sector.

This year was notable because of strengthened partnerships and new collaborations with various national and international development partners, but also local government agencies, civil society organisations and the private sector. The National Rural and Renewable Energy Programme (NRREP), initiated in the same fiscal year, is a testimony to the major success in bringing together a wide range of projects and stakeholders. The programme stands out as a benchmark for enhanced service delivery and commitments to renewable energy.

Change within an organisation cannot happen overnight. It takes a combination of time and strong commitments from the staff and partner organisations. AEPC's progress towards its goals, however, has been remarkably quick, as new projects are already starting to materialise. During the fiscal year 2069/2070, the AEPC has matured into a highly professional organisation.

With the continuous support of development partners wanting to support renewable energy, Nepal's renewable energy sector has adopted a single-programme-modality approach. In July 2012, a comprehensive programme, the NRREP, supported by the Government of Nepal (GoN) and a consortium of development partners was initiated under AEPC's umbrella.

In June 2013, NRREP completed its first year, which was instrumental in establishing new and innovative modalities in renewable energy: in-depth focus on energy end-use promotion, financing through the Central Renewable Energy Fund (CREF), prioritising gender and social inclusion (GESI), deriving in-house monitoring, and ensuring revenue from carbon markets. Such activities have earned the AEPC international recognition.

AEPC's field activities gained momentum in this time period. Technologies that so far lacked widespread recognition at the national level were promoted. Wind energy harvesting, for instance, was researched, and pilot projects are ready to be implemented.

Similarly, the organisation has focused on strengthening cooperation with stakeholders and building capacity during this fiscal year.

Remarkable progress has been made in promoting various renewable energy Initiatives across the country, consolidating three decades of AEPC's efforts, strengthening international recognition, and ensuring that innovative ideas continue to be implemented in the near future.

This year, the AEPC has launched several initiatives: Waste to Energy, Clean Energy Solutions to All by 2017, Minigrid Initiative, Clean Cooking Market Place, etc. These activities were developed with consideration for the needs of the general public, and the scope of scaling up renewable energy initiatives.

AEPC's initiatives have come a long way and there is still a lot that needs to be done. In particular, the Central Renewable Energy Fund requires utmost consideration, even though all the preparatory work has been completed. But, in general, all of AEPC's programmes are in need of more attention and dedication so that national targets/goals can be met.

I am confident that in the coming years we will be able to create significant improvements in the renewable energy sector.

In the end, I would like to acknowledge the efforts of Mr. Surya Kumar Sapkota, assistant director at AEPC; Mr. Mukesh Ghimire, energy officer at AEPC; Mr. Barun Kanta Adhikary, national advisor at NRREP; and Mr. Bibek Raj Kandel, programme officer at NRREP for initiating and providing all the necessary support to complete this report. I would like to extend a special thanks to Mr. Bharat Raj Poudel for providing his professional inputs in tabulating and consolidating AEPC's year-long activities in the form of this report.

Prof. Dr. Govind Raj Pokharel

AEPC Executive Director

EXECUTIVE SUMMARY

This progress report on the AEPC for the fiscal year 2069/2070 gives an overview of various programmes and projects undertaken by the organisation. It presents the most up-to-date information available using indicators from the NRREP results framework, the Renewable Energy for Rural Livelihood (RERL) project, and other initiatives under AEPC.

The report gives a summary of major activities, accomplishments, and steps taken in 2013 to reach out to as many households as possible that are not served or underserved with regards to modern energy usage. Historically, the AEPC has catered almost exclusively to off-grid rural households. Therefore, 2013 has been unique due to the additional efforts and initiatives launched to cater towards urban energy needs.

2012 was a turning point for AEPC because of the launching of the comprehensive NRREP, in July 2012, which functions as a single programme modality. This has been possible only because of the dedication and hard work of AEPC's staff, stakeholders, and development partners.

During the period under review, 134 micro hydro projects with a total capacity of 3,239 kW, benefiting approximately thirty-three thousand households, were installed across the country with support from AEPC's programmes (NRREP and RERL).

Altogether 1,256 improved water mills were installed in 30 hill districts; 126 of these mills were installed in Dailekh district alone.

Similarly, 91,879 solar home systems with a total capacity of 2,026 kWp were installed across the country, along with a total of 7,455 small solar home systems.

Likewise, 41 public schools located in rural areas benefited from the installation of solar photo voltaic systems, which has provided the schools with the opportunity for using electricity for evening classes, to operate computers, etc.

Twenty-five community-managed drinking water pumping systems with a total capacity of 45.4 kWp were installed in 16 districts.

During the period, the biogas sector initiated two new activities: promotion of Sahari Gharelu (urban household) biogas plant, and large-scale biogas. Well above the annual target of 19,000, 22,112 domestic biogas plants have been installed in 62 districts.

A total of 128,345 mud-based improved cooking stoves were installed. The majority of these were installed as household stoves, but 357 were installed as institutional or community-based stoves – mainly in hotels and restaurants. In the mountain districts, and at higher altitudes, 3,806 metallic improved cooking stoves were installed for both cooking and space heating.

Sixty-five energy based enterprises ranging from typical mills to lokta (artisan paper) factories were supported with 32 micro hydropower plants across 21 districts.

During the period under review, many new projects were initiated, for example the promotion of Sahari Gharelu (urban household) biogas plant, and large-scale biogas. Special attention was given to the promotion of solar mini grid systems; technical design of two pilot systems has been completed. Symbolically speaking, the most important project was the replacement of diesel-based electricity with solar power at the AEPC building. The 40 kWp solar power project was successful thanks to support from the Government of Denmark.

Besides actual projects, significant achievements have been made in the institutional development of the AEPC. The selection of nine regional service centres and two national technical service providers is a major milestone that will help in the implementation of AEPC's activities at the local level. Similarly, the organisation has started providing both financial and technical support to the district energy and environment units in carrying out promotion, co-ordination, and monitoring activities related to renewable energy.

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Likewise, the AEPC strategic and organisational development plan is in the process of being finalised. Renewed focus on gender and social inclusion (GESI) activities has resulted in more just and equitable social development. The concept of result-based management has been introduced re-orienting AEPC's planning, monitoring and reporting mechanism towards getting tangible results.

AEPC's promotional activities in the renewable energy sector have contributed significantly in the reduction of CO₂ emission. In 2012, the use of various technologies based on renewable energy has reduced emission by 2.35 million tonnes of CO₂ equivalent.

Considerable efforts have been made to establish the Central Renewable Energy Fund as a financial institution that will administer and manage subsidy and credit. This is mainly important considering that several promotional renewable energy initiatives were undertaken during this reporting period, attracting new national entrepreneurs and international agencies into the renewable energy sector.

Initiatives focusing on rural households, such as Clean Energy Solutions to All by 2017 and Indoor Air Pollution free country by 2017, were announced in the same time period, due to strong commitments from the government and several development partners.

The long list of tangible achievements mentioned above would not have been possible without the support of national and international actors and agencies. During this fiscal year, a budget of NPR 2,466 million was allocated to the AEPC, which includes NPR 645 million from the government (26 percent) and NPR 1821 million from the development partners (74 percent). The total annual expenditure for the period stands at NPR 1,944 million; AEPC has mobilised 79 percent of the planned budget in various activities.

ENERGY SITUATION IN NEPAL



1 ENERGY SITUATION IN NEPAL

1.1 Energy Data

Energy is a vital input for many everyday activities like cooking, heating, lighting, etc. The backbones of modern society – agriculture, health sector, transportation, education, and industry – rely on it.

In the context of Nepal, the energy mix is characterised by the dominance of traditional sources, followed by commercial and renewable.

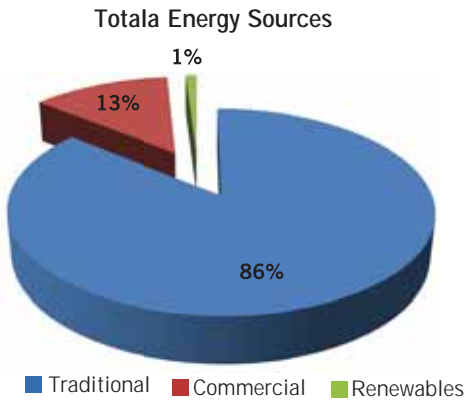


Figure 1 : Sources of Energy

About 85 percent of the total energy consumption in Nepal is met through traditional biomass. Out of the total biomass, firewood contributes about 89 percent, animal waste 7 percent and the remaining 4 percent from agricultural residues.

The rest is met through commercial sources: petroleum

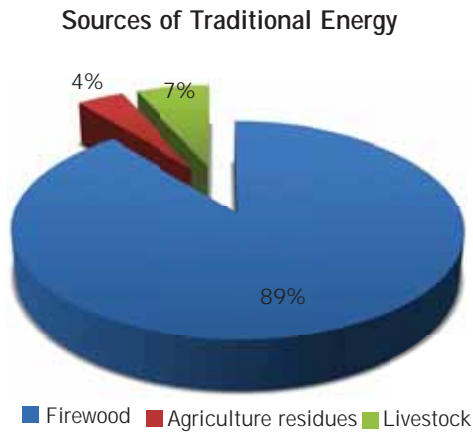


Figure 2 : Traditional sources of Energy

products, Electricity and coal. Renewable energy contributes 1 percent to this mix.

Sources of Commercial Energy

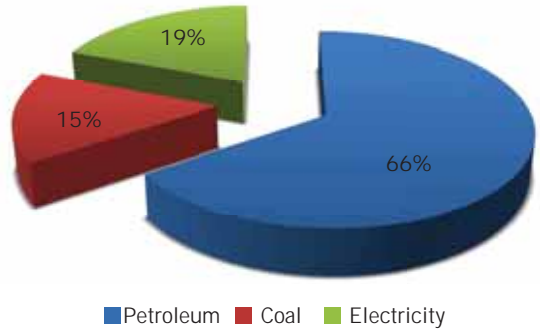


Figure 3 : Commercial sources of Energy

1.2 Sources of Cooking Fuels

Firewood is the main source of cooking in rural and semi-urban areas of Nepal. Liquefied petroleum gas is the second largest, and used mainly in urban and semi urban areas. Only 2 percent of cooking is done using biogas. Electricity is the least significant source.

Sources of Cooking Fuels

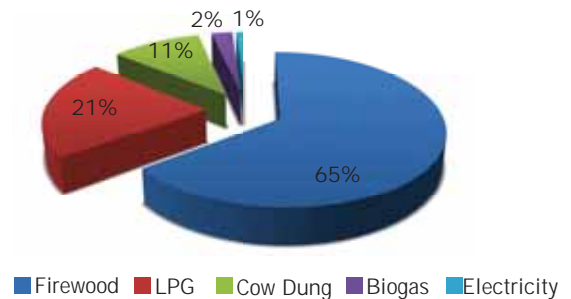


Figure 4 : Sources of Cooking

1.3 Sources of Lighting

The recent Central Bureau of Statistics (CBS) data reveals that around 75% households in Nepal have access to electricity including electricity from renewable sources as microhydro and solar. The majority of the population, who don't have access to electricity, reside in rural areas.

Electricity (grid) is a predominant source of lighting among the majority of Nepalese households with access to it. Kerosene is mainly used for lighting in households located in remote areas of Nepal. Solar PV is also major source of lighting.

1.4 RET Installation Data

The data presented in Table 1 below shows cumulative numbers for specific renewable energy technology (RET) installations in Nepal by AEPC and other programmes till July 15, 2013.

Sources of Lighting Fuels

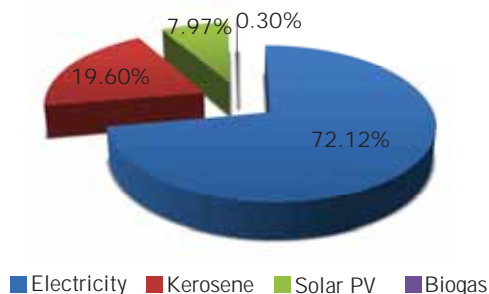


Figure 5 : Existing Sources of Lighting

Table 1 : RET Installation data (as of July 15, 2012)

| SN | RE technologies | Unit | Installed Numbers |
|-----|---------------------------------------|---------|-------------------|
| 1. | Mini Hydropower Plants | kW(No.) | 16,338 (42) |
| 2. | Micro Hydropower Plants | kW(No.) | 24,605 (1287) |
| 3. | Pico Hydropower Plants | kW(No.) | 3,703 (1634) |
| 4. | Improved Water Mills | No. | 9,015 |
| 5. | Biogas Plants | No. | 277,226 |
| 6. | Institutional Biogas Plants | No. | 226 |
| 7. | Community Biogas Plants | No. | 124 |
| 8. | Improved Cooking Stoves | No. | 739,283 |
| 9. | Institutional Improved Cooking Stoves | No. | 1,518 |
| 10. | Metallic Cooking Stoves | No. | 6,940 |
| 11. | Solar Home Systems | No. | 329,849 |
| 12. | Institutional Solar PV Systems | No. | 2,155 |
| 13. | Photo Voltaic Pumping System | No. | 111 |
| 14. | Solar Dryer and Solar Cooker | No. | 2,062 |

Table 1 [Source: RET Baseline 2012]

AEPC AT A GLANCE



2.1 Brief Introduction of AEPC

The Alternative Energy Promotion Centre (AEPC) is a government institution established on November 3, 1996 under the then Ministry of Science and Technology (MoST) with the objective of developing and promoting renewable/alternative energy technologies in Nepal. Presently, AEPC is under the Ministry of Science, Technology and Environment (MoSTE). It is working as a national focal agency of alternative/renewable energy in Nepal.

AEPC functions independently, and has an eleven member board with representatives from the government sector, private sector and non-governmental organisations.

2.1.1 Mission

Our mission is to make renewable energy a mainstream resource through increased access, knowledge and adaptability contributing for the improved living conditions of people in Nepal.

2.1.2 Vision

Our vision is to develop into an institution recognised as a regional/international example of promoting large-scale use of sustainable renewable energy and a national focal point for resource mobilization.

2.1.3 Strategic Objectives

Our objectives are to:

- To popularise and promote the use of alternative/renewable energy technology.
- To raise the living standard of the rural people.
- To protect the environment.
- To develop the commercially viable alternative energy industries in the country.

2.1.4 Where We Works

AEPC works in all 75 Districts of Nepal.

2.2 Our Approach and Modality

2.2.1 Approach

AEPC follows the Public Private Partnership (PPP) Model and Demand Based Approach. The public sector works for the capacity building, technical and financial assistance, coordination, quality assurance etc. and the private sector works for manufacturing, supply and installation, and after-sales services.

AEPC has established District and Environment Unit/Section (DEEU/S) in all 75 districts of the country for monitoring and supervision of RETs and programs. Programmes have regional and district level partners working as outreach for collecting demands, implementation and monitoring.

There are nine Regional Service Centres (RSCs) and two National Service Providers (NSPs) supporting AEPC in achieving its targets and goals. Pre-qualified (PQ) companies are involved in manufacturing, supply, installation and after sales services. There are separate PQ companies for different RETs and the subsidy is channelised only through such companies.

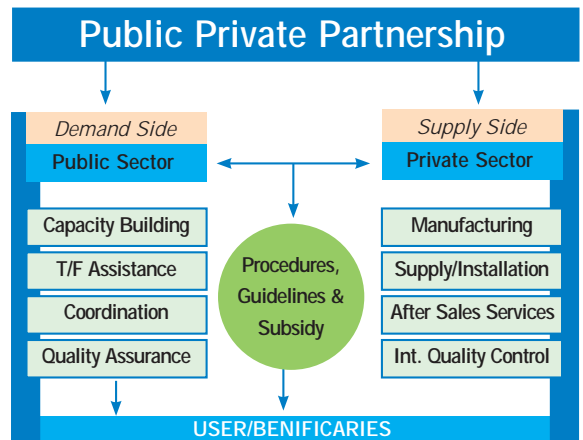


Figure 6 : AEPC PPP Model

2.2.2 Programme/Project Implementation Modalities

Presently, AEPC executes renewable energy programmes, which are effectively contributing to the promotion of following the renewable energy technologies (RETs):

| | |
|---|--|
| 1 | Mini/Micro/Pico Hydro including Improved Water Mills |
| 2 | Solar Photovoltaic and Solar Thermal |
| 3 | Biogas |
| 4 | Biomass Energy including IM-ICS |
| 5 | Wind Energy |
| 6 | Biofuel |
| 7 | Energy Efficiency |

Under the broad category, AEPC's existing programmes/projects are classified into three main sub groups:

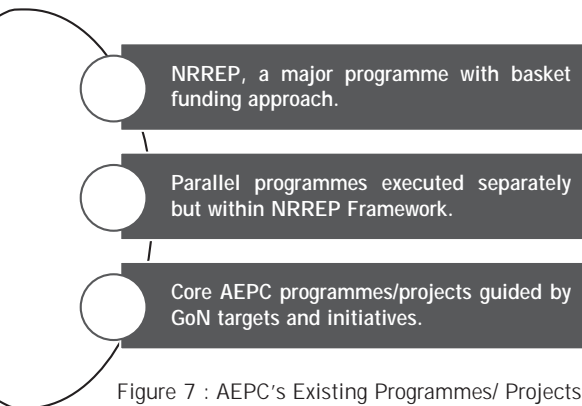


Figure 7 : AEPC's Existing Programmes/ Projects

2.3 Our Partners

2.3.1. National

At national level AEPC works closely with related ministries, their departments, non-governmental organisations, private sector, civil society, national banking institutions, academic institutions and community/users groups for the development and promotion of RETs in the country.

2.3.2. International

During two decades of its successful operation AEPC has maintained working relations with a range of External Development Partners (EDPs), Intergovernmental organisations, multilateral banks etc. Details on national and international partners involved in this sector are presented in the Annexes.

2.4 Our Staff

Our distinguished team of around 500 people brings passion for equitable access to sustainable energy and expertise in developing strategies, best practices, writing, and training in the fields of renewable energy and climate change.

Our diverse staff contribute unique talent, insight, and perspective from backgrounds ranging from academia, law, public policy, organisational development, direct service, community mobilisation, and technical assistance.

Presently, AEPC has 35 total permanent staff. Out of them about 10 staff are involved in coordinating and managing executive portfolio of programmes under AEPC. An additional 75 staff are directly engaged in NRREP and RERL to support AEPC in achieving stipulated targets. Approximately 350 professional staff are working in nine Regional Service Centers (RSCs) and two National Service Providers (NSPs).

OUR PARTNERS



AEPC'S PROGRAMMES



INTRODUCTION TO AEPC'S PROGRAMMES

3. 1 National Rural and Renewable Energy Program (NRREP)

3.1.1 Introduction

AEPC has started execution of the National Rural and Renewable Energy Programme (NRREP) from 16 July 2012. A consortium of five governments, two multilateral banks and three intergovernmental organisations are committed to a USD 184 Million budget to execute this five-year programme

Table 2: Funding Partners

| Governments | Multilateral Banks | Intergovernmental Organizations |
|----------------|--------------------|---------------------------------|
| Nepal | | UNDP |
| Danida | ADB | UNCDE |
| Norway | UNDP | SNV |
| Germany | | |
| United Kingdom | | |

3.1.2 Objectives

The development objective of NRREP is to improve the living standards of rural women and men, increase employment of women and men as well as productivity, reduce dependency on traditional energy and attain sustainable development through integrating the alternative energy with the socioeconomic activities of women and men in rural communities.

3.1.3 Key Features

- The NRREP is firmly aligned to the existing and evolving GoN framework and structure. The programme follows the GoN subsidy policy and subsidy delivery mechanisms. The M&E systems are aligned towards the GoN monitoring requirements.
- The NRREP adopts a strong focus on poverty reduction and expedites GESI through a mainstreaming process into the programme by enhancing capacity building to increase access and decision making capacity.
- The NRREP envisions positive effects on environment and climate change and changes the life of rural women and men in Nepal with due focus to increase and maximize carbon market revenue.
- Democratisation and good governance are addressed in different ways into the programme. It works in coordination/collaboration with DDC/DECSs/RSCs, local organisations and private companies following the principles of PPP.
- It emphasises decentralised energy systems, integrated programmes, environmental sustainability, partnership and coordination, research and technology transfer.
- The overall management of NRREP is carried out by the Programme Steering Committee chaired by the Secretary, Ministry of Science, Technology and Environment. With AEPC being the executing agency, the NRREP Programme Director is the Executive Director of AEPC.
- Each component/sub-component is managed by a team led by a Programme Manager and the team is supported by National Advisor, and other programme staff.
- NRREP follows the single programme modality. It expedites on previous projects/programs and extends the best practices of the past renewable and rural energy programme/projects. Its support package consists of financial resources, technical assistance, capacity building, coordination and collaboration for harmonisation and synergy.

3.1.4. Components

The NRREP has three components:

- I. **Central Renewable Energy Fund** with an immediate objective to institute the CREF as the core financial institution responsible for the effective delivery of subsidies and credit support to the renewable energy sector.

The Rural Energy Policy 2006 explicitly sanctioned the formation and operation of the Central Renewable Energy Fund (CREF) which was expected to evolve from the Rural Energy Fund (REF).

The Energy Sector Assistance Programme (ESAP) established the Interim Rural Energy Fund (IREF) in 2000, which was initially supported by Danida and GoN, and provided subsidy finance to the micro hydro and solar PV home system sectors. The IREF transformed into the REF in 2006 and provided subsidy support for RET applications till July 2012.

Existing CREF has been conceptualised as a Financial Intermediation Mechanism where two sets of banks will be carrying out the responsibilities of delivering subsidy and credit.

Once established and proven as an effective financing mechanism for the sector, it is expected that further funds will be committed to CREF by the Government and development partners given the importance of renewable energy in protecting the environment and contributing to rural livelihoods and development.

The CREF Financial Intermediation Mechanism will be implemented through private commercial and development banks selected on a transparent and competitive basis in accordance with well-defined eligibility criteria.

A Handling Bank – the apex financial institution - will be responsible for managing the core functions of CREF i.e. wholesale lending to Pre-qualified Partner Banks; Subsidy Fund Management; and Investment Management.

A number of Pre-qualified Partner Banks – the second-tier financial institutions - will be responsible for the retailing of CREF funds to eligible projects in the renewable energy sector. In order to enhance the outreach, the banks will be required to form strategic alliances with local financial institutions (LFI).

The modality of using Pre-qualified Partner Banks and LFIs is based on past experience of AEPC and ESAP and will significantly upscale this experience and link it to a Handling Bank as the apex financial institution responsible for fund management.

The selected banks will take the credit risks, which will

be reflected in the interest spreads, and as such they will also be responsible for loan appraisal and supervision.

Cost of fund management and interest margins will be a parameter in the competitive bidding process.

CREF will, through the Secretariat, assist the banks with capacity building in order to increase outreach, efficiency, infrastructure and stability of the financial systems for lending to the renewable energy sector.

- II. **Technical Support Component**, which has eight subcomponents/units with an immediate objective to accelerate renewable energy service delivery with better quality, comprising various technologies, to remote rural households, enterprises and communities, to benefit men and women from all social groups, leading to more equitable economic growth.

The Technical Support Component aims at accelerating RE service delivery to remote rural households to benefit men and women from all social groups contributing to a more equitable economic growth. The main sub-sectors and technologies targeted are: a) Solid biomass with a focus on Improved Cooking Stoves (ICS) and biogas; b) solar energy with a focus on solar PV home systems, and c) village electrification with a focus on micro-and mini hydropower and on improved water mills. The emphasis is on scaling up implementation of established RETs and on improving the quality of all technologies, but other promising technologies will also be promoted in appropriate ways. In addition, the component provides institutional building support to AEPC and the decentralised structures as well as support income generating and livelihood activities in catchment areas of community electrification schemes.

| NRREP's Technical Support Component: (Sub-components/Units) | |
|--|-------------------------------------|
| 1 | Biogas SC |
| 2 | Solid Biomass SC |
| 3 | Solar Energy SC |
| 4 | Community Electrification SC |
| 5 | Institutional Support SC |
| 6 | Gender and Social Inclusion Unit |
| 7 | Climate Change and Carbon Unit |
| 8 | Monitoring & Quality Assurance Unit |

Technical support component follows the strategy to assist the AEPC, through implementation of its Strategic Organisational Development plan, to become an effective, efficient and GESI proactive institution for the promotion and development of the Renewable Energy (RE) sector.

Across the various technologies, support is provided to formulation and implementation of Clean Development Mechanism (CDM) interventions and other climate finance mechanisms in order to raise additional resources to the Central Renewable Energy Fund (CREF).

III. Business Development for Renewable Energy and Productive Energy Use Component with the immediate objective to contribute to an increase in income and employment generation potential for micro, small and medium sized enterprises in rural areas, particularly for men and women belonging to socially and economically disadvantaged groups.

The PEU component formulates a broad range of activities that contribute to increase the income potential of households and MSMEs in rural areas by removing some of the main barriers to private sector development. Existing MSMEs with potentials to use RE productively are strengthened to increase their productivity and

income through technical and entrepreneurial skills training and facilitated access to financial services. The potential to create new and innovative MSMEs is also being investigated and supported through economic and value chain analysis. To improve the marketability of MSME products, PEU activities facilitate the outreach of appropriate business development services (BDS) to rural areas and enhance market linkages.

3.1.5. Key Targets

Technical support component follows the strategy to assist the AEPC, through implementation of its Strategic Organisational Development plan, to become an effective, efficient and GESI proactive institution for the promotion and development of the Renewable Energy (RE) sector.

Across the various technologies, support is provided to formulation and implementation of Clean Development Mechanism (CDM) interventions and other climate finance mechanisms in order to raise additional resources to the Central Renewable Energy Fund (CREF).

Table 3 : Key Targets of NRREP (July, 2012 - July, 2017)

| SN | Technology/Activity | Unit | 5 year target | Year 1 Actual | Plan | | | |
|----|---|------|---------------|---------------|---------|---------|---------|---------|
| | | | | | Year 2 | Year 3 | Year 4 | Year 5 |
| 1 | Mini/Micro Hydro Power | kW | 25,000 | 2,188 | 4,500 | 5,500 | 6,000 | 6,900 |
| 2 | Improved Water Mill | Nos. | 4,000 | 1,256 | 750 | 750 | 750 | 750 |
| 3 | Solar PV Home Systems and Small Solar PV Home Systems | Nos. | 600,000 | 99,324 | 125,000 | 125,000 | 125,000 | 125,000 |
| 4 | Institutional Solar PV Systems and drinking water pumping systems | Nos. | 1,500 | 66 | 325 | 325 | 385 | 400 |
| 5 | Solar Dryer and cooker | Nos | 7500 | - | 500 | 1,500 | 2,000 | 3,500 |
| 6 | Mud ICS | Nos. | 475,000 | 128,345 | 100,000 | 75,000 | 75,000 | 61,655 |
| 7 | Metallic ICS | Nos. | | 3,806 | 5,000 | 7,000 | 9,000 | 10,194 |
| 8 | Domestic Biogas Plants | Nos. | 130,000 | 4,984 | 26,000 | 35,016 | 32,000 | 32,000 |
| 9 | Institutional/community Biogas Plants | Nos. | 1,000 | 0 | 200 | 250 | 300 | 250 |
| 10 | Productive energy use (New and upgraded MSMEs) | Nos | 4,100 | 65 | 300 | 1,200 | 1,800 | 700 |
| 11 | Income Generating Activities (IGA) | HH | 15,300 | 0 | 1,000 | 6,000 | 6,000 | 2,300 |

3.2 Programmes/Projects under NRREP Framework

3.2.1 Renewable Energy-Source

In 2012, with support from SNV Nepal, AEPC established a RE-Source as a separate wing of a Local Capacity Development Facility (LCDF). RE-Source is designed and is being implemented under AEPC's NRREP framework with complementing roles.

The overall goal of RE-Source is to enhance inclusive access of rural households and enterprises to affordable Rural and Renewable Energy, through greater quality, diversity and outreach of TA services through creation of sustainable market mechanism for rural stakeholders such as private companies, cooperatives/MFIs, local government bodies, local NGOs and CBOs.

The RE-source has following outputs:

- Functional Market: CDS market functioning at sub-national levels with interplay of demand and supply.
- Quality & Price: LCDS quality improved significantly, while price is affordable.
- Democratisation and good governance are addressed in different ways into the programme. It works in coordination/collaboration with DDC/DECs/RSCs, local organisations and private companies following the principles of PPP.
- Sustainability and Innovation: LCDS market is capable of sustaining itself, and can innovate with little or no external support.

3.2.2. Pro Poor Public Private Partnership for Rural Development

United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) in partnership with International Fund for Agriculture Development (IFAD) intends to implement a project called "Leveraging Pro-Poor Public-Private-Partnerships (5Ps) for rural development -Widening access to energy services for rural poor in Asia and the Pacific".

AEPC works as focal organisation for implementing this project of three years in Indonesia, China, Bangladesh, Laos and Nepal.

The project works towards the fulfillment of the three MDGs namely MDG1 (Eradicate extreme poverty), MDG7 (Ensure environmental sustainability) and MDG8 (Develop a global partnership) and has four following components:

| | |
|-------------|--|
| Component 1 | Assessment and Planning |
| Component 2 | Capacity Building |
| Component 3 | Implementation of Country Activities |
| Component 4 | Evaluation and Knowledge Dissemination |

3.2.3. Micro Hydro Debt Fund

With support from GIZ Micro Hydro Debt Fund (MHDF) is established under AEPC, which is earmarked for lending to MHPs.

The two financial institutions, namely Himalayan Bank and Clean Energy Development Bank were selected as the two partners to house the fund.

Supported by GIZ, initial MHDF of Euro 500,000 was later increased by Euro 42,000.

The overall objective of the fund is to improve the access to the rural population to clean energy solution by providing credit for off-grid MHPs.

The fund envisages more than 400 kW of additionally generated electricity to bring electricity to about 19,000 individuals covering as many as 3,500 households, and 6,500 people in social infrastructure institutions. 600 people will benefit from productive end uses.

3.2.4. CleanStart Nepal

In 2012 AEPC with the support from United Nations Capital Development Fund (UNCDF) and UNDP launched Clean Start programme. The programme plans to invest US\$1.3 million over a period of four years (2012-2015) to develop replicable business models for scaling up microfinance for cleaner and more efficient forms of energy for poor people. Clean Start supports the objectives NRREP.

- Strengthening capabilities of financial service providers to provide microfinance for clean energy.
- Removing barriers to the successful deployment of those technologies and services.
- Enhancing awareness globally of the potential for microfinance to scale-up access to clean energy.
- Creating an enabling policy and business environment to expand microfinance for clean energy.

By end of programme, more than 150,000 low-income households and micro-entrepreneurs (600,000 beneficiaries) will have access to modern energy.

3.2.5 Scaling Up Renewable Energy Program

The Scaling up Renewable Energy Program in Low Income Countries (SREP) is a targeted program of the Strategic Climate Fund (SCF), which is one of two funds within the framework of the Climate Investment Funds (CIF).

SREP financing supports technologies such as solar, wind, bio-energy, geothermal, and small hydro technologies.

The main targets of SREP in Nepal is to provide electricity access to 250,000 households through 30 MW of mini/micro hydropower, another 500,000 households through solar home systems along with provision of access to clean cooking fuel for 160,000 households through biogas plants,

SREP also intends to support the transition of AEPC into Alternative Energy Promotion Board, which will serve as a one-stop shop for RE development in the country for projects up to 10 MW in capacity

3.3 Renewable Energy for Rural Livelihood (RERL)

3.3.1 Introduction

The Renewable Energy for Rural Livelihood (RERL) Programme is implemented since 1 April 2011. It is a joint programme of the Government of Nepal, the United Nations Development Programme (UNDP) and the World Bank (WB). The Programme has been initiated upon the successful completion of the Rural Energy Development Programme (REDP) with main focus on enhancing rural livelihoods. The programme supports communities in planning, implementation and management of energy systems, primarily micro hydro plants, in a sustainable manner. In district level, the RERL supports the institutionalisation of rural/renewable energy promotion through capacity development.

Micro Hydro Village Electrification Program (MHVEP) is a joint initiative of AEPC and the World Bank and funded by the Power Development Fund(PDF). The program is currently managed by AEPC where as field implementation is carried out by the RERL team. The programme focuses on enhancing rural livelihood through increased access to renewable energy services. The programme is operational in 31 districts and is working for the following areas.

- Strengthen renewable energy institutions primarily the AEPC at the centre and DEEU/S at the district level. Removing barriers to the successful deployment of those technologies and services.

- Enhance the RE related policy and regulatory framework.
- Improve access to financing by providing subsidy supports to the community based micro hydro schemes.
- Promoting sustainable livelihoods by establishing energy based micro enterprises.

RERL supports District Development Committees (DDC) in areas of decentralised planning, management, operational policy, regulations, guidelines and monitoring and evaluation. Similarly, RERL supports AEPC in internalisation of the lessons learnt and best practices to formulate and implement rural/renewable energy policies and regulations at the central level.

3.3.2. Objectives

The main objective of the Programme is to increase equitable access to energy services for the poor, women and other socially excluded groups by removing barriers that have hindered the wider use of renewable energy resources in rural Nepal. Specific objectives are to:

- Develop strategy for ensuring internalisation and institutionalisation of best practices of REDP. Removing barriers to the successful deployment of those technologies and services.
- Support communities to install, operate and manage micro hydro and other renewable energy systems. Improve access to financing by providing subsidy supports to the community based micro hydro schemes.
- Provide recommendations based on field experience for accelerated growth of rural/renewable energy sector from the short, medium and long term perspectives.
- Support to establish linkages between financial institutions, market mechanism and rural livelihoods.

3.3.3. Outputs

One of the intended outputs of the RERL is to use the lessons and best practices of REDP to design a new model linking renewable energy with livelihood promotion and poverty alleviation in Nepal.

3.3.4. Key Targets

One of the intended outputs of the RERL is to use the lessons and best practices of REDP to design a new model linking renewable energy with livelihood promotion and poverty alleviation in Nepal.

| Year | Key Targets |
|------|---|
| 2012 | 15000 additional HHs will be connected to energy services |
| | 150 enterprises will be established |
| 2013 | 15000 additional HHs connected to energy services |
| | 70 enterprises will be established |

3.4 Enhanced Rural Energy Service Programme-Kabeli Transmission Project

3.4.1. Introduction

Government of Nepal with support from WB is executing the Kabeli (132 kV) Transmission Project with the objective of increasing hydropower generation through Nepal Electricity Authority (NEA) and an individual power producer in Eastern Nepal. The project consists of three components, among which the third one is implemented by AEPC/RERL.

3.4.2. Objectives

The main objective of this component is a provision of access to electricity and cooking fuel through off-grid schemes in communities for which grid extension is not a feasible option.

3.4.3. Key Targets

The main objective of this component is a provision of access to electricity and cooking fuel through off-grid schemes in communities for which grid extension is not a feasible option.

| | | |
|------------------------------|----|-----|
| Micro Hydro Plants | kW | 250 |
| Solar PV home System | No | 300 |
| Institutional Solar Systems | No | 15 |
| Biogas Plants (With toilets) | No | 200 |

3.5 Wind Energy Development Activities

Wind Energy is one of the alternative sources of energy, which could be instrumental in developing sustainable energy mix in the country.

The Solar and Wind Energy Resource Assessment (SWERA) conducted by the AEPC with support of UNEP/GEF in 2008, reported significant potential of wind energy resources in selected parts of Nepal.

According to the report, around 3,000 MW of power could be generated even if 10% of total potential area of wind power is considered.

On the basis of this report, AEPC is accelerating its activities towards wind energy promotion. Specific and detailed site measurement activities are being carried out, and feasibility design studies are being conducted.

3.6 Regional Centre of Excellence in Micro Hydro (RCEMH)

3.6.1. Introduction

Government of Nepal with support from WB is executing the Kabeli (132 kV) Transmission Project with the objective of increasing hydropower generation through Nepal Electricity Authority (NEA) and an individual power producer in Eastern Nepal. The project consists of three components, among which the third one is implemented by AEPC/RERL.

3.6.2. Objectives

The main objective of the Centre is to make available Nepal's 30+ years of experience in the area of micro hydro project development to South Asian and other countries.

The Centre showcases and transfers know-how gained by AEPC and supporting organisations and partners, including that of an internationally recognised knowledge partner. RCEMH is conceived as a self-sustaining organisation for increasing market penetration of micro hydro plants in the South Asian and South East Asian regions.

3.6.3. Goals

The specific goals of RCEMH are:

- To fill the knowledge and experience gaps amongst policy makers that are embarking on a new generation of renewable energy frameworks, of end-user communities, and of developers and investors interested in pursuing off-grid hydro projects.
- Be a knowledge centre for the micro hydro sector in the South Asia by establishing a Regional Centre of Excellence in Small Hydropower in Nepal.
- Be a self-sustaining centre for promoting micro hydro development that will catalyse high growth of micro hydro by addressing all-round capacity building needs for the sector.

ANNUAL PERFORMANCE

RET Installation & General Activities



4.1. Pico/Micro Hydropower Energy

4.1.1. Installation of Pico/Micro Hydro Projects

During the period under review, 133 pico and micro hydro projects with a total capacity of 3,239 kW were supported, which benefitted approximately thirty-two thousand households.

Figure 8 below depicts installation of the plants in five development regions of Nepal. Further details on each plant are presented in the Annex.

Region-wise installation of Pico/Micro Hydropower Plants

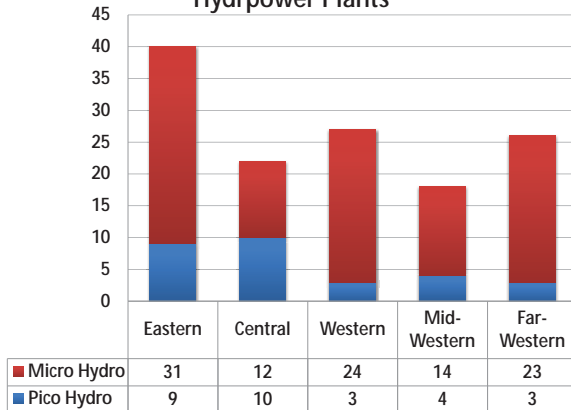


Figure 8 : Region wise Installation of Pico/Micro Hydro Plants (2012-13)

Furthermore, an additional 125 projects are under construction, and will generate 4,351 kW and benefit approximately 43,070 households.

4.1.2. Improved Water Mills

Altogether, 1,256 improved water mills (IWM) were installed in 30 hill districts; 126 were installed in Dailekh district alone.

This year, the annual target of 1,000 improved water mills was exceeded by 26 percent.

District -Wise Installation of Improved Water Mills

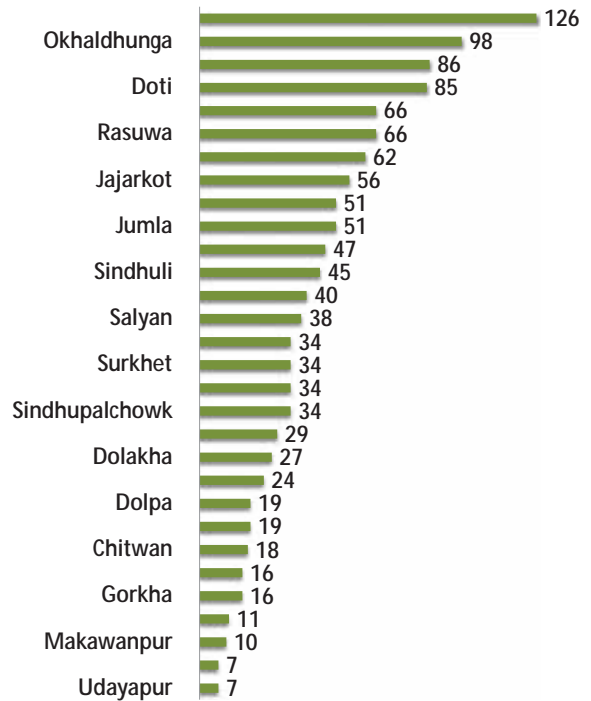


Figure 9: District Wise IWMs Installations (2012-2013)

Furthermore, an additional 125 projects are under construction, and will generate 4,351 kW and benefit approximately 43,070 households.

4.1.3. Additional Accomplished Activities

The following are additional outputs from various activities aimed at promoting technologies such as micro hydropower and improved water mills:

- Completion of pre-qualification for companies surveying, designing, installing, and servicing micro hydropower projects.
- Preparation of roster of consulting firms/individuals for outsourcing management services.
- Initiation of pre-qualification for local partner organisations, and kit manufacturers of improved water mill technology.
- Initiation of process for involvement of researchers/students in related activities.

4.2. Solar Energy

4.2.1. Solar Home Systems (SHS)

The During the period under review, 91,879 solar home systems, with a total capacity of 2,026 kWp, were supported. More than 51 percent of the installations were done in the mid-western region of Nepal.

Solar Home System

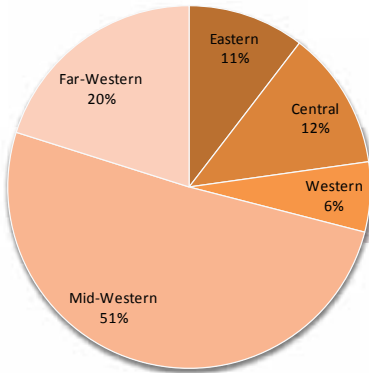


Figure 10 : NRREP: Region wise SHS Installation (2012-2013)

A total of 7,455 small solar systems were installed in mid and far-western regions.

Small SHS

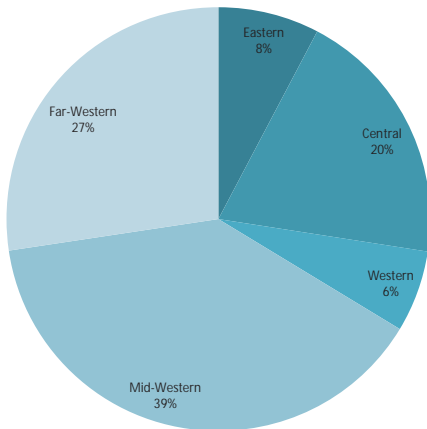


Figure 11: Region wise SSHS Installation

The majority of these systems were installed in the mid and far-western regions.

4.2.2. Institutional Solar PV Systems

Forty-one institutional solar PV systems, with a total capacity of 111.91 kWp, were supported – mostly benefiting rural schools.

The majority of these systems were installed in the mid and far-western regions

Institutional Solar PV

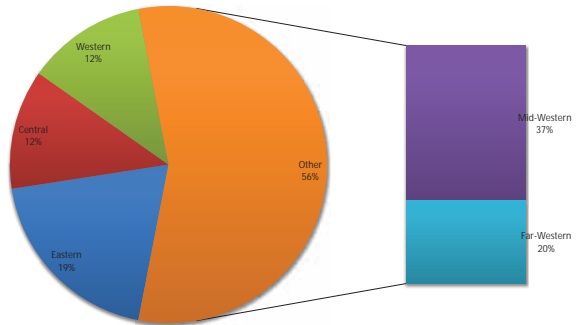


Figure 12 : Region wise ISPS Installations (2012-2013)

A 40-kWp solar power system was installed at the AEPC office, with support from the Government of Denmark, to replace the existing diesel generator of 50 kW capacity. The solar PV meets the entire energy requirement of the building.

4.2.3. Drinking Water Pumping System

Twenty-five community drinking water pumping systems, with a total capacity of 45.4 kWp, were supported in 16 districts benefiting approximately 1,404 households.

4.2.4. Solar Mini Grid

Special attention was given to the promotion of solar mini grid systems. Technical designs for two pilot systems were completed.

4.2.5. Additional Accomplished Activities

In addition to physical outputs, several activities were accomplished to further strengthen the promotion of solar energy use:

- Subsidy Application Form (SAF) of 91, 126 SHS and 7,818 SSHS were recommended.
- Development of training handbook for solar thermal systems.
- Technical Standard of solar systems prepared.
- Fraud-Proof SAF registration and monitoring systems initiated.
- Pre-qualification of private companies for AEPC subsidy programme completed.

- Completion of the pre-qualification for consultants who can carry out feasibility studies for large biogas plants (up to 50 Cu m).
- Pre-qualification of private construction companies and completion of training.
- Organised the Waste to Energy Bazaar to harness innovative ideas. Out of 128 projects submitted, 30 were selected for presentation and the top three were selected for implementation.
- Completion of orientation on converting waste to energy in seven municipalities.
- Collection of data on waste resources from over 20 municipalities. Selection of municipalities for waste to energy projects. (Biratnagar, Tanahun and Pokhara municipalities have shown written interest to carry out projects.)
- Selection of third party monitors
- Selection and training of companies for installation of Sahari Gharelu biogas plants.
- Qualification of 16 consulting companies to conduct feasibility studies and 33 companies to construct large biogas plants.

4.3 Biogas Energy

4.3.1. Domestic Biogas Plants

Well above the annual target of 19,000, 22,112 biogas plants have been installed in 62 districts. The majority of these were installed in the central region. Around 4,984 of these were approved by CREF for receiving subsidy.

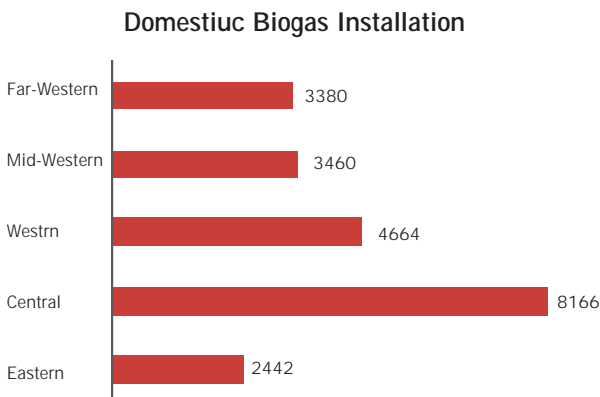


Figure 13 : Region wise Biogas Plants Installation (2012-2013)

4.3.2. Urban Biogas Plants

Twenty-five community drinking water pumping systems, with a total capacity of 45.4 kWp, were supported in 16 districts benefitting approximately 1,404 households.

4.3.3. Additional Accomplished Activities

To further strengthen the use of biogas technology in Nepal, the following activities were conducted during the reporting period:

- Initiation of a plant rehabilitation and efficiency improvement project for older plants.

4.4. Biomass Energy

4.4.1. Improved Cooking Stoves: Mud

A total of 128,345 mud-based improved cooking stoves were installed, exceeding the annual target of 100,000. Of these, 127,988 are household stoves and the remaining 357 are institutional or community based stoves.

The majority of household stoves were installed in hill districts, followed by the Terai, remote hills, and Kathmandu valley.

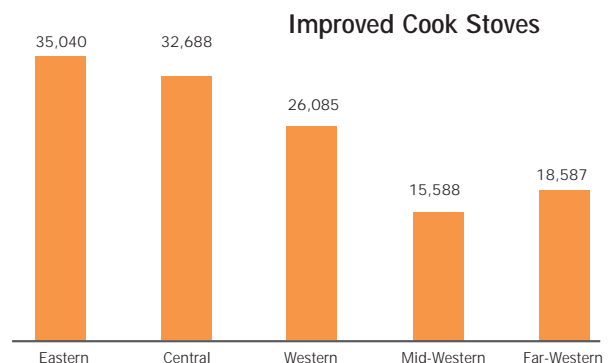


Figure 14 : Ecological Zones wise ICSS Installations (2012-2013)

The eastern and mid western region are respectively the areas with the maximum and minimum installation of this technology.

Improved Cook Stoves

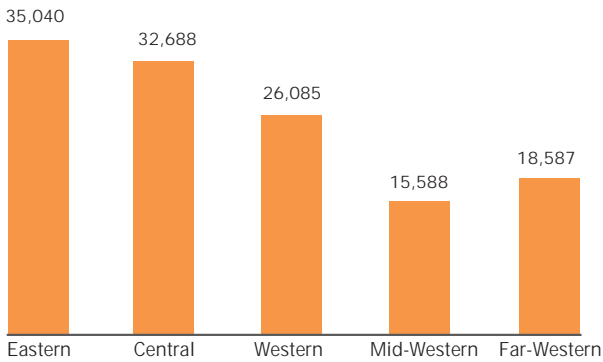


Figure 15 : Region wise ICSS Installation (2012-2013)

2008, reported significant potential of wind energy resources in selected parts of Nepal.

According to the report, around 3,000 MW of power could be generated even if 10% of total potential area of wind power is considered.

On the basis of this report, AEPC is accelerating its activities towards wind energy promotion. Specific and detailed site measurement activities are being carried out, and feasibility design studies are being conducted.

4.4.2. Metallic Improved Cooking Stoves

A total of 3,806 metallic improved cooking stoves were installed across the country, with the majority being installed in the high-altitude districts of central and western regions. The number is considerably less than the annual target of 7,000.

Metallic Stoves

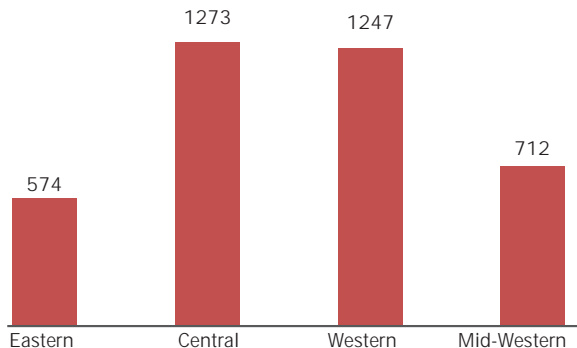


Figure 16 : Region wise MICSs Installation (2012-2013)

None of these devices were, however, installed in the far-western region.

4.4.3. Additional Accomplished Activities

This year, a range of other promotional activities were conducted:

- Declaration of indoor air pollution free country by 2017.
- Launch of National Alliance for Clean Cook stoves (NACC).
- Establishment of biomass stove testing laboratory at RETS.
- Production of documentary on metallic improved cooking stoves; 200 copies were distributed to partners.
- Support to district development committees in announcing indoor air pollution free Dolakha by 2016 and Rautahat by 2017.

4.5. Productive Energy Use

4.5.1. Medium, Small and Micro Enterprises Promotion

Sixty-five energy-based enterprises were identified in 32 micro hydropower projects of 21 districts, and were forwarded to the CREF for approval.

In total, nine types of energy-based enterprises were found to be feasible, ranging from typical mills to lokta factories.

Type of Enterprises

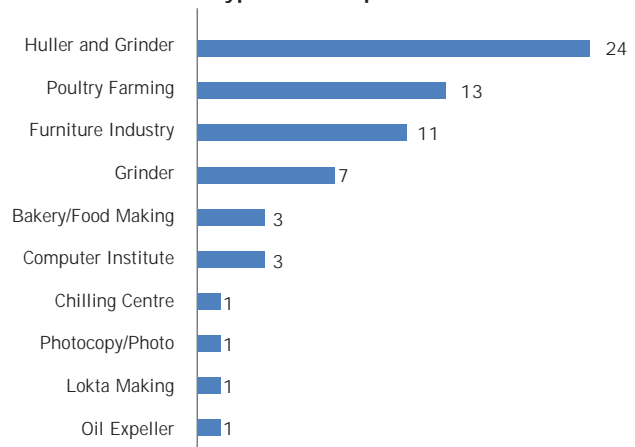


Figure 17 : Identified Types of Enterprises

The eastern and mid western region are respectively the areas with the maximum and minimum installation of this technology.

4.6. Institutional Support Activities

NRREP's institutional support sub component has made significant achievements in the institutional development of the renewable energy sector.

NRREP's operational (admin and finance) guidelines, subsidy policy and delivery mechanisms have been developed and implemented. Capacity building of NRREP staff and management has been accelerated.

The selection of nine regional service centres and two national technical service providers is a big milestone for the year.

NRREP's institutional support sub component has continued its support to district energy and environment units in carrying out the promotion of renewable energy.

One of the major outputs of this year was the creation of a document highlighting the roles and responsibilities of district energy and environment units and regional service centres with regards to carrying out NRREP activities. An orientation on NRREP was also conducted for all district energy and climate change section engineers and Local Development Officers (LDOs).

An international exposure visit to Germany was organised for the majority of the members on the programme steering committee from July 13 to 20, 2013.

The AEPC strategic and organisational development (SOD) plan is in the process of finalisation.

4.7. Carbon Financing

Renewable energy technologies are developed to contribute in climate change adaptation and mitigation, and contribute to sustainable development. They also have potential for generating revenue from the carbon market.

During the period under review, NRREP's climate change and carbon unit was instrumental in mobilising additional financial resources through the successful issuance of 190,000 Certified Emission Reductions, and securing additional resources for formulating a low carbon economic development strategy.

4.8. Activities related to Clean Development Mechanism (CDM) projects:

Energy meters and accessories were procured and installation process started in micro hydropower projects, alongside the installation of real-time monitoring systems.

| SN | RETs | Estimated ER |
|----|---|-------------------------|
| | | tCO ₂ e/Year |
| 1. | Mini/Micro Hydro Power | 70138 |
| 2. | Improved Water Mill | 37489 |
| 3. | Solar PV Home Systems and Small Solar PV Home Systems | 42917 |
| 4. | Solar Dryer and cooker | 5939 |
| 5. | Mud ICS | 1331809 |
| 6. | Metallic ICS | 16495 |
| 7. | Domestic Biogas Plants | 846630 |
| 8. | Institutional/community Biogas Plants | 4200 |
| | Total | 2,355,617 |

Carbon revenue utilisation guidelines were drafted.

To increase the number of potential CDM projects, the Project Idea Notes (PIN) for solar home systems, urban biogas, and waste to energy were prepared and submitted to DNA for approval.

At national and international levels, the strengthening of institutional networking was accomplished by participation in climate change conferences, LED Asia Partnership and other national-level programs

The promotional activities of AEPC in the renewable sector have significantly contributed to the CO₂ emission reduction. In 2012 alone 2.35 million tCO₂e, as depicted in corresponding Table 2, has been reduced by the use of various renewable energy technologies across the country.

4.9. Gender Equality and Social Inclusion (GESI)

The NRREP's GESI unit pushes AEPC towards GESI responsive programmes/projects through the development of basic procedural apparatuses: mainstreaming plan, toolbox gap identification, inclusion of renewable energy agenda in VDC and DDC planning, the Ministry of Federal Affairs and Local Development (MoFALD) environment-friendly local government concept, social mobilisation guideline, capacity development, and lobby/advocacy.

GESI activities have also promoted equitable ownership (see Figure 18 below) of renewable energy technologies installed during this reporting period.

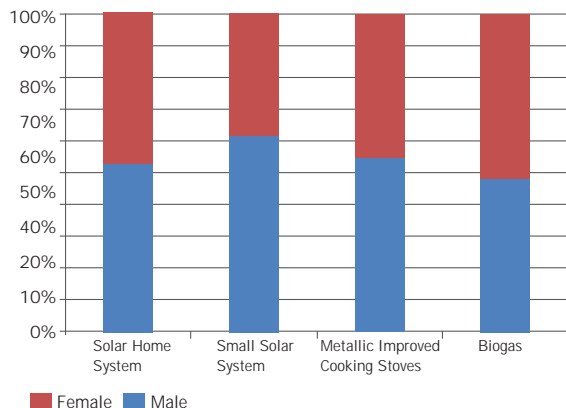


Figure 18 : Gender Ownership of RETs Installed (2012-2013).

During this reporting period, the following activities were carried out to ensure that GESI is taken as a top priority while implementing renewable energy programmes:

- Development of social mobilisation guidelines and GESI mainstreaming toolbox.
- Identification of GESI gap at policy and institutional levels.
- Capacity Building of AEPC/NRREP staff on GESI issues through workshops, GESI sensitisation training, orientation for district energy and environment units, etc.
- Delivery of GESI-responsive messages while promoting renewable energy through jingles and TV commercials.
- Coordination and networking with rights -based organisations.

4.10 Monitoring and Quality Assurance Activities

NRREP's monitoring and quality assurance unit has introduced the concept of result-based management. A key component of this is performance monitoring, which involves objectively measuring how well results are being achieved, and reporting on measures taken for improvement.

The following activities were initiated to realign AEPC's focus on results rather than on activities:

1. Alignment of NRREP's planning, monitoring, and reporting mechanisms with a result-based approach. Major changes include the NRREP result framework; draft monitoring and evaluation framework; and reporting framework.
2. NRREP baseline study.

3. Random monitoring of renewable energy technologies on the field by mobilising district energy and environment units.
4. Capacity building of AEPC and NRREP staff on result-based management and quality assurance systems.

4.11. Wind Energy

The following activities were completed with regards to wind energy:

- Identification of 10 potential sites.
- Feasibility study for implementation of wind-solar hybrid projects in Nepal.
- Detailed feasibility study for immediate implementation of wind-solar hybrid project in Bhaparbari, Makawanpur district.
- Installation of Met Mast (data logger) for monitoring wind data in two potential sites.
- Formulation of inputs for the wind energy subsidy policy and delivery mechanism.
- Data collection for wind energy project demand.
- Wind energy workshop on the occasion of global wind day on June 15, 2013.

4.12. Establishment of RCEMH Office

AEPC has established a well-equipped office for the Regional Centre of Excellence in Micro Hydro (RCEMH) within the AEPC premises. The centre is now fully functional, and a programme manager has been hired. For effective dissemination of information on the centre's activities, various promotional and marketing materials have been developed and are being distributed. An official website is now operational.

4.12.1. International Workshop on Micro Hydro

RCEMH/AEPC in collaboration with the Centre for Science and Technology of the Non-aligned and Other Developing Countries, and the Nepal Academy of Science and Technology successfully completed the international workshop on "The Role of Micro-hydel for Developing Countries" in Kathmandu between April 19 and 22, 2013. More than 50 experts scientists, academics, engineers, managers, and government policy makers from Afghanistan, Bhutan, India, Indonesia, Iraq, Malawi, Malaysia, Mauritius, Myanmar, Nepal, Pakistan, South Africa, Sri Lanka, Uganda, Vietnam, Zambia and Zimbabwe – participated in the workshop. The participants adopted a resolution on the role of micro hydro in developing countries.



Photo 1: Inauguration of International Workshop on The Role of Micro Hydel for Developing Countries, 19-22 April, 2013.

PROMOTIONAL ACTIVITIES: RENEWABLE ENERGY INITIATIVES



**RENEWABLE
ENERGY** WEEK
2014

नवीकरणीय ऊर्जा सप्ताह २०१४



NEPAL RENEWABLE
ENERGY
BAZAAR



Clean Cookstoves
Market Place 2013

5.1 Renewable Energy Week 2013

MoSTE and AEPC jointly celebrated “Renewable Energy Week 2013” all over Nepal from 20 to 26 January 2013 through exhibition, rally, different interaction and awareness programmes



Photo 2 : Rt. Honorable Prime Minister DR. Babu Ram Bhattarai inaugurating the Renewable Energy Week 2013

Aim of the event was to create awareness about renewable energy to general public for wider use of renewable energy in Nepal and to address present energy crisis, sensitize policy makers for improvements in renewable energy related policies and attract & engage private sector investment in renewable energy sector.

Honorable Prime Minister Dr. Baburam Bhattarai inaugurated the event on 25 January 2013, first day of the week at Bhrikuti Mandap. On Inauguration ceremony, Honorable Prime Minister announced Clean Cooking Solution (CCS) for All by 2017 thereby ensuring Indoor Air Pollution free Nepal.

On occasion of RE week in Kathmandu valley, 2 days Renewable Energy Exhibition was organized at Bhrikuti Mandap, Kathmandu on 20-21 January 2013. In exhibition there were more than 100 stalls from renewable energy companies such as solar, micro hydro, biogas, biomass, wind etc., NGOs, INGOs, government organisations and research institutions.

On 20 January, Electrical Car Rally was also organized. Honorable Minister of Environment, Science and Technology Dr. Keshav Man Shakya led the rally.

Likewise, on 25 January, Renewable Energy Walk was organized. The rally started from Basantapur Durbar Square and took one circle of Tudikhel and was adjourned again at Basantapur Durbar Square. Government officials, actors, journalists, general public, students all together more than 1000 people took part in the rally. The rally was also led by Honorable Minister Dr. Keshav Man Shakya.

Due to the media coverage Renewable Energy companies reported increase in sells of their products and awareness levels of general public.

The event was organized with support from private sectors. Private sectors contributed around 30% to total expense for the event.

Local bodies DDC and VDC also participated and fully supported to make Renewable Energy Week 2013 grand success.

5.2 Nepal Renewable Energy- Waste to Energy Bazaar 2013

On 21st March 2013, AEPC and WB jointly launched the Nepal Renewable Energy – Waste to Energy (W2E) Bazaar. The objective of the Bazaar was to expose and engage the business and development communities in productive and inventive partnerships that will offer high potential impact in waste management to energy generation and thus contributing to Nepal’s economic development.



Photo 3 : Waste to Energy Bazar, Kathmandu.

The campaign with the slogan 'Fohor Ma Pani Chha Sambhawana Haajar' (There are Thousand Possibilities in Waste Management) encouraged municipalities, NGOs, enterprises, industries and communities associated with the waste management, renewable energy sector, and different development sectors to send in their ideas and concepts of extracting energy from municipal and community level waste as well as from the waste produced in different industrial and commercial sectors.

A call to all interested parties was made to submit innovative W2E proposals. Based on innovation (new and feasible ideas/approaches to address waste to energy options), selected 10 project side as were shared during Nepal Renewable W2E Bazaar workshop organized on 26th April. The three best ideas were acknowledged during this event and given opportunities for establishing network for realizing their projects.

5.3. Formation of Nepal Alliance for Clean Cook stove (NACC)

The strategic intent of NACC is to coordinate efforts and create synergies for providing Clean Cooking Solutions for All by 2017.

In order to raise public awareness of clean cooking solutions, NACC will adopt major communication tagline of Global Alliance for Clean Cook stoves: Cooking Shouldn't Kill.

The NACC is an alliance of organisations engaged in all renewable clean cooking technologies including Improved Cook stoves, solar cookers, biogas and electricity based cooking.

5.4. Clean Cooking Market Place 2013

The Clean cooking Market Place (CCMP) was organized from 10th to 12th July 2013 at Trade Tower Business Centre, Thapathali, Kathmandu. The event consisted of conference, expo & field visit.

Conference & Expo was held on 10th – 11th July 2013 and the field visit for interested policy makers and international participants on 12th July 2013 outside Kathmandu.

Altogether 370 participants, including 21 international and 350 national, participated in the event which includes 80 exhibitors displaying their products through 42 stalls

The main objective of this event was to create a platform of stove entrepreneurs for exchanging their respective experiences, business models as well as suitable stove designs in order to contribute to achieve CCS 2017.

Event was hosted by AEPC jointly with four co-host, 36 sponsors, 4 contributors and 6 strategic partners.



Photo 4 : Honorable Minister Uma Kanta Jha inaugurating the Clean Cook stoves Market Place 2013.

5.5. Celebration of 500,000 plus ICS dissemination



Photo 5 : Celebration of 500,000 plus ICS dissemination in Kathmandu.

500,000+ celebration was organized on 18th July at Yak and Yeti Hotel by AEPC/ESAP with an objectives:

- To share experiences and activities of Biomass Energy Component of AEPC/ESAP.
- To bring together major stakeholders in biomass energy technologies to consolidate lessons learned and formulate a road map to advance biomass energy sector development.
- To recognize best performing partners, field level partner staff and ICS promoters.
- To acknowledge different stakeholders and partners for their contribution on achieving 500,000+ stoves.

5.6. Mini Grid Initiatives

The Government of Nepal and Energy for All, ADB are working closely with the United Nation's Sustainable Energy for All Initiative and the Government of Norway-led Energy+ Partnership to jointly achieve the ambition of Universal Energy Access by 2030.

As part of this collaboration, special attention was given to the community mini-grid renewable energy system as a viable technical solution to increase energy access among rural population in Asian countries.

As part of this activity, AEPC jointly with ABD organised the workshop "Sharing Business Models and scaling up Mini Grid in Asia and the Pacific" from February 6 to 7. The objective of the workshop was to review the success factors of mini grid projects within and outside Asia and the Pacific, and share knowledge on the development of viable models that can be deployed at scale to address some key barriers of community systems. A total of 216 participants from 14 different countries and various national organisations attended the program.

As a continuation of this international workshop, the Energy for All Investor Forum was organized on 8 February 2013 to give an opportunity to national enterprises to expose their ideas/business models among potential investors. A total of 163 national and international participants from 12 different countries participated in this workshop.

A total of 28 companies/entities registered to participate in the Energy for All Investor Forum, Nepal. Seven projects/concepts from Nepal were approved by Technical Panel, and shared at the workshop.

**MANUALS/GUIDELINES/
STUDIES/SURVEYS/TRAININGS**



During this reporting year several activities related to inputs to the policy level as drafting of relevant guidelines and strategies, capacity building activities as training and orientation programmes as well as initiating few pilot projects to introduce new interventions were conducted.

The following Tables present detailed list of activities constructed under AEPC relevant programmes/projects subcomponents and units.

6.1 List of Manuals/Guidelines

Table 4: List of Manuals/Guidelines

| SN | Major Accomplishments | Supported By |
|-----|--|--------------|
| 1. | Guidelines for the feasibility studies of large scale Biogas Plant | BSC/NRREP |
| 2. | Design guideline for the large biogas plants (upto 50 Cum) | BSC/NRREP |
| 3. | Third Party Monitoring Guideline | BSC/NRREP |
| 4. | Selection criteria for projects and the guideline for the proposal call finalized for the SREP. | SREP |
| 5. | Carbon Revenue Utilization Guidelines and support GoN to formulate Low Carbon Economic Development Strategy and in implementing Local Adaptation Plan of Actions-draft | CCU/NRREP |
| 6. | Assessment of Pilot DCEP and reviewed DCEP Guideline to further revision (revision?) | CCU/NRREP |
| 7. | Developed online monitoring system protocol and concept note for this activity was collected from 6 different organizations working in this field. | SESC/NRREP |
| 8. | Developed subsidy application forms , monitoring and quality assurance guidelines | SESC/NRREP |
| 9. | Technical standard/guidelines of M/MHP (updated) | CESC/NRREP |
| 10. | MH procurement guidelines and standard | CESC/NRREP |
| 11. | Technical standard/guidelines (updated) | CESC/NRREP |
| 12. | Guidelines for IWM Electrification and IWM Implementation | CESC/NRREP |
| 13. | IWM kit Manufacturing Process Manual. | CESC/NRREP |
| 14. | Guideline for the Cooperative Model for Mini/Micro Hydro Projects conducted | CESC/NRREP |
| 15. | NRREP admin and finance guidelines | ISSC/NRREP |
| 16. | NRREP result framework, draft M&E framework and reporting framework are prepared | MOA/NRREP |
| 17. | Social mobilization guideline and GESI mainstreaming toolbox | GESI/NRREP |
| 18. | Roles and responsibilities of DEEUs and RSCs in relation to carrying out NRREP activities | ISSC/NRREP |
| 19. | Training handbook for solar thermal systems | SESC/ NRREP |
| 20. | Subsidy policy and delivery mechanism for renewable energy and obtained approval. | ISSC/NRREP |
| 21. | Used Lead Acid Battery (ULAB) regulation | SESC/NRREP |
| 22. | Technical standards and testing protocol for solar thermal system | SESC/NRREP |
| 23. | Design, Development and Publication of Brochure/ Booklet on Biomass Densification (2012/13) | BESC/NRREP |
| 24. | MSME Implementation Strategy and working guideline | PEU/NRREP |
| 25. | Support AEPC to finalize DEES/Us operational guidelines in collaboration with MoFALD. (Guideline) | RERL |
| 26. | Preparation of Manual for Micro Hydro Managers' Training | RERL |
| 27. | Resourc Material and Training Manual for Mainstreaming Vulnerable Communities for Community Mobilizers | RERL |
| 28. | Updated Community Mobilization Guidelines | RERL |
| 29. | Prepared framework for site selection and implementation modalities of Mini grid and gasification projects for AEPC | RERL |

6.2 List of Trainings/Workshops

| SN | Major Accomplishments | Supported By |
|-----|--|--------------|
| 1. | RE international exposure visit to Germany for high level government officials from MoEST, NPC, OPMCM, MoF, MoFALD. | ISSC/NRREP |
| 2. | W2E conducted in 7 municipalities and data collection on waste resources from over 20 municipalities | BSC/NRREP |
| 3. | Validation workshop of all the stakeholders of the biogas to finalise the feasibility study guidelines. | BSC/NRREP |
| 4. | Trained 28 engineers to design solar thermal systems | SESC/NRREP |
| 5. | Level I, level II trainings for thermal technician | SESC/NRREP |
| 6. | Orientation and training to survey/design consultants and installers. | CESC/NRREP |
| 7. | Capacity building of communities (MHP/PHP operators, managers training). | CESC/NRREP |
| 8. | Result Based Management and quality assurance systems | MOA/NRREP: |
| 9. | Conduction of planning cum capacity development workshop, GESI sensitisation training, DEEU orientation etc. | GESI/NRREP |
| 10. | NRREP orientation to the DECS of all districts. | ISSC/NRREP |
| 11. | NRREP orientation to Senior Official of DDCs. | ISSC/NRREP |
| 12. | Implementation Plan Formulation Workshop | BESC/NRREP |
| 13. | Stove Testing Benchmark, Performance and Safety Standards Workshop | BESC/NRREP |
| 14. | Interaction on Subsidy Policy of Biomass Energy Technologies and Successful establishment of National ICS Forum Sharing Workshop | BESC/NRREP |
| 15. | International workshop 'Clean Cook stoves Marketplace 2013 | BESC/NRREP |
| 16. | 14 Regional Level Workshop for analysis for barriers to scaled-up implementation of ICS organized | BESC/NRREP |
| 17. | Organized 34 events of Orientations and Demonstrations of MICS in strategic locations of different districts | BESC/NRREP |
| 18. | Stakeholder's pre-meeting on "Clean Cooking Solutions for All by 2017 | BESC/NRREP |
| 19. | Micro-Hydro Installation Training for private companies | RERL |
| 20. | Preparation of Manual for Micro Hydro Managers' | RERL |
| 21. | Resource Material and Training Manual for Mainstreaming Vulnerable Communities for Community Mobilizers (Training) | RERL |
| 22. | Training on Cooperative Management for Khimti Rural Electric Cooperative (KREC) | RERL |
| 23. | Training to Vulnerable Community Focal Persons of MHVEPs and preparation of training manual and orientation to VC focal persons of Training manual | RERL |

6.3 List of Studies/Survey & Design

Table 6: List of Studies/Design/Surveys

| SN | Major Accomplishments | Supported By |
|-----|--|--------------|
| 1. | Designing of solar mini grid in two places of Nepal | SESC/NRREP |
| 2. | Project Idea Notes (PIN) for Solar Home Systems, Urban Biogas and Waste to Energy Programme. | CCU/NRREP |
| 3. | Annual progress report of MHP CDM Project to World Bank | CCU/NRREP |
| 4. | Study and Validation of the Policy gap Analysis Study to promote Waste to Energy (W2E) projects in Nepal | BESC/NRREP |
| 5. | Studies on identification of Potential/feasible carbon projects in RE sector and role of RE in CC Mitigation and Adaptation | CEC/NRREP |
| 6. | Conducted study to assess the status of identified projects up to 10 MW | CEC/NRREP |
| 7. | Conducted techno socio economic study of Baglung mini grid | CEC/NRREP |
| 8. | Prepared DPR for interconnection of MHP | CEC/NRREP |
| 9. | Study on NRREP baseline | NRREP: MOA |
| 10. | Random monitoring of RETs at the field mobilizing DECS | NRREP: MOA |
| 11. | Emission Reduction Users' Survey for 4 Biogas CDM projects; prepared and submitted the monitoring reports for the same to DoE for verification | CCU/NRREP |
| 12. | Emission Reduction Users' Survey for ICS and IWM CDM PoAs | CCU/NRREP |
| 13. | Field verification by DoE for 4 Biogas CDM Projects, Validation field visit for IWM CDM PoA | CCU/NRREP |
| 14. | Study on "Exploring Local and District Level Organizations/Firms Providing BDS required for MSMEs." | PEU/NRREP |
| 15. | Conducted study "Carryout Assessment and Establishment of database of existing enterprises established from the revolving fund through End Uses Subsidy for MHPs". | PEU/NRREP |
| 16. | Study Report for "Exploring New and Innovative Ideas/ Technologies for creating MSMEs for Productive Use of Renewable Energy and Updating End Use Catalogue" | PEU/NRREP |
| 17. | Gap Analysis on Sustainable Energy for all (SE4ALL) | RERL |
| 18. | Study on mini grid projects for NRREP and prepared implementation framework | RERL |
| 19. | Study on site selection & design of flood/landslide damaged MH plants | RERL |
| 20. | Study on functional status of randomly selected MHVEPs | RERL |
| 21. | Study on the impacts of end use promotion in terms of their livelihood enhancement | RERL |

6.4 List of Pilot Initiatives

Table 7: List of Pilot Initiatives

| SN | Major Accomplishments | Supported By |
|----|---|--------------|
| 1. | World largest solar dryer for drying lapsi candy | SESC/NRREP |
| 2. | Installation of real time technology | CEC/NRREP |
| 3. | Piloting New and Innovative Idea/Technology for creating new MSMEs for Productive Use of Renewable Energy at Renewable Energy Catchment | PEU/NRREP |
| 4. | Establishment of a Mini Grid synchronizing 6 micro hydropower plants. | RERL |
| 5. | Installation of 2 biomass Gasifiers in Sarlahi | RERL |
| 6. | Installation of 5 Micro Hydro Operated Lift Irrigation Systems | RERL |

Note: Details of the pilot initiatives can be obtained from respective component of AEPC.

BEST PRACTICES



The success of renewable energy can be illustrated best by showcasing some real stories of individuals and communities whose quality of life have been improved substantially through the application of such technologies. This section intends to highlight a few success stories based on recent case studies from around the country. The narratives deal with the use of off-grid, renewable technologies in rural Nepal, and the case studies are based on the lives of those impacted by AEPC programmes.

In order to support decision-makers develop energy projects tailored to local needs, AEPC ensures that its projects demonstrate not only the range of possible off-grid, renewable technologies (solar panels, improved cooking stoves, mini hydro projects), but also their diversity in relation to topography and market opportunities, and potential for capacity building and income generation.

One of the benefits of off-grid, renewable energy is its adaptability to a variety of geographical, economic, and social realities around the country. When the right intervention is made in the right place, change occurs rapidly, as these case studies will demonstrate.

7.1 Bringing Water to the Farmers: Lift Irrigation Powered by Micro Hydro

Mahadevsthan of Dhading district is known for cultivating seasonal vegetables. The fertile land, for many years, has been the source of livelihood for the locals. Recently, however, water shortages caused by changing weather patterns have decreased the yield, which is no longer sufficient to meet the needs of the growing population. Consequently, people have migrated elsewhere, leaving their ancestral households behind to cope with the situation.

The situation has been alleviated since the construction of the 26 kW Malekhu Khola I Micro Hydropower Plant in 2009, with support from AEPC/RERL. The project was undertaken with the goal of providing electricity to the village mostly consisting of Chepang, Magar and Dalit communities. Several small-scale enterprises have been established after the availability of a power supply.

The wasted potential for agriculture did not go unnoticed. A Micro Hydro Operated Lift Irrigation (MHOLI) system was engineered and launched on 17 March, 2013, with the intention of irrigating 103 ropanies of land and providing water for drinking. The impact on the lives of local residence has been immense.

Previously, Parbati Magar, 45, a mother of three, was earning just enough money from farming on seven ropanies to cover the basic needs of her family. She, like others, was affected by the water scarcity. But her life took a different turn with the newly launched irrigation project, which assured stable and increased earnings. Furthermore, with the support of targeted agricultural training provided by AEPC/RERL, she is now able to cultivate a range of vegetables like cauliflowers, tomatoes, beans, etc. Mrs. Magar has seen her seasonal profits rise from NPR 10,000 to 120,000.

Another resident of the village, Ms. Kamala Nepali, says she is now able to earn as much as NPR 40,000 per month by selling vegetables. "This is the highest amount I've ever earned," she proudly says.

The micro hydropower project has become a powerful positive intervention in the village. Women no longer have to go back and forth to get water from a spring located downhill. Those who have economically profited have used the extra income to replace old roofs with new galvanised ones. Farmers have been encouraged to bring larger areas of land under cultivation. Some have even returned to their village from hectic lives elsewhere.

7.2 Improved Cooking Stove: Small, But Powerful Tool for Woman Empowerment

Her family's economic constraints prevented Ratna Kumari from pursuing education. She was forced to marry at the age of 15. Like many girls in rural Nepal, she farmed and laboured for wages to support her family – a family of nine including her five children. But one day she received an opportunity that changed her life. She was selected for a training on promotion of improved cooking stoves, given by the Centre for Rural Technology (CRT/N) in Dhading district.

After the eight-day training, she decided to professionally build improved cooking stoves, convinced that hard work would be the key to success. Since then, she has constructed more than twelve hundred fifty stoves. Depending on the situation and the location, she charges between NPR 150 and 700 per stove.

Ratna Kumari was awarded first prize as 'best promoter' in 2006. She was then selected to participate in 'exposure visits' organised by the Centre for Rural Technology in 2007 and 2009. In 2010, she received a letter of appreciation for her hard work and the remarkable quantity and quality of cooking stoves that she has constructed.

Today, she claims to have earned more than NPR 400,000. With her earnings, she is able to manage easily her children's educational and household expenses. She even owns land.

With various opportunities to participate in training programmes and meetings, Ratna Kumari has become a very sociable person. She confesses that she used to be an introvert, but that she has changed with time. Currently, she is happy that she has been selected for an interview for a documentary on improved cooking stoves.

In her free time, Ratna Kumari makes bee-hive briquettes, another income generating skill that she acquired through training. Simultaneously, she holds three positions of authority: she is the treasurer of the Improved Cooking Stove Promoter's Association in Dhading, she is a social worker, and she is an advisor at the Renewable Energy and Environment Conservation Centre. She is proud to say that if women are given skills, they can compete with men on an equal footing.

Ratna Kumari is proud to be a part of promoting a technology that supports livelihoods, priorities health, and conserves the environment.

7.3. My Life Has Changed: Has Yours?

Mr. Ghanashyam Budhachhatri was born in Babiachaur VDC of Baglung District. He comes from an economically deprived and poor background. Although literate, he was not able to use his education in his village. Because he did not have enough land to cultivate in order to support his family, he was forced to go to India for several months at a time in search of seasonal employment.

When the Khamari Khola micro hydro project was launched in his VDC, a skilful locally-based operator was needed to provide emergency services for the plant, if and when required.

When he applied for the job, Mr. Budhachhatri did not think he would be selected because of his social background, and those of his competitors. He was proven wrong.

An entrepreneur by nature, Mr. Budhachhatri is now also successful in the furniture business, which he runs using the electricity produced from the same hydro project.

Between his business and his job, he now earns around NPR 18,000. Interestingly, with his new status as a technical operator, the attitude of the village residents towards him has also changed drastically. Earlier referred to by a shorter name, he is now politely addressed as Mr. Ghanashyam ji.

FINANCIAL INPUTS AND EXPENDITURE



8.1. Summary of Funds

In total, during this fiscal year, a budget of NPR 2,466 million has been approved for implementing various AEPC activities, with the government and donors contributing 26 and 74 percent. The total annual expenditure for this year was NPR 1,944 million; 79 percent of the planned budget has been spent.

| Source of Funds | Approved Budget (NRs.x1000) | Actual Expenditure (NRs.X1000) | Progress (%) |
|-----------------|-----------------------------|--------------------------------|--------------|
| GoN | 645,304 | 640,968 | 99% |
| Donor(s) | 1,821,524 | 1,303,468 | 72% |
| Total | 2,466,828 | 1,944,436 | 79% |

Summary of budget {in Thousand NRs}

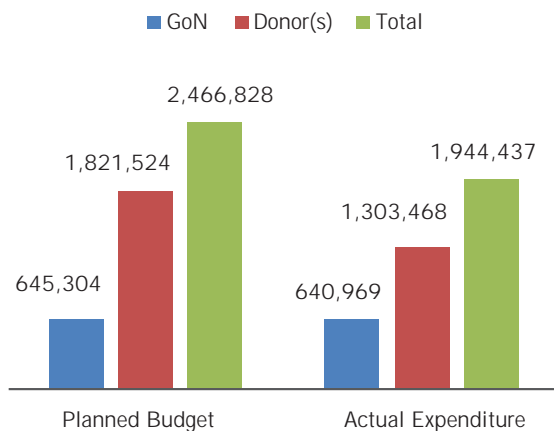


Figure 19 : Summary of Annual Budget (2069/070)

8.2. AEPC's Programmes/Projects Fund Utilization

In total, during this fiscal year, a budget of NPR 2,466 million has been approved for implementing various AEPC activities, with the government and donors contributing 26

and 74 percent. The total annual expenditure for this year was NPR 1,944 million; 79 percent of the planned budget has been spent.

| Programmes | Approved Budget (NRs.x1000) | Actual Expenditure (NRs.x1000) | Progress |
|---|-----------------------------|--------------------------------|----------------|
| AEPC-Core Programme | | | |
| GoN | 37,044 | 33,812 | |
| Donor(s) | 355,000 | 422,374 | |
| Total | 392,044 | 456186 | 116.36% |
| Micro Hydro and Alternative Energy Programme | | | |
| GoN | 496,510 | 496,371 | |
| Donor(s) | 985,000 | 633,411 | |
| Total | 1,481,510 | 1,129,782 | 76.26% |
| Biogas Production Programme | | | |
| GoN | 110,000.00 | 109,734.4 | |
| Donor(s) | 260,000.00 | 65,889.3 | |
| Total | 370000 | 175,623.7 | 47.47% |
| PDF: Community Micro Hydro Village Electrification Programme | | | |
| GoN | 1,250.00 | 1,051.00 | |
| Donor(s) | 134,136.00 | 128,771.00 | |
| Total | 135,386.00 | 129,822.00 | 95.89% |
| Renewable Energy for Rural Livelihood | | | |
| GoN | 0.00 | 0.00 | |
| Donor(s) | 52,000.00 | 47,325.00 | |
| Total | 52,000.00 | 47,325.00 | 91.01% |
| Enhanced Rural Energy Service Programme- Kabeli Transmission Project | | | |
| GoN | 500.00 | 0.00 | |
| Donor(s) | 35,388.00 | 5,698.00 | |
| Total | 35,888.00 | 5,698.00 | 15.88% |
| Grand Total | 2,466,828 | 1,944,436 | 79% |

8.3. NRREP's Fund Utilization

8.3.1. Component-wise fund Utilization

The approved budget for the NRREP's first year of implementation was NPR 2,332 million. The actual

expenditure was NPR 627 million, or 29 percent of the total approved budget.

Table 10: NRREP's Fund Details (2012-2013)

| Particular/Component/Unit | 5-years plan | Annual Budget for NFY 2069/070 | | |
|--|-------------------|--------------------------------|----------------------|------------|
| | | Budget (NRs.x1000) | Expenses (NRs.x1000) | Progress |
| Central Renewable Energy Fund Component | 9,923,394 | 1,884,120 | 431,306 | 23% |
| Technical Support Component | 3,518,374 | 309,230 | 164,183 | 53% |
| Business Dev. for RE and Productive Energy use | 737,016 | 29,998 | 9,813 | 33% |
| NRREP Management | 447,474 | 108,927 | 67,290 | 61% |
| Studies, Audit and Review | 298,316 | 0 | 0 | |
| Grand Total | 14,924,574 | 2,332,275 | 672,594 | 29% |

NRREP's Component-wise fund utilization

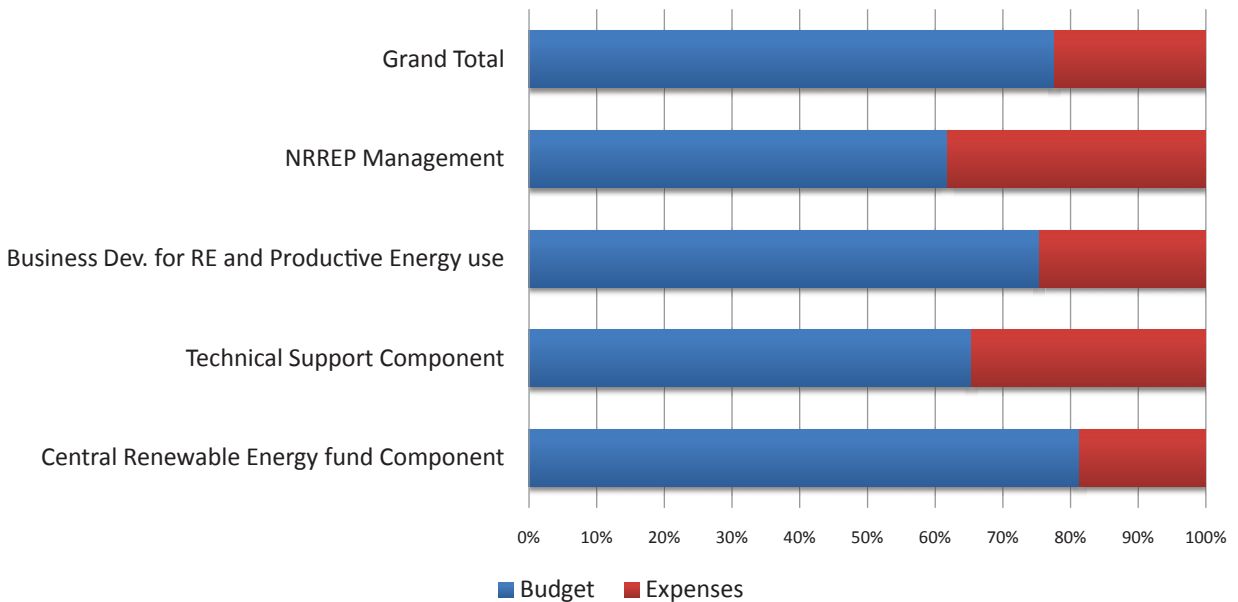


Figure 20 : NRREP's component-wise fund utilization

8.3.2. Donor-wise Fund Utilization

A consortium of seven external development partners had committed around NPR 1,612 million for implementing NRREP's first year's activities. Subsequently, NPR 1,687 million was released. The government's commitment for the first year was NPR 743 million, out of which about NPR 565 million was released. In the first year of NRREP's

implementation, the expenditure as a percentage of the total funds released was equal (27 percent) for the external partners and the government.

Table 11: NRREP's Donor-wise fund utilisation (2012-2013)

| External Development Partners (EDP's) | Committed Annual Budget (Thousands NRs) | Fund Released (Thousands NRs) | Expenses (Thousands NRs) |
|---------------------------------------|---|-------------------------------|--------------------------|
| DANIDA | 616,061 | 423,643 | 113,517 |
| NORWAY | 601,040 | 963,833 | 258,264 |
| KfW | 34,000 | 0 | 0 |
| DFID | 268,000 | 261,263 | 79,374 |
| GIZ | 55,000 | 0 | 0.00 |
| SNV | 28,023 | 28,023 | 0.00 |
| UNDP/UNCDF | 10,230 | 8,356 | 8,356 |
| SREP (ADB & WB) | 0 | 0 | 0 |
| Sub-Total | 1,612,355 | 1,687,120 | 459,513 |
| GoN | 743,944 | 565,133 | 151,430 |
| Total | 2,356,299.00 | 2,252,253 | 610,943 |

NRREP's Fund Utilization

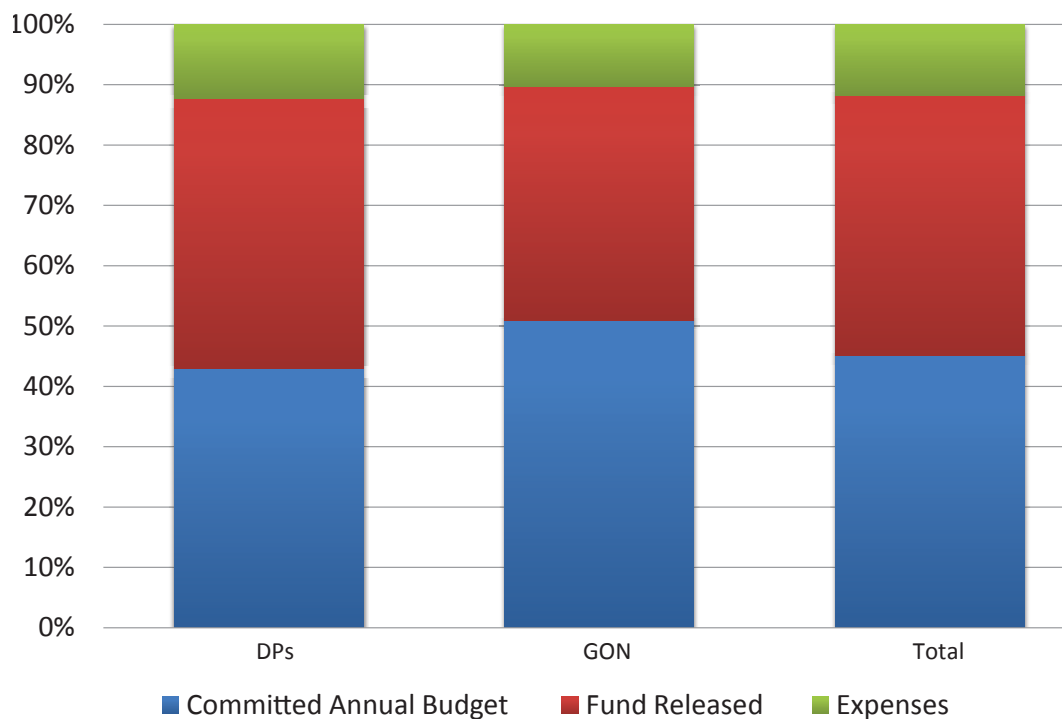


Figure 21 : NRREP's Fund Utilization

8.3.3. NRREP's Subsidy Disbursement

During this reporting period, CREF was successful in disbursing 79 percent of the annual amount allocated as subsidy for promotion various technologies. Considerable

progress (111 percent) was made in disbursing subsidies for solar home systems.

Table 12: NRREP's Subsidy Disbursement Details

| SN | Key Activities | Annual Budget (Thousands NRs) | Disbursed Amount (Thousands NRs) | Progress |
|----|----------------------------------|-------------------------------|----------------------------------|------------|
| 1 | Mini/MicroHydro Power | 600,000 | 452,320 | 75% |
| 2 | Improved Water Mill | 28,000 | 16,974 | 61% |
| 3 | Solar PV Home Systems | 640,000 | 708,798 | 111% |
| 4 | Small Solar PV Home Systems | 40,000 | 14,890 | 37% |
| 5 | Institutional Solar PV Systems | 40,000 | 32,865 | 82% |
| 6 | Drinking Water Pumping Systems | 60,000 | 28,093 | 47% |
| 7 | Metallic Improved Cooking Stoves | 28,000 | 14,314 | 51% |
| 8 | Domestic Biogas Plants | 342,000 | 136,269 | 40% |
| 9 | Productive End-uses | 12,500 | 6,155 | 49% |
| 10 | Risk Capital Grant to FISS | 2640 | 0 | 0% |
| | Total | 1,793,140 | 1,410,680 | 79% |

Technology-wise Fund Utilisation

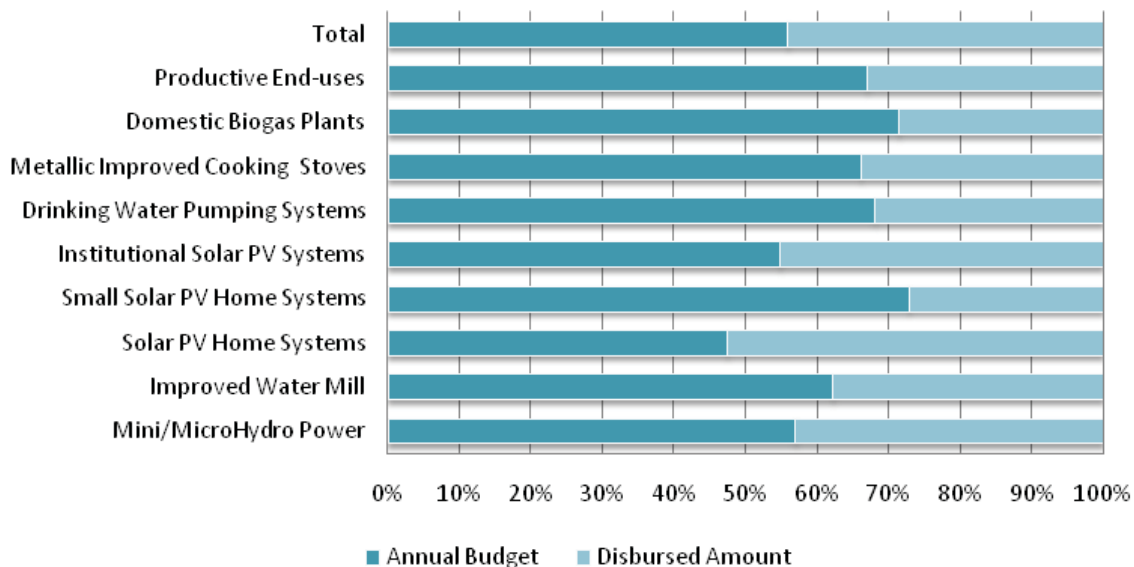


Figure 22 : NRREP's technology-wise fund utilization

ANNEXES



9.1 Annex 1: District Wise RETs Installation in 2069/070 (2012/2013)

| Annex 1. 1: Mini/Micro/Pico Hydropower Projects | | | | | | |
|---|-----------|---|-------------|----------------|----------------|-----------------|
| SN | Districts | Owner/Project Name | VDC Name | Capacity in kW | HHs Benefitted | Supported by |
| 1 | Achcham | Kasagad Micro Hydro Project | Rishidaha | 92 | 825 | ESAP-NRREP/AEPC |
| 2 | | Jigadi Khola Micro Hydro Project | Devasthan | 9 | 89 | ESAP-NRREP/AEPC |
| 3 | | Toli Ghatte K Micro Hydro User's Committee | Toli | 29 | 272 | ESAP-NRREP/AEPC |
| 4 | | Nani khola Micro Hydro User's Committee | Sutar | 32 | 345 | ESAP-NRREP/AEPC |
| 5 | Baglung | Dhortatan Garpa K MH User's Committee | Bobang | 40 | 338 | ESAP-NRREP/AEPC |
| 6 | | Bhuji K V Micro Hydro User's Committee | Bobang | 84 | 676 | ESAP-NRREP/AEPC |
| 7 | | Barahaghos Khola Micro Hydro User's committee | Khungakhani | 11 | 119 | ESAP-NRREP/AEPC |
| 8 | | Barahathan Khola MH User's Committee | Khungakhani | 8 | 78 | ESAP-NRREP/AEPC |
| 9 | | Lebang K Micro Hydro User's Committee | Devasthan | 29 | 270 | ESAP-NRREP/AEPC |
| 10 | | Baya Khola Micro Hydro Project | Devasthan | 50 | 511 | ESAP-NRREP/AEPC |
| 11 | | Bunga Khola Micro Hydro Project | Gangadovan | 50 | 497 | RERL/AEPC |
| 12 | | Syaule Khola Micro Hydro Project | Bongdovan | 30 | 382 | RERL/AEPC |
| 13 | Baithadi | Ghatte Khola IWM Electrification Project | Kataujpani | 2 | 30 | ESAP-NRREP/AEPC |
| 14 | | Gannigad Khola Micro Hydro Project | Kotpetara | 30 | 340 | ESAP-NRREP/AEPC |
| 15 | Bajhang | Bajarigad Pico Hydro Project | Deulikot | 3 | 35 | ESAP-NRREP/AEPC |
| 16 | | Dantola Micro Hydro Project | Datol | 60 | 690 | ESAP-NRREP/AEPC |
| 17 | | Talkoti Gad MHP User's Committee | Melbisauni | 62 | 510 | ESAP-NRREP/AEPC |
| 18 | | Jeude Gad Micro Hydro Project | Surama | 25 | 245 | ESAP-NRREP/AEPC |
| 19 | | Telparigad Micro Hydro Project | Kailash | 9 | 71 | ESAP-NRREP/AEPC |
| 20 | | Gadaunigad Khar Khola Micro Hydro Project | Kalukheti | 20 | 322 | ESAP-NRREP/AEPC |
| 21 | | Sunakhani Khola Micro Hydro Project | Patdewal | 17 | 210 | ESAP-NRREP/AEPC |
| 22 | | Chhadevel Khola Micro Hydro Project | Pauwagadi | 9 | 128 | ESAP-NRREP/AEPC |
| 23 | | Dhami Gad Khola Micro Hydro Project | Deulekh | 19 | 210 | ESAP-NRREP/AEPC |
| 24 | | Bhyagute Gad | Matela | 17 | 174 | RERL/AEPC |

Annex 1. 1: Mini/Micro/Pico Hydropower Projects

| SN | Districts | Owner/Project Name | VDC Name | Capacity in kW | HHs Benefitted | Supported by |
|----|-----------|--|----------------|----------------|----------------|-----------------|
| 25 | Bajura | Kachaligadh Pico Hydro Project | Kanda | 5 | 70 | ESAP-NRREP/AEPC |
| 26 | | Simdhara Micro Hydro Project | Jugada | 40 | 306 | ESAP-NRREP/AEPC |
| 27 | | Airadi Gad Micro Hydro Project | Jaybageshowri | 30 | 456 | RERL/AEPC |
| 28 | | Gudugad Micro Hydro Project | Gudukheti | 15 | 270 | RERL/AEPC |
| 29 | | Gudu Gad Micro Hydro Project | Gudukhati | 15 | 270 | RERL/AEPC |
| 30 | Bhojpur | Sim khola Pico Hydro Project | Chaukidanda | 2 | 21 | ESAP-NRREP/AEPC |
| 31 | | Kakuwa Khola Pico Hydro Project | Kulung | 5 | 62 | ESAP-NRREP/AEPC |
| 32 | | Chandeshwari(Khunge Khola) Micro Hydro Project | Khawa | 16 | 141 | ESAP-NRREP/AEPC |
| 33 | | Buwa Khola I Micro Hydro Project | Balankha | 11 | 109 | ESAP-NRREP/AEPC |
| 34 | | Phedi Khola Micro Hydro Project | Khatamma | 36 | 409 | RERL/AEPC |
| 35 | | Chhange Khola Micro Hydro Project | Khatamchha | 35 | 331 | RERL/AEPC |
| 36 | | Behere Khola I Micro Hydro Project | Bhulke | 13 | 134 | RERL/AEPC |
| 37 | Dailekh | Takuri Dovan Khola Micro Hydro Project | Kashikad | 36 | 379 | RERL/AEPC |
| 38 | | Chhadi Khola Micro Hydro Project | Tilepata | 18 | 216 | RERL/AEPC |
| 39 | Darchula | Kalagad Khola Micro Hydro Project | Brahmadev | 43 | 453 | ESAP-NRREP/AEPC |
| 40 | | Ghatte Gad Micro Hydro Project | Latinath | 25 | 270 | RERL/AEPC |
| 41 | Dhading | Daringal Khola Micro Hydro Project | Pida | 10 | 90 | ESAP-NRREP/AEPC |
| 42 | | Hagarti Khola Micro Hydro Project | Tasarpu | 16 | 140 | ESAP-NRREP/AEPC |
| 43 | | Kingtang Khola Micro Hydro Project | Darrkha/ Gumdi | 40 | 350 | RERL/AEPC |
| 44 | Dhankuta | Laxmi khola Micro Hydro Project | Marekathare | 40 | 363 | ESAP-NRREP/AEPC |
| 45 | Dolakha | Jaushwara Khola Pico hydro Project | Orang | 5 | 60 | ESAP-NRREP/AEPC |
| 46 | Dolpa | Ghatte Khola MH Users Committee | Majhphal | 30 | 239 | ESAP-NRREP/AEPC |
| 47 | Doti | Gadseri Gad II Micro Hydro Project | Gadsera | 21 | 182 | RERL/AEPC |

Annex 1. 1: Mini/Micro/Pico Hydropower Projects

| SN | Districts | Owner/Project Name | VDC Name | Capacity in kW | HHs Benefitted | Supported by |
|----|----------------|--|------------|----------------|----------------|-----------------|
| 48 | Gorkha | Kapre Khola Micro Hydro Project | Hansapur | 11 | 93 | ESAP-NRREP/AEPC |
| 49 | | Tamsyo Khola Micro Hydro Project | Ghyachok | 12 | 105 | ESAP-NRREP/AEPC |
| 50 | | Chhahare Khola Micro Hydro Project | Saurapani | 22 | 260 | ESAP-NRREP/AEPC |
| 51 | | Nangkohong Khola Micro Hydro Project | Lapark | 26 | 265 | ESAP-NRREP/AEPC |
| 52 | | Upper Hindi Khola Micro Hydro Project | Surpani | 22 | 235 | RERL/AEPC |
| 53 | Humla | Paneri Khola Micro Hydro Project | Rodikot | 14 | 161 | ESAP-NRREP/AEPC |
| 54 | Jajarkot | Bada Khola Micro Hydro Project | Khagenakot | 7 | 59 | ESAP-NRREP/AEPC |
| 55 | | Fadka Khola Micro Hydro Project | Ramidanda | 16 | 146 | ESAP-NRREP/AEPC |
| 56 | Jumla | Rugagadh Pico Hydro Project | Sanigaun | 3 | 53 | ESAP-NRREP/AEPC |
| 57 | | Dochalgad Micro Hydro Project | Gajyangkot | 85 | 904 | ESAP-NRREP/AEPC |
| 58 | | Naumule Micro Hydro Project | Depalgaun | 77 | 570 | ESAP-NRREP/AEPC |
| 59 | | Ujyalo Samaj Sangta Khola MHP | Dhap | 25 | 300 | ESAP-NRREP/AEPC |
| 60 | Kalikot | Aula Khola Micro Hydro Project | Khin | 70 | 786 | ESAP-NRREP/AEPC |
| 61 | | Dhand Khola Micro Hydro Project | Chhapre | 18 | 262 | ESAP-NRREP/AEPC |
| 62 | | Damdi Gad Micro Hydro Project | Thirpu | 11 | 127 | RERL/AEPC |
| 63 | Kaski | Bhurgyu Khola micro Hydro User's committee | Ghandruk | 50 | 290 | ESAP-NRREP/AEPC |
| 64 | Kavrepalanchok | Chau Khola IV Micro Hydro Project | Dandagaun | 20 | 205 | RERL/AEPC |
| 65 | | Banakhu Khola II Micro Hydro Project | Bankhu | 25 | 259 | RERL/AEPC |
| 66 | | Sana IWM Electrification Project | Saladhara | 4 | 48 | ESAP-NRREP/AEPC |
| 67 | | Sikti Khola Mahabharat Pico Hydro Project | Bhimkhori | 5 | 68 | ESAP-NRREP/AEPC |
| 68 | | Khani K Micro Hydro User's Committee | Budakhani | 20 | 172 | ESAP-NRREP/AEPC |

Annex 1. 1: Mini/Micro/Pico Hydropower Projects

| SN | Districts | Owner/Project Name | VDC Name | Capacity in kW | HHs Benefitted | Supported by |
|----|-------------|---|-----------------|----------------|----------------|-----------------|
| 69 | Khotang | Tawa Khola Micro Hydro Project | Khidima | 17 | 231 | ESAP-NRREP/AEPC |
| 70 | | Nawa Liding Micro Hydro Project | Rakhawangdel | 70 | 621 | ESAP-NRREP/AEPC |
| 71 | | Sindure Dhunga Liding K MHP | Bakachol | 70 | 605 | ESAP-NRREP/AEPC |
| 72 | | Swanra Tap Khola Micro Hydro Project | Phedi | 30 | 243 | ESAP-NRREP/AEPC |
| 73 | | Panchami Chhamawa Khola Micro Hydro Project | Phedi | 39 | 320 | ESAP-NRREP/AEPC |
| 74 | | Chima Khola Micro Hydro Project | Kaule | 13 | 161 | RERL/AEPC |
| 75 | Lamjung | SandhKhola Micro Hydro User's Committee | Bajhokhet | 20 | 190 | ESAP-NRREP/AEPC |
| 76 | | Lower Kri Khola Micro Hydro Project | Kolki | 6 | 65 | ESAP-NRREP/AEPC |
| 77 | | Shree Chillli Khola II Micro Hydro Project | Kolki | 10 | 104 | ESAP-NRREP/AEPC |
| 78 | | Sarangi Khola Micro Hydro Project | Gauda | 4 | 45 | ESAP-NRREP/AEPC |
| 79 | | Paise Khola II MHP Micro Hydro Project | Ilampokhari | 12 | 105 | ESAP-NRREP/AEPC |
| 80 | | Mahavir Khola Micro Hydro Project | Bichaur | 18 | 176 | ESAP-NRREP/AEPC |
| 81 | Myagdi | Ingle Khola Micro Hydro User's Committee | Guraja | 30 | 260 | ESAP-NRREP/AEPC |
| 82 | Nawalparasi | Saghuri Khola Pico Hydro Project | Mainaghat | 3 | 45 | ESAP-NRREP/AEPC |
| 83 | | Nirandi Khola I Micro Hydro Project | Jaubari | 11 | 119 | ESAP-NRREP/AEPC |
| 84 | | Khahare K Micro Hydro Project | Kotethar | 7 | 98 | ESAP-NRREP/AEPC |
| 85 | Okhaldhunga | Aderi Khola Jarap Pico Hydro Project | Jyamire | 5 | 63 | ESAP-NRREP/AEPC |
| 86 | | Chisapani Pico Hydro Project | Bhadaure | 4 | 35 | ESAP-NRREP/AEPC |
| 87 | | Sisne Khola Pico Hydro Project | Thulachhap | 3 | 56 | ESAP-NRREP/AEPC |
| 88 | | Yolung Khola Micro Hydro Project | Srichaur | 10 | 99 | ESAP-NRREP/AEPC |
| 89 | | Thotne Khola Micro Hydro Project | Mamkha | 23 | 215 | ESAP-NRREP/AEPC |
| 90 | | Thulo Khola Micro Hydro Project | Phulbari | 50 | 468 | ESAP-NRREP/AEPC |
| 91 | | Khisri Khola Micro Hydro Project | Khichandeshwori | 19 | 158 | ESAP-NRREP/AEPC |
| 92 | | Molung Khola IV Micro Hydro Project | Kuntadevi | 46 | 609 | RERL/AEPC |

Annex 1. 1: Mini/Micro/Pico Hydropower Projects

| SN | Districts | Owner/Project Name | VDC Name | Capacity in kW | H H s Benefitted | Supported by |
|-----|---------------|---|--------------------|----------------|------------------|-----------------|
| 93 | Palpa | Baseni Khola Pico Hydro Project "B" U.Committee | Rahabas | 1 | 25 | ESAP-NRREP/AEPC |
| 94 | | Arun Khola Micro Hydro Project | Rahabas | 43 | 286 | ESAP-NRREP/AEPC |
| 95 | Panchthar | Mabewa Khola Pico Hydro Project | Sidin | 5 | 57 | ESAP-NRREP/AEPC |
| 96 | | Sano Khola Pico Hydro Project | Ranitar | 5 | 43 | ESAP-NRREP/AEPC |
| 97 | | Niwa Khola Micro Hydro Project | Ektin | 21 | 189 | ESAP-NRREP/AEPC |
| 98 | | Naya Khola Micro Hydro Project | Aarubote | 8 | 90 | ESAP-NRREP/AEPC |
| 99 | | Nibu Khola VI Micro Hydro Project | Lumphabung | 12 | 120 | RERL/AEPC |
| 100 | Ramechhap | Giluwa K Pico Hydro Project | Priti | 5 | 46 | ESAP-NRREP/AEPC |
| 101 | | Baaz Khola Micro Hydro Project | Kubukasthali | 13 | 118 | ESAP-NRREP/AEPC |
| 102 | Ropla | Thulo Khola Pico Hydro Porject | Pachwang | 5 | 60 | ESAP-NRREP/AEPC |
| 103 | | Sunchhahari Community Pico Hydro Project | Siuri | 5 | 45 | ESAP-NRREP/AEPC |
| 104 | | Chunmang Khola Micro Hydro Project | Rangkot | 27 | 284 | ESAP-NRREP/AEPC |
| 105 | | Dumai Khola Micro Hydro Project | Uwa | 27 | 264 | ESAP-NRREP/AEPC |
| 106 | | Chapka Duikhohli Dovan Micro Hydro Project | Eriwang | 32 | 311 | ESAP-NRREP/AEPC |
| 107 | Rukum | Muree Khola Pico Hydro Project | Garayala | 5 | 60 | ESAP-NRREP/AEPC |
| 108 | | Deuta Khola Pico Hydro Project | Garayala | 5 | 60 | ESAP-NRREP/AEPC |
| 109 | | Sankh Khola Micro Hydro Project | Sankh | 60 | 500 | RERL/AEPC |
| 110 | Sankhuwashaba | Sano Basuwa Khola Micro Hydro Project | Pathibhara | 25 | 212 | RERL/AEPC |
| 111 | Sindhuli | Kokhe Khola B Pico Hydro Project (Peltric) | Bhadrakali | 2 | 25 | ESAP-NRREP/AEPC |
| 112 | | Garke K Pico Hydro Project | Santeshwori Rampur | 2 | 25 | ESAP-NRREP/AEPC |
| 113 | | Khani Khola Chokhopani Pico Hydro Project | Santeshwori Rampur | 5 | 60 | ESAP-NRREP/AEPC |
| 114 | | Saraswati Khola Pico Hydro Project | Bhadrakali | 5 | 53 | ESAP-NRREP/AEPC |
| 115 | | Marin Khola Micro Hydro Project | Bastipur | 8 | 70 | ESAP-NRREP/AEPC |
| 116 | | Damar Thado Khola Micro Hydro Project | Bastipur | 8 | 85 | ESAP-NRREP/AEPC |

Annex 1. 1: Mini/Micro/Pico Hydropower Projects

| SN | Districts | Owner/Project Name | VDC Name | Capacity in kW | HHs Benefitted | Supported by |
|-----|-----------------|--|------------------|----------------|----------------|-----------------|
| 117 | Sindhuli | Marin Haitar Khola Micro Hydro Project | Bastipur | 12 | 159 | ESAP-NRREP/AEPC |
| 118 | | Ghatte Khola Micro Hydro Project | Amel | 6 | 76 | ESAP-NRREP/AEPC |
| 119 | | Marin Khola Micro Hydro Project | Amale | 24 | 224 | RERL/AEPC |
| 120 | | Shakar Khola Micro Hydro Project | Kholagaun | 13 | 192 | RERL/AEPC |
| 121 | Sindhupal chowk | Bagang Trasi Ghyanchho Ghyang Pico Hydro Project | Baruwa | 2 | 11 | ESAP-NRREP/AEPC |
| 122 | Solukhumbu | Ghatte Khola Micro Hydro Project | Kanku | 10 | 105 | ESAP-NRREP/AEPC |
| 123 | | Jwalamai Loding Micro Hydro Project | Loding Tamakhani | 20 | 172 | ESAP-NRREP/AEPC |
| 124 | | Bhuwa Khola Micro Hydro Project | Bung | 88 | 818 | ESAP-NRREP/AEPC |
| 125 | | Sumbu Khola Micro Hydro Project | Deusa | 15 | 210 | RERL/AEPC |
| 126 | Taplejung | Sobuwa Khola-5 Gairee Puchhar MHP | Change | 22 | 215 | ESAP-NRREP/AEPC |
| 127 | | Launwa Khola Micro Hydro Project | Thukima | 100 | 991 | RERL/AEPC |
| 128 | | Tewa Mekwa Khola Micro Hydro Project | Ekhabu | 60 | 595 | RERL/AEPC |
| 129 | | Yaphre Khola Micro Hydro Project | Hangdewa | 95 | 950 | RERL/AEPC |
| 130 | Terhathum | Mulpani Pico Hydro Project | Samdu | 1 | 13 | ESAP-NRREP/AEPC |
| 131 | Udayapur | Rasuwa Khola Pico Hydro Project | Rauta | 5 | 65 | ESAP-NRREP/AEPC |
| 132 | | Khari Khola Micro Hydro Project | Baluwatar | 10 | 107 | RERL/AEPC |
| 133 | | Baidhanath Khola Micro Hydro Project | Balayadanda | 15 | 157 | RERL/AEPC |
| | | Total | | 3239.00 | | |

Annex 1. 2: Micro/Pico Hydropower Projects Under Construction

| SN | Districts | Project Name | VDC | kW | Benefitted HHs | Supported by |
|----|-----------|----------------------------|-----------------|-----|----------------|--------------|
| 1 | Achham | Bhum Khola MHP | Kalekada | 34 | 284 | NRREP/AEPC |
| 2 | | Dupka Bagar MHP | Ghughurkot | 35 | 320 | NRREP/AEPC |
| 3 | | Jijadi Gad | Ghodasen | 10 | 110 | RERL/AEPC |
| 4 | | Chaira Khola III | Hichma/ Dhakari | 60 | 500 | RERL/AEPC |
| 5 | Baglung | Chanchalghat MHP | Ranasingkiteni | 100 | 918 | NRREP/AEPC |
| 6 | | Rudra Tal MHP | Bobang-9 | 10 | 94 | NRREP/AEPC |
| 7 | | Syaule Khola | Bongadovan | 30 | 382 | RERL/AEPC |
| 8 | Baithadi | Garma Gad MHP | Amachora | 20 | 200 | NRREP/AEPC |
| 9 | | Surnaya Gad IV | Melauli | 51 | 764 | RERL/AEPC |
| 10 | Bajhang | Sahupata Khola | Ritthapata | 9 | 108 | NRREP/AEPC |
| 11 | | Sela Gad MHP | Surma-2 | 28 | 270 | NRREP/AEPC |
| 12 | | Jeude Gad No 2 MHP | Daulichaur | 27 | 292 | NRREP/AEPC |
| 13 | | Saighunga MHP | Kotdewai | 45 | 466 | NRREP/AEPC |
| 14 | | Sanni Gad | Kafalseri | 100 | 992 | RERL/AEPC |
| 15 | Bajura | Juddi Khola MHP | Gortee | 100 | 1114 | NRREP/AEPC |
| 16 | | Mala Gad MHP | Kailasmandu | 100 | 1163 | NRREP/AEPC |
| 17 | | Barju Gad MHP | Gudukhati- | 40 | 502 | NRREP/AEPC |
| 18 | | Dahachal MHP | Bandhu- | 15 | 214 | NRREP/AEPC |
| 19 | | Khali Khola MHP | Wai | 52 | 430 | NRREP/AEPC |
| 20 | | Kordali Gad | Budigaan | 50 | 496 | RERL/AEPC |
| 21 | Darchula | Riting Gad | Sunsera | 51 | 553 | RERL/AEPC |
| 22 | | Kala Gad II | Dhari | 40 | 594 | RERL/AEPC |
| 23 | Dhading | Kubinde Pachase Khola MHP | Katunje-4 | 18 | 186 | NRREP/AEPC |
| 24 | | Lisne Khola MHP | Jharlang-1 | 72 | 565 | NRREP/AEPC |
| 25 | | Dhunduri Khola MHP | Jharlang-7 | 66 | 561 | NRREP/AEPC |
| 26 | Dolpa | Ankhe Khola MHP | Raha | 51 | 327 | NRREP/AEPC |
| 27 | Gorkha | Pelpque Khola MHP | Saurpani-8 | 7 | 176 | NRREP/AEPC |
| 28 | | Ling Khola MHP | Aruarbang-6 | 8 | 136 | NRREP/AEPC |
| 29 | Humla | Machhaine Khola MHP | Shreenagar | 30 | 274 | NRREP/AEPC |
| 30 | | Lum Khola Ghatte Khola MHP | Kharpunath-8 | 20 | 180 | NRREP/AEPC |
| 31 | | Piptyadi Khola MHP | Dadaphaya-9 | 20 | 170 | NRREP/AEPC |
| 32 | | Khar Khola MHP | Darma | 70 | 550 | NRREP/AEPC |
| 33 | | Juni Tongcha MHP | Hepka-7 | 20 | 225 | NRREP/AEPC |
| 34 | Ilam | Thawa Khola Raikar MHP | Fuyatappa | 20 | 190 | NRREP/AEPC |
| 35 | | Thawa Khola MHP | Phuyatappa | 18 | 164 | NRREP/AEPC |
| 36 | | Mawa Khola II MHP | Banjho-3 | 11 | 95 | NRREP/AEPC |
| 37 | Jajarkot | Baghamare Khola MHP | Laha | 45 | 473 | NRREP/AEPC |
| 38 | | Dobiya Khola MHP | Ragda-7 | 18 | 235 | NRREP/AEPC |
| 39 | | Bheri Khola MHP | Bhagawati | 15 | 240 | NRREP/AEPC |
| 40 | | Hipka Khola | Kalikasthan | 60 | 518 | RERL/AEPC |
| 41 | Jumla | Maluwa Phokta Khola MHP | Mahabaipathar | 31 | 420 | NRREP/AEPC |
| 42 | | Juwa Nadi MHP | Patmara | 14 | 118 | NRREP/AEPC |
| 43 | | Sangta Khola Dapkana MHP | Dhapa | 11 | 115 | NRREP/AEPC |

Annex 1. 2: Micro/Pico Hydropower Projects Under Construction

| SN | Districts | Owner/Project Name | VDC Name | Capacity in kW | HHs Benefitted | Supported by |
|----|-------------|---------------------------------|-----------------|----------------|----------------|--------------|
| 44 | Kalikot | Ghatte Gad Okhar Gad Khola MHP | Ranchuli | 18.5 | 166 | NRREP/AEPC |
| 45 | | Ranchuli MHP | Ranchuli | 16 | 211 | NRREP/AEPC |
| 46 | | Vaccuna Gad | Gela | 70 | 725 | RERL/AEPC |
| 47 | | Jatad Khola | Rupsa | 32 | 330 | RERL/AEPC |
| 48 | | Lafa Gad | Ramnaktot | 70 | 700 | RERL/AEPC |
| 49 | Kaski | Chuile Khola MHP | Ghandruk | 47 | 300 | NRREP/AEPC |
| 50 | | Murlung Khola MHP | Ghandruk-8 | 25 | | NRREP/AEPC |
| 51 | Khotang | Tap Khola II Mini Hydro Project | Sapteshwore | 303 | 2442 | NRREP/AEPC |
| 52 | | Buwa Khola II | Bopang | 19 | 201 | RERL/AEPC |
| 53 | Lamjung | Shree Chhahare Khola I MHP | Ilampokhri -6 | 9 | 81 | NRREP/AEPC |
| 54 | Manang | Kamko Tha Khola MHP | Nar-7 | 40 | 84 | NRREP/AEPC |
| 55 | Mugu | Darkha Khola | Kotdanda | 19 | 223 | RERL/AEPC |
| 56 | Nawalparasi | Karamkot Khola MHP | Jaubari -7,8 | 14 | 150 | NRREP/AEPC |
| 57 | | Baudi Khola I MHP | Ruchang-6 | 11 | 169 | NRREP/AEPC |
| 58 | | Arung Khola MHP | Rakachuli | 32 | 400 | NRREP/AEPC |
| 59 | | Phulmadi Khola MHP | Bharatipur-1 | 6.5 | 128 | NRREP/AEPC |
| 60 | | Ladi Khola MHP | Dandajheri -2,3 | 10 | 123 | NRREP/AEPC |
| 61 | Okhaldhunga | Manlakhark Sisne Phedi MHP | Khijipalate | 26.5 | 248 | NRREP/AEPC |
| 62 | | Thotne Khola Chaman MHP | Mamkha | 14 | 179 | NRREP/AEPC |
| 63 | | Pankhu Khola | Waksa | 30 | 436 | RERL/AEPC |
| 64 | Palpa | Baudi Khola MHP | Bakamalang | 11 | 157 | NRREP/AEPC |
| 65 | | Jhumsa Khola III MHP | Gothadi | 68 | 603 | NRREP/AEPC |
| 66 | Panchthar | Muwa Khola MHP | Prangbung-5 | 100 | 840 | NRREP/AEPC |
| 67 | | Shree Sapsu Nibu Khola MHP | Imbung | 43 | 360 | NRREP/AEPC |
| 68 | Ramechhap | Paati Khola MHP | Gupteshwor | 17.5 | 217 | NRREP/AEPC |
| 69 | | Phedi Khola | Daduwa | 22 | 226 | RERL/AEPC |
| 70 | Rasuwa | Kholsyang | Dadagaun | 10 | 116 | RERL/AEPC |
| 71 | | Daldung Khola | | 14 | 137 | RERL/AEPC |
| 72 | Rolpa | Tamghas Khola MHP | Mirul | 7 | 70 | NRREP/AEPC |
| 73 | | Jiwai Khola MHP | Mirul | 15.1 | 253 | NRREP/AEPC |
| 74 | | Cheura Gad Khola MHP | Wot | 22 | 343 | NRREP/AEPC |
| 75 | | Veng Khola MHP | Ghartigaun | 20 | 190 | NRREP/AEPC |
| 76 | | Nang Khola MHP | Korchabang | 38 | 323 | NRREP/AEPC |
| 77 | | Hyame Khola | Kureli | 23 | 241 | RERL/AEPC |
| 78 | Rukum | Lalbang Sipcha Khola MHP | Sakh | 9 | 114 | NRREP/AEPC |
| 79 | | Jharbang Chancheri MHP | Khara | 20 | 207 | NRREP/AEPC |
| 80 | | Khara Pipalbot MHP | Khara | 17 | 170 | NRREP/AEPC |
| 81 | | Chhipra Khola MHP | Pipal | 19 | 178 | NRREP/AEPC |
| 82 | | Sakh Khola MHS | Sakh | 39 | 322 | NRREP/AEPC |
| 83 | | Sakh Khola II MHS | Sakh | 28 | 264 | NRREP/AEPC |
| 84 | | Naudhari Khola MHS | Syalapakha | 16 | 205 | NRREP/AEPC |
| 85 | | Lower Chiuri Khola MHS | Pokhara | 14 | 165 | NRREP/AEPC |

Annex 1. 2: Micro/Pico Hydropower Projects Under Construction

| SN | Districts | Owner/Project Name | VDC Name | Capacity in kW | HHs Benefitted | Supported by |
|-----|------------------------|---------------------------|---------------|----------------|----------------|------------------|
| 86 | Rukum | Ghetma Khola MHS | Ghetma | 28 | 308 | NRREP/AEPC |
| 87 | | Chun Khola I MHP | Chaukhabang | 23.5 | 196 | NRREP/AEPC |
| 88 | | Ghari Khola MHS | Magam | 14 | 151 | NRREP/AEPC |
| 89 | | Patal Khola MHS | Sakh | 18 | 158 | NRREP/AEPC |
| 90 | | Chun Khola II MHP | Chaukhabang | 27 | 256 | NRREP/AEPC |
| 91 | | Muru Khola II MHP | Muru-5 | 8 | 130 | NRREP/AEPC |
| 92 | | Bheri Khola MHP | Chaukhabang-9 | 23 | 450 | NRREP/AEPC |
| 93 | | Bheri Khola MHP | | 23 | 335 | RERL/AEPC |
| 94 | | Labur Khola MHP | | 85 | 961 | RERL/AEPC |
| 95 | | Deuta Khola MHP | | 19 | 215 | RERL/AEPC |
| 96 | | Tubang Khola MHP | | 33 | 432 | RERL/AEPC |
| 97 | | Lalbang Sipkcha Khola MHP | | 7 | 115 | RERL/AEPC |
| 98 | | Muru Khola II MHP | | 8 | 115 | RERL/AEPC |
| 99 | | Pipalbot Khola MHP | | 17 | 170 | RERL/AEPC |
| 100 | | Jharbang Chankheri Khola | | 20 | 207 | RERL/AEPC |
| 101 | | Kakri Khola MHP | | 45 | 425 | RERL/AEPC |
| 102 | | Kuchibang Khola MHP | | 18 | 156 | RERL/AEPC |
| 103 | | Jama Khola MHP | | 90 | 1035 | RERL/AEPC |
| 104 | | Sankh Khola III MHP | | 60 | 594 | RERL/AEPC |
| 105 | | Naudhari Khola MHP | | 16 | 207 | RERL/AEPC |
| 106 | | Sankh Khola I MHP | | 39 | 322 | RERL/AEPC |
| 107 | | Patal Khola MHP | | 18 | 158 | RERL/AEPC |
| 108 | | Sankh Khola II MHP | | 28 | 264 | RERL/AEPC |
| 109 | | Ghari Khola MHP | | 14 | 151 | RERL/AEPC |
| 110 | Ghetma Khola MHP | | 28 | 308 | RERL/AEPC | |
| 111 | Lower Chiuri Khola MHP | | 14 | 165 | RERL/AEPC | |
| 112 | Chipra Khola MHP | | 19 | 178 | RERL/AEPC | |
| 113 | Chun Khola II MHP | | 27 | 256 | RERL/AEPC | |
| 114 | Chun Khola I MHP | | 24 | 196 | RERL/AEPC | |
| 115 | Sindhuli | Tamajor Khola MHP | Tamajor | 15 | 180 | NRREP/AEPC |
| 116 | Solukhumbu | Dudu Khola II | Jubu | 67 | 579 | RERL/AEPC |
| 117 | | Budum Khola MHP | Gudel | 100 | 862 | NRREP/AEPC |
| 118 | | Ghatte Khola MHP | Juving- | 11 | 102 | NRREP/AEPC |
| 119 | | Kunikhop Khola MHP | Salleri-6 | 12.5 | 105 | NRREP/AEPC |
| 120 | | Khari Khola III MHP | Juving- | 70 | 567 | NRREP/AEPC |
| 121 | | Jalakanya Kamee Khola MHP | Kerung | 15 | 185 | NRREP/AEPC |
| 122 | | Solu Khola Gangku MHP | Panchan | 100 | 1126 | NRREP/AEPC |
| 123 | | Nyaju Khola MHP | Papung | 15 | 149 | NRREP/AEPC |
| 124 | Taplejung | Shiwa Khola MHP | Khebang-1 | 70 | 580 | NRREP/AEPC |
| 125 | | Tammawa Khola MHP | Tapethok-7 | 65 | 546 | NRREP/AEPC |
| | | Total | | 4,351.1 | 43069 | RERL/AEPC |

| Annex 1.3: District Wise Improved Water Mills (IWM) installation | | | |
|--|-----------------|--------------------|----------------------|
| SN | District | No. of IWM Systems | Household Benefitted |
| 1 | Achham | 34 | 1,870 |
| 2 | Baitadi | 66 | 3,630 |
| 3 | Bajhang | 86 | 4,730 |
| 4 | Bajura | 16 | 880 |
| 5 | Chitwan | 18 | 990 |
| 6 | Dadeldhura | 24 | 1,320 |
| 7 | Dailekh | 126 | 6,930 |
| 8 | Darchula | 47 | 2,585 |
| 9 | Dhading | 19 | 1,045 |
| 10 | Dolakha | 27 | 1,485 |
| 11 | Dolpa | 19 | 1,045 |
| 12 | Doti | 85 | 4,675 |
| 13 | Gorkha | 16 | 880 |
| 14 | Jajarkot | 56 | 3,080 |
| 15 | Jumla | 51 | 2,805 |
| 16 | Kailali | 7 | 385 |
| 17 | Kalikot | 51 | 2,805 |
| 18 | Kavrepalanchowk | 29 | 1,595 |
| 19 | Makawanpur | 10 | 550 |
| 20 | Nuwakot | 62 | 3,410 |
| 21 | Okhaldhunga | 98 | 5,390 |
| 22 | Ramechhap | 11 | 605 |
| 23 | Rasuwa | 66 | 3,630 |
| 24 | Rolpa | 40 | 2,200 |
| 25 | Rukum | 34 | 1,870 |
| 26 | Salyan | 38 | 2,090 |
| 27 | Sindhuli | 45 | 2,475 |
| 28 | Sindhupalchowk | 34 | 1,870 |
| 29 | Surkhet | 34 | 1,870 |
| 30 | Udayapur | 7 | 385 |
| | Total | 1,256 | 69,080 |

| Annex 1.4 : District Wise Installation of Solar Home System (more than 10 Wp) | | | | |
|---|-----------------|----------------|---------------------|-------------------|
| S.N | District | No. of Systems | No. of HHS Bnefited | Capacity (in KWp) |
| 1 | Achham | 3,617 | 3,617 | 72.76 |
| 2 | Arghakhanchi | 830 | 830 | 18.57 |
| 3 | Baglung | 70 | 70 | 1.78 |
| 4 | Baitadi | 2,875 | 2,875 | 58.43 |
| 5 | Bajhang | 2,665 | 2,665 | 53.97 |
| 6 | Bajura | 790 | 790 | 15.76 |
| 7 | Banke | 2,244 | 2,244 | 53.57 |
| 8 | Bara | 446 | 446 | 12.94 |
| 9 | Bardiya | 113 | 113 | 2.38 |
| 10 | Bhojpur | 1,299 | 1,299 | 34.68 |
| 11 | Chitwan | 1,147 | 1,147 | 34.79 |
| 12 | Dadeldhura | 621 | 621 | 12.9 |
| 13 | Dailekh | 7,899 | 7,899 | 159.33 |
| 14 | Dang | 2,005 | 2,005 | 42.77 |
| 15 | Darchula | 1,592 | 1,592 | 32.39 |
| 16 | Dhading | 1,239 | 1,239 | 30.23 |
| 17 | Dhankuta | 18 | 18 | 0.44 |
| 18 | Dhanusa | 9 | 9 | 0.28 |
| 19 | Dolakha | 134 | 134 | 2.68 |
| 20 | Dolpa | 384 | 384 | 8.26 |
| 21 | Doti | 2,055 | 2,055 | 42.54 |
| 22 | Gorkha | 325 | 325 | 7.08 |
| 23 | Gulmi | 912 | 912 | 20.59 |
| 24 | Humla | 237 | 237 | 5.64 |
| 25 | Ilam | 190 | 190 | 6.67 |
| 26 | Jajarkot | 4,450 | 4,450 | 89.33 |
| 27 | Jhapa | 2 | 2 | 0.08 |
| 28 | Jumla | 1,412 | 1,412 | 31.28 |
| 29 | Kailali | 4,115 | 4,115 | 84.06 |
| 30 | Kalikot | 2,813 | 2,813 | 56.42 |
| 31 | Kanchanpur | 161 | 161 | 3.48 |
| 32 | Kapilbastu | 11 | 11 | 0.22 |
| 33 | Kaski | 32 | 32 | 0.9 |
| 34 | Kavrepalanchowk | 261 | 261 | 6.46 |
| 35 | Khotang | 765 | 765 | 17.79 |
| 36 | Lalitpur | 18 | 18 | 0.38 |

| S.N | District | No. of Systems | No. of HHs Bnefited | Capacity (in KWp) |
|-----|----------------|----------------|---------------------|-------------------|
| 37 | Lamjung | 196 | 196 | 4.08 |
| 38 | Mahottari | 31 | 31 | 0.97 |
| 39 | Makawanpur | 1,439 | 1,439 | 29.93 |
| 40 | Morang | 147 | 147 | 4.7 |
| 41 | Mugu | 640 | 640 | 12.84 |
| 42 | Mustang | 16 | 16 | 0.42 |
| 43 | Myagdi | 479 | 479 | 11.78 |
| 44 | Nawalparasi | 1,123 | 1,123 | 29.27 |
| 45 | Nuwakot | 87 | 87 | 1.88 |
| 46 | Okhaldhunga | 1,077 | 1,077 | 25.86 |
| 47 | Palpa | 1,117 | 1,117 | 25.03 |
| 48 | Panchthar | 1,323 | 1,323 | 56.36 |
| 49 | Parbat | 30 | 30 | 0.66 |
| 50 | Parsa | 82 | 82 | 2.54 |
| 51 | Pyuthan | 1,242 | 1,242 | 25.22 |
| 52 | Ramechhap | 1,285 | 1,285 | 29.8 |
| 53 | Rasuwa | 69 | 69 | 1.38 |
| 54 | Rautahat | 800 | 800 | 19.05 |
| 55 | Rolpa | 6,138 | 6,138 | 125.57 |
| 56 | Rukum | 5,901 | 5,901 | 119.78 |
| 57 | Salyan | 5,892 | 5,892 | 119.54 |
| 58 | Sankhuwasabha | 832 | 832 | 18.58 |
| 59 | Saptari | 136 | 136 | 3.14 |
| 60 | Sarlahi | 828 | 828 | 21.49 |
| 61 | Sindhuli | 3,320 | 3,320 | 83.78 |
| 62 | Sindhupalchowk | 165 | 165 | 3.66 |
| 63 | Siraha | 139 | 139 | 3.05 |
| 64 | Solukhumbu | 255 | 255 | 5.42 |
| 65 | Sunsari | 34 | 34 | 0.71 |
| 66 | Surkhet | 5,365 | 5,365 | 117.27 |
| 67 | Syangja | 123 | 123 | 2.86 |
| 68 | Tanahu | 466 | 466 | 11.67 |
| 69 | Taplejung | 721 | 721 | 22.74 |
| 70 | Terhathum | 59 | 59 | 2.05 |
| 71 | Udayapur | 2,566 | 2,566 | 60.94 |
| | Total | 91,879 | | 2,026 |

| | | | | |
|----|-----------------|--------------|-------|---------------|
| 6 | Bajura | 351 | 351 | 1,755 |
| 7 | Bara | 7 | 7 | 35 |
| 8 | Bardiya | 46 | 46 | 230 |
| 9 | Bhojpur | 23 | 23 | 115 |
| 10 | Chitwan | 77 | 77 | 385 |
| 11 | Dadeldhura | 54 | 54 | 270 |
| 12 | Dailekh | 150 | 150 | 750 |
| 13 | Dang | 7 | 7 | 35 |
| 14 | Darchula | 376 | 376 | 1,880 |
| 15 | Dhading | 144 | 144 | 720 |
| 16 | Dhankuta | 11 | 11 | 55 |
| 17 | Dolakha | 408 | 408 | 2,040 |
| 18 | Doti | 219 | 219 | 1,095 |
| 19 | Gorkha | 82 | 82 | 410 |
| 20 | Gulmi | 45 | 45 | 225 |
| 21 | Humla | 10 | 10 | 50 |
| 22 | Ilam | 66 | 66 | 330 |
| 23 | Jajarkot | 119 | 119 | 595 |
| 24 | Jhapa | 49 | 49 | 245 |
| 25 | Jumla | 24 | 24 | 120 |
| 26 | Kailali | 281 | 281 | 1,405 |
| 27 | Kalikot | 212 | 212 | 1,060 |
| 28 | Kapilbastu | 59 | 59 | 295 |
| 29 | Kavrepalanchowk | 31 | 31 | 155 |
| 30 | Khotang | 70 | 70 | 350 |
| 31 | Mahottari | 272 | 272 | 1,360 |
| 32 | Makawanpur | 17 | 17 | 85 |
| 33 | Morang | 221 | 221 | 1,105 |
| 34 | Mugu | 15 | 15 | 75 |
| 35 | Nawalparasi | 19 | 19 | 95 |
| 36 | Nuwakot | 50 | 50 | 250 |
| 37 | Okhaldhunga | 1 | 1 | 5 |
| 38 | Palpa | 197 | 197 | 985 |
| 39 | Panchthar | 11 | 11 | 55 |
| 40 | Pyuthan | 63 | 63 | 315 |
| 41 | Ramechhap | 3 | 3 | 15 |
| 42 | Rautahat | 325 | 325 | 1,625 |
| 43 | Rolpa | 69 | 69 | 345 |
| 44 | Rukum | 294 | 294 | 1,470 |
| 45 | Rupandehi | 5 | 5 | 25 |
| 46 | Salyan | 55 | 55 | 275 |
| 47 | Sarlahi | 94 | 94 | 470 |
| 48 | Sindhuli | 41 | 41 | 205 |
| 49 | Surkhet | 1,836 | 1,836 | 9,180 |
| 50 | Syangja | 1 | 1 | 5 |
| 51 | Taplejung | 59 | 59 | 295 |
| 52 | Udayapur | 64 | 64 | 320 |
| | Total | 7,445 | | 37,225 |

Annex 1.5 : District Wise Installtion of Small Solar Home System

| SN | District | No. of Systems | No. of HHs benefited | Capacity (in Wp) |
|----|--------------|----------------|----------------------|------------------|
| 1 | Achham | 173 | 173 | 865 |
| 2 | Arghakhanchi | 2 | 2 | 10 |
| 3 | Baglung | 53 | 53 | 265 |
| 4 | Baitadi | 275 | 275 | 1,375 |
| 5 | Bajhang | 309 | 309 | 1,545 |

Annex 1.6 : District Wise Installation of Institutional Solar PV System(ISPS)

| S.N | District | Name of Institutions | System Capacity (Wp) |
|-----|-----------|---|----------------------|
| 1 | Achcham | Radio Ramaroshan, Achham | 3080 |
| 2 | | Baijanath HSS, Achham | 2960 |
| 3 | | Shree Chakreswory Sec. School | 2960 |
| 4 | Baitthadi | Shikshyakendra Amar HSS, Baitadi | 3420 |
| 5 | | Arjun HSS, Baitadi | 2960 |
| 6 | Bajhang | Shree Chandradaya HSS, Bajhang | 3420 |
| 7 | Chitwan | Madi Mltiple Campus, Chitwan | 2880 |
| 8 | Dailekh | Shree Someshwor HSS, Chitwan | 1140 |
| 9 | | Shree Bhagawati Ma. Vi. Dailekh | 3600 |
| 10 | | Shree Rainadevi Secondary School | 3600 |
| 11 | | Shree Krishna Uchha Ma. Vi. Dailekh | 3840 |
| 12 | | Shanti Higher Sec. School, Dailekh | 2280 |
| 13 | Darchula | Apinath Ma. Vi. Darchula | 2850 |
| 14 | Dhading | Shree Dol Bhanjyang HSS, Dadhing | 2960 |
| 15 | | Gumdi Health Post, Dhading | 1900 |
| 16 | | Shree Tamang Kharka Higher Sec. School, Dadhing | 2080 |
| 17 | Doti | Barchhain Higher Sec. Doti | 2080 |
| 18 | Gulmi | Shree Hwangdi Mehale Sec. School, Gulmi | 2080 |
| 19 | Jajarkot | Shree Shiva Vocational Secondary School, Jajarkot | 3420 |
| 20 | | Nepal Rastriya Ma. Vi., Jajrkot | 2220 |
| 21 | Kavre | Gnesh Ma. Vi. Kavre | 3420 |
| 22 | Lamjung | Shree Dadhuwa Durcha Sec. School, Lamjung | 2400 |
| 23 | Morang | Laxmi Ma. Vi., Morang | 2100 |

| S.N | District | Name of Institutions | System Capacity (Wp) |
|-----|-------------|--|----------------------|
| 24 | Mustang | Lomanthan Community Library and Information Center Mustang | 2080 |
| 25 | Okhaldhunga | Punyamata HSS, Okhaldhunga | 2220 |
| 26 | Panchthar | Shree Buddheswori Sec School, Olaney-7, Panchthar | 2340 |
| 27 | Rautahat | Shree Uchha Ma Vi, Rautahat | 3800 |
| 28 | Rolpa | Shree Buddhibikash Sec School, Rolpa | 2660 |
| 29 | Rolpa | Shree Jivanjyoti Ma. Vi., Rolpa | 3300 |
| 30 | | Nepal Rastriya Ma. Vi., Rolpa | 3040 |
| 31 | Rukum | Shree Prabhat Ma. Vi. Dopai, Rukum | 2880 |
| 32 | | Adarsha Higher Secondary School, Rukum | 2220 |
| 33 | | Siddhartha Janata Higher Se. School. Rukum | 2220 |
| 34 | Salyan | Shree Suryodaya Higher Sec School, Dhakadam Salyan | 3420 |
| 35 | Sindhuli | Shree Uchha Ma Vi, Sindhuli | 2960 |
| 36 | Solukhumbu | Kalika Devi Higher Secondary, Solukhumbu | 3000 |
| 37 | Surkhet | Shree Jivanjyoti U. Ma Vi. Gutu-4, Surkhet | 2860 |
| 38 | | Shree Vijayashwari Higher Sec. School, Hariharpur-7, Surkhet | 2880 |
| 39 | Tanahun | Sahabir Lower Secondary School, Tanahu | 1520 |
| 40 | | Shree Arun Ma Vi, Tanahun | 1440 |
| 41 | Terhathum | Trimohan Higher Secondary School, Terathum | 3420 |
| | | Total | 111,910 |

Annex 1.7 : District Wise Installation of Community Solar Drinking Water System

| SN | District | No. of Systems | Capacity (in Wp) | No. of HHs Benefited |
|----|--------------|----------------|------------------|----------------------|
| 1 | Baglung | 2 | 3,770 | 100 |
| 2 | Baitadi | 2 | 2,280 | 110 |
| 3 | Dadeldhura | 1 | 1,300 | 52 |
| 4 | Ilam | 2 | 2,420 | 144 |
| 5 | Myagdi | 1 | 5,275 | 55 |
| 6 | Palpa | 1 | 2,850 | 50 |
| 7 | Panchthar | 1 | 1,400 | 60 |
| 8 | Ramechhap | 1 | 1,800 | 50 |
| 9 | Rolpa | 2 | 2,770 | 120 |
| 10 | Rukum | 1 | 3,040 | 45 |
| 11 | Salyan | 1 | 2,080 | 50 |
| 12 | Sindhuli | 2 | 4,560 | 108 |
| 13 | Surkhet | 1 | 1,400 | 63 |
| 14 | Syangja | 2 | 2,560 | 114 |
| 15 | Tanahu | 4 | 6,430 | 228 |
| 16 | Udayapur | 1 | 1,470 | 55 |
| | Total | 25 | 45,405 | 1404 |

Annex 1.8 : District Wise Installation of Domestic Biogas Plants

| S.N | Districts | No of plants | No. of HHs Benefited |
|-----|-----------|--------------|----------------------|
| 1 | Bara | 436 | 436 |
| 2 | Bhaktapur | 6 | 6 |
| 3 | Chitwan | 1,309 | 1,309 |
| 4 | Dhading | 946 | 946 |
| 5 | Dhanusha | 55 | 55 |
| 6 | Dolakha | 122 | 122 |
| 7 | Kathmandu | 14 | 14 |
| 8 | Kavre | 655 | 655 |
| 9 | Lalitpur | 104 | 104 |
| 10 | Mahottari | 205 | 205 |
| 11 | Makwanpur | 1,945 | 1,945 |
| 12 | Nuwakot | 463 | 463 |
| 13 | Parsa | 99 | 99 |
| 14 | Ramechhap | 185 | 185 |
| 15 | Rasuwa | 105 | 105 |
| 16 | Rautahat | 179 | 179 |
| 17 | Sarlahi | 493 | 493 |
| 18 | Sindhuli | 708 | 708 |

| | | | |
|----|---------------|---------------|---------------|
| 19 | Sindhupalchok | 137 | 137 |
| 20 | Bhojpur | 16 | 16 |
| 21 | Dhankuta | 6 | 6 |
| 22 | Ilam | 289 | 289 |
| 23 | Jhapa | 970 | 970 |
| 24 | Khotang | 11 | 11 |
| 25 | Morang | 500 | 500 |
| 26 | Okhaldhunga | 43 | 43 |
| 27 | Panchthar | 40 | 40 |
| 28 | Sankhuwasabha | 11 | 11 |
| 29 | Saptari | 19 | 19 |
| 30 | Siraha | 61 | 61 |
| 31 | Solukhumbu | 5 | 5 |
| 32 | Sunsari | 124 | 124 |
| 33 | Taplejung | 19 | 19 |
| 34 | Tehrathum | 33 | 33 |
| 35 | Udayapur | 295 | 295 |
| 36 | Bajhang | 95 | 95 |
| 37 | Dadeldhura | 2 | 2 |
| 38 | Darchula | 13 | 13 |
| 39 | Doti | 20 | 20 |
| 40 | Kailali | 2,156 | 2,156 |
| 41 | Kanchanpur | 1,094 | 1,094 |
| 42 | Banke | 562 | 562 |
| 43 | Bardiya | 1,300 | 1,300 |
| 44 | Dang | 1,223 | 1,223 |
| 45 | Jajarkot | 1 | 1 |
| 46 | Kalikot | 17 | 17 |
| 47 | Pyuthan | 146 | 146 |
| 48 | Surkhet | 211 | 211 |
| 49 | Arghakhanchi | 15 | 15 |
| 50 | Baglung | 59 | 59 |
| 51 | Gorkha | 508 | 508 |
| 52 | Gulmi | 31 | 31 |
| 53 | Kapilbastu | 355 | 355 |
| 54 | Kaski | 589 | 589 |
| 55 | Lamjung | 717 | 717 |
| 56 | Myagdi | 46 | 46 |
| 57 | Nawalparasi | 507 | 507 |
| 58 | Palpa | 378 | 378 |
| 59 | Parbat | 7 | 7 |
| 60 | Rupandehi | 303 | 303 |
| 61 | Syangja | 433 | 433 |
| 62 | Tanahu | 716 | 716 |
| | Total | 22,112 | 22,112 |

Annex 1.9 : District Wise Installation of Improved Cooking Stoves (Mud and Metallic)












| SN | District | No. of ICS | | No. of HHS Benefited |
|----|--------------|------------|---------------|----------------------|
| | | Mud Type | Metallic Type | |
| 1 | Achham | 1,840 | | 1,840 |
| 2 | Arghakhanchi | 1,840 | 309 | 2,149 |
| 3 | Baglung | 1,820 | | 1,820 |
| 4 | Baitadi | 2,035 | | 2,035 |
| 5 | Bajhang | 945 | | 945 |
| 6 | Bajura | 1,044 | | 1,044 |
| 7 | Bara | 1,655 | | 1,655 |
| 8 | Bardiya | 1 | | 1 |
| 9 | Bhaktapur | 106 | | 106 |
| 10 | Bhojpur | 2,069 | | 2,069 |
| 11 | Dadeldhura | 1,571 | | 1,571 |
| 12 | Dailekh | 2,551 | 4 | 2,555 |
| 13 | Dang | 1,749 | | 1,749 |
| 14 | Darchula | 431 | | 431 |
| 15 | Dhading | 2,274 | | 2,274 |
| 16 | Dhankuta | 2,533 | 35 | 2,568 |
| 17 | Dhanusa | 2,280 | | 2,280 |
| 18 | Dolakha | 3,192 | 210 | 3,402 |
| 19 | Doti | 1,910 | | 1,910 |
| 20 | Gorkha | 1,901 | 270 | 2,171 |
| 21 | Gulmi | 1,838 | | 1,838 |
| 22 | Humla | | 124 | 124 |
| 23 | Ilam | 2,628 | 141 | 2,769 |
| 24 | Jajarkot | 1,268 | 166 | 1,434 |
| 25 | Jhapa | 4,281 | | 4,281 |
| 26 | Jumla | | 219 | 219 |
| 27 | Kailali | 7,529 | | 7,529 |
| 28 | Kalikot | 1,849 | 1 | 1,850 |
| 29 | Kanchanpur | 1,282 | | 1,282 |
| 30 | Kapilbastu | 4,408 | | 4,408 |
| 31 | Kaski | 1,433 | 160 | 1,593 |
| 32 | Kathmandu | 75 | 70 | 145 |
| 33 | Kavre | 2,138 | 35 | 2,173 |
| 34 | Khotang | 2,449 | | 2,449 |
| 35 | Lalitpur | 492 | | 492 |
| 36 | Lamjung | 1,352 | 304 | 1,656 |
| 37 | Mahottari | 1,934 | | 1,934 |
| 38 | Makawanpur | 1,370 | 35 | 1,405 |

| SN | District | No. of ICS | | No. of HHS Benefited |
|----|----------------|----------------|---------------|----------------------|
| | | Mud Type | Metallic Type | |
| 39 | Mugu | | 123 | 123 |
| 40 | Mustang | | 42 | 42 |
| 41 | Myagdi | 1,191 | 67 | 1,258 |
| 42 | Nawalparasi | 1,490 | | 1,490 |
| 43 | Nuwakot | 2,524 | 188 | 2,712 |
| 44 | Okhaldhunga | 1,992 | 32 | 2,024 |
| 45 | Palpa | 1,190 | | 1,190 |
| 46 | Panchthar | 1,784 | 279 | 2,063 |
| 47 | Parbat | 1,258 | | 1,258 |
| 48 | Parsa | 2,538 | | 2,538 |
| 49 | Pyuthan | 1,794 | | 1,794 |
| 50 | Ramechhap | 2,335 | 85 | 2,420 |
| 51 | Rasuwa | 370 | 145 | 515 |
| 52 | Rautahat | 5,498 | | 5,498 |
| 53 | Rolpa | 1,606 | | 1,606 |
| 54 | Rukum | 894 | 75 | 969 |
| 55 | Rupandehi | 4,068 | | 4,068 |
| 56 | Salyan | 2,056 | | 2,056 |
| 57 | Sankhuwasabha | 1,675 | 8 | 1,683 |
| 58 | Sindhuli | 1,958 | | 1,958 |
| 59 | Sindhupalchowk | 1,949 | 505 | 2,454 |
| 60 | Siraha | 4,327 | | 4,327 |
| 61 | Solukhumbu | 1,423 | 48 | 1,471 |
| 62 | Sunsari | 3,034 | | 3,034 |
| 63 | Surkhet | 1,820 | | 1,820 |
| 64 | Syangja | 1,058 | | 1,058 |
| 65 | Tanahu | 1,238 | 49 | 1,287 |
| 66 | Taplejung | 2,150 | 19 | 2,169 |
| 67 | Terhathum | 2,388 | 12 | 2,400 |
| 68 | Udayapur | 2,307 | | 2,307 |
| 69 | other CICS | 357 | | 357 |
| | Total | 128,345 | 3,806 | 132,151 |

Annex 1.10 : District Wise Support of Productive Energy End use

| SN | District | Name of MHPs | VDC | Capacity of MHP, kW | No. of Enterprises Supported |
|--------------|-----------|-----------------------|--------------------|---------------------|------------------------------|
| 1 | Achham | Toli Ghutte Khola MHP | Toli | 29 | 1 |
| 2 | Baglung | Kut Khola II MHP | Rajkut-1 | 8 | 2 |
| 3 | Baglung | Daram Khola II MHP | Kandebash-9 | 27 | 2 |
| 4 | Baglung | Ritha Khola MHP | Burtibang-7 | 74 | 4 |
| 5 | Baglung | Pangraghari Khola MHP | Adhikarichaur-4 | 12.5 | 1 |
| 6 | Baglung | Jhiwa Khola MHP | Boharaun-7 | 23 | 2 |
| 7 | Baglung | Bhuji Khola IV MHP | Bobang | 26 | 2 |
| 8 | Baglung | Gadi Khola MHP | Adhikarichaur | 22 | 3 |
| 9 | Bajhang | Upper Rilugad MHP | Rilu | 30 | 2 |
| 10 | Bajhang | Simdi Gad MHP | Patadewal | 35 | 2 |
| 11 | Bajhang | Jadari Gad MHP | Pauwagudi | 21 | 1 |
| 12 | Dhading | Liti Khola MHP | Tasarpu | 15 | 2 |
| 13 | Dhankuta | Laxmi Khola MHP | Marek Katahare-4 | 40 | 3 |
| 14 | Dolakha | Doling Khola MHP | Chankhu | 37 | 3 |
| 15 | Dolakha | Chyane Gumu Khola MHP | Lailang | 76 | 2 |
| 16 | Jajarkot | Pipe Khola MHP | Khalanga-8 | 14 | 1 |
| 17 | Jajarkot | Machherna Khola MHP | Ramidanda-6 | 11 | 1 |
| 18 | Khotang | Tawa Khola II MHP | Mattim | 19 | 3 |
| 19 | Lalitpur | Khaire Khola MHP | Gimdi | 11 | 1 |
| 20 | Lamjung | Firpaiche Khola MHP | Dudhpokhari | 50 | 5 |
| 21 | Lamjung | Kisedi Khola MHP | Pachowk - 7 | 21 | 3 |
| 22 | Lamjung | Togo Khola MHP | Pasagaun | 35 | 3 |
| 23 | Lamjung | Ghatte Khola MHP | Taghring - 1 | 25 | 2 |
| 24 | Palpa | Sibi Khola MHP | Gandakot | 6.5 | 1 |
| 25 | Palpa | Thade Khola MHP | Rahabas-5 | 8 | 1 |
| 26 | Panchthar | Siwa Khola MHP | Tharpu | 18 | 2 |
| 27 | Rolpa | Rigai Khola MHP | Mirul | 5.5 | 1 |
| 28 | Rolpa | Golang Khola MHP | Ghartigaun and Wot | 17 | 2 |
| 29 | Syangja | Putpute Khola II MHP | Chisapani-9 | 98 | 2 |
| 30 | Taplejung | Thingthewa Khola MHP | Lingtep | 23 | 2 |
| 31 | Taplejung | Yemphewa Khola MHP | Sanghu-9 | 36 | 2 |
| 32 | Taplejung | Thade Khola MHP | Dhungeasaghu-9 | 10 | 1 |
| Total | | | | | 65 |

9.2 Annex 2: List of DPs/Service Providers/PQ Comparison of RETs

| Annex 2.1 : Details of existing DPs | | |
|-------------------------------------|---|--|
| SN | Name of EDP | Local Contact Address |
| 1. |  Danish International Development Agency (DANIDA) | Embassy of Denmark 761 Neel Saraswati Marg P.O. Box 6332 Lazimpat, Kathmandu Tel: +977(1)441 3010, Fax: +977 (1) 441 1409 Email : ktmamb@um.dk |
| 2. |  NORWEGIAN EMBASSY | Kathmandu, Surya Court, Pulchowk, Lalitpur, Nepal. Tel: (977) 1-5545307 , Fax: (977) 1-5545226 E-mail: emb.kathmandu@mfa.no |
| 3 |  kfw | Kreditanstalt for Wiederaufbau (KfW) KfW Office Kathmandu, c/o GIZ-Office: Neer Bhawan, Sanepa: Kathmandu, Nepal Tel: +977(1) 5 52 32 28, Fax: +977 (1) 5 53 56 93 Email :kfw.katmandu@kfw.de |
| 4 |  DFID Department for International Development | Department for International Development DFID (UK Aid) British Embassy, PO Box 106 Kathmandu, Nepal Tel: +977(1) 977 1 5542980, Fax +977 1 5000179 Email nepal-enquiries@dfid.gov.uk |
| 5. |  UNDP Nepal | United Nations Development Programme UN House, PO Box :108 Pulchowk, Nepal Tel: +977(1) 5523200, Fax: +977 (1)5523991, 5523986 Email: registry.np@undp.org |
| 6. |  giz | Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) German Development Cooperation Neer Bhawan, Sanepa, Kathmandu, Nepal Tel: +977(1)5555289, Fax: +977 (1)5521712 Email:giz-nepal@giz.de |
| 7. |  SNV | Netherlands Development Organisation (SNV) SNV Nepal Country Office Bakhundole, Lalitpur, Nepal Tel: +977(1) 5523444 , Fax: +977 (1)1 5523155 Email: nepal@snvworld.org |
| 8. |  Asian Development Bank | Asian Development Bank Scaling-up Renewable Energy Programme (SREP) Nepal Resident Mission Srikunj Kamaladi, Kathmandu, Nepal Tel: +977(1)1 4227779, Fax: +977 (1) 4225063 Email:NRM@mail.adb.org |
| 9. |  The World Bank | Yak and Yeti Hotel Complex; Durbar Marg, Kathmandu, Nepal Tel: +977(1) 1 4226792 Email:infonepal@worldbank.org |
| 10. |  UNCDF Microfinance + Capital Development | UNCDF, UN House, Pulchowk G.P.O Box 107, Kathmandu, Nepal, Tel: +977(1) 552 32 00 , Fax: +977 (1)-5523991/ 5523986 Email:rojee.joshi@uncdf.org |
| 11. |  USAID FROM THE AMERICAN PEOPLE | United States Agency for International Development US Embassy Maharajgunj, Kathmandu, Nepal. Tel: +977-1-400-7200 , Fax: +977 (1) -400-7272 Email:usembktm@state.gov |

| Annex 2. 2: List of Regional Service Centres (RSCs) and National Service Providers (NSPs) | | | |
|--|--|-----------------|--|
| SN | Name of Selected RSCs | Location | District Coverage |
| 1 | Rural Development Service Centre (RDSC) | Dadeldhura | Dadeldhura, Baitadi, Darchula, Doti, Bajhang, Bajura, Achham, Kailali, Kanchanpur |
| 2 | Association for Social Transformation and Humanitarian Assistance (ASTHA-Nepal) | Surkhet | Humla, Mugu, Jumla, Jajarkot, Banke, Kalikot, Dailekh, Surkhet, Bardiya |
| 3 | Backward Education Society (BASE) | Dang | Rukum, Salyan, Rolpa, Pyuthan, Dang, Dolpa, Argakhachi |
| 4 | Dhaulagiri Community Resource Centre (DCRDC) | Kaski | Mustang, Kaski, Parbat, Syanja, Palpa, Gulmi, Magdi, Baglung, Kapilbastu, Rupandehi |
| 5 | Rural Empowerment Society (RES) | Chitwan | Manang, Lamjung, Gorkha, Tanahun, Dhading, Chitwan, Makwanpur, Rasuwa, Nuwakot, Nawalparasi |
| 6 | Resource Management and Rural Empowerment Centre (REMREC) | Kavre | Kathmandu, Bhaktapur, Lalitpur, Kavre, Ramechhap, Okhaldhunga, Solukhumbu, Dolakha, Sindhupalchowk |
| 7 | Renewable Energy Water Supply and Sanitation Promotion Center (REWSSPC) | Bara | Parsa, Bara, Rautahat, Sarlahi, Mahottari, Sindhuli |
| 8 | Sagarmatha Community Development Centre (SCDC) | Saptari | Dhanusha, Siraha, Saptari, Sunsari, Morang, Jhapa, Udaipur, Khotang |
| 9 | Namsaling Community Development Centre | Dhankuta | Sankhuwasabha, Bhojpur, Dhankuta, Taplejung, Terathum, Panchthar, Illam |
| National Service Providers (NSPs) | | | |
| SN | Name of Selected RSCs | Location | District Coverage |
| 1 | Biogas Sector Partnership-Nepal and Nepal Biogas Promotion Association (NBPA) for Biogas | Kathmandu | National Coverage |
| 2 | Gramin Urja Tatha Prabidhi Sewa Kendra (RETSC) for Improved Water Mill | Lalitpur | National Coverage |

Annex 2.3 : List of Qualified Consulting Companies with their Qualified Category

| SN | Company Name | Qualified Category |
|----|--|--|
| 1 | ADM Carto Consult P. Ltd. JV Global Engineering Associates P. Ltd. JV Absolute Engineering Concern P. Ltd. | Qualified for 10 kW (Conditional & Provisional for 100 kW) |
| 2 | Alliance- Shilpa JV | Qualified for 100 kW |
| 3 | B.N. Consultancy Pvt. Ltd. in association with Modern Creation Engineering Consultancy Pvt. Ltd. | Qualified for 100 kW |
| 4 | CADS Consultancy & Hydro Research Pvt. Ltd. JV Unique Engineering Consultancy P. Ltd & RR Engineering Solution P. Ltd. | Qualified for 10 kW (Conditional for 100 kW) |
| 5 | Centre for Appropriate Technology Nepal Pvt. Ltd. | Qualified for 10 kW (Conditional for 100 kW) |
| 6 | Centre for Resource Conservation Nepal Pvt. Ltd. | Qualified for 100 kW |
| 7 | CSD Consult Pvt. Ltd. | Qualified for 10 kW (Conditional and Provisional for 100 kW) |
| 8 | DAT JV AG | Qualified for 100 kW |
| 9 | Design Point P. Ltd. and Leaser Consultancy JV | Qualified for 50 kW |
| 10 | Development Support Consult P. Ltd. | Qualified for 50 kW (Provisional) |
| 11 | Dhaulagiri Civil Electrical Mechanical Engineering Pvt. Ltd. | Qualified for 10 kW (Conditional for 100 kW) |
| 12 | DK Consult Pvt. Ltd. | Qualified for 100 kW (Provisional) |
| 13 | D L Energy Concern Pvt. Ltd. | Qualified for 100 kW |
| 14 | ECoCoDE Nepal Pvt. Ltd. | Qualified for 100 kW |
| 15 | Energy Development Services P. Ltd. | Qualified for 100 kW |
| 16 | Energy Prabardhan Company Pvt. Ltd. | Qualified for 10 kW (Conditional for 100 kW) |
| 17 | Engineering and Educational Services Pvt. Ltd. | Qualified for 100 kW |
| 18 | Epsom Engineering Consultancy Pvt. Ltd. | Qualified for 100 kW |
| 19 | Everest Engineering Consultant | Qualified for 10 kW (Conditional for 50 kW) |
| 20 | Face Consultancy | Qualified for 10 kW |
| 21 | Forum for Energy & Environment Development Pvt. Ltd. | Qualified for 10 kW (Conditional for 100 kW) |
| 22 | Gramin Urja Tatha Prabidhi Sewa Kendra Pvt. Ltd | Qualified for 50 kW |
| 23 | GREAT Nepal Pvt. Ltd. | Qualified for 100 kW |
| 24 | Green Consult Pvt. Ltd. JV Baraha Institute of Engineering & Technology Pvt. Ltd. | Qualified for 10 kW |
| 25 | Housing & Hydro Services company P. Ltd. | Qualified for 10 kW (Conditional for 100 kW) |
| 26 | Hydro Energy Concern Pvt. Ltd. | Qualified for 10 kW (Conditional for 100 kW) |
| 27 | K P Byawosayik Sewa Pvt. Ltd. JV Synergy Company P. Ltd. | Qualified for 10 kW (Conditional for 100 kW) |
| 28 | Krishna Grill & Engineering Works Pvt. Ltd. | Qualified for 50 kW |
| 29 | Maa Shakti Engineering & Hydropower Pvt. Ltd. | Qualified for 50 kW (Provisional) |
| 30 | Manning Consult Pvt. Ltd. | Qualified for 50 kW (Provisional) |
| 31 | Modern Hydropower and Energy Development Pvt. Ltd. | Qualified for 10 kW (Conditional for 100 kW) |
| 32 | Motherland Energy Group P. Ltd. | Qualified for 10 kW (Conditional for 100 kW) |
| 33 | Multi Power Construction Company Pvt. Ltd. | Qualified for 50 kW |
| 34 | Multiscope Consultancy Pvt. Ltd. JV T.D. Energy and Multi construction Nepal Pvt. Ltd. | Qualified for 10 kW |
| 35 | National Synergy Engineering Solution Pvt. Ltd. | Qualified for 50 kW (Provisional) |

Annex 2.3 : List of Qualified Consulting Companies with their Qualified Category

| SN | Company Name | Qualified Category |
|-----------|--|--|
| 36 | North Engineering Company Pvt. Ltd. | Qualified for 100 kW |
| 37 | Nova Research and Consultancy Pvt. Ltd. | Qualified for 10 kW (Conditional for 50 kW) |
| 38 | Novel Creation Engineering Consultancy Pvt. Ltd. JV Himchuli Multipurpose Company Pvt. Ltd. | Qualified for 10 kW (Conditional for 50 kW) |
| 39 | Oshin Power Service Pvt. Ltd. | Qualified for 10 kW (Conditional for 100 kW) |
| 40 | Pioneer Architect & Consulting Engineers Pvt. Ltd. JV Clean Development Consult P. Ltd. & Engineering and Management Service P. Ltd. | Qualified for 100 kW |
| 41 | PNET- GEOTECH JV | Qualified for 100 kW (Provisional) |
| 42 | Professional Engineering Consultant | Qualified for 10 kW (Conditional for 50 kW) |
| 43 | Ramechhap Sherpa Construction Private Limited JV with Communication and Energy Developers Pvt. Ltd | Qualified for 50 kW (Provisional) |
| 44 | Remote Area Development Engineering Consultancy Pvt. Ltd. | Qualified for 10 kW (Conditional for 100 kW) |
| 45 | RIDARC Nepal P. Ltd. & Rara Engineering Consultant Pvt. Ltd. | Qualified for 50 kW (Provisional) |
| 46 | Rural & Alternative Energy Pvt. Ltd. | Qualified for 100 kW |
| 47 | Rural Infrastructure and Management Consultant Pvt. Ltd. | Qualified for 100 kW (Provisional) |
| 48 | Safal Engineering Consultancy Pvt. Ltd. | Qualified for 10 kW |
| 49 | Sand and Stone Consultants Pvt. Ltd. JV Danphe Engineering Consultancy | Qualified for 10 kW |
| 50 | SEC Consultancy Pvt. Ltd. JV Nepal Power Solution P. Ltd. | Qualified for 50 kW |
| 51 | Sitara Consult Pvt. Ltd. JV Bright Future Consultant Pvt. Ltd. | Qualified for 100 kW |
| 52 | Strength Engineering Company P Ltd. and R&R Engineering Consultancy P. Ltd. JV | Qualified for 100 kW |
| 53 | Sustainable Energy and Technology Management (SETM) P. Ltd. | Qualified for 10 kW(Conditional for 50 kW) |
| 54 | Sustainable Infrastructure Development Foundation JV 3D Engineering Consultancy | Qualified for 10 kW (Conditional and Provisional for 100 kW) |
| 55 | Technical Engineering Design Consultancy & Construction Pvt. Ltd. | Qualified for 10 kW (Conditional for 100 kW) |
| 56 | Technology Upliftment Engineering Centre JV Jyotipunja Designers Group P. Ltd | Qualified for 10 kW (Conditional and Provisional for 50 kW) |
| 57 | Techno Village Pvt. Ltd. JV Units Engineering Consultancy | Qualified for 10 kW (Conditional for 100 kW) |
| 58 | Tej Energy Solution Nepal Pvt. Ltd. | Qualified for 10 kW (Conditional and Provisional for 50 kW) |
| 59 | Universal Consultancy Services P. Ltd. | Qualified for 10 kW, (Conditional for 100 kW) |
| 60 | Village Development and Working Consultancy Centre P. Ltd. | Qualified for 10 kW (Conditional for 50 kW) |

Annex 2.4 : List of Qualified Installation Companies for Pico/Micro Hydro Plants

| SN | Name | Location | Contact Address | PQ category |
|----|---|---|--|-------------|
| 1 | AG Power Company Pvt Ltd JV DAT Engineering Consultancy Pvt Ltd | Gongabu Sankhamul, Kathmandu; | Rojen K Shrestha 9851137895, 01-4382407 ag@ntc.net.np | 100 kW |
| 2 | Appropriate Engineering | Kalka Nagar, Butwal 11, Rupandehi | Prem B Tamrakar 9847035348 appeng@nec.com.np | 100 kW |
| 3 | Center for Resource Conservation Nepal Pvt Ltd. | Gyaneshwor -33 Kathmandu | Sahanti Sijapati 9841270348 , 01-4288730 crcnepal2009@gmail.com | 100 kW |
| 4 | D L Energy Concern Pvt Ltd | Mitranagar, Ward No 29, Kathmandu | Gayatri Sharma 9851136464, 01-4354398 dlecnepal@gmail.com | 100 kW |
| 5 | Dhaulagiri Civil Electrical Mechanical Engineering Pvt. Ltd. | Shreenagar Tole -11, Baglung | Dil Bahadur Thapa 068-522705 dcem@mail.com | 100 kW |
| 6 | Dhulikhel Sewa Pvt Ltd JV Aran Engineering Pvt Ltd. | Baneshwor, Ward No 10, Kathmandu | Ganu Pd. Chamlagain 9851054352, 01-4784792 dhulikhelnirmansewa@yahoo.com | 100 kW |
| 7 | Eco Code Nepal Pvt Ltd | Kupondole, Ward No 10, Lalitpur | Naresh Neupane 9841281966, 01-5011116 ecocodenepal@ntc.net.np | 100 kW |
| 8 | Gautam Energy Engineering Pvt. Ltd. | Butwal Industrial Estate, Ward No 12, Rupandehi | Pratap Kumar Shrestha 9847047939, 071-550140 energy@ntc.net.np | 100 kW |
| 9 | Housing and Hydro Services Pvt Ltd. | Natole, Pulchok -20, Lalitpur | Sugat Baidya 9851115293, 01-5547485 housing@ntc.net.np | 100 kW |
| 10 | Hydro Energy Concern Pvt Ltd | Kathmandu Metropolitan Ward No 29, Kathmandu | Rajesh Dhakal 9849334579, 01-4355416 hydroconcern@gmail.com | 100 kW |
| 11 | Kathmandu Metal and Hydro Power Pvt Ltd | 83/19 Swachapu Marg, Ward No 17 Kathmandu | Titha Mani Nakarmi 9851033418, 01-4259069 kmihp@ntc.net.np | 100 kW |
| 12 | Krishna Grill & Engineering Works Pvt Ltd | 321, Main Road South, Biratnagar Sub Metropolitan, Morang | Nischal Shrestha 9851017166, 021-471492 kgktc_brt@wlink.com.np | 100 kW |
| 13 | Lumbini Engineering and Hydro Power | Swoyambhu Ward No 15, Kathmandu | Bimala Shrestha 9841549467, 01-4287818 lumbini.hydropower@gmail.com | 100 kW |
| 14 | Manaslu Energy Pvt Ltd | Balaju Ward No 16, Kathmandu | Dilip Kumar Acharya 9851033022, 01-4823015 manasulu.energy@gmail.com | 100 kW |
| 15 | Motherland Energy Group Pvt. Ltd. | Balaju Chowk, Ward No 16, Kathmandu | Prasun Ratna Bajracharya 9851094963, 01-4385585 meg061@ntc.net.np | 100 kW |
| 16 | Multi Power Construction Company Pvt. Ltd. | Aloknagarmarga, Minbhawan, Kathmandu | Kripa Acharya 9841293203, 01-4106651 multipower.npl@gmail.com | 100 kW |

Annex 2.4 : List of Qualified Installation Companies for Pico/Micro Hydro Plants

| SN | Name | Location | Contact Address | PQ category |
|----|---|---|--|-------------|
| 17 | Multi Service Link Nepal Pvt Ltd | Banasthali, Ward No 15, Kathmandu | Dhan Bahadur Gurung 9851100118, 01-6208789 md@mhedgroup.com.np | 100 kW |
| 18 | Nepal Energy Development Company Pvt Ltd | Bhanimandal Ward No 13, Lalitpur | Shreeram Adhikari 9851086656, 01-5000748 nedco@ntc.net.np | 100 kW |
| 19 | Nepal Machine and Steel Structure | PO Box 22, Butwal-6, Rupandehi | Bharat Pathak 071-542522 9851146415 nmass@ntc.net.np | 100 kW |
| 20 | Nepal Yantra Shala Energy | Patan Industrial Estate, Ward No 5, Lalitpur | Bikram Raj Pradhan 9851034304, 01-5522167 nysenergy@wlink.com.np | 100 kW |
| 21 | North Engineering Company Pvt Ltd | Kalika Path, Maina Nagar, Ward No 4, Butwal Municipality, Rupandehi | Tanka Kandel Director 9857020664 , 071-550181 necpl@ntc.net.np | 100 kW |
| 22 | Oshin Power Services Pvt Ltd | BTI Complex, Campus Road, Butwal,Rupandehi. | Madhav Prashad Poudel 9857028629, 071-545217 oshinpower@ntc.net.np | 100 kW |
| 23 | Rural and Alternative Energy Pvt Ltd | Damauli, Ward No 11 Vyas Municipality, Tahanu | Prakash Chandra Subedi 9851045892, 065-560573 resurja@ntc.net.np | 100 kW |
| 24 | Siemens Hydro Engineering and Energy Product Pvt. Ltd | Purano Cinema Road – 3, Rupandehi | Indra Bahadur Pun 9745025920, 068-520822 siemenshydro@ntc.net.np | 100 kW |
| 25 | Technical Engineering Design Consultancy & Construction Pvt Ltd (Technical Consult Pvt Ltd) | Mayal Bari Marg, Kathmandu, Ward No 12, Kathmandu | Mahesh Shrestha 9841717300, 01-4230013 tedecc@yahoo.com | 100 kW |
| 26 | Techno Village Pvt Ltd. | Bansthali, 16 Kathmandu | Ashok Raj Giri 9841414048, 01-4390229 technovillage@gmail.com | 100 kW |
| 27 | Tej Energy Solutions Nepal Pvt Ltd | Namuna Marg, Pepsicola, Kathmandu | Tej Narayan Thakur 9751089077, 01-4992942 tejes.nepal@gmail.com | 100 kW |
| 28 | Thapa Engineering Industries Pvt Ltd | Kalikanagar, Butwal-12, Rupandehi | Love Thapa 9847045928, 071-543658 tei@ntc.net.np | 100 kW |
| 29 | Universal Consultancy Services Pvt Ltd | Balaju Chowk, Ward No 16, Kathmandu | Krishna P Devkota 9851013375, 01-4350580 ucs@ntc.net.np | 100 kW |
| 30 | Universal Equipment Industries Pvt. Ltd. | Butwal-12, Butwal Municipality, Rupandehi | Ram Briksh Chaudhari, MD 9847025084, 071-540074 ueibt@yahoo.com | 100 kW |
| 31 | Axiom Engineering Industries | Ward No 1 Sidapole VDC, Suryavinayak, Bhaktapur | Madhu Ram Awal 01-6614637 axiompower2013@gmail.com | 50 kW |

Annex 2.4 : List of Qualified Installation Companies for Pico/Micro Hydro Plants

| SN | Name | Location | Contact Address | PQ category |
|---|--|---|--|-------------|
| 32 | Epsom Engineering Consultancy Pvt. Ltd. | Kupundole- 10 , Lalitpur | Vikash Gautam 9841863037, 1-5556792 epsom_econ@yahoo.com | 50 kW |
| Conditionally Qualified to perform installation up to 100 kW | | | | |
| 1 | Absolute Engineering Concern Pvt Ltd JV Workshop of Engineering Suppliers Pvt Ltd | Kalanki Ward No 14, Kathmandu | Ujjwal Krishna Pradhan Napik 9851130237 9851130237 info@aeconcern.com.np | 100 kW |
| 2 | Balaju Yantrashala Pvt Ltd | Balaju Industrial District Ward No 16, Kathmandu | Bishnu P Neupane 9851034184, 01 4350147 bys@info.com.np | 100 kW |
| 3 | Himchuli Multipurpose Company Pvt Ltd. | Banepa-5, Kavre | Santosh Gaire 9751014234, 011-680435 himchulicpl@gmail.com | 100 kW |
| 4 | Magi Engineering Solutions Pvt Ltd JV Abhiyan Engineering Nepal Pvt Ltd | Manohara Khola -17, Madhyapur Thimi, Bhaktapur, | Anil Gauli/ Ramesh Chidhari 9813217598/9841268250 magiensol@gmail.com | 100 kW |
| 5 | Nepal Hydro and Electical Limited | Durbar Marg, -6 Butwal, Rupandehi | Nawa Raj Shrestha 9851087013, 071-540465/01-4781851 marketing@nhe.com.np | 100 kW |
| 6 | Nepal Power Solutions Pvt Ltd | Palpasa Road, Hetauda Municipality Makwanpur | Rajan Ghimire 9855067760, 057-526606 npshetauda@gmail.com | 100 kW |
| 7 | Nepal Valley Engineering and Auto Works Pvt. Ltd | Balaju Industrial District , Ward No 13 Kathmandu | Pradeep Oli 9841716532, 01-4362108 nepalvalleypl@yahoo.com | 100 kW |
| 8 | North Hydro and Engineering Pvt. Ltd. | Khariya, Ward no 1, Tikuligadh VDC, Rupandehi | Arjun Dhakal 071-550181 necpl@nt.net.np | 100 kW |
| 9 | Ramechhap Sherpa Construction Pvt Ltd JV Communication and Energy Developers Pvt Ltd | Santigoreto-232, Chabahil, Kathmandu | Ang Tashi Lama Sherpa 9849551210, 01-4472160 ced.pvt@gmail.com, | 100 kW |
| 10 | Sunshine Energy Pvt. Ltd. | Sunshine Energy Pvt. Ltd. Samakhusi-3,Kathmandu | Uttam Situala 9851047868, 01-4383095 info@sunshine.com.np | 100 kW |
| 11 | Village Development and Working Consultancy Center (VDWAC) | Tripureshwor, Ward No. 12 Kathmandu | Ramsrup Chaudhari 9840408371, 01-4258275 vdwac@yahoo.com | 100 kW |
| 12 | Maa Shakti Engineering and Hydropower Pvt. Ltd. | Gatthaghar, Ward No 15, Thimi, Bhaktapur | Kumar Kharel 9841618543, 01-6635391 malshakti2011@gmail.com | 100 kW |
| 13 | GREAT Nepal Pvt. Ltd. | Jwagal, Kupondole, Lalitpur | Guna Raj Dhakal 9851001008, 01-5546859 great@greatnepal.com | 100 kW |

Annex 2.4 : List of Qualified Installation Companies for Pico/Micro Hydro Plants

| SN | Name | Location | Contact Address | PQ category |
|--|---|---|--|---------------|
| Conditionally Qualified to perform installation up to 50 kW | | | | |
| 1 | Alliance Consults Pvt Ltd JV RPG Engineering and Metal Works Pvt Ltd | Shantinagar, Ward No 32, Kathmandu | Awash Ghimire 9851114712, 01-4107768 info@allianceconsults.com | 50 kW |
| 2 | Dibya Urja Pvt Ltd | Maharajgunj, Kathmandu Ward No. 4, Kathmandu | Ram Prashad Koirala 9851004174, 01-4720996 dibyaurja@wlink.com.np | 50 kW |
| 3 | Green Power Development Company Pvt. Ltd. | Gwarko Ward No 4, Lalitpur | Urmila Baniya 9841467924, 01-5539765 greenpower.npl@gmail.com | 50 kW |
| 4 | Khanal Engineering & Industries | Butwal Industrial State, Butwal-12 Ramnagar, Rupandehi | Krishna Raj Khanal 9857028557, 071-544492 khanaleng@ntc.net.np | 50 kW |
| 5 | Mahalaxmi Engineering Workshop Pvt Ltd | Rammandir Road, Hetauda-10, Makwanpur | Deepak Bahadur Raut 9845168757, 057-526093 mahalaxmienghtd@gmail.com | 50 kW |
| 6 | Nova Research and Consultancy Pvt. Ltd. | Kupondole-, Lalitpur | Bikash Adhikari 9841472088, 01-5536981 consult@paradisegroup.com.np | 50 kW |
| 7 | Shinghabahini Engineering Works and Energy Pvt. Ltd. | Itahari Municipality, Ward No 2, Sunsari | Aditya Dhakal 9852027914, 025-587169 sewitahari@yahoo.com | 50 kW |
| 8 | Trishna Hydro Engineering and Business company | Birendra Nagar Municipality Ward No 3, Surkhet | Mohan KC 9858051572, 521230/521953 energyskt@ntc.net.np | 083- 50 kW |
| 9 | Nuwakot Prabidhi Tatha Pariyojana Sewa Kendra Pvt Ltd | Bidur Municipality-3, Nuwakot | Min Kumar KC 9751029856, 010-681062 minknepal@gmail.com | 50 kW |
| Conditionally Qualified to perform installation up to 10 kW | | | | |
| 1 | Butwal Engineering and Design Services | Maina Nagar, Ward No 13, Butwal, Rupandehi; | Binod Devkota 9857030503, 071-543235 butwaldesign@gmail.com | 10 kW |
| 2 | Engineering and Educational Services Pvt. Ltd JV Development Support Consult Pvt. Ltd. | Anamnagar, Kathmandu | Rajib Baral 9851138581/9841816631,0142 42813 e2services.nepal@gmail.com | 10 kW |
| 3 | Epsilon Pvt Ltd. | Rastrabank Chok-07, Pokhara, Kaski | Bijay Shanti Subedi 9846189176, 061-465848 adhikare@gmail.com | 10 kW |
| 4 | Hydro Structure & Engineering P Ltd | Buddha Marga, Nakhipot, Lalitpur | Lal Bdr Lama 01-5534723 engineering.hydro@gmail.com | 10 kW |
| 5 | Mannings Consult Pvt. Ltd JV Khani Nirman Sewa | Baneshwor, Kathmandu PO Box 387 | Mohan Raj Pant 9851136658, 01-5536981 consult@paradisegroup.com.np | 10 kW |
| 6 | MD Engineering Power Pvt Ltd | Kalanki Ward No 5, Kathmandu | Mani Kumar Rai 9741213715 mdengpower@gmail.com | 10 kW |

Annex 2.4 : List of Qualified Installation Companies for Pico/Micro Hydro Plants

| SN | Name | Location | Contact Address | PQ category |
|---|--|---|--|-------------|
| 7 | Nilkantha Technology Solutions P Ltd | Bich Bazar Ward No 5, Dhading | Sher B Bhandari 010-520782 ntsdhading@gmail.com | 10 kW |
| 8 | Shanti Engineering Pvt. Ltd. | Shivachowk, Ward No. 10 Pokhara Municipality, Kaski | Sushil Regmi 9841171901, 061-521305 shantieng@gmail.com | 10 kW |
| 9 | Sourya Energy Pvt. Ltd JV Beacon Energy Service Pvt. Ltd. | Gopikrishna Nagar, Ward No. 7, Kathmandu | Srijan Shrestha 9841192811, 01-4822472/ 4822600/6216650 souryaenergy@ntc.net.np | 10 kW |
| 10 | Sustainable Energy and Engineering for Development Pvt. Ltd. | Sunakhani Marga Ward No 14 | Nirmala Gyawali 9841391639, 01-4032802 seedktm@gmail.com | 10 kW |
| Provisionally Qualified to perform installation up to 100 kW | | | | |
| 1 | Cream Hydel Pvt. Ltd | Pashupati Toll Ward No 2, Sankarnagar, Rupandehi | Rajendra Pradhan 9841289127, 071-438671/2/3 chydell@wlink.com.np | 100 kW |
| 2 | Energy Development Services Pvt Ltd | 505, Comfort Housing, Sitapaila Ward No 2, Kathmandu | Shankar Lal Vaidya 9841209763, 01-4033016 edspl@ntc.net.np | 100 kW |
| 3 | Energy Prabardhan Company Pvt. Ltd. | Tokha Road, Manohar Wawas Chhetra, Gongabu-7, Kathmandu | Chandrakala Adikhari, 9841412905, 01-4353697 info@energyprabardhan.com.np | 100 kW |
| 4 | H.A. Hydropower Company Pvt Ltd | Chhorepatan-17, Pokhara, Kaski | Hari Babu Panta 984999199/9751020031 mail@hagroups.com | 100 kW |
| 5 | Hulas Steel Industries Ltd. | Kamaladi, Ward No 1, Kathmandu | U.P. Mishra 9851029438, 01-4445732 hulasktm@gmail.com | 100 kW |
| 6 | KP Byawosayik Sewa Pvt Ltd JV Synergy Company Pvt Ltd | Teku Ward No, 12, Kathmandu | Tirtha Raj Neupane 9841361257, 01-4240113 kpjvsynergy@yahoo.com | 100 kW |
| 7 | Power Tech Nepal Pvt Ltd | Patan Industrial State, Ward No 5, Lalitpur | Gopal B Banepali 9841432779, 01-5522263 powertech@info.com.np | 100 kW |
| 8 | Structo Nepal Pvt Ltd. | Patan Industrial Estate, Lalitpur | Uttam Bilas Panta 9851061096, 015521192/ 015526161 structo@wlink.com.np | 100 kW |
| Provisionally Qualified to perform installation up to 10 kW | | | | |
| 1 | Himali Power Development Pvt Ltd | Bharatpur Municipality, Chitwan | Surya Man Rai 056-570057 hipod2009@hotmail.com | 10 kW |
| Provisionally and Conditionally Qualified to perform installation up to 100 kW | | | | |
| 1 | Malika Engineering and Mechanical Work Pvt. Ltd. | Dhangadi, Ward No 4, Kailali | Hikmat Bahadur Shah 9851049108, 091-522730 malikaengg@ntc.net | 100 kW |
| 2 | Technology Upliftment Engineering Center | Thanavarang, Heatuda 11, Makwanpur | Balaram P Subedi 9845132109, 057-5228800 tuecmp@gmail.com | 100 kW |

Annex 2.4 : List of Qualified Installation Companies for Pico/Micro Hydro Plants

| SN | Name | Location | Contact Address | PQ category |
|--|--|--|--|-------------|
| Provisionally and Conditionally Qualified to perform installation up to 50 kW | | | | |
| 1 | Design Point (P) Ltd. | Kopundole, Lalitpur | Prakash Adhikari 9851097449, 01-5011104 info.designpoint@gmail.com | 50 kW |
| 2 | Dhaulagiri Hydro Consult Pvt Ltd | Butwal Industrial State, Ward No 12, Rupandehi | Sridhar Basyal 9847130853, 071-540496/071-546422 dhaulagitibt@yahoo.com | 50 kW |
| 3 | Renewable Nepal Alternative Energy Pvt. Ltd. | Baphal 13, Soltidobato Ward No 13, Kathmandu | Basanta K Sapkota 9808835490, 01-4282198/ 4283118 rnaenergy@yahoo.com | 50 kW |

Annex 2.5 : List of companies pre-qualified to participate in NRREP/AEPC subsidy programme for Institutional Solar Power System including Solar Photovoltaic Pumping System (ISPS)

| SN | Company | Address | Phone | E-mail |
|----|-------------------------------|-----------|------------|------------------------|
| 1 | Looza Nepal Pvt. Ltd. | Kathmandu | 01-4427264 | Loojanep@gmail.com |
| 2 | Surya Power Company Pvt. Ltd. | Bafal | 01-4288388 | Ygiri@suryapowerco.com |

Annex 2.6 : List of companies pre-qualified to participate in NRREP/AEPC subsidy programme for Small Solar Home System and Solar Home System (S/SHS) and Institutional Solar Power System including Solar Photovoltaic Pumping System (ISPS)

| SN | Company | Address | Phone | E-mail |
|----|---|-------------------|------------|----------------------------------|
| 1 | Bio Energy Pvt. Ltd. | Nepalgunj | 081-526837 | Bioenergy@ntc.net.np |
| 2 | Clean Homes Energy Nepal Pvt. Ltd. | Balaju | 01-4310381 | Cleanhomesenergy@ntc.net.np |
| 3 | Clean Homes Investment Pvt. Ltd. | Balaju | 01-4389610 | Cleanhomesinvest@yahoo.com |
| 4 | Dhaulagiri Solar and Electronic Company Pvt. Ltd. | Balaju | 01-4365376 | Dhaulagirisolar@ntc.net.np |
| 5 | Deep light Energy Pvt. Ltd. | Maipi | 01-4387678 | Info@deeplightenergy.com |
| 6 | Dibya Urja Pvt. Ltd. | Narayagopal Chowk | 01-4720996 | Dibyaurja@wlink.com.np |
| 7 | Everest Solar Energy Pvt. Ltd. | Gongabu | 01-4360086 | Ese@ntc.net.np |
| 8 | Energy International Pvt. Ltd. | Jwagal | 01-5527307 | info@energy_international.com.np |
| 9 | Energy and Construction Pvt. Ltd. | Kalanki | 01-4277196 | Eccnepal@ntc.net.np |
| 10 | Gham Power Nepal Pvt. Ltd. | Kathmandu | 01-4438950 | Shrawan@ghampower.com |
| 11 | Kathmandu Power Company Pvt. Ltd. | Kathmandu | 01-4424515 | Sailesh@kpc.com.np |
| 12 | Krishna Grill and Engineering Works Pvt. Ltd. | Biratnagar | 021-471492 | Kgktc_brt@wlink.com.np |
| SN | Company | Address | Phone | E-mail |
| 13 | Lotus Energy Pvt. Ltd. | Bhatbhani | 01-441820 | info@lotusenergy.com.np |
| 14 | Luniva Energy Pvt. Ltd. | Lalitpur | 01-5555972 | info@lunivaenergy.com.np |
| 15 | Lasersun Energy Pvt. Ltd. | Indreni Height | 01-5549607 | Info@lasersunenergy.com |
| 16 | LS Solar Asia Pvt. Ltd. | Sanepa | 01-5543231 | Tanka@lssolarasia.com |
| 17 | Manasalu Energy Pvt. Ltd. | Chabahil | 01-4823015 | manasalu.energy@gmail.com |
| 18 | Nabajyoti Urja Pvt. Ltd. | Dhapashi | 01-4358806 | Nabajyoti.urja@yahoo.com |
| 19 | Nabikaraniya Urja Pvt. Ltd. | Dhapashi | 01-4387026 | Nabikaraniya@urja@gmail.com |
| 20 | National Solar and Investment Pvt. Ltd. | Kohalpur | 081-541755 | Solar.national@yahoo.com |

Annex 2.6 : List of companies pre-qualified to participate in NRREP/AEPC subsidy programme for Small Solar Home System and Solar Home System (S/SHS) and Institutional Solar Power System including Solar Photovoltaic Pumping System (ISPS)

| | | | | |
|----|--|-----------------|------------|-----------------------------|
| 21 | Nepal Energy Development Company Pvt. Ltd. | Ekantakuna | 01-5000672 | Nedco@ntc.net.np |
| 22 | Perennial Energy Nepal Pvt. Ltd. | Naxal | 01-4414363 | Perennial_nepal@yahoo.com |
| 23 | Public Solar Pvt. Ltd. | Tallo Bazar | 083-691412 | Publicsolar@gmail.com |
| 24 | PSS Renewable Energy Nepal Pvt. Ltd. | Ichangu Narayan | 01-4891451 | Sunrise.sunix@gmail.com |
| 25 | Rural and Alternative Energy Pvt. Ltd. | Damauli | 065-560573 | restanahun@wlink.com.np |
| 26 | Renewable Nepal Alternative Energy Pvt. Ltd. | Sitapaila | 01-4282198 | Rnaenergy@yahoo.com |
| 27 | Suryodaya Urja Pvt. Ltd. | Dhapashi | 01-4379000 | info@suryodaya.wlink.com.np |
| 28 | Sourya Energy Pvt. Ltd. | Chabahil | 01-4822472 | Souryaenergy@ntc.net.np |
| 29 | Sun Power Pvt. Ltd. | Baluwatar | 01-4440354 | Sunpowernp@gmail.com |
| 30 | Sunsafe Solar and Investment Pvt. Ltd. | Banasthali | 01-4385114 | Sunsafesolar12@gmail.com |
| 31 | Swaviman Urja Bikash Company Pvt. Ltd. | Samakhusi chowk | 01-4384632 | Swavimanurja@gmail.com |
| 32 | Sourya Urja Nepal Pvt. Ltd. | Dumbarahi | 01-6225365 | Souryaurnepal@ntc.net.np |
| 33 | Sunshine Energy Pvt. Ltd. | Samakhusi Chowk | 01-4383095 | info@sunshine.com.np |
| 34 | Sipradi Energy Pvt. Ltd | Naikap | 01-4311501 | Prem.neupane@sipradi.com.np |
| 35 | Swagun Energy Pvt. Ltd. | Samakhusi | 01-4362505 | Swogun@ntc.net.np |
| 36 | Sprint International Pvt. Ltd | Baluwatar | 01-4430417 | Sprint@wlink.com.np |
| 37 | Solar Electricity Company Pvt. Ltd | Bagbazar | 01-4225253 | Ises@vianet.com.np |
| 38 | Sunlight Solar Company Pvt. Ltd | Kalanki | 01-4037158 | Info@sunlightsolar.com.np |
| 39 | Topsun Energy Pvt. Ltd. | Ichangu Narayan | 01-4891268 | Kiran.gautam@ntc.net.np |
| 40 | Urja Ghar Pvt. Ltd. | Balaju | 01-4388438 | Urjaghar@wlink.com.np |
| 41 | Ultra Solar Energy and Steel Engineering Pvt. Ltd. | New Naikap | 01-4313398 | md@ultragroup.com.np |

Annex 2.7 : List of companies pre-qualified to participate in NRREP/AEPC subsidy programme for Small Solar Home System and Solar Home System (S/SHS)

| SN | Company | Address | Phone | E-mail |
|----|---|-----------------------|------------|---------------------------------|
| 1 | Bright Energy Pvt. Ltd. | Chabahil | 01-4462410 | Brightenergy120@yahoo.com |
| 2 | Bright Sun Company Pvt. Ltd. | Sitapaila, Milan Tol | 01-4034855 | Info@brightsunco.com |
| 3 | Energy Prabardhan Company Pvt. Ltd. | Gongabu | 01-4353697 | info@energyprabardhan.com.np |
| 4 | Globalmatics Renewable Energy Pvt. Ltd JV Danphe Energy Pvt. Ltd. JV Lek Besi Surya Urja and Gobar Gas Sewa Company Pvt. Ltd. | Bakundol | 01-5546076 | Tuladhar16@yahoo.com |
| 5 | GUP Pvt. Ltd. | Tripureshwor | 01-4228779 | Gup@eastlink.net.np |
| 6 | Himal Refrigeration and Electrical Industries Pvt. Ltd. | Sanepa, Gusingal | 01-5012590 | Himalref@wlink.com |
| 7 | Kinetic Energy Pvt. Ltd. | Chabahil, Hayatt Gate | 01-4499668 | Info@kineticenergy.com.np |
| 8 | Kaligandaki Solar and Electronic Pvt. Ltd. | Gangabu | 01-4352279 | Kaligandakisolar@gmail.com |
| 9 | Krishna Grill and Engineering Works Pvt. Ltd. | Biratnagar | 021-471492 | Kgkctc_brt@wlink.com.np |
| 10 | Narayani Power Solutions Pvt. Ltd. | Bharatpur | 056-570268 | Info@narayanipower.com.np |
| 11 | Peak Sun and Investment Pvt. Ltd. | Balaju | 01-4359857 | Peaksun_energy@yahoo.com |
| 12 | Priemier Energy and Electronics Company Pvt. Ltd. | Banasthali | 01-4397473 | Priemierenergy@ntc.net.np |
| 13 | Poulatsya Surya Energy and Investment Pvt. Ltd. JV AG Power Company Pvt. Ltd. | Gangabu | 01-4359347 | Pscsolar2012@gmail.com |
| 14 | Rastriya Gramin Tatha Baikalpik Urja Bikas Pvt. Ltd. | Bhimdatta Marga | 099-520068 | National_energy@yahoo.com |
| 15 | JV between Swargadwari Solar and Electronic Com Pvt. Ltd, Solar Homes Pvt. Ltd and Kathmandu Energy Pvt. Ltd. | Balaju | 01-4382608 | Netrakpenpj@gmail.com |
| 16 | Renewable Global Energy Pvt. Ltd. | Sanepa | 01-5551135 | Renewableglobalenergy@gmail.com |
| 17 | Sunlife Energy Pvt. Ltd. | Manbhawan | 01-5537803 | Sunlife.energy@yahoo.com |
| 18 | Suryodaya Hi Tech Pvt. Ltd. | Dhapashi | 01-4374611 | Binod@suryodayaurha.com |
| 19 | Sunera Energy Pvt. Ltd. | Kalanki | 01-4283697 | Suneraenergy@gmail.com |
| 20 | Shikhar Renewable Energy Pvt. Ltd | Dhumbarahi | 01-4375533 | Shikharrenewable@ntc.net.np |
| 21 | Suryajyoti Mahila Maitri Urja Pvt. Ltd. | Dumbarahi | 01-4008535 | Suryajyoti@hons.com.np |
| 22 | Smart Power Pvt. Ltd. | Ganesh Sadan Thamel | 01-4413362 | Babin@smart.power.com.np |
| 23 | Sunforce Solar Energy and Investment Pvt. Ltd. | Sano Bharayang | 01-4673198 | Sunforceenergy@gmail.com |
| 24 | Scientific Technology Pvt. Ltd. | Kupondole | 01-5548150 | Stl_company@yahoo.com |
| 25 | Suntech Energy Co. Pvt. Ltd | Kuleswor | 01-4281995 | Sotc_2004@hotmail.com |
| 26 | Surya Deep Urja Pvt. Ltd. JV Total Solutions Pvt. Ltd. | Ghorahi | 082-562721 | Suryodeepurja@yahoo.com |
| 27 | Unique Energy Nepal Pvt. Ltd. | Balaju | 01-4359789 | Uniqueenergy@ntc.net.np |
| 28 | Unique Nepal Solar Pvt. Ltd JV Subham Traders and General Suppliers | Kalanki | 01-4037149 | Uniquenepalsolar1@gmail.com |
| 29 | Ujyalo Urja Pvt. Ltd. | Balaju | 01-4383358 | Ujyalourja2010@gmail.com |

| Annex 2.8 : List of companies pre-qualified to participate in NRREP/AEPC subsidy programme for Solar Thermal System | | | | |
|--|--|----------------|--------------|-------------------------|
| SN | Company | Address | Phone | E-mail |
| 1 | Grameen Urja Tatha Prabidhi Sewa | Kumaripati | 01-5537556 | Retsc@crtnepal.org |
| 2 | Krishna Grill Pvt. Ltd. | Biratnagar | 021-471492 | Kgkctc_brt@wlink.com.np |
| 3 | Nepal Power Solution Pvt. Ltd. | Hetauda | 057-526606 | Ntshetauda@gmail.com |
| 4 | Rural and Alternative Energy Pvt. Ltd. | Damauli | 065-560573 | Resurja.bml@gmail.com |
| 5 | Sunworks Nepal | Balkhu | 01-4330854 | Niraz@engineer.com |
| 6 | Ultra Solar Energy and Steel Engineering Pvt. Ltd. | New Naikap | 01-4313398 | info@ultragroup.com.np |

| Annex 2.9 : List of Pre-qualified Biogas Companies (for the FY 2069/70 B.S.) | | | |
|---|--|-----------------------------|-----------------------|
| S.N. | Name of PQ company | Location | Contact Number |
| 1 | All Nepal Biogas Company Pvt.Ltd. | Banepa-10, Kavre | 011-663677 |
| 2 | Bageshori Gobargas Company Pvt.Ltd. | Pokhara-8, Kaski | 061-526785 |
| 3 | Baikalpik Urja Bikash Company Pvt.Ltd. | Kohalpur-3, Banke | 081-541776 |
| 4 | Bhagwati Gobargas Tatha Urja bikash company Pvt.Ltd. | Itahari-8, Sunsari | 9852055366 |
| 5 | Bhubaneswori Gobargas company pvt.Ltd. | Gaguri-1, Dhading | 9841455356 |
| 6 | Bhumandaliya Samyukta Byabasthapan Pvt.Ltd. | Banshbari-5, Sindhupalchowk | 01-6221614 |
| 7 | Biogas Construction and Energy Pvt.Ltd. | Gulariya-8, Bardiya | 084-420524 |
| 8 | Biogas Tatha Urja Bikash Company Pvt.Ltd. | Bharatpur-10, Chitwan | 056-523878 |
| 9 | Danphe Biogas Company Pvt.Ltd. | Anarmani-4, Jhapa | 023-543682 |
| 10 | Deurali Gobargas Company Pvt.Ltd. | Banepa-6, Kavre | 011-663054 |
| 11 | Dipshikha Urja Bikash Company Pvt.Ltd. | LNP-7, Kaski | 061-561435 |
| 12 | Everest Gobargas Company Pvt.Ltd. | Lalbandi-1,Sarlahi | 9851033022 |
| 13 | Gandaki Gobargas Sewa Kendra Pvt.Ltd. | Pokhara-8, Kaski | 061-523145 |
| 14 | Ghareu Gobargas Tatha Prahibidhi Bikash Company Pvt. Ltd. | Butwal -10, Sukranagar | 071-540827 |
| 15 | Gorakhkali Gobargas Tatha Urja Bikash Company Pvt. Ltd. | Prithivinarayan-3, Gorkha | 064-420194 |
| 16 | Hetauda Gobargas Company Pvt.Ltd. | Hetauda-4, Huprachaur | 057-524115 |
| 17 | Himal Energy Development Company Pvt.Ltd. | Kumrog-4, Chitwan | 9841439461 |
| 18 | Janabhavana Gobargas Udhog Pvt.Ltd. | Bidur-1, Nuwakot | 010-560123 |
| 19 | Janapriya Gobargas Tatha Nirman Company Pvt.Ltd. | Imiliya-2, Kapilbastu | 076-690372 |
| 20 | Janta Urja Bikash Comapany Pvt.Ltd. | Bharatpur-10, Chitwan | 056-524987 |
| 21 | K.P Byabasahik Sewa Pvt.Ltd. | Birendranagar-6, Surkhet | 083-521428 |
| 22 | Kanchanjanga Gobargas tatha Urja Bikas Company Pvt. Ltd. | Charpane-1, Birtanod, Jhapa | 9852678093 |
| 23 | Kishan Gobargas Udhog Pvt.Ltd. | Bidur-3, Nuwakot | 010-560435 |
| 24 | Lamjung Gobargas Nirman tatha Gramin Batabaran samrakchan Pvt.Ltd. | Besisahar-2, Lamjung | 066-520357 |
| 25 | Lokpriya Solar and Biogas Energy company Pvt.Ltd. | Itahari-1, Sunsari | 9852046990 |
| 26 | Lord Buddha nabikaraniya Urja prabidhi Bikash Pvt.Ltd. | Kathmandu-14, Dhumbarahi | 01-4111205 |
| 27 | Machapuchre Biogas tatha Gramin Urja Bikash company Pvt.Ltd. | Vyash-2, Tanahun | 065-560230 |
| 28 | Mahila Jagirti Gobargas Company Pvt.Ltd. | Kamalbinayak, Bhaktapur | 01-4372770 |
| 29 | Mahila Samuhik Gobargas Company Pvt.Ltd. | Chandranigahapur-1, Rauthat | 055-540610 |
| 30 | Manakamana Gobargas Sewa Kendra Pvt.Ltd. | Pokhara-8, Kaski | 061-535432 |

| S.N | Name of PQ company | Location | Contact Number |
|-----|--|-----------------------------------|----------------|
| 31 | Mandali Gobargas Udhogy Pvt.Ltd. | Nilkantha-5, Dhading | 010-690685 |
| 32 | Marsyandi Gobargas tatha Urja Company Pvt.Ltd. | Sundarbazar-8, Lamjung | 061-692082 |
| 33 | Mechi Gobargas Company Pvt.Ltd. | Indrapur-3, Morang | 021-545007 |
| 34 | Munal Biogas Nirman Tatha Urja Bikash Company Pvt.Ltd. | Damak-11, Jhapa | 023-581581 |
| 35 | Munal Gobargas company Pvt.Ltd | Urlabari-2, Morang | 021-540025 |
| 36 | Munal Urja Bikas Company Pvt. Ltd. | Surunga-4, Jhapa | 9814993042 |
| 37 | National Iron and Alternative Power Development Company Pvt. Ltd. | Bharatpur-10, Chitwan | 056-528692 |
| 38 | Nepal Community Bioresources Pvt. Ltd. | Chabahil, Kathmandu | 01-4812503 |
| 39 | Newdeep Public Gobargas and Urja Company Pvt.Ltd. | Ghorahi, Dang | 082-561325 |
| 40 | Nilkamal Gobargas Company Pvt.Ltd. | Bharatpur-10, Chitwan | 056-523688 |
| 41 | Nipurna Gobargas Company Pvt.Ltd | Byas-2,Damauli,Tanahu | 065-561764 |
| 42 | Paschimanchal Dhaulagiri Gobargas Tatha sewa Pvt.Ltd | Anandaban-3, Rupandehi | 071-560691 |
| 43 | Pathivara Gobargas Company | Ilam-3,B.P. Park | 027-521107 |
| 44 | Pragati Gobargas Sewa Kendra Pvt. Ltd. | Vyash-11, Damauli, Tanahun | 065-560573 |
| 45 | Public Biogas Tatha Urja Bikas Company Pvt. Ltd. | Butwal -10, Sukranagar | 071-543122 |
| 46 | Rapti Renewable Energy Service Pvt.Ltd. | Chapagaun-6, Lalitpur | 9841644514 |
| 47 | Rapti SolarpowerTatha Gobargas Sewa Pvt.Ltd. | Chaulahi-2, Dang | 082-540206 |
| 48 | Rastriya Gobargas Nirman Tatha Sewa Pvt.Ltd. | Bharatpur-10, Chitwan | 056-527663 |
| 49 | Ratna Jyoti Gobargas Tatha Urja bikash Company Pvt.Ltd. | Bandipur-1, Tanahu | 065-580194 |
| 50 | Renewable Energy Water and Sanitation Service Centre | Manma-5,Kalikot | 087-440198 |
| 51 | RSS Baikalpik Urja Bikash Company Pvt.Ltd. | Bageshwori-2, Banke | 081-692720 |
| 52 | Sarbodaya Urja Tatha Biogas Pvt. Ltd. | Bhotewodar-8, Lamjung | 9846246760 |
| 53 | Seti Mahakali Gobargas Tatha Krishi Yantra Bikash Pvt.Ltd. | Dhangadhi-4, Hasanpur | 091-521221 |
| 54 | Shova Biogas company Pvt.Ltd | Nijgadh-7, Bara | 053-540084 |
| 55 | Siddhakali Biogas Tatha Urja bikash Company Pvt.Ltd. | Anarmani-4, Jhapa | 023-544595 |
| 56 | Sudurpaschimanchal Gobargas Tatha Urja Bikas Company Pvt.Ltd. | Bhimdutta-18,Kanchanpur | 099-525096 |
| 57 | Srijanshil Baikalpik Urja Pvt.Ltd. | Manthali-6, Ramechhap | 048-540428 |
| 58 | Sulav Biogas and Alternative Energy Development Service Centre Pvt. Ltd. | Vyas-7, Tanahu | 065-560421 |
| 59 | Suryamukhi Baikalpik Urja bikash Company Pvt. Ltd. | Kamalamai NP-11, Sindhuli | 047-520538 |
| 60 | Suryodaya Biogas tatha Urja Bikash company Pvt.Ltd | Indrapur-3,Morang | 021-546678 |
| 61 | Suryodaya Gobargas Company Pvt.Ltd | Urlabari-4, Morang | 9842041992 |
| 62 | Tribeni Gobargas company Pvt.Ltd | Kawasoti-5, Nawalparasi | 078-540313 |
| 63 | United Biogas tatha Urja Bikash company Pvt.Ltd. | Itahari, Sunsari | 025-586281 |
| 64 | Unnat Baikalpik Urja (Pvt.)Ltd | Chandranigahapur-6, Rautahat | 9845129956 |
| 65 | Lekbeshi Saurya Urja Tatha Gobargas Sewa Company (Pvt) Ltd. | Butwal-8 Traffic Chowk, Rupandehi | 071-542538 |
| 66 | Jwala Baikalpik Company (Pvt) Ltd. | Kamalamai-6, Sindhuli | 047-690355 |
| 67 | Hamro Nepal Gobargas Nirman tatha Urja Bikas Company Pvt. Ltd. | Dadeldhura | 9848721116 |
| 68 | Numbur Energy Urja Pvt. Ltd. | Ramechhap | 9744036122 |
| 69 | Madhya pachim Gobargas Tatha Urja Bikas Company Pvt. Ltd. | Dailekh | 9848203341 |

| S.N | Name of PQ company | Location | Contact Number |
|-----|---|-------------|----------------|
| 70 | Bheri Karnali Gobargas Tatha Krishi Yantra Bikas Pvt. Ltd. | Dailekh | 9848031405 |
| 71 | Rastriya Urja Bikas Company Pvt. Ltd. | Jajarkot | 9848170613 |
| 72 | Gharelu Bio Gobargas Company Pvt. Ltd. | Rupandehi | 9857020852 |
| 73 | Khaptad Gobargas Pvt. Ltd. | Doti | 9848655025 |
| 74 | Jaya Bhawani Gobargas Company Pvt. Ltd. | Siraha | 9743008031 |
| 75 | Shramik Urja Tatha Biogas Pvt. Ltd. | Siraha | 9842828946 |
| 76 | Mechi Mahakali Urja Bikas Company Pvt. Ltd. | Saptari | 9842024372 |
| 77 | Rajdhani Urja Bikas Company Pvt. Ltd. | Mahottari | 9844045152 |
| 78 | Abiskar Energy Pvt. Ltd. | Mahottari | 9844167624 |
| 79 | Mount Malika Gobar Gas Company Pvt. Ltd. | Bajura | 9849888036 |
| 80 | Village Energy and Technology Pvt. Ltd. | Kathmandu | 9851070558 |
| 81 | Madhya Terai Biogas Tatha Urja Company Pvt. Ltd. | Dhanusa | 9844070219 |
| 82 | Lokkalyan Gobargas Company Pvt. Ltd. | Jhapa | 9852674607 |
| 83 | Aadhunik Baikalpik Urja Company Pvt. Ltd. | Kavre | 9841436484 |
| 84 | Himchuli Multipurpose Company Pvt. Ltd. | Kavre | 011-680435 |
| 85 | D.L. Energy Concern Pvt. Ltd. | Kathmandu | 01-4354398 |
| 86 | National Biogas Tatha Urja Bikas Company Pvt. Ltd. | Taplejung | 9842624407 |
| 87 | Sahayatri Gobargas Tatha Urja Bikas Company Pvt. Ltd. | Khotang | 9742037322 |
| 88 | Nepal Eco Life Travel and Adventure Academy | Kathmandu | 9751006136 |
| 89 | Jaljala Construction Energy Development and Suppliers Pvt. Ltd. | Rolpa | 086-440265 |
| 90 | Axis Investment and Development Pvt. Ltd. | Lalitpur | NA |
| 91 | Nepal Power Solution Pvt. Ltd. | Makwanpur | 9855067760 |
| 92 | Birgunj Nepal Business Consultancy Pvt. Ltd. | Parsa | 9855023172 |
| 93 | Renewable Energy & Water Supply and Sanitation Promotion Centre Pvt. Ltd. | Rautahat | 9851120128 |
| 94 | Nilkantha Technology Solution Pvt. Ltd. | Dhading | 010-520782 |
| 95 | Cwdec Gobargas Udhog Pvt. Ltd. | Saptari | NA |
| 96 | Tropical Biogas Udhog | Siraha | 9842841653 |
| 97 | Janakpur Biogas Udhog | Dhanusa | 9844028740 |
| 98 | Mahottari Biogas Tatha Urja Bikas Company Pvt. Ltd. | Mahottari | 9844030881 |
| 99 | Budhi Nanda Bio Pvt. Ltd. | Bajura | 9841478729 |
| 100 | Grameen Urja Bikas Kendra | Rukum | 9741058159 |
| 101 | GGC Nepal Pvt. Ltd. | Kathmandu | 9841229118 |
| 102 | P.N. Urja Bikas Pvt. Ltd. | Udayapur | 9842538912 |
| 103 | Salhesh Babasayeak Sewa Pvt. Ltd. | Mahottari | 9818729549 |
| 104 | Dulahi Biogas Tatha Nabikaraniya Urja Bikas Company Pvt. Ltd. | Okhaldhunga | 9842912046 |
| 105 | Karnali Multipurpose Development Services Pvt. Ltd. | Kalikot | NA |
| 106 | Jwalamukhi Gobargas Udhog Pvt. Ltd. | Rautahat | NA |
| 107 | Nepal Urja Centre Pvt. Ltd. | Kathmandu | NA |
| 108 | Krishnasar Gobargas tatha Urja Bikas Company Pvt. Ltd. | Pyuthan | NA |

Annex 2.10 : List of PQ Companies for Manufacturing and Installation of Metallic Stoves

| S.N | Name of Companies | Location | Contact |
|-----|---|---|---|
| 1 | Malika Engineering & Mechanical works, | Dhangadi, Kailali | Hikmat Bahadur Shah 9851049108; malikaengg@ntc.net.np |
| 2 | Jagdamba Engineering Works | Nepalgunj, Banke | Kiran K.C. 9848033670; 081-522184 kiran_kc56@yahoo.com |
| 3 | Panchkanya Metal Engineering | Pokhara Kaski | Ganesh Prasad Bastola 9856025560; panchakanya@yahoo.co.in |
| 4 | Gorkha Energy and Environment Pvt. Ltd | Palungtar, Gorkha | Prabin Neupane 9841320062; gorkhaenergy@yahoo.com |
| 5 | Nilkantha Technology solution Pvt. Ltd | Dhadging Besi, Dhading | Sher Bahadur Bhandari 9851017608; ntsdhading@gmail.com |
| 6 | S.K Engineering Industries | Butwal, Rupandehi | Subash Pokharel 9857026470; rajanpokharel15@yahoo.com |
| 7 | Metal Nepal, Siddhartha Nagar | Rupandehi | Sindhu Prasad Acharya 9841319619; acharya_sp2009@yahoo.com |
| 8 | Himal Power Development Pvt. Ltd. | Narayangarh, Chitwan | Surya Man Rai 9845371114; 056-692893 raisrm02@yahoo.com |
| 9 | Nepal Energy Development Company Pvt. Ltd., | Ekantakuna, Lalitpur (Workshop: Chaubish Kothi, Bharatpur, Chitwan) | Prakash Chandra Shrestha 056-527663; nedco@wlink.com.np |
| 10 | Prabidhi Uthan Engineering Kendra | Hetauda, Makwanpur | Mohan Prasad Prajuli 9845132109; tuecmp@gmail.com |
| 11 | Center for Rural Energy Promotion and Environment Technology Service, | Kalaiya, Bara | Umesh Kumar Gupta 9851115192; info.crepets@yahoo.com |
| 12 | Renewable Energy, Water Supply and Sanitation Promotion Center, | Chandranigahpur, Rautahat | Prashanta Dev 9842820192; 055-690405 rewsspc@yahoo.com |
| 13 | Gramin Urja tatha Prabidhi Sewa Kendra, | Kumaripati, Lalitpur | Madam Thapaliya 01-5008536; 5537556 |
| 14 | Motherland Engineering Workshop Pvt. Ltd. | Balaju, Kathmandu | Ujwal Pradhan 9841558571; 01-4032834 ucs@ntc.net.np |
| 15 | Ananta Iron Industries | Dharan, Sunsari | Tika Ram Rai 9742029946; 025-521563 tikaram_rai64@yahoo.com |
| 16 | Krishna Grill & engineering Works Pvt. Ltd. | Biratnagar, Morang | Nischal Shrestha 9851017166; krishnagrillns@gmail.com |
| 17 | Shree Aditya Grill Udhog, | Illam | Hari Bahadur Dahal 9742625886; 027-520026 |
| 18 | Shree Trishakti Engineering Workshop | Phidim, Panchthar | Bishnu Subba 97426080619806024545 |
| 19 | Siddhartha Engineering Works | Nepalgunj, Banke | Bhagat Ram Thapa 081-523017 |
| 20 | Rijwan Engineering Udhog | Nepalgunj, Banke | Jawahir Khan 081-522052 karimkhan2009@gmail.com |
| 21 | Karnali Vidhut and Metal Works | Jumla Bazaar, Jumla | Sukbir Nepali 9848020176; sukbirnepali@rocketmail.com |

| S.N | Name of Companies | Location | Contact |
|-----|--|---------------------|---|
| 22 | Chandra Metal Industry | Pokhara, Kaski | Kailash Kumar Ranjit 9856022840; ptipokhara@gmail.com |
| 23 | Mustang engineering Metal Workshop | Pokhara, Kaski | Jayandra Gauchan 9856020844; gauchan2009@hotmail.com |
| 24 | Shanti Engineering Works | Pokhara, Kaski | Narayan Regmi 061-521305 |
| 25 | National Structure and Engineering Pvt. Ltd. | Lagankhel, Lalitpur | Rajan Aryal 01-5542393 nsepl@info.com.np |
| 26 | Development Trade Link, | Kalanki, Kathmandu | Hem Bahadur Waiba 9841629839; developtrade@gmail.com |
| 27 | Sindhu Urja Prabandha Kendra | Kalanki, Kathmandu | Hasta Bahadur Pandit 01-2054100 hasta.sindhu@gmail.com |
| 28 | Trishul Agri- tools and Engineering | Jorpati, Kathmandu | Manu Raj Bhurtel 01-2151557 trishul_engg@hotmail.com |
| 29 | Sun Works Nepal, Balkhu | Kathmandu | Niraj Shrestha 9851048971; 01-4330854 sunworks@swn.wlink.com.np |
| 30 | Banepa Metal Udhog | Banepa, Kavre | Shyam Prakash Nakarmi 011-660435/9841006309 |
| 31 | Shree Dhungeshowari Mechanical Workshop | Jiri, Dolakha | Anil Karki 9741045668; 9741023130; anil.karki19@yahoo.com |
| 32 | Shree Singha Bahini Engineering Works and Energy pvt. Ltd. | Itahari, Sunsari | Tanka Prasad Timsina 9852054463; sewitalahari@yahoo.com |

9.3 Annex 3: Associations of Private Sector Involved in RETs

| Annex 3 : List of Associations of Private Sector Involved in RETs | | | |
|---|---|---|--|
| S.N | Name | Contact Address | President/Chairman |
| 1 | Nepal Micro Hydropower Development Association (NMHDA) | 131 Shahid Shukra Marg (way to FNCCI) Teku, Kathmandu, Nepal Phone: +977 (01) 4230678/ 4231024 Email: nmhda@ntc.net.np nmhad@micorhydro.org.np | Mr. Surendra Bhakta Mathema President |
| 2 | Solar Electric Manufacturers Association Nepal(SEMAN) | Maharagunj-3, Shree Shiva Marg Kathmandu Nepal Phone: +977 01 4432103/4437499 Email : seman@ntc.net.np seman@wlink.com.np | Mr. Deepak Bd. Shahi President |
| 3 | Water and Energy Consultants' Association, Nepal(WECAN) | Kupandole, Lalitpur, Nepal phone: +977(01)5546792 Email: info@wecan.org.np | Mr. Dhan Bahadur Gurung Chairman |
| 4 | Nepal Biogas Promotion Association(NBPA) | Pulchowk Rd., Kupondole Central Office Kathmandu Kathmandu, Nepal Phone: +977 (01) 5544562 Email: info@nbp-association.org | Mr. Bishnu Belbase Executive Director |



Government of Nepal
Ministry of Science, Technology & Environment
Alternative Energy Promotion Centre

Khumaltar Height | Lalitpur | Nepal
Tel: +9771-5539390/91,
Email: info@aepc.gov.np | Website: www.aepc.gov.np