

## Editorial

Dear Reader,

Nepal is facing the worst energy supply crisis recently and its economy has been virtually brought to a standstill. Besides, it is creating such a big blow to the Nepalese and creating totally a big turmoil in all sectors such as society, transport, industry, education, and health. In recent years, oil supply crises were happening frequently due to one or other reasons, namely, inability of Nepal Oil Corporation (NOC) to pay its dues to the Indian Oil Corporation (IOC), frequent strikes of different professional associations involved in petroleum distribution and seasonal demand surges of petroleum products. Energy analysts were hinting about the occurrence of frequent oil supply crises for the past several years because of Nepal's growing high dependence on totally imported fossil fuels in meeting its energy requirements. Nepal has not taken any kind of energy security measures to protect its people from energy crises. Petroleum imports in Nepal have almost quadrupled in physical terms in two decades from 550,000 kL in 1995 to 1.8 million kL in 2015 but in monetary terms jumped to NR 125 billion in 2015 from NR 20 billion in 2004, more than six times in a decade.

For end-use services like cooking which consumes more than 50% of the primary energy supply in Nepal, cooking on electricity has become cheaper. But alas, Nepal has not been able to properly harness the indigenously available hydropower. However, policy-makers and government officials are much more keenly interested in exports of hydroelectricity rather than developing it for domestic consumptions. No wonder, unavailability of electricity has put more pressure on imported fossil fuels such as liquefied petroleum gas (LPG) and diesel. Heavy dependence on imported fossil fuels has contributed in generating adverse effect in the balance of payment and emitting more green-house gases in Nepal. All these matters call for an integrated energy policy for sustainable economic development and energy security of the country. An integrated approach is very essential as energy forms can be transformed and interchanged from one form to another and it has been shown from various energy analyses. Had Nepal harnessed sufficient and reliable electricity from hydropower resources, almost 50% of petroleum imports could be curtailed and an outflow of NR 50 billion could be saved annually.

Diversification of oil import sources refers to the mix of state providers of oil. It is a policy designed to secure stable oil supply by reducing the risks that may arise from excessive dependence on a single import source. For almost 4 decades Nepal has not paid any attention to this fact despite several major petroleum supply disruptions. Dependence on one supplier in the country as well as outside the country for petroleum products is causing fuel crises in the country frequently. This frequency will increase in future if Nepal does not take any proactive measures in energy security right now. It is high time that Nepal establish an independent energy regulatory body for deregulation in electricity supply and petroleum marketing. For the development of electricity supply, the current structure of Nepal Electricity Authority (NEA) is a bottleneck and it has to be unbundled for development of electricity market and hence, for energy security. Similarly, monopoly of NOC has to be disbanded and private sector should be involved in marketing of petroleum products in the country. This involvement of private sector will of course diversify supply in the country and will have many outside the country suppliers which definitely will reduce the supply disruptions. The current situation is favorable for private participation in oil sector as domestic prices are higher than international oil prices. Regulatory body should make oil marketers bound for maintaining mandatory oil reserves in the range of 90 days' equivalent of daily sales which can help in meeting out short term supply disruptions, as Nepal is a land-locked country.

In conclusion, Nepal should take the current oil supply crisis as a major lesson and needs to take concrete steps as soon as possible and should not presume that oil supply will smoothen out soon and everything will be normal as before. Energy is such a sector for which one may not have immediate solutions because it takes lot of proper planning, investments, policy and institutions in place. Nepal should develop an integrated energy policy soon and must diversify both electricity and petroleum markets in the country. It is essential for sustainable development and energy security of the country.



**Prof. Dr. Amrit Nakarmi**  
CES, Institute of  
Engineering

**EDC Advisory Panel  
Member**

**In this Issue****Formation of EDC Advisory Panel****MoU between EDC and Neventure Corporation Limited****EDC delegation visit to Hon. Forest Minister and Hon. Transport Minister****EDC delegation visit to Forest Secretary and Energy Secretary****Interviews in Radio and Television****Announcements****Media Coverage****Welcoming new EDC member**

## EDC Activities

### Formation of EDC Advisory Panel

EDC has formed a high level advisory panel which the council will consult with on various national level energy sector related issues. The panel consists of Mr. Surya Nath Upadhyay, Prof. Dr. Govind Raj Pokharel, Prof. Dr. Amrit Nakarmi, Mr. TN Thakur and Mr. Joseph Hess.



Mr. Upadhyay is the former Chief of Commission for the Investigation of Abuse of Authority (CIAA) and Former Secretary of Water Resource. Presently he is working as the Secretary General of Jalsrot Vikas Sanstha.



Prof. Dr. Pokharel is former Vice-Chairperson of National Planning Commission. He has also worked as an Executive Director of Alternative Energy Promotion Centre (AEPC).



Prof. Dr. Nakarmi is one of the pioneers of energy sector who has served Nepal Oil Corporation as an Executive Director. Currently, he is a Professor and is affiliated with Center for Energy Studies, Institute of Engineering. He is known for his strong research capabilities.



Mr. Thakur is former Chairperson and Managing Director of Power Trade Corporation (PTC- India) and has contributed to linking up the power sectors of Nepal and India.



Mr. Joseph Hoess is the director of Dragon Capital Clean Development Limited, a part of the 1.4 billion US\$ Dragon Capital group that invests in renewable energy projects in Asia. Prior to this, Mr. Hoess was the CEO of ABN Amro Bank in Thailand.



Recently, EDC signed a MoU with Neoventure Corporation, Shanghai, China. The agreement provides a framework of cooperation and facilitates collaboration between the parties to promote foreign direct investments in Nepal.

Areas of Cooperation are Match – Making of Chinese and international investors/developers/contractors/suppliers and Nepalese counterparts for potential business opportunities; Facilitating trade connections and project partnership between Chinese EPC contractors and suppliers and Nepalese counterparts; Jointly organize investment promotion summit to promote investment opportunities in Nepal’s energy sector to Chinese and international investors.

## EDC delegation visit to Honorable Forest Minister, Mr. Agni Prasad Sapkota

On 2<sup>nd</sup> December, 2015, EDC delegation paid a visit to Mr. Agni Prasad Sapkota, Forest Minister at Singha Durbar. The delegation led by Mr. Sujit Acharya, Chairperson of the Council explained the two main problems hydro developers are facing from the Forest Ministry, which is the Payment for Environmental Services (PES) and land gift to the government.

Mr. Acharya illustrated that the present energy crisis has put huge pressure on the forest of Nepal and still 82% of the energy use in the country is fuel wood. Hence, to prevent such degradation of forest area, the hydropower sector should be rapidly developed which requires a strong support from Forest Ministry.



The minister opined he was unaware about the issues of PES and land gift that the hydropower sector is facing and said he will take it in serious consideration. “I am positive towards the progress in country’s domestic energy development” the Minister said. He further said that he will consult with relevant ministries and stakeholders and resolve the issues as earlier as possible.

## Letter issued by Personal Secretariat of Ministry of Forest

The forest issue raised by EDC was taken seriously by Honorable Forest Minister. A letter has been issued by the Personal Secretariat of Ministry of forest addressed to Secretary of Ministry of Forest and Soil Conservation to take appropriate actions upon consultation with concerned departments.



नेपाल सरकार  
**माननीय वन तथा भू-संरक्षण मन्त्रीज्यूको**  
निजी सचिवालय

फोन नं.: ४२११६६०  
४२११८८२

फ्याक्स : ९७७-१-४२११७८४  
सिंहदरवार, काठमाडौं  
नेपाल

मिति: २०७२।०८।२२

पत्र सं.: २०६२।०६३  
च. नं.: ४३

नेपाल सरकार  
वन तथा भू-संरक्षण मन्त्रीको  
निजी सचिवालय  
सिंहदरवार, काठमाडौं

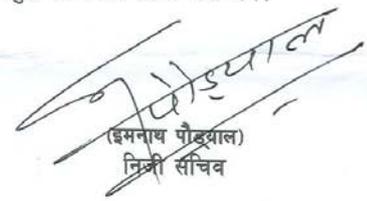
**विषय: पत्र पठाईएको बारे।**

श्रीमान् सचिव ज्यू,  
वन तथा भू-संरक्षण मन्त्रालय  
सिंहदरवार, काठमाण्डौ।

प्रस्तुत विषयमा माननीय वन तथा भू-संरक्षण मन्त्रीज्यूलाई सम्बोधन गरी यस सचिवालयमा प्राप्त तपसिल बमोजिमको पत्र माननीय मन्त्रीज्यू समक्ष पेश हुँदा तपसिल बमोजिमको आदेश भएकोले सोही बमोजिम कारवाहीकोलागि प्राप्त पत्र यसैसाथ राखी पठाईएको व्यहोरा आदेशानुसार अनुरोध छ।

तपसिल

१. पत्रको विषय:- जलविद्युत आयोजना र वनसंग सम्बन्धित समस्याहरूको सम्बन्धमा आवश्यक कारवाही गरी पाऊँ।
२. पत्रको मिति:- २०७२/०८/१६
३. उक्त पत्रको यस सचिवालय द.नं. र मिति:- ७९/२०७२/०८/१६
४. निवेदकको नाम थर वतन:- श्री इनर्जी डेभलपमेण्ट काउन्सिल, हेरिटेज प्लाजा-II, कमलादी, काठमाण्डौ ।
५. माननीय मन्त्रीज्यूबाट भएको आदेश:- यसमा के गर्न सकिन्छ वन उद्यम तथा व्यवस्थापन महाशाखा, वातावरण महाशाखा, प्रशासन महाशाखा र श्री सचिवको राय लिई उपयुक्त निर्णयका लागि पेश गर्ने।

  
(हिमनाथ पौड्याल)  
निजी सचिव

बोधार्थ:  
श्री इनर्जी डेभलपमेण्ट काउन्सिल, हेरिटेज प्लाजा-II, कमलादी, काठमाण्डौ ।

**निजी सचिव**

## EDC delegation visit to Forest Secretary, Mr. Uday Chandra Thakur



With response to the EDC voice about forest issues faced by hydropower developers, Forest Minister took a positive step by issuing a direction to the Forest Secretary Office and the concerned department to take appropriate decision. EDC delegation met Mr. Uday Chandra Thakur, Forest Secretary on 23<sup>rd</sup> December, 2015. The council put forward the forest issues particularly about the PES and land gift to the government. Mr. Thakur was surprised to know the irrelevant practice that the ministry is imposing to the domestic hydro projects. He committed to give necessary decision by consulting with concerned departments and will invite EDC for discussion.

## EDC delegation visit to Energy Secretary, Mr. Suman Prasad Sharma

On December 6th, 2015, Energy Development Council proposed concrete short term measures to Energy Secretary, Mr. Suman Prasad Sharma with regards to alleviating the ongoing energy crisis, and immediate action required by the Energy Ministry during the energy emergency that the government is declaring soon.

Mr. Sujit Acharya, Chairperson of the Council who was accompanied by other EDC delegates presented the 19 point statement to the Secretary. The statement recommends establishing Nepal-China Power Trade Agreement and importing electricity from China at the same or better terms than the PPA concluded via the Dhalkebaar- Muzzafarpur transmission line. The Council has strongly voiced that the PPA for all the hydro power projects should be based only on "Take or Pay".

There is an immediate need to declare the PPA posted rate for electricity generated from solar, waste and other renewable and for storage based hydropower projects.



The Council suggested only one integrated Initial Environmental Examination (IEE) to be done for Runoff River and other power projects upto 100 MW. With the continual advocacy of EDC and the acceptance by the government to mobilize the Nepal army for the construction of transmission lines, the council urged the removal of all clearances except the IEE and for the government to specifically list the transmission line projects to be handed over to Nepal Army in its upcoming Energy Crisis Bill.

The statement also included that all the forest related approvals should be from ministerial level only and removal of the clause of 1% extra tax (PES) imposed by Ministry of Forest and land gift to the government for leasing of land.

Secretary Sharma completely agreed with the council's view that the failure of bureaucrats' management has led to such crisis and would try his best to improve the system to progress the energy sector. The statement also recommended the distribution rate (Willingly Charge) to be fixed and private sectors to be allowed to sell electricity to its clients. Also, the net metering and Feed-in-Tariff rates to be fixed for household level power generation.

## Meeting with Honorable Deputy Prime Minister and Minister of Physical Infrastructure and Transport Mr. Bijaya Kumar Gachhadar

On December 22<sup>nd</sup>, EDC Chairperson, Mr. Acharya put forward a concrete proposal to Mr. Bijaya Kumar Gachhadar, Hon. Dep. Prime and Minister of Transport about alleviating the energy crisis that has hit the transportation sector the most. Mr. Acharya informed if the government of Nepal is willing to transform the transport sector into electric and being self-reliant, EDC has potential to bring such good investors.

## Interview of Mr. Sujit Acharya, Chairperson of EDC with Mr. Bikash Thapa on "Jal Sarokar" at Radio Annapurna Nepal 94

On December 14<sup>th</sup>, EDC Chairperson, Mr. Acharya was interviewed in a popular program "Jal Sarokar". The discussion is based on why Nepal is not independent even in a single commodity and because of us Nepalis being too dependent, the current blockade has shattered our daily life. He strongly claims that the wrong policy approach of Finance Ministry in increasing the budget yearly solely by increasing the custom duty is the main culprit in making our nation completely dependent.

(The full interview is available at:

[www.youtube.com/watch?v=Xvzc5APwVME&list=PLI1LTq56W3qHCx0wzoVo6ig9FnmLxttWh&index=15](http://www.youtube.com/watch?v=Xvzc5APwVME&list=PLI1LTq56W3qHCx0wzoVo6ig9FnmLxttWh&index=15) )

## Interview of Mr. Surya Nath Upadhyay (Former CIAA Chief & Energy Secretary, EDC Advisory Panel member) and Mr. Bishal Thapa (EDC Vice-Chairperson) at Urja Bahas

On December 31<sup>st</sup>, 2015, Mr. Gopal Basnet of Mountain TV took an interview with Mr. Surya Nath Upadhyay and Mr. Bishal Thapa. The discussion was about the immediate action to be taken to resolve the energy crisis. Mr. Upadhyay expressed that proper facilities are to be provided in both policy and implementation level to speed up the development of hydro project and the current projects which have been stopped must be immediately resumed. Likewise, Mr. Thapa opined that all the energy sector i.e. hydro, solar, wind and other renewable must be promoted in an integrated way for energy access throughout the country and for long term energy sustainability. Further he stressed that it is technically feasible to install 200 MW solar project in Nepal and for that Solar Integration Study is the first step.



## Interview of Mr. Kushal Gurung, EDC Executive Committee Member with Mr. Bikash Thapa Radio Annapurna Nepal 94

On 28<sup>th</sup> December, 2015, Mr. Bikash Thapa took interview of Mr. Kushal Gurung on his popular radio program "Jal Sarokar". The discussion was about the potential and challenges of wind power development in Nepal and effects of climate change on hydro sector.

The link of the program is available at:

[www.youtube.com/watch?v=2ApivWegGw&index=17&list=PLI1LTq56W3gHCx0wzoVo6iq9FnmLxttWh](http://www.youtube.com/watch?v=2ApivWegGw&index=17&list=PLI1LTq56W3gHCx0wzoVo6iq9FnmLxttWh)

## Announcement of EDC's first Annual General Meeting

EDC is having its first Annual General Meeting on January 11<sup>th</sup>, 2015 at Babar Mahal Revisited form 2 pm onwards.



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**Energy Development Council**  
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Email: info@edcnepal.org, website: www.edcnepal.org

मिति: २०७२/०९/१२

श्री सम्पूर्ण सदस्यज्यूहरू

विषय : आ.व. २०७१/०७२ को वार्षिक साधारण सभामा प्रतिनिधि पठाई दिने बारे ।

महोदय,

त्यस त्यस कम्पनी/संस्था समेत सदस्य रहेको यस इनर्जी डेभलोपमेन्ट काउन्सिलको संचालक समितिको मिति २०७२/०९/१० वसेको बैठकको निर्णयानुसार यस कम्पनीको प्रथम वार्षिक साधारण सभा (आ.व.२०७१/०७२) निम्न मिति, स्थान र समयमा हुन गई रहेको र उक्त साधारण सभामा निर्णयार्थ निम्न प्रस्तावहरू पेश गरिने व्यहोरा जानकारी गराउँदै त्यस कम्पनी/संस्थाको तर्फबाट यस साधारण सभामा भाग लिन प्रतिनिधि तोकौ पठाई दिनु हुन अनुरोध गर्दछु ।

सभाको मिति, स्थान र समय :  
मिति : २०७२ पौष २७ गते, सोमवार  
स्थान : बबर महल रिभिजिटिड, काठमाण्डौ ।  
समय : दिउसोको २:०० बजे देखि ।

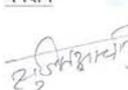
प्रथम साधारण सभामा पेश गरिने प्रस्तावहरू :

१. अध्यक्षबाट कम्पनीको वार्षिक प्रतिवेदन पेश गरी पारित गर्ने ।
२. कम्पनीको आ.व.२०७१/०७२ को वासलात, नाफा नोक्सानी हिसाब खाता तथा नगद प्रवाह विवरण स्वीकृत गर्ने ।
३. आगामी कार्यकालको लागि संचालकहरूको चयन गर्ने ।
४. आ.व.२०७२/०७३ को लागि कम्पनीको लेखापरीक्षकको नियुक्ति र पारिश्रमिक निर्धारण गर्ने ।
५. वार्षिक साधारण सभाको माइन्टमा हस्ताक्षर गर्ने प्रतिनिधिको नियुक्ति गर्ने ।
६. विविध ।

यसै साथ आ.व.२०७१/०७२ को वासलात, नाफा नोक्सानी हिसाब खाता तथा नगद प्रवाह विवरण सहितको आर्थिक प्रतिवेदन संलग्न गरिएको छ । थप जानकारीको कम्पनीको कार्यकारी प्रबन्धक श्री इल्लुमा सुब्बा ( मो.९८६०३६८९६६ ) संग वा कम्पनीको कार्यलयमा सम्पर्क राख्नु हुन समेत अनुरोध गर्दछु ।

सम्पूर्ण सदस्यज्यूहरूको अमूल्य सहभागिताको अपेक्षा सहित ।



**भवदीय**  
  
सुनील आचार्य  
अध्यक्ष  
इनर्जी डेभलोपमेन्ट काउन्सिल

## Announcement from Saral Urja Nepal, an EDC member organization

Saral Urja Nepal initiated Baidi Solar Micro Grid, the Nepal's first pure solar micro grid built with public private partnership.

### This is a project of many firsts.

This is the first time in Nepal that the community, Government and a private company have jointly invested in a long-term rural infrastructure project: it will demonstrate that rural infrastructure projects are sustainable long-term investments.

This is the first time in Nepal that community and a private company jointly own and operate a rural service enterprise: it will demonstrate that such collaboration can deliver essential services to under-served rural communities across Nepal in a sustainable manner.

This is the first time in Nepal that a commercial has lent to a rural infrastructure project on pure asset financing basis: it will demonstrate that such rural projects are bankable.

This is the first time in Nepal that a micro-grid is promoting cleaner, safer kitchens by integrating a low-wattage exhaust fan to rid the room of smoke.

**This is the first time in Nepal that any grid – micro or national- is deploying a low-cost smart-grid metering system:** it will demonstrate smart-technology can enhance the quality of service and ensure sustainability of projects in rural areas.

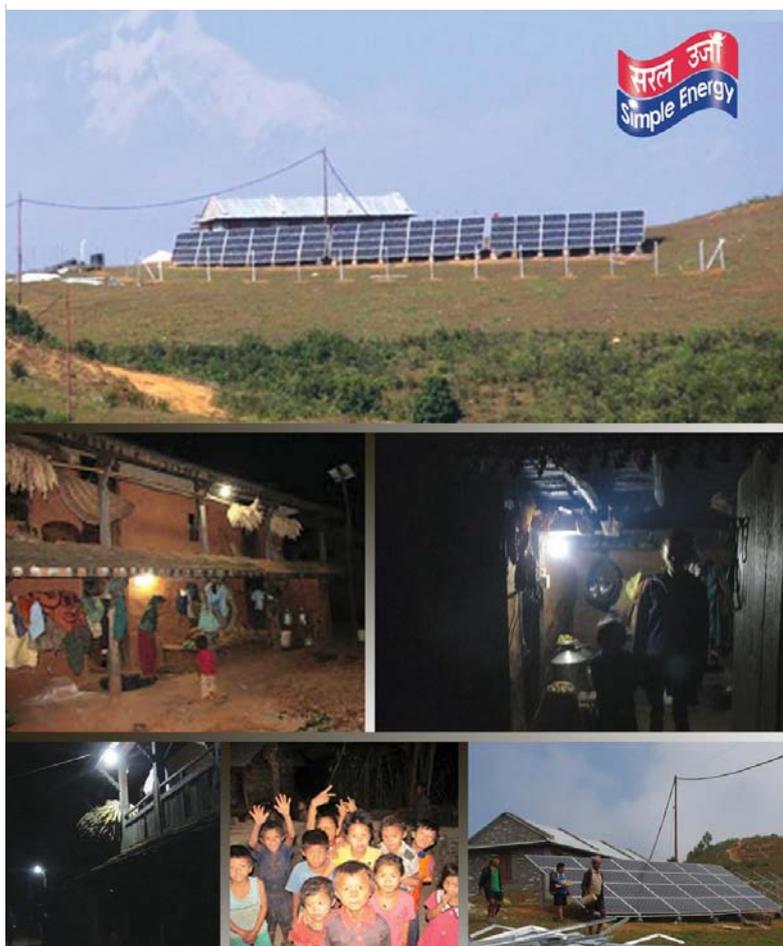
Enabled by the smart-grid metering system, neighbors will be able trade their electricity ration among each other creating the **world's first ever micro-power trading market**

The project is developed under pro-poor public private partnership with support from AEPC and UNESCAP.

The model of the project is Community –private sector partnership. A Special purpose vehicle was formed for investment operation and management.

The main system features are 18 Kw capacity, smart metering system and 3 phase transmission network. The system has powered 150 households and small enterprises with round the clock electricity which is ready to be integrated with the national grid when it arrives.

### NEPAL'S FIRST PREPAID METERING SOLAR MICROGRID OPERATIONAL



## Announcement: China Solar Association honors Mr. Sujit Acharya, Chairperson of EDC for contribution to the solar sector



Chairperson of Energy Development Council, Mr. Sujit Acharya, was recently honored by one of China's leading Solar Associations for his contribution towards the solar energy sector. In a felicitation program held in Shenzhen, China, the Shenzhen Solar Energy Society (SZSES) conferred a certificate and medal of recognition to Mr. Acharya. The SZSES Society is an independent legal personality social group of over 350 membership units of solar energy industry, solar energy researchers, technology engineers and enthusiasts. The organization is dedicated to serve for solar energy enterprises and government to establish a fair, justice and open platform to promote the combination of solar energy science and technology and economy, and to accelerate the integration and popularization of science and technology.

Mr. Acharya is one of Nepal's leading energy sector voices continually advocating for an energy independent Nepal. He has served twice on the board of Nepal Electricity Authority, helped government frame progressive energy sector policies, promoted Nepal's first energy bank and also promoted Nepal's first private sector hydropower project that was completely built by Nepalis.

## Media Coverage

### 19 point suggestions given to Energy Secretary

The Energy Development Council today presented a 19-point suggestion to the energy secretary Suman Prasad Sharma with a view to alleviate the ongoing energy crisis.

A press statement issued here today said they recommended establishing Nepal-China Power Trade Agreement and importing electricity from China at the same or better terms than the PPA concluded via the Dhalkebaar- Muzzafarpur transmission line.

The council has strongly said that the PPA for all hydro power projects should be based only on "Take or Pay".

The press release stated that the current practice in which Nepal Electricity Authority has stopped doing "Take or Pay" has blocked the production of domestically generated electricity and exacerbated the ongoing energy crisis.

Further, the statement said the PPA rate should be increased for all projects achieving Commercial Operation within December 2020 plus there should be annual escalation throughout the full term of PPA.

The council stated that there is immediate need to declare the PPA posted rate for electricity generated from solar, waste and other renewable sources as well as for storage based hydropower projects.

The council also recommended only one integrated Initial Environmental Examination (IEE) to be done for run-off-river and other power projects up to 100 MW.

The Council also suggested that the government mobilise Nepali army for construction of transmission lines. It urged the removal of all 'clearances' except the IEE and asked the government to specifically list the transmission line projects to be handed over to the army in its upcoming Energy Crisis Bill.

The statement also suggested that all forest related approvals should be from the ministerial level only and that the clause of one per cent extra tax (PES) imposed by Ministry of Forest and Land be removed as a gift to the government for leasing land.

With the intention of turning NEA into a profitable entity, the council proposed that the NEA management be outsourced via global competitive bidding with a commitment to generate 2,500 MW.

As per the press statement, Secretary Sharma completely agreed with the council's view that management failure on the part of bureaucrats had led to such a crisis and he would try his best to improve the system to ensure progress of the energy sector.

The statement also recommended that the distribution rate be fixed and the private sector be allowed to sell electricity to its clients. Also, it urged fixing the net metering and Feed-in-Tariff rates for household level power generation.

Sharma said that the suggestions the council had proposed were relevant in the present context and effective measures would surely be taken to remove load shedding.

"For the government to successfully implement the prime minister's objective of removing load shedding within a year, the EDC's 19 point statement has to be immediately implemented," said EDC Chairman Sujit Acharya, in the statement.

(The news was covered in Himalayan Times dated December 7<sup>th</sup>, 2015. Post is available at: [thehimalayan-times.com/kathmandu/19-point-suggestions-given-to-energy-secretary/](http://thehimalayan-times.com/kathmandu/19-point-suggestions-given-to-energy-secretary/)).

## ऊर्जा संकट टार्न ईडीसीको १९ बुँदे सुझाव

ऊर्जा मन्त्रालयका सचिव सुमनप्रसाद शर्माले मुलुकको ऊर्जा विकासका लागि आफूले सक्दो प्रयास गर्ने बताएका छन् । ऊर्जा क्षेत्रको व्यवस्थापनका केही समस्या रहेको उल्लेख गर्दै सचिव शर्माले व्यवस्थापन चुस्त बनाएर विद्यमान ऊर्जा संकट कम गर्न प्रयास गरिने बताए ।

इनर्जी डेभलपमेन्ट काउन्सिल (ईडीसी)ले आइतबार बुझाएको १९ बुँदे जापनपत्र बुझ्दै सचिव शर्माले निजी क्षेत्रको सुझावलाई ऊर्जा संकट योजनामा समावेश गरिने बताए । काउन्सिलका अध्यक्ष सुजीत आचार्यले १ वर्षभित्र ऊर्जा संकट हटाउन आफूले पेस गरेको १९ बुँदे सुझाव लागू हुनुपर्नेमा जोड दिए ।

ईडीसीले नेपाल र चीनबीच विद्युत् व्यापार सम्झौता (पीटीए), आयोजनासित 'लेऊ वा तिर' (टेक अर पे) मा आधारित विद्युत् खरिद सम्झौता (पीपीए), प्रसारणयोग्य (डिस्प्याचेबल) पीपीए बन्द, आगामी सन् २०२० को डिसेम्बरभित्र पूरा भई व्यापारिक उत्पादन सुरु गर्ने सम्पूर्ण आयोजनाको पीपीए दर वृद्धिको व्यवस्था गर्न सुझाएको छ ।

सौर्य, फोहोर र अन्य नवीकरणीय ऊर्जाबाट उत्पादित बिजुलीलाई पोस्टेड रेट घोषणा गर्नुपर्ने, सय मेगावाटसम्मका नदी प्रभावी आयोजनाका लागि वातावरणीय प्रभाव मूल्यांकन गर्नु नपर्ने त्यसको साटो प्रारम्भिक वातावरणीय परीक्षणमात्र गरे पुग्ने र प्रसारण लाइनका लागि पनि सोही एउटै प्रक्रिया पूरा गरे हुने प्रावधान राख्न ईडीसीले सचिव शर्मालाई अनुरोध गरेको छ ।

स्थापित राष्ट्रिय प्रसारणलाइन कम्पनीमार्फत नेपालमा निर्माण हुने सबै प्रकारका प्रसारण लाइन आयोजनासम्बन्धी ठेक्का नेपाली सेनालाई दिने र प्रसारणलाइनमा प्रारम्भिक वातावरणीय परीक्षणबाहेक सबै प्रक्रिया खारेज गरी नेपाली सेनालाई बनाउन दिने आयोजनाहरूको नाम किटान गरी ऊर्जा संकटकाल घोषण गर्न काउन्सिलले सुझाव दिएको छ ।

काउन्सिलले २५ सय मेगावाट उत्पादन गर्ने र विद्युत् प्राधिकरणलाई नाफामा पु-याउने सर्त राखी प्राधिकरणको व्यवस्थापन विश्वव्यापी प्रतिस्पर्धामार्फत नियुक्त गर्न पनि सुझाएको छ । यसैगरी प्राधिकरणलाई नदी प्रवाही र सय मेगावाटभन्दा मुनिका आयोजना निर्माण गर्न नदिने र प्रसारण शुल्क (द्विवलिड चार्ज) तोकी निजी क्षेत्रलाई बिजुली उत्पादन गर्न दिने व्यवस्था गर्नुपर्ने माग गरेको छ । ईडीसीले गार्हस्थ्य विद्युत् उत्पादनका लागि 'नेट मिटरिड' र 'फिड इन टयारिफ' लागू गर्न पनि आग्रह गरेको छ ।

(The news was covered in Karobar Daily dated December 7<sup>th</sup>, 2015. The post is available at: [np.karobardaily.com/2015/12/72194/](http://np.karobardaily.com/2015/12/72194/)).

## EDC Delegation Meets Forest Minister

Nepal's umbrella organization for the entire energy sector, Energy Development Council presented various forest related problems faced during hydropower project development to Forest Minister, Agni Prasad Sapkota.

The Council explained the two main problems hydro developers are facing from the Forest Ministry, which is the Payment for Environmental Services (PES) and land gift to the government.

Sujit Acharya, the chairperson of the Council illustrated that the present energy crisis has put huge pressure on the forest of Nepal and still 82% of the energy use in the country is fuel wood. Hence, to prevent such degradation of forest area, the hydropower sector should be rapidly developed which requires a strong support from Forest Ministry.

The minister opined he was unaware about the issues of PES and land gift that the hydropower sector is facing and said he will take it in serious consideration. "I am positive towards the progress in country's domestic energy development" the Minister said. He further said that he will consult with relevant ministries and stakeholders and resolve the issues as earlier as possible.

A week ago, the council had also forwarded various fiscal problems and suggested policy improvements to the Finance Minister, Bishnu Prasad Poudel.

Most of the hydropower projects are located in the government forest area so without the permission of the Forest Ministry, no such projects can be constructed. The Forest Ministry imposed an ad hoc rule that the hydropower developers should buy an equal portion of land to the government as a "gift". The land should match the same geographical features that their hydro project has taken in lease and then it has to be registered in the name of district forest office.

The chairperson raised the question as to why such land gift has to be given to the government despite having the hydropower project area leased and being paid a yearly lease fee and handing over the whole project back to the government in 30 years.

The Council also informed that it takes more than 2 years to get the permission from Forest Ministry to get approval and in comparison with other countries, the most tiresome and time consuming is in Nepal. Such lengthy process directly conflicts the commitment declared by the Prime Minister, K.P. Sharma Oli in removing loadshedding within one year.

At a time where the government is planning to declare an energy emergency with the suspension of various laws to speed up the development of energy sector, the Council has continually raised the challenges faced by the entire energy sector.

(The news was covered in Spotlight News Magazine and is available at: [www.spotlightnepal.com/News/Article/EDC-Delegation-Meets-Forest-Minister](http://www.spotlightnepal.com/News/Article/EDC-Delegation-Meets-Forest-Minister)).

## जलविद्युत् विकासमा 'वन कार्यविधि' बाधक

बाधा हटाउन सरकार सकारात्मक : वनमन्त्री

निजी जलविद्युत् प्रवर्द्धकहरूले जलविद्युत् क्षेत्रको विकास गर्न 'वन कार्यविधि २०६३' बाधक रहेको बताएका छन् । उक्त कार्यविधिमा वनको संरक्षणका लागि महत्त्वपूर्ण व्यवस्था गरेको भए पनि केही बुँदा भने जलविद्युत् आयोजना निर्माणका लागि प्रत्युत्पादक रहेको उनीहरूको निष्कर्ष छ । बुधवार वन तथा भूसंरक्षणमन्त्री अग्निप्रसाद सापकोटासँगको भेटमा जलविद्युत् प्रवर्द्धकहरूले कार्यविधिमा भएका अवरोधक व्यवस्थाहरूलाई तत्कालै खारेज गर्न माग गरे । इनर्जी डेभलपमेण्ट काउन्सिलको नेतृत्वमा गएको टोलीले उक्त माग गरेको हो । 'जलविद्युत् आयोजनाहरूको हकमा कार्यविधिमा नयाँ व्यवस्था गर्न आवश्यक छ,' काउन्सिलका अध्यक्ष सुजित आचार्यले भने ।

कार्यविधिको चौथो र पाँचौं बुँदालाई विद्युत् उत्पादकहरूले आयोजना निर्माणको बाधक र प्रवर्द्धकलाई निरुत्साहित बनाउने किसिमको रहेको बताए । ती बुँदामा 'जलविद्युत् आयोजनाले ओगट्ने वनक्षेत्रजतिको जग्गाबराबर हुने समान भौगोलिक तथा पारिस्थितिकीय क्षेत्रमा वनक्षेत्रसँग जोडिएको जग्गा सट्टा उपलब्ध गराई जिल्ला वन कार्यालयको नाममा रजिष्ट्रेशन पास गराउनुपर्ने' उल्लेख छ । यो व्यवस्थाअन्तर्गत वन मन्त्रालयले प्रवर्द्धकसँग जग्गा लिनुका साथै सो जग्गामा आयोजनाले ओगटेको वनमा काटिएका रुख सङ्ख्याको दोब्बर वृक्षरोपण गरी ५ वर्षसम्म संरक्षण गरेर सरकारलाई दिनुपर्छ । साथै, सो कार्यविधिले आयोजनाले ओगटेको वनक्षेत्रलाई कबुलियती वन मान्ने र वन नियमावलीले तोकेको दस्तुर तिरी हरेक वर्ष नवीकरण गर्नुपर्ने व्यवस्था गरेको छ । 'यस्तो व्यवस्थाले प्रवर्द्धक दोहोरो मारमा परेका छन्,' काउन्सिलका कानूनी सल्लाहकार लेखनाथ भट्टराईले भने ।

आयोजना निर्माणको बेला काटिएका रुखको दोब्बर सङ्ख्यामा थप रुख रोप्नुपर्ने कुरा उचित भए पनि जग्गा नै खोजेर वृक्षरोपण गर्नुपर्ने व्यवस्था अव्यावहारिक रहेको प्रवर्द्धकहरूको भनाइ छ ।

आयोजना निर्माण क्षेत्रको स्वामित्व प्रवर्द्धकसँग ३५ वर्षसम्म रहने गरी सरकारले 'लिज' (निश्चित समयको लागि भाडा तिरेर भोगाधिकारमात्र रहने)मा दिएको हुन्छ । सोका लागि तोकिएको 'रोयल्टी' तिर्नुपर्छ । 'तर, सरकारी स्वामित्वमा रहने वनक्षेत्रको लागि क्षतिपूर्तिबापत जग्गा दिनुपर्ने, आयोजना क्षेत्रको वन कबुलियती सरह मानी दस्तुर तिर्नुपर्ने व्यवस्था ऊर्जा नीति र वन नीतिबीच रहेको असमानता र असमझदारीका उदाहरण हुन्,' काउन्सिल अध्यक्ष आचार्यले भने ।

विभेद गर्ने प्रावधान खारेज गर्न वा ३५ वर्ष पूरा भएपछि आयोजना सरकारलाई फिर्ता गरेजस्तै खरीद गरेर वन मन्त्रालयलाई दिने जग्गा र हुर्काएर दिइने वन प्रवर्द्धकलाई फिर्ता गर्ने व्यवस्था गरिनुपर्ने प्रवर्द्धकहरूको भनाइ छ ।

त्यस्तै, आयोजनाले ओगट्ने क्षेत्र खुलाई स्वीकृति दिएपछि पनि पुनः वनक्षेत्र उक्त स्वीकृत क्षेत्रमा पर्ने भनेर वन मन्त्रालय मातहतका निकायले रोक्ने गरेका छन् । उनीहरूसँग प्रतिबद्धतासाथ पुनः स्वीकृति लिनुपर्ने अहिलेको व्यवस्था गलत रहेको काउन्सिलका बोर्ड सदस्य मृगेन्द्र भुर्तलले बताए । यसैगरी कानूनी आधारविना नै वातावरणीय सेवावापत भन्दै आयोजनाको खुद मुनाफाको १ प्रतिशत रकम वन मन्त्रालयलाई बुझाइरहनु परेको दुखेसो प्रवर्द्धकहरूले मन्त्रीसँग गरे ।

भेटमा वन तथा भूसंरक्षण मन्त्री अग्निप्रसाद सापकोटाले जलविद्युत् विकासको लागि बाधाको रूपमा रहेको विषयलाई हटाउनको लागि सकारात्मक रहेको बताए । 'विषयको गाम्भीर्यता बुझ्ने, समाधानका लागि अझै छलफल गर्नुपर्ने आवश्यकता महशूस भएको छ,' उनले भने । मन्त्रालयमा पनि यसबारे थप छलफल गरिने मन्त्री सापकोटाले बताए ।

(The news was covered in Aarthik Abhiyan Daily dated December 2<sup>nd</sup>, 2015. The post is available at: <http://www.abhiyan.com.np/new/Articles/view/69886> ).

## Acharya feted

Sujit Acharya, chairperson of Energy Development Council was recently honoured by one of China's leading solar associations for his contribution to the solar energy sector.

He was conferred a certificate and medal of recognition by the Shenzhen Solar Energy Society at a felicitation program held recently in Shenzhen, China.

The SZSES Society is an independent legal personality social group of over 350 membership units of solar energy industry, solar energy researchers, technology engineers and enthusiasts.

Acharya is one of the leading energy sector voices continually advocating an energy independent Nepal. He has served twice on the board of Nepal Electricity Authority, helped the government frame progressive energy sector policies, promoted Nepal's first energy bank and also promoted Nepal's first private sector hydropower project that was completely built by Nepalis.

(The news was covered in Himalayan Times dated December 29<sup>th</sup>, 2015 and is available at: [thehimalayan-times.com/kathmandu/acharya-feted/](http://thehimalayan-times.com/kathmandu/acharya-feted/)).

## EDC forms high-level advisory panel

The Energy Development Council (EDC), the umbrella association of Nepal's energy sector, has formed a high level advisory panel to look into and work on various national-level energy issues in the country.

The panel comprises Surya Nath Upadhyay, Govind Raj Pokharel, Amrit Nakarmi, TN Thakur and Joseph Hoess. Upadhyay is the former chief of the Commission for Investigation of Abuse of Authority (CIAA) and former secretary of Water Resource.

Similarly, Pokharel is former vice-chairperson of the National Planning Commission and Nakarmi is a professor and affiliated with Center for Energy Studies at the Institute of Engineering.

Thakur is former chairperson and managing director of Power Trade Corporation (PTC-India) and Hoess is the director of Dragon Capital Clean Development Limited, a part of the USD 1.4 billion Dragon Capital group that invests in renewable energy projects in Asia.

(The news was covered in Kathmandu Post dated January 2<sup>nd</sup>, 2015. The post is available at: [kathmandu-post.ekantipur.com/news/2016-01-02/edc-forms-high-level-advisory-panel.html](http://kathmandu-post.ekantipur.com/news/2016-01-02/edc-forms-high-level-advisory-panel.html)).

## इनर्जी काउन्सिलमा सल्लाहकार समूह गठन

इनर्जी डेभलपमेन्ट काउन्सिलले उच्चस्तरीय सल्लाहकार समूह गठन गरेको छ । समूहमा विभिन्न क्षेत्रका विशिष्ट विज्ञहरू रहेका छन्।

समूहमा अख्तियार दुरुपयोग अनुसन्धान आयोगका पूर्व प्रमुख आयुक्त एवं पूर्व जलस्रोत सचिव सूर्यनाथ उपाध्याय, राष्ट्रिय योजना आयोगका पूर्व उपाध्यक्ष प्रा .डा. गोविन्दराज पोखरेल, त्रिभुवन विश्व विद्यालय इन्जिनियरिङ अध्ययन संस्थानका प्रा.डा. अमृत नकर्मा र पावर ट्रेडिङ कर्पोरेसन अफ इण्डियाका पूर्व अध्यक्ष तथा प्रबन्ध निर्देशक टी .एन. ठाकुर रहेको काउन्सिलले जनाएको छ।

(The news was covered in Annapurna Post and is available online at: [www.annapurnapost.com/News.aspx/story/24489](http://www.annapurnapost.com/News.aspx/story/24489)).

## Nepal's Energy Scenario Page

### उर्जा संकट विधेयक तयार गर्न सचिवको नेतृत्वमा कार्यदल

उर्जा संकटकाल घोषणा गर्ने तयारी गरिहेको सरकारले त्यससम्बन्धी विधेयक तयार | गर्न सचिवस्तरीय कार्यदल गठन हुने भएको छ ।

उर्जा मन्त्रालयले तयार पारेको कार्यदलसम्बन्धी मस्यौदामा सहसचिवको नेतृत्वमा कार्यदल बनाउने उल्लेख थियो । तर, सहसचिव ने तृत्वको कार्यदलले अन्तर मन्त्रालय समन्वयमा प्रभावकारी काम गर्न नसक्ने निष्कर्ष निकाल्दै सचिव नेतृत्वका कार्यदल बनाउन लागिएको हो ।

कार्यलदको नेतृत्व उर्जा सचिवले गर्ने छन् । हाल सुमन प्रसाद शर्मा उर्जा मन्त्रालयका सचिव छन् । यसअघि उनी अर्थसचिव थिए । कार्यदलमा बन, कानून, भूमिसुधारलगायतका विभिन्न मन्त्रालयका प्रतिनिधि रहने बताइएको छ ।

यसकारले यसअघि पनि २ पटक उर्जा संकटकाल घोषणा गरिसकेको छ । तर , त्यसबेला धियक बिनानै संकटकाल घोषणा गरिएकाले प्रभावकारी काम हुन नसकेको भन्दै यसपटक भने विधेयक तयार पारेर संकटका घोषणा गर्न लागिएको हो ।

प्रधानमन्त्री केपी ओलीले देशबासीका नाममा सम्बोधन गर्दै एक वर्षभित्र लोडसेडिङ अन्त्य गर्ने घोषणा गरेका थिए ।



त्यसैगरी, अर्थमन्त्री विष्णु पौडेलले जारी गरेको नेपाल सरकारी श्वेतपत्रमा उर्जा संकटकाल घोषणा गर्ने उल्लेख थियो । सोही अनुरूप उर्जा मन्त्रालयले उर्जा संकट घोषणा गर्ने तयारीका लागि कार्यदल गठन गर्ने भएको हो ।

यसै साता कार्यदल बन्ने उर्जा मन्त्रालयका एक अधिकारीले बताए । त्यसैगरी उर्जामन्त्री टोपबहादुर रायमाझीले पनि यसैसाता आफ्नो प्रतिवद्धतापत्र सार्वजनिक गर्दैछन् । यतिखेर उर्जा मन्त्रालयका अधिकारीहरू प्रतिवद्धतापत्र र उर्जा संकट निवारण विधेयक तयार पार्न व्यस्त छन् ।

तीन हप्ताभित्र उर्जा संकटकाल घोषणा गर्ने उर्जा मन्त्रालयको योजना छ ।

मन्त्री रायमाझीले ५ वर्षका लागि उर्जा संकटकाल घोषणा गर्ने तयारी गरिरहेको स्रोतहरूको भनाइ छ । उर्जा संकटकाल लगाएर जलविद्युत आयोजनाहरूलाई तीव्र गतिमा अघि बढाउने सरकारी नीति सरकारले लिने भएको छ ।

जसमा सरकारले बुढीगण्डकीलगायतका आयोजनाहरू आफैँ निर्माण गर्ने , निजी क्षेत्र र बैदेशिक लगानीका आयोजनाहरूलाई विशेष सहूलियत प्रदान गर्ने उल्लेख हुनेछ ।

त्यसैगरी, उर्जा क्षेत्रको विकासमा ढिलाइ गर्ने पुराना ऐन कानूनको संसोधनलाई पनि सरकारले विशेष प्राथमिकतामा राखेको छ ।

(The article is derived from Onlinekhabar.com published on December 7<sup>th</sup>, 2015 and is available at: [www.onlinekhabar.com/2015/12/359613/](http://www.onlinekhabar.com/2015/12/359613/))

## Parliament panel seeks to encourage use of eco-friendly vehicles

A meeting of the Parliamentary Environment Protection Committee held at Singha Durbar today issued a seven-point directive to the government to encourage use and operation of eco-friendly vehicles.

Since the proviso of Section 39(2) of the Motor Vehicle and Transport Management Act-1993 bars modification of ordinary vehicles to make them eco-friendly, the Ministry of Physical Infrastructure and Transport has been directed to make necessary revision in the proviso.

“No approval shall be given to change the specifications made by the motor vehicle manufacturing company and modify the vehicle,” reads the proviso. A timely change in the proviso will pave the way for implementation of the government’s new policy to encourage electric vehicles.

The committee has also directed the government to make an amendment to the Environment-Friendly Vehicle and Transport Policy-2014 within three months.

“The MoPIT, Ministry of Industry, Ministry of Population and Environment and Ministry of Finance will encourage operation of emission-free vehicles, import electric two-wheelers and four-wheelers and provide incentives to manufacturers of such vehicles in the country,” said Dr Ravi Sharma Aryal, EPC secretary.

The Council of Ministers has been directed to carry out a detailed study for operation of trolley bus, tram, monorail, cable car, ropeway and railway, which may benefit people throughout the country. It has also issued directives to various ministries and government agencies to encourage use of electric vehicles.

Similarly, the committee has directed the Ministry of Population and Environment to introduce a policy for increasing subsidy on roof-top solar panels in urban areas. It has also urged the National Planning Commission to prioritize construction of ropeway, cable car, trolley bus, monorail and railway in programmes.

(The article is derived from Himalayan Times published on December 27<sup>th</sup>, 2015 and is available online at: [thehimalayan-times.com/kathmandu/parliament-panel-seeks-to-encourage-use-of-eco-friendly-vehicles/](http://thehimalayan-times.com/kathmandu/parliament-panel-seeks-to-encourage-use-of-eco-friendly-vehicles/) )

## More government support needed to promote use of EVs: Stakeholders

Electric vehicles (EVs) have become the talk of the town after fuel supply into the country was disrupted due to border blockade. However, private sector involved in promotion of EVs feels that the government is not doing enough to promote such zero-emission vehicles. Government officials, however, refute the charges, saying that the government was committed to promoting EVs.

Government officials and people involved in EV business held discussions on different issues related to EVs, including legal aspect, at a roundtable organized by Nepal Republic Media on Wednesday.

(As told to Kuvera Chalise, Sujan Dhungana, Sagar Ghimire and Kriti Bhujju)

Allow us to operate throughout the country

*Pramod Bhandari*  
Manager, Agni Energy

If the government really wants to promote electric vehicles (EVs), it must allow us to operate throughout the country without hindrance. We can only register EVs in Bagmati. We are not allowed to sell EVs in cities like Pokhara and Bhairahawa as Department of Transport Management (DoTM) does not register EVs in these cities. Earlier, I had sold Reva cars in Pokhara and Bhairahawa as well. But we had to take the cars back due to problem in ownership transfer. As every citizen has the right to use EVs, the government should take necessary policy decisions accordingly.

To promote EVs, I think the government should allow EVs in heritage sites and Lakeside of Pokhara, for example, after putting a ban on entry of vehicles running on fossil fuel in these places. Similarly, it should bring a policy to use electric taxis at airport. The government should also put hydropower generation in priority and make sure that energy used in the country is produced in Nepali itself. By doing this, the government can ensure that EVs get enough electricity for charging.

EVs are not becoming popular here mainly because of two reasons -- mileage and cost factor. EVs give less mileage compared to diesel or petrol vehicles. To increase mileage, we have to use high power batteries. But it will increase cost as we have to pay 10 percent excise duty on battery. If we get rebate on customs duty and excise duty on batteries and spare parts, we can assemble EVs in Nepal.

We have been working to promote EVs in Nepal since 2001. I urge the government to replace 'safa tempo' by 'electric vehicles' in its policies and regulations as such documents ensure facilities only to 'safa tempo'

*Devi Prasad Bhandari*  
Ministry of Science, Technology and Environment (MoSTE)

In a bid to support and promote electric vehicles, Ministry of Science, Technology and Environment (MoSTE) arranged soft loan from the Danish government in 2000 to buy 48 EVs and build two charging stations. This support was a part of our clean transportation initiatives and it was expected to encourage people to shift to EVs. Unfortunately, it didn't happen because of various reasons. One of the reasons, according to the stakeholders, is the lack of sufficient electricity to charge EVs. People, who bought EVs in 2000 under soft loans, expressed inability to pay loan amount citing various reasons. To help them, we waived off interest accumulated since 2003.

The government as well as general public has realized the importance of EVs because of the ongoing blockade. To promote electric vehicles, our ministry on November 25 tabled a proposal in the cabinet to heavily reduce taxes on import of electric vehicles including the excise duty and customs duty. The proposal is awaiting decision from the cabinet.

Promoting electric vehicles and protecting environment are our major responsibilities. We are keeping these two issues in our priority. Similarly, there is a provision for tax waiver on import of battery used in electric vehicles on the recommendations of MoSTE. Meanwhile, we have also been urging the private sector for proper disposal of used batteries as they are hazardous waste.

*Nabin Pokharel*

*Department of Transport Management*

The department has been providing permits to automobiles, including EVs, based on various standards including emission, TA and CAP. We introduced Environment-friendly Vehicles and Transport Policy in 2014. Now, stakeholders should come forward and help the government for implementation of this policy. I have not seen that happen.

The policy envisions increasing share of EVs to 20 percent of total vehicles by 2020. Similarly, the policy says the government will provide land to build charging stations, provide customs wavier facilities, and help in conversion of vehicles running on fossil fuel to EVs. We have already made three committees for implementation of the policy. Unfortunately, they failed to work as per our expectations.

The department is committed to provide route permit to EVs. Except e-rickshaw, we have not withheld permit of any EV. There are some problems with e-rickshaws. There was some problem in Chitwan around two months ago when the local administration decided to replace manual rickshaws with electronic rickshaws. But our law says drivers of electric rickshaws should have driving license issued by transport management offices. But many rickshaw drivers do not have license. Similarly, only authorized dealers are allowed to import and sell electric rickshaws. These problems have to be addressed first.

Though emission test and standards are not required for EVs, we have to regulate these vehicles due to safety reasons. We have drafted a working procedure for that. I would like to make it clear that our department has not withheld permission or import of EVs.

I think it is high time private sector body like Nepal Automobile Dealers Association (NADA) and other stakeholders worked to promote use of EVs.

*Umesh Shrestha*

*President, Electric Vehicles' Association of Nepal (EVAN)*

The major problem is that the government does not have long-term vision for the development of transportation sector. I think the government should encourage use of EVs for both private and public use. Similarly, it should, at least, adopt hybrid retrofitting system for big public buses. The technology to convert diesel or petrol vehicles into electric has already come to Nepal. But nothing has been done to promote this technology. Though the government has announced to convert 25 percent of vehicles running on fossil fuel into electric vehicles by 2020, nothing has been done in this direction so far.

Officials of both MoPIT and MoSTE all reluctant to address demand of traders involved in EV business. For example, we had applied for route permits for electrical tempos and micro buses four months ago. But we are yet to receive route permits.

I think the need of the hour is to calculate financial and environmental benefit of EVs in domestic transportation sector and take appropriate decisions accordingly. The government should not put EVs and vehicles running on fossil fuel in the same basket. It should not clamp similar customs duty on spare parts of EVs and vehicles consuming fossil fuel.

If the government wants to promote EVs, it should immediately reduce 10 percent customs duty imposed on batteries used by EVs. EV industry will collapse by 2020 if needful policy decisions are not taken now.

*Bharat Poudel*

*Managing Director, Clean Energy Nepal*

We all know that Nepal is using billions of rupees annually to import fossil fuel and vehicles. Data of Fiscal Year 2014/15 shows that the country imported vehicles worth Rs 49 billion and petroleum products worth Rs 112 million. Some people are against promoting EVs because they think EVs consume more electricity. This is not true. We have around 4,000 electric rickshaws, 200 electric cars, 700 tempos and 2,000 bicycles running in the market. These vehicles consume only around 4 MW of electricity annually. As per our calculation, only 400 MW of electricity would be consumed if all two million vehicles running in the country were to consume electricity. In monetary terms, it is much lower than fossil fuel consumed in the transportation sector.

Government policies are flawed and they do not promote EVs. The government does not impose any tax on import of electric rickshaws, but levies 55 percent tax on its spare parts. Such policies won't help in the growth of EV industry.

Shankar Prasad Pokharel  
President, Safa Tempo Charging Station Association

Though we are working hard to promote EVs, traffic police asks 'safa tempos' to undergo pollution test. They ask 'safa tempo' drivers to show green sticker and exhaust pipe. Traffic police personnel either do not know 'safa tempo' is a green vehicle or are unwilling to recognize it as a green vehicle. It is very difficult to get route permits for EVs. We had applied to Department of Transport Management (DoTM) for route permits long ago. We are yet to get permits.

The government's decision of introduce micro bus for public transport had threatened the existence of safa tempos. Though things have changed a bit, many people still prefer micro buses over tempos. However, the ongoing fuel crisis has made public realize the importance of EVs. But I am sure people will switch to micro buses once fuel availability becomes normal.

Two truckloads of batteries needed for 'safa tempos' are stuck at Kolkata because of border disruptions. We got approval for re-routing only after lobbying for about a month. If these batteries do not reach Kathmandu in time, it will affect operation of 'safe tempos'.

The government should also support us to import lithium-ion batteries instead of lead-acid batteries by providing rebate on customs duty and excise duty.

Achyut Shiwakoti  
Department of Customs

Department of Customs has not stopped import of any electric vehicles. Though transport ministry had written to us to bar import of e-rickshaw some time ago, it has already been lifted now. EVs were getting incentives and tax waivers even before the ongoing crisis began. Firms assembling electric vehicles do not need to pay customs duty on import of the chassis, battery, motor, engine and charger. Safa tempos are also getting tax benefit. Some are saying that even the 10 percent customs duty imposed on batteries used in EVs is high. Batteries imported for EVs are already cheaper compared to those imported for other purpose.

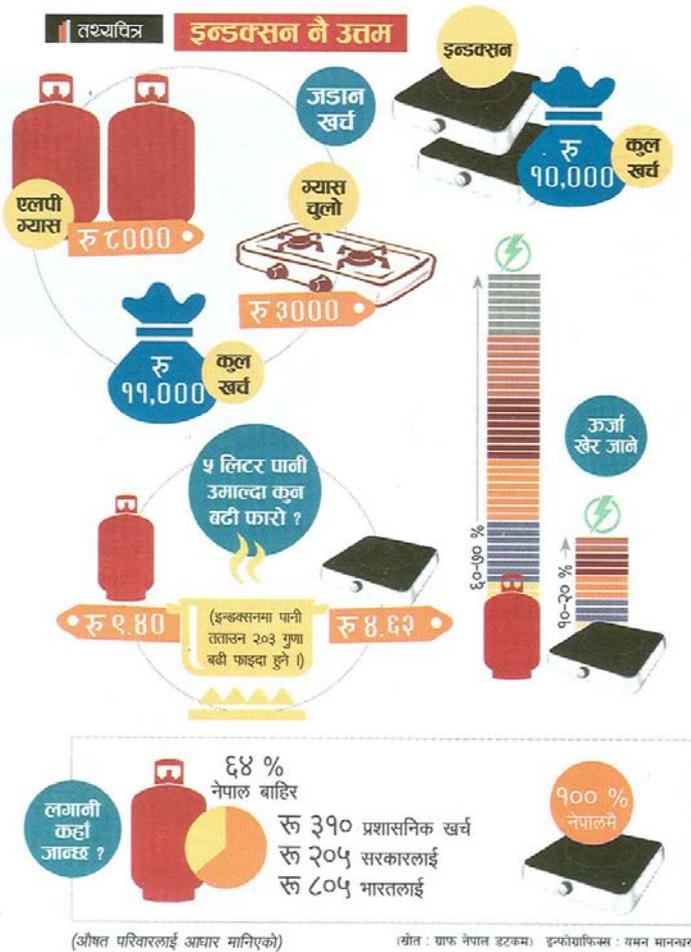
Ganga Bahadur Thapa  
Chairman, National Economic Concern Society (NECS), Nepal

We have been advocating for promotion of EVs since long as it helps to bring fuel import bill down. Over dependency on petroleum products is making our economy weak as major chunk of export earning goes to finance fuel imports. It is high time we explored options to bring consumption of fossil fuel down. We can do that by promoting EVs. We have been asking the government to develop electricity-based transport system in urban area to minimize air pollution.

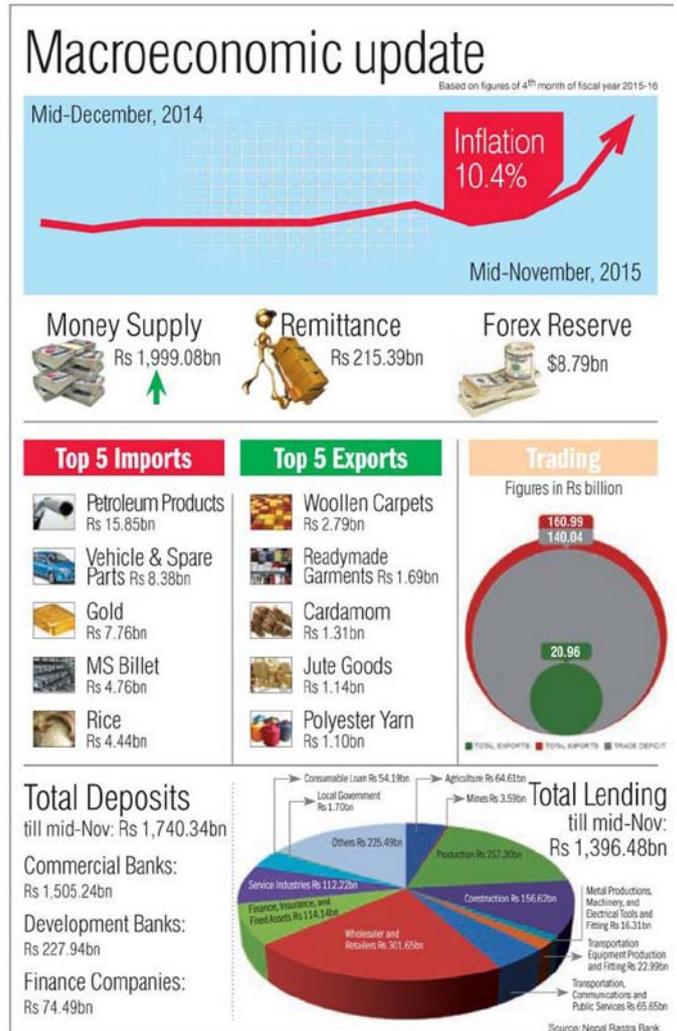
Though the government has brought Vehicle and Transport Policy 2014 to encourage traders involved in business of EVs, it has failed to implement the policy. Instead of implementing the policy, stakeholders are involved in blame game. We have found that Ministry of Physical Infrastructure and Transport (MoPIT) itself is not interested to implement the policy. The ministry had assured us last year that it would form a committee to implement this policy. But the committee has yet to be formed. Not only MoPIT, senior officials of Ministry of Science Technology and Environment (MoSTE) are also reluctant to implement the policy and encourage EVs. We have heard that the government is limiting taxes on EVs to 10 percent. I don't think the government will take decision to this effect very soon.

(The article is derived from My Republica published on December 9<sup>th</sup>, 2015 and is available online at: <http://myrepublica.com/economy/story/32571/more-govt-support-needed-to-promote-use-of-evs-stakeholders.html> )

# Energy Figures



The figure 1 shows the cost comparison between Cooking Gas & Induction Stove



The figure 2 shows petroleum products is the top imports of Nepal

## Guest Corner

### Here's how much of the world would need to be covered in solar panels to power Earth

By Rebecca Harrington, Tech Insider

Solar energy is a seriously underrated resource.

More power from the sun hits the Earth in a single hour than humanity uses in an entire year, yet solar only provided 0.0039% of the energy used in the US last year.

Visionaries like Elon Musk think that solar will become the biggest energy source by 2031, according to an interview with Tim Urban on Wait But Why.

But what would a world powered by solar look like?

The Earth would probably be littered with solar panels, right?

Wrong.

If solar is 20% efficient (as it has been in lab tests) at turning solar energy into power, we'd only need to cover a land area about the size of Spain to power the entire Earth renewably in 2030.



Chris Carlson/AP

**This solar farm is a good start.**

This map, from the Land Art Generator Initiative, shows just how little space that really is:

## SURFACE AREA REQUIRED TO POWER THE WORLD WITH ZERO CARBON EMISSIONS AND WITH SOLAR ALONE

→ [www.landartgenerator.org](http://www.landartgenerator.org)



And while it's useful in the map to show the solar installations as a square bunched together, this area could actually be spread over more space, with solar panels tucked away on rooftops and spread across deserts.

To figure this out, the folks at Land Art Generator did the following math:

The US Energy Information Administration's estimation of global energy consumption by 2030 is 678 quadrillion Btu = 198,721,800,000,000 kilowatt-hours (simple conversion) divided by 400 kilowatt-hours of solar-energy production per square meter of land (based on 20% efficiency, 70% sunshine days per year and the fact that 1,000 watts of solar energy strikes each square meter of land on Earth) = 496,805 square kilometers of solar panels (191,817 square miles)

Remember, that's if we only relied on solar — no fossil fuels like oil, coal, or natural gas. Now we just have to work on making that happen.

(The article is derived from Business Insider published on October 1<sup>st</sup>, 2015 and is available at: [www.businessinsider.com/map-shows-solar-panels-to-power-the-earth-2015-9](http://www.businessinsider.com/map-shows-solar-panels-to-power-the-earth-2015-9)).

## India to spend \$753 million on rooftop solar power through 2021

By Mayank Bhardwaj

India has earmarked 50 billion rupees (\$753 million) to pay for the installation of rooftop solar panels over the next five years that will generate up to 4,200 megawatts of power, the government said on Wednesday.

Prime Minister Narendra Modi's cabinet increased the funding from an earlier 6 billion rupees to encourage households, government bodies, hospitals and educational institutions to install the rooftop solar panels.

Private firms cannot claim the subsidy.

The government has set a target of generating 100,000 MW of electricity from solar panels by 2022 to overcome an acute power shortage.



Separately, Modi's cabinet backed a civil nuclear deal that India and Australia ratified this year to bolster nuclear power generation in the south Asian nation, according to statements issued afterwards.

The ministers also approved an agreement between India and the Maldives to curb tax evasion by preventing illicit funds being stashed outside the country. Such funds are often hidden abroad to avoid local taxes.

The cabinet also gave its nod to a proposal to float joint venture companies between the federal railways and state governments to beef up India's decrepit rail network. (\$1 = 66.40 rupees)

(This article is derived from NEW DELHI (Reuters) published on December 30<sup>th</sup>, 2015 and is available at: [in.mobile.reuters.com/article/idINKBN0UD0VI20151230?irpc=932](http://in.mobile.reuters.com/article/idINKBN0UD0VI20151230?irpc=932)).

## Welcoming new EDC member



Dudhkoshi Power Company Pvt. Ltd. was established in 2062 V.S. (2006 AD) with the singular purpose of developing a hydropower project in Rawa Khola of Khotang district. This company is legally registered on 5 April, 2006 (2062-Chaitra 23) as per the erstwhile Private /Public Company Ordinance, 2062. Later on is regulated under the Company Act, 2063.

The Rawa Khola Hydropower Project (6.5MW) of its first venture was registered in the Depart of Industry in Jan 4, 2013 (2069, Poush 20) The crucial and landmark task of any hydropower project, that is, power purchase agreement (PPA) was done with NEA in Jan 10, 2013 (2069 Poush 26). And finally, the company received its Construction License for Generation on the 11th of Feb, 2014 (Magh 28, 2070). The company has authorized and issued capital of NRs. 360 millions

## List of EDC members

S. No.	Name of the Organization	Organization logo
1.	Nepal Electricity Authority	
2.	Alternative Energy Promotion Center	
3.	Chilime Hydropower Company Ltd.	
4.	Madhya Bhotekoshi Jalvidyut Company Ltd.	
5.	Rasuwagadhi Hydropower Company Ltd.	
6.	Sanjen Jalavidhyut Co. Ltd.	

S. No.	Name of the Organization	Organization logo
7.	Butwal Power Company Ltd.	
8.	Hydroelectricity Investment and Development Company Ltd.	
9.	IDS Energy Pvt. Ltd.	
10.	Arun Valley Hydropower Development Co. Ltd	
11.	Dantakali Hydropower Pvt. Ltd.	
12.	Reliable Hydropower Pvt. Ltd.	
13.	Himalayan Infrastructure Fund	
14.	Sanvi Energy Pvt. Ltd.	
15.	Dibyashwari Hydropower Ltd.	
16.	Shiva Shree Hydropower Co. Ltd	
17.	Chhyandi Hydropower Ltd	
18.	Saral Urja Nepal	
19.	Rara Hydropower Development Co. P. Ltd	

S. No	Name of the Organization	Organization logo
20.	Wind Power Nepal	
21.	Gham Power Pvt. Ltd.	
22.	Lotus Energy Pvt. Ltd.	
23.	Sun Farmer Nepal Pvt. Ltd	

S. No.	Name of the Organization	Organization logo
24.	CEDB Hydro Fund	
25.	Nabil Bank Limited	
26.	NMB Bank Limited	
27.	Global IME Bank Limited	
28.	Prime Commercial Bank Ltd.	
29.	Century Bank Limited	

S. No	Name of the Organization	Organization logo
30.	Transweld Pvt. Ltd.	
31.	TSN Energy Pvt. Ltd.	
32.	Waiba Infratech Pvt. Ltd.	
33.	North Hydro & Engineering Pvt. Ltd	
34.	Nepal Hydro & Electric Ltd.	

S.No.	Name of the Organization	Organization logo
35.	Nepal Hydropower Association	
36.	National Association of Community Electricity Users Nepal	
37.	Dudhkoshi Power Pvt. Co. Ltd	



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