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ENERGY™ DEVELOPMENT COUNCIL

In 8.1 KW solar powered this Announcement on one NEA to install 50 electric drinking water project day Training Workshop vehicle charging stations Regional Energy to serve 50 households. on issue **Cooperation-Nepal** 

### Editorial

### Conceptualizing Energy Efficiency & Conservation Law in Nepal

MS. NEHA SHARMA & MR. PRAMISH KHANAL ADVOCATE AND ASSOCIATE ABHINAWA LAW CHAMBERS AN EDC MEMBER ORGANIZATION A round the globe, various attempts have been made in different aspects to preserve and reinforce energy efficiency adequacy and security, with different industrial sectors and household consumption identified as key energy-intensive sectors. The concept of energy efficiency and conservation are different but related; energy efficiency is using technology that requires less energy to perform the same function, while energy conservation focuses on consuming less energy overall.

In the present context, awareness has been increased at policy

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and execution level that energy efficiency and conservation measures would improve energy security by distributing available energy resources over a longer period of time. Similarly, awareness has also been increased among the consumers, ultimately leading to better energy practices.

#### Principle of sustainability

Principle of sustainability focuses on long-term energy strategies and policies that include social, economic and health-related prospects that also ensure adequate energy to meet today's needs, as well as in the days to come. Currently, Nepal has only an energy efficiency policy. In order effectively implement such policy, legislation has to make provision for the formation of strategy which would promote energy efficiency and conservation. The strategy should encompass the purpose of effective implementation of energy efficiency and conservation policy of the Government of Nepal. Such strategy should look into policy made by the government for the promotion of energy efficiency and conservation so that a comprehensive idea where all stakeholders are included can be formulated and implemented.

Energy Audit is one of the most effective and proven tools for implementing prudent energy conservation and efficiency improvement measures. It works by enabling the consumer to identify specific areas of energy consumption and see where potential energy savings lie. Besides, energy audit also helps identifying areas of waste, determining the potential for minimizing energy wastage and establishing financial and technical benefits to increase energy efficiency.

Thus, Energy Efficiency and Conservation legislation should embrace this concept. Likewise, legislation should provide that energy audit is carried out by a certified independent energy auditor and they are responsible in issuing Energy Saving Certificate based on standards set by legislation.

#### **Energy Labeling**

Along with Energy Audit, Energy Efficiency and Conservation legislation should also make provision for Energy Labelling, which means identifying and issuing labels of energy consumption by equipment. The use of labeling can be an effective measure of energy efficiency because labelling helps consumers make more informed purchasing decisions regarding energy consumption. Therefore, legislation has to target manufacturing or importing of electrical products, technology and other energy-related equipment so that they must

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comply with the labeling standards before it arrives on the market.

Along with these concepts, the Energy Efficiency and Conservation legislation should also make provisions for implementing authority of legislation by providing some power to the existing authority and also requiring establishment of new authorities. Since the Ministry of Energy, Water Resources and Irrigation acts as the central authority, it should have supervisory and monitoring powers for the effective implementation of strategy and policy prepared by those authorities. Similarly, this legislation should provide responsibility for creating a platform for collaboration between the government, the private sector and civil society for the promotion and implementation of energy efficiency.

#### **Going forward**

For the implementation of legislation and policy, Energy Efficiency Board and Energy Efficiency Bureau should be established. Energy Efficiency Board should be entrusted with the power to issue permits and licenses required for the undertaking of activities, compliance and activities pertaining to energy efficiency within acceptable thresholds. Similarly, Energy Efficiency Bureau should have the power to implement plans and strategies formulated by the Ministry and the Board, and coordinate with different authorities in regards to the work and function of the Board. Furthermore, this legislation should establish a separate tribunal or authority which would settle disputes related to energy efficiency and conservation in a specialized manner.

Beside all these above-mentioned issues, Energy Efficiency and Conservation legislation should have provision of record-keeping of all relevant information to energy efficiency. Furthermore, there should be provision relating to punishment for entities who fail to comply with the provisions of law.

Energy efficiency and conservation are applicable to all the sectors where energy is consumed. Thus, all sectors from big industries to general households should fall within the scope of this legislation. This legislation should be able to provide measures and technique of energy efficiency and conservation of these sectors. As legislation has to provide efficiency measures and techniques to a wide range of sectors, a generalized approach is better than a highly technical one. Lastly, legislation should provide more power to implementing authority in order to prepare specific measures, and techniques of energy efficiency and conservation.

# EDC ACTIVITIES

### <u>Announcement on one day training workshop on Regional Energy Cooperation-</u> <u>Nepal</u>

EDC in collaboration with International Centre of Hydropower (ICH), Norway is organizing a one day training workshop on Regional Energy Cooperation on 11th November, 2019 at Summit Hotel, Kathmandu.

#### 19th September, 2019

### <u>A half day seminar on Legal issues relating to foreign investment in Nepal 's</u> <u>energy sector</u>



Energy Development Council in association with Neupane Law Associates organized a half day seminar on "Legal Issues relating to foreign investment in Nepal's energy sector" on 19th September, 2019 at Koshi Hall, Marriott Hotel, Naxal, Kathmandu.

The purpose of the seminar was to provide the participants with basic understanding of the legal

framework in which foreign equity investment in the energy sector in Nepal operates. It explored different types of investors, investment modalities and processes. It also explored regulations impacting foreign investment and provided an introduction to technical aspects of investment agreements such as share purchase agreements, share subscription agreements, joint venture and shareholders agreements. Policy reforms that Nepal can undertake to attract more foreign investment was also explored and discussed with the participants. This seminar was targeted towards higher management personnel having experience or seeking in working with foreign investors in developing and financing energy projects in Nepal.

<u>Presentation</u> Delivered on Legal issues relating to Foreign investment in Nepal's energy sector

## EDC ACTIVITIES

20th September, 2019

#### EDC Members Meeting Organized

To discuss and prepare the feedback/comment on the draft Electricity Act 2076, an EDC members' meeting was organized on 20<sup>th</sup> September at its office, Kamaladi. The letter has been registered at the Ministry of Energy, Water Resources & Irrigation. A total of twenty-six points were suggested to be incorporated in the draft Act.



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### **EDC ACTIVITIES**

# TenderNotice.com.np

| Mon   | th: September 2019  |   |                   |                           |                         |
|-------|---|---|-------------------|---------------------------|-------------------------|
| S.No. | Notice Publisher  | Description   | Published<br>Date | Notice<br>Category        | Product Service         |
| 1     | Betan Karnali Sanchayakarta<br>Hydropower Company Limited,<br>Durbarmarg, Kathmandu     | Construction of Test Adit<br>Tunnels  | 9/29/2019         | Tender                    | Construction/ Building  |
| 2     | Dhaulagiri Kalika Hydro<br>Limited, Gyaneshwor  | Construction of<br>Hydroelectric Project  | 9/24/2019         | Tender                    | Construction/ Building  |
| 3     | Vidhyut Utpadan Company<br>Limited, Buddhanagar,<br>Kathmandu                           | Supply and Delivery of<br>Vehicles and Motorcycles                              | 9/22/2019         | Tender/Quota<br>tion      | Automotive / Vehicles   |
| 4     | Betan Karnali Sanchayakarta<br>Hydro Power Company<br>Limited, Durbarmarg,<br>Kathmandu | Procurement of 4WD<br>Double Cab Pickup   | 9/18/2019         | Tender                    | Automotive / Vehicles   |
| 5     | Rastriya Prasaran Grid<br>Company Limited, Anamnagar,<br>Kathmandu                      | Consultancy Services for<br>Environmental Study of<br>Transmission Line Project | 9/17/2019         | Expression<br>Of Interest | Consulting              |
| 6     | Mayakhola Hydro Power<br>Company Limited, Mayakhola<br>Hydro Power Project              | Civil and Hydro Mechanical<br>Works   | 9/17/2019         | Tender                    | Construction/ Building  |
| 7     | Betan Karnali Sanchayakarta<br>Hydropower Company Limited,<br>Durbarmarg, Kathmandu     | Procurement of Vehicle  | 9/17/2019         | Tender                    | Automotive / Vehicles   |
| 8     | Upper Tamakoshi Hydropower<br>Limited, Gyaneshwor,<br>Kathmandu                         | Amendment Notice  | 9/13/2019         | Amendment<br>Notice       | Other Product/ Services |
| 9     | Raghuganga Hydropower<br>Limited, Rahughat<br>Hydroelectric Project,<br>Kathmandu       | Notice of Intent to Award   | 9/9/2019          | Award Notice              | Other Product/ Services |
| 10    | Tamakoshi Jalavidyut<br>Company Limited, Kathmandu                                      | दरभाउपत्र स्वीकृत गर्ने आशय   | 9/6/2019          | Award Notice              | Other Product/ Services |
| 12    | Rastriya Prasaran Grid<br>Company Limited, Anamnagar,<br>Kathmandu                      | Construction of Boundary<br>Wall  | 9/2/2019          | Tender                    | Construction/ Building  |
| 13    | Vidhyut Utpadan Company<br>Limited, Buddhanagar,<br>Kathmandu                           | Construction of Test<br>Adit/Tunnels  | 9/1/2019          | Tender                    | Construction/ Building  |

# MEMBER UPDATES





**G**ham Power Nepal Pvt. Ltd. has successfully completed another 11.52kWp micro grid installation in Jodu Village of Jumla district. This has been possible with the financial support from Google, GRID Alternatives and Sinja Rural Municipality, Ward no. 6. Through this project, we are able to power 100 households that can now run radio and television as well. The inauguration of this project was done on September 24th with the help of international volunteers and local government. The local community is very excited to experience the benefits that the solar will bring. We are extremely grateful towards all the people who were involved in this project.



**S** unbridge Solar Nepal Pvt. Ltd. shares a pleasant news from Dadeldhura.—the company has successfully completed the 8.1 KW solar powered drinking water project to serve 50 households.

# MEMBER UPDATES



**S** aral Urja Nepal's piece of art in the making.-Nepal's largest commercially financed grid connected solar rooftop system at City Cinema Biratnagar. Multipurpose - saves Crores in electricity bills, reduces internal temperature of cinema hall, increases life of the roof sheets, a great branding value. All for zero upfront investment.

# NEPAL'S PERSPECTIVE

#### 13th September, 2019

#### NEA TO INSTALL 50 ELECTRIC VEHICLE CHARGHING STATIONS

W ith the rising number of electric vehicles on the streets of Kathmandu, Nepal Electricity Authority (NEA) is planning to install 50 charging stations for electric vehicles across all seven provinces within a year and a half.

Of late, electric vehicles have captivated public attention with growing number of people interested in buying such automobiles.

"The demand for electric vehicles has doubled in the past year," said Pramod Bhandari, senior executive manager of Agni Incorporated Private Limited, the authorized distributor of Indian automaker Mahindra in Nepal.

There are more than 41,400 electric vehicles across the country, according to Bhandari. Of them, there are 35,000 two-wheelers, 5,000 three-wheelers, more than 650 cars, 750 safa tempos and four buses. The number of electric vehicles is likely to go up in the days to come because of tax exemption by



the government. Besides being environment-friendly, the government has introduced policies to promote electric vehicles. The government has exempted road tax for electric vehicles while the customs duty on their imports is very low compared to the vehicles operating on fossil fuel.

Stakeholders claim that more people are keen on buying electric vehicles but they are hesitating to buy vehicles due to the lack of charging stations.

Currently there are four charging stations and

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all of them are privately-owned. Two of the charging stations are located in the Kathmandu valley and are designed especially to charge electric buses. The remaining two stations are in Kurintar of Chitwan and Nagarkot of Bhaktapur.

The charging stations outside Kathmandu can charge cars only. NEA is looking for places where it can set up charging stations without having to pay any rent.

"We are planning to operate charging stations in places such as government offices, parking areas of public schools and other public places," said Pramod Rijal, deputy chief of NEA's Energy Efficiency Program.

"We are currently in the last stage of issuing

a call for tender for setting up charging stations," said Rijal. The work should be completed within a year and a half, he added.

Economists and environmentalists believe the use of electric vehicles in Nepal will not only help control air pollution but will also improve the country's GDP as Nepal has a huge potential to generate hydro-electricity.

According to Rijal, the charging stations will be fully automated. Individuals will be able to charge their vehicles themselves and make payment through QR codes, online payments and other similar systems.

The cost of charging electric vehicles is currently Rs 7-8 per unit.

## **GLOBAL PERSPECTIVES**

#### 2019

### HAWAIIAN ELECTRIC COMPANIES ISSUE LARGEST CLEAN ENERGY PROCUREMENT TO DATE; AIM TO END COAL USE, REPLACE OIL

Last week, the Hawaiian Electric Companies began Hawai'i's largest procurement effort for renewable energy resources to end the use of coal and reduce reliance on imported oil for power generation, moving the state closer to its goal of using 100 percent renewable energy by 2045.

With the approval of the Public Utilities Commission (PUC), the companies today issued requests for proposals for renewable energy and grid services from developers locally and globally.

Approximately 900 megawatts of new renewables or renewables paired with storage generating about 2 million megawatt-hours annually – are sought. It is among the largest single renewable energy procurements undertaken by a U.S. utility, said the companies. This includes estimated targets of technologies equal to 594 MW of solar for O'ahu, 135 MW for Maui and up to 203 MW for Hawai'i Island, depending on whether other renewable energy projects are available on that island.

Projects for Maui must include energy storage. On Hawai'i Island, solar must include storage but is optional for other technologies. On O'ahu, pairing generation with energy storage is optional. Storage on O'ahu and Maui is also being sought to replace firm generating units. This can be provided by renewable generation paired with storage or standalone storage. Contingency storage is also being sought for O'ahu and Hawai'i islands.

For O'ahu, new renewable generation and storage is needed to replace the 180-megawatt coal-fired AES Hawaii plant in Campbell Industrial Park due to close by September 2022. It is the largest single generator on O'ahu, meeting 16 percent of

peak demand.

For Maui, new renewable generation and storage is needed for the planned retirement of Kahului Power Plant by the end of 2024.

#### **Grid services**

A separate request for proposals for grid services from customer-sited distributed energy resources (DER) will help system operators manage reliability of modern electric grids with diverse, dynamic inputs and outputs. The companies are seeking grid services such as fast frequency response and capacity for O'ahu, Maui, and Hawai'i islands with targets ranging from 4 MW to 119 MW. This will create an opportunity for customers to play a direct role in modernizing the electric grid and integrating more renewable energy.

Final requests for proposals are expected to be issued later this year for the equivalent of 4 MW of solar or 3.6 MW of small wind for Moloka'i, paired with energy storage, and an equivalent up to 9.5 MW of solar paired with energy storage for Lāna'i, pending approval by the PUC.

Due to the complexity of projects sought, the PUC has chosen independent observers and a technical adviser to assure that all proposals – including "self-build" projects proposed by the companies – are treated fairly and equitably and will not interact to create technical problems on island grids.

These final requests for proposals are the result of extensive collaboration led by the PUC with participation of Hawaiian Electric, the Consumer Advocate, and other stakeholders.

Hawaiian Electric's guiding principles in seeking renewable energy and grid services include transparency, predictability and streamlining to lower costs for customers, with community engagement essential to success.

Pending negotiations of contracts and final approvals, the first renewable generation projects from this phase would come online in 2022 with the total amount of megawatts expected by 2025. **Members** 



**SINCE 1981** 











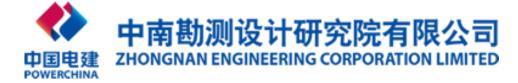














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RM 316/3 F Chinese Overseas Scholars Venture Building, South District Shenzhen Hi-tech Industry Park, Shenzhen, China Energy Development Council (EDC) is a non-profit umbrella organisation of the entire energy sector of Nepal established to ensure every Nepali has access to energy and energy security by promoting favourable policies and investments. EDC consists of Energy Developers, Energy Associations, Energy Consumers, Energy Financiers and other funds, Consumer Institutions, Energy Contractors from both private and government sectors involved in hydropower, solar, wind and other renewables, generating more than 80 percent of the nation's total electricity.







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