A NEWSLETTER BY

Hydro Solutions

empowering hydropower

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"Political mayhem is constricting FDI in hydro projects"

ER. GYANENDRA LAL PRADHAN
EXECUTIVE CHAIRMAN

The current power requirement of Nepal hovers at around 1,350MW at peak hours; the total power generation is at around 850MW, and we import around 400MW from India. If Nepal Electricity Authority distributes two million LED bulbs to its four million customers as planned, it will save around 100MW of power. Saving 100 MW of power is the same as generating 100MW of power which will take a minimum of 10 years.

1200MW of power will be added to the national grid within the next three years, but after that we don't have many projects.Tamakoshi with 456MW will produce power within 18 months and it will be a huge relief. Chilime with 271MW will be ready within two and a half years, and the private sector will contribute 400MW within the same time, so we are in a comfort zone for right now. But we have to start new projects very soon if we are to avoid power shortage in the future. We are falling far behind in initiating hydropower projects of higher capacity.

People say that Nepal has opportunities in every sector. This is a wrong notion. We don't. No country in the world does. We have limited resources to work on. Some countries have only one or two resources, like the Gulf countries have only oil, but we have more than that. We have possibilities in a few sectors. We should identify those sectors, and focus on our strengths, not on our weakness.

There are two types of countries in the world, one that do not need any assistance from other countries and have their own capital to work with like USA or Japan. And then there are countries like ours, with limited capital, and thus there is need of FDI. FDI is essential for Nepal; it is indispensable for rapid growth and development. We need more FDI in sectors like hydropower. We should learn from countries like Bhutan and Pakistan. Pakistan recently fixed a FDI deal with China worth 26 billion dollars for hydropower development. We need that kind of FDI to develop our hydropower sector .

Nepali businessmen are deterred from investing in hydropower owing to reasons like not enough return on investment, conflicting and inflexible rules and regulations, and unhelpful bureaucracy. "The government only wants to trouble entrepreneurs. Political stability isn't there and every new minister brings new hydropower policies. All of this has contributed to the sector not being investor friendly.

INSIDE

HSL's Corporate Social Responsibility(CSR)

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MANAGEMENT QUOTES

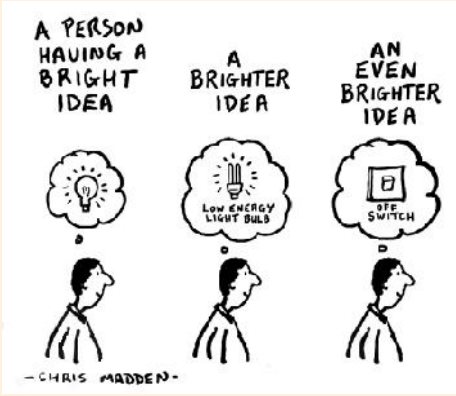
"Hire people who are better than you are, then leave them to get on with it. Look for people who will aim for the remarkable, who will not settle for the routine."

– DAVID OGILVY

"Surround yourself with the best people you can find, delegate authority, and don't interfere as long as the policy you've decided upon is being carried out."

– RONALD REAGAN

EDTOON



Corporate Social Responsibility(CSR)

Our CSR mission is to maximize our positive influences and minimize negative effects on all of the communities within which we live, work and serve.

Inaugration of BIHM in Pithauli - a Joint effort to encourage value added tourism- HSL's CSR Initiative.

Pusparaj Acharya, President of SEJON Society of Economic Journalists Nepal

Dhruba Pradhan, President of the Managing Committee of Bandipur Campus

Hanovering a Donation to Matatirtha Oldage Home Committee

Hydro Solutions Organizes Blood Donation Programme, Chaitra 03, 2073 (Thursday) - March 16, 2017

GENERAL UPDATES

> "Water is fluid, soft, and yielding. But water will wear away rock, which is rigid and cannot yield. As a rule, whatever is fluid, soft, and yielding will overcome whatever is rigid and hard. This is another paradox: what is soft is strong."
>
> - Lao-Tzu (600 B.C.)

> "When you put your hand in a flowing stream, you touch the last that has gone before and the first of what is still to come."
>
> - Leonardo da Vinci

JV CE Construction & Hydro Solutions



Situated in Thaiba, South in the Phulchoki foothills and surrounded by lush greenery, Scenic Housing commands breathtaking panoramic views of Kathmandu Valley and The Himalayas beyond it. Pabitra Awas is built for serene and elegant Living. It holds the surrounding of charming Hattiban Forest view and elites residential society. Its aesthetic architecture is seismic considered and carefully designed to offer you a perfect Home.lites colony is a blend of a crown class living experience with a serene locale. It is situated merely 200 meters from Ring Road offering hassle-free connectivity across the city. Consisting of 17 stylish bungalows; Elites Colony is a new definition of safety and quietness that offers multi-dimensional satisfaction with luxurious lifestyle.


Construction work at Scenic Housing starts

Hydro Excellence Award 2017 Kulman Ghising

Hydro Excellence Award 2017 to NEA Md Kulman Ghising, given by Nepal German Chamber Of Commerce NGCCI.Sponsored by Hydro Solutions.

GENERAL UPDATES

HSL Awarding CACCI Hydropower & Clean Energy Excellence Award 2015

HSL Awarding " CACCI Hydropower & Clean Energy Excellence Award 2015 " to ENSA Power P.Ltd., Srilanka at 29th Annual Conference, Hongkong, October 29-30, 2015.

Modi Hydro 20 MW in Tunnel section 1 Break Through

Modi Hydropower 20MW Tunnel section 1 Break Through successful breakthrough of HRT (between inlet and Adit-1 U/S) on date 16th January 2017 even though 18m tunnel length passes through alluvial deposit and remaining all most all part of tunnel alignment passes through extremely poor ground conditions(seepage up to 40lps and huge overbreak and squeezing in many tunnel sections)

Kodak Moment
Er. Gyanendra Lal Pradhan

US Embassy Mr. Richar L Kauffman Chairman of Energy and Finance in NEW YORK State meeting Treasurer Gyanendra Lal Pradhan, Sakuntalal Hirachan at Federation of Nepalese Chambers of Commerce and Industry (FNCCI)

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"Rest is not idleness, and to lie sometimes on the grass under trees on a summer's day, listening to the murmur of the water, or watching the clouds float across the sky, is by no means a waste of time."

- John Lubbock

"It is said by the Eldar that in water there lives yet the echo of the Music of the Ainur more than in any substance that is in this Earth; and many of the Children of Ilúvatar hearken still unsated to the voices of the Sea, and yet know not for what they listen."

- J.R.R. Tolkien

KODAK MOMENTS

Nepal Austria business forum 2017 With Commerce & Industry Secretary Identifying Hydropower,Cable car & Tourism as potential areas for the cooperation.

Nepal Austria business forum 2017 With Commerce & Industry Secretary Identifying Hydropower,Cable car & Tourism as potential areas for the cooperation.

Kathmandu University Board Meeting & 23rd Convocation Congratulations to 1189 Medical Doctors !!!

With H.E. Matthias Meyer, German ambassador in solar panel distribution program. Dhulikhel with NGCCI members.

KODAK MOMENTS

Chairman-Asian Council on Water, Energy & Environment Sydney, Australia

FNCCI delegates with Rt. Hon'ble Bidya Bhandari - India visit

BBIN - Indo Asia connectivity, Kolkotta

Bangladesh to invest $1.0b in Bhutan hydropower

Bangladesh is weighing a deal with Bhutan to invest around US$1.0 billion in hydropower in the landlocked country to re-import the electricity, officials said. It's part of a regional power trade.The International Finance Corporation (IFC), an enterprise of the World Bank Group, has already assured the government of financing regional power trade involving Bangladesh, India, Nepal and Bhutan. The Power Division under the Ministry of Power, Energy and Mineral Resources (MPEMR) is currently examining the memorandum of understanding (MoU) with Bhutan. "We are now working on the draft of the MoU

ent by Bhutan," a senior Power Division official told the FE Sunday. The final draft would be sent back to Bhutan after necessary changes before inking the proposed deal, he said. Once the MoU is inked, the two governments could start work on specific agenda to expedite import of electricity from the hydropower-rich Himalayan country, said the official.Bangladesh has already completed preliminary talks with Bhutan as well as neighbouring India to facilitate import of hydroelectricity crossing over Indian territories.Currently.

India has electricity connectivity with Bhutan. India has invested in hydropower project in Bhutan before importing electricity. Bangladesh is set to follow suit, said an official.A joint working group comprising officials of Bangladesh, India and Bhutan earlier had decided to prepare a framework for hydroelectric joint ventures in Bhutan. Bhutanese Economic Minister Lyonpo Norbu Wangchuk already visited high-voltage direct current (HVDC) back-to-back station of the state-owned Power Grid Company of Bangladesh Ltd (PGCB) at Bheramara in Kushtia last October to see the electricity-import infrastructure in Bangladesh. Currently Bangladesh imports around 500 megawatts (MW) of electricity from India.

Import of another amount of 100MW electricity from India's Tripura state may start in March. Bangladesh has also targeted to import more electricity from India after upgrading the existing grid capacity, said a senior official of the PGCB. Before initiating electricity import, Bangladesh had inked a similar MoU with India on power-sector cooperation. The government has opted for electricity import from neighbouring countries to diversify the country's energy sources and enhance the overall electricity-generation capacity to 20,000 MWs by 2021 and to 40,000 MWs by 2030 under a master plan. Bangladesh currently has a lone hydropower plant at Kaptai in the hill district of Rangamati, which was commissioned way back in 1962 with an installed capacity of 230 megawatts.

Bangladesh to Get 250 MW Low-Cost Power from India

Bangladesh is hopeful to import low cost electricity from Indian open market as a leading power provider has agree to supply the power at reduced price, said sources in power division.

"We are expecting to import about 250MW of electricity from India at reduced tariff as the leading Indian power provider, Power Trading Corporation of India (PTC), has agreed to supply the power in next six months," said Power Division Secretary Dr Ahmad Kaikaus after negotiation with PTC.

He expected that the government will able to reduce the tariff rate further after evaluation of bidding for long term import of power from Indian open market. According to officials, the new power import rate is set US$0.0749 which currently stands at $0.0759.

BPDB is now evaluating the tender for import the electricity under long term period.

To avail the opportunity of importing electricity from Indian open market, the government will have to extend the power purchase agreement (PPA) for another six months as the agreement expires this month.

A special committee led by power secretary Dr Ahmad Kaikaus recently took the decision to import 250MW power from Indian open Market for another six months. The power division will present the tariff before the cabinet committee on public purchase for approval immediately, said officials concerned.

Dhaka to Propose Tokyo to Set Up 150MW Power Plant

The government is likely to propose Japan for setting up a medium-scale power plant having the capacity to generate 100MW-150MW of electricity, said officials in the ministry.

The project will be implemented on government to government basis and set up at the existing site of Haripur power project. Installed in 1987, the Haripur power plant has already completed its economic life, BPDB officials said.

According to sources, the Bangladesh Power Development Board (BPDB) has already sent a proposal to the Power Division for setting up the plant under Japanese fund.

At present, only two units of Haripur Power Plant, out of its three units, is producing merely 20MW of electricity each as against their installed capacity of generating some 32MW of electricity.

The plant meets electricity demand during hot summer period, official said, adding, a unit of the plant has already gone retirement.

"We have planned to retire the other two units of the plant so the government can install a new 150MW plant to replace the existing one," said an official.

Bangladesh Proposes to Build Hydropower Plants in Nepal

Bangladesh has proposed to build hydroelectric projects in Nepal to expand its power options after spending $1 billion to build electricity plants in Bhutan.

"In order to meet growing demand, we are importing 640 MW from India and thinking of installing nuclear plants," Bangladeshi Ambassador to Nepal Mashfee Binte Shams said recently.

"We consider Nepal a big market that can fulfill our energy demand", he added.

Over a year ago, the Nepal government submitted a list of seven possible projects after Bangladesh sent a proposal to invest in Nepal's hydropower sector.

However, no progress has been made since then.

Hydropower construction in Ethiopia

GRAND ETHIOPIAN RENAISSANCE DAM, 7TH LARGEST DAM IN THE WORLD

Source of River: Blue Nile River

Installed Capacity 6,450 MW.

Head: 155 m,

Began: April 2011, More than 70% construction completed.

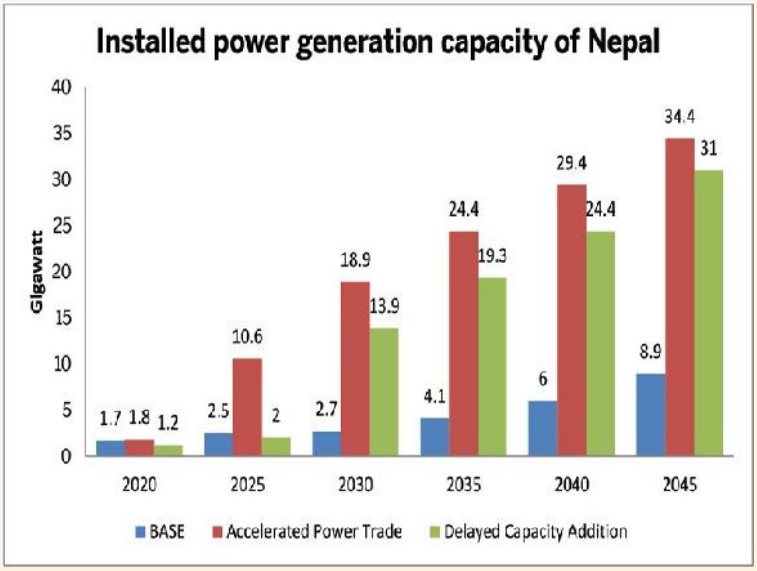
Nepal can earn Rs1 trillion a year by selling power

Jan 20, 2017-Nepal can generate revenue of up to Rs310 billion per year in 2030 and as high as Rs1,069 billion per year in 2045 if the country is able to sell electricity to India by harnessing its hydropower potential.Nepal stands to generates these earnings provided the country starts exporting 13 gigawatts of electricity to India by 2030 and double this capacity by 2045, says the report titled 'Economic Benefits from Nepal-India Electricity Trade' released on Thursday.To harness electricity of this quantum, Nepal needs to invest up to Rs2,596 billion in between 2012 and 2030 and another Rs2,216 billion in between 2031 and 2045, says the report.Investment in hydroelectric projects for cross-border power trade will not only benefit Nepal, but India as well- although it expects to have a large presence of solar PV, as it has already embraced renewable policy. "The electricity imported from Nepal will help to meet the evening peak demand when solar plants cannot generate electricity. This will also help India to replace thermal power generation based on coal with clean energy, which will not only cut down India's carbon emissions, but global emissions as well," says the report prepared by India-based Integrated Research and Action for Development under the South Asian Regional Initiative for Energy Integration Programme of the US Agency for International Development.

The study assesses potential power trade and the price of tradable electricity in between 2012 and 2050 consistent with the country's macroeconomic framework. It also quantifies and analyses socioeconomic benefits of cross-border electricity trade arising from investment, export revenue and reduced electricity price between Nepal and India. "Investment in hydroelectric projects and export revenue contribute to higher gross domestic product," says the report. This, in turn, will lead to higher per capita electricity consumption. Nepal's per capita electricity consumption stood at a low of 139 units per year in 2012, as against South Asian average of over 600 units and global average of around 2,800 units.

Per capita electricity consumption correlates well with the country's social well-being as measured by the UN Human Development Index (HDI), says the report. An HDI of 0.8 or higher corresponds to consumption of almost 3,000 units of electricity per capita.

Nepal's per capita electricity consumption is expected to rise to as high as 1,500 units by 2045 if the country is able to draw adequate investment to build hydroelectric projects with installed



capacity of around 34 GW, the report adds.Nepal, home to around 6,000 rivers, rivulets and tributaries, has the potential to generate over 40 GW of electricity through hydro plants. But as of now, the country's installed capacity stands at less than 1,000 MW, whereas peak demand stood at around 1,385 MW in the last fiscal year, shows the Economic Survey 2015-16.

There is a big gap in demand and supply of electricity because Nepal has not been able to build relatively bigger hydropower plants since 70MW Middle Marsyangdi Hydroelectric Project, located in Lamjung, came into operation in 2008.
Nepal has now set an ambitious target of generating 10 GW of electricity through hydro resources in the next 10 years, which, many say, is achievable. "Power shortage is the biggest binding constraint to Nepal's economic growth. If we can generate more electricity, we could revive the manufacturing sector. This could absorb youths who want to move away from subsistence agriculture, reducing outflow of workers to various labour destinations," Swarnim Wagle, member of the National Planning Commission told the programme held to launch the report.

Construction cost of hydro projects up with dollar strength

Hydropower developers are nervously wringing their hands as the appreciation of the US dollar has raised the cost of building their projects.

"The cost of developing hydropower projects being developed by Nepal Electricity Authority (NEA) and independent power producers (IPPs) has gone up significantly along with strengthening of the greenback as the cost of equipment has surged," said Kul Man Ghising, managing director of NEA, explaining the rise in the construction cost of the projects.

Apart from the inadvertent rise in construction cost, NEA is also having to shell out more money to buy electricity from the projects with which it has inked dollar-denominated power purchase agreements (PPAs).

Such hydropower projects include Bhotekoshi and Khimti. NEA pays 5.9 cents per unit to the two hydropower projects.

The 10 hydropower projects being constructed by NEA's subsidiary companies at present will generate 1,017 megawatts of electricity and the 107 projects being developed by IPPs will generate 2,356 megawatts of electricity.
Likewise, NEA will start construction of hydropower projects with total installed capacity of 2,920MW of electricity and the IPPs will develop projects with installed capacity of 1,658MW within this year.

"Based on our rough estimate, the construction cost of a hydropower project has already gone up by 20 per cent when compared to the beginning of the year due to the devaluation of the Nepali rupee," said Shailendra Guragain, president of Independent Power Producers' Association – Nepal (IPPAN).

According to Guragain, the government should take the difficulty being faced by the power producers into consideration and provide some subsidies. "We are in double trouble as the banks and financial institutions have also hiked theinterest rates on loans," he said.

The Nepali rupee has weakened by over 13 per cent since the beginning of this year, as per the exchange rate of Nepal Rastra Bank. "The developers usually ink PPA with NEA with 10 per cent margin," said Guragain, adding the current depreciation of the Nepali rupee has already mounted the loss for hydropower companies.

Pakistan stops bid to include Diamer-Bhasha Dam in CPEC

Investment in hydroelectric projects for cross-border power trade will not only benefit Nepal, but India as well-although it expects to have a large presence of solar PV, as it has already embraced renewable policy. "The electricity imported from Nepal will help to meet the evening peak demand when solar plants cannot generate electricity. This will also help India to replace thermal power generation based on coal with clean energy, which will not only cut down India's carbon emissions, but global emissions as well," says the report prepared by India-based Integrated Research and Action for Development under the South Asian Regional Initiative for Energy Integration Programme of the US Agency for International Development.

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Nepal's per capita electricity consumption is expected to rise to as high as 1,500 units by 2045 if the country is able to draw adequate investment to build hydroelectric projects with installed capacity of around 34 GW, the report adds. Nepal, home to around 6,000 rivers, rivulets and tributaries, has the potential to generate over 40 GW of electricity through hydro plants. But as of now, the country's installed capacity stands at less than 1,000 MW, whereas peak demand stood at around 1,385 MW in the last fiscal year, shows the Economic Survey 2015-16. There is a big gap in demand and supply of electricity because Nepal has not been able to build relatively bigger hydropower plants since 70MW Middle Marsyangdi Hydroelectric Project, located in Lamjung, came into operation in 2008.

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According to the new financing plan, he said, the federal government would provide Rs30 billion per annum over the next nine years from the Public Sector Development Programme, taking total federal contribution to Rs270 billion. Hussain said Wapda would generate 20% of equity from its own resources whereas financing for constructing power plants would be arranged from commercial sources. Construction work on the dam site would begin next year and the government would complete it in nine years, he said. Work on the power generation site will begin two and a

Bangladesh to Import 9,000 MW Electricity from Neighbors: PM

Prime Minister Sheikh Hasina recently said the government has planned to import 9,000 MW of electricity from neighboring countries by 2041 to maintain the country's high economic growth.

"We've a plan to import 9,000 MW of electricity from neighboring countries by 2041," she said.

The Prime Minister was addressing a ceremony marking the inauguration of 500 MW Additional Power Supply from India to Bangladesh through Behrampore-Bheramara inter-connection jointly with Indian Prime Minister Narendra Modi and West Bengal Chief Minister Mamata Banerjee through videoconferencing.

Sheikh Hasina joined the ceremony from Ganobhaban while Narendra Modi from New Delhi and Mamata Banerjee from Kolkata.

Hasina said Bangladesh needs more energy to keep up its high economic growth and the government is planning to import electricity from neighbors under the regional cooperation framework.

Expressing the hope that neighboring India will remain by Bangladesh in its endeavor, she said Narendra Modi would take necessary steps regarding Mamata's offer to supply additional 1,000 MW of electricity to Bangladesh.

Bangladesh, Nepal to Work Together for Power Sector Development

Bangladesh and Nepal have agreed to enhance trade and investment between the two countries as well as cooperate with each other for the development of the power sector.

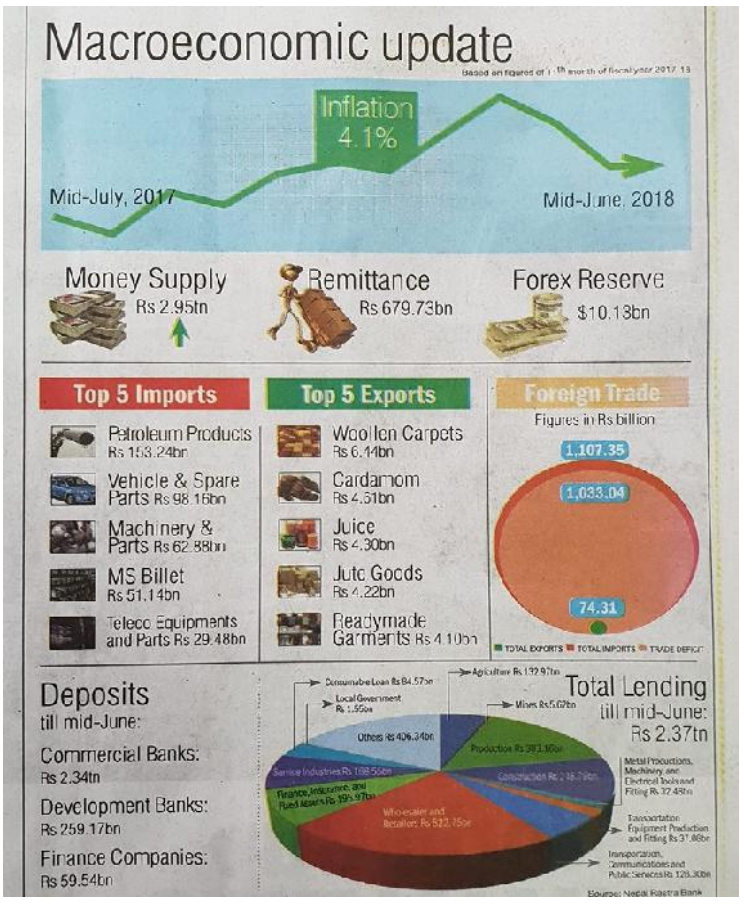
The consensus came at a bilateral meeting held between Bangladesh Prime Minister Sheikh Hasina and her Nepalese counterpart Khadga Prasad Sharma Oli at Hotel Soaltee Crowne Plazza in Nepal recently.

The Bangladeshi premier offered Nepal to use the seaports of Bangladesh and Syedpur airport for business and travel purposes.

Hasina emphasized strengthening the regional connectivity and said Bangladesh can share its experience in disaster management with Nepal. She also recalled the Nepalese support towards Bangladesh during the liberation war in 1971.

The Nepalese prime minister also stresses the need for exploring opportunities to enhance the cooperation between the two nations.

A memorandum of understanding has already been signed for export of 500 megawatts of electricity to Bangladesh, Oli said.



South, Southeast Asian Countries' Cooperation Sought in Energy Sector

Prime Minister's Energy Advisor Dr Tawfiq-e-Elahi Chowdhury has urged the countries of South and Southeast Asian region to strengthen their cooperation in the field of energy.

"Energy cooperation could take place among the countries from westward Afghanistan to eastward Cambodia," he told an international workshop and exhibition on renewable energy in the city recently.

State-owned financing agency Idcol, Sustainable and Renewable Energy Development Authority (Sreda) and German cooperation agency KfW jointly organized the 3-day workshop titled "Regional Platform for Sharing and Learning Renewable Energy: Challenges and Opportunities."

Representatives from 14 countries, officials of different government bodies, donor agencies, and financial agencies are attending the workshop.

A series of discussions on different renewable energy issues like solar rooftop, solar irrigation and solar home system are being held at the workshop while a good number of companies are showcasing their products and solution at the exhibition in the conference.

Paris Seeks to Calm Australia Fears over WWI Wind Farm

A top French defense official recently spoke with Australia's veterans affairs minister over concerns that a planned wind farm on the site of a World War I battlefield might desecrate unmarked Australian graves.

Deputy Defense Minister Genevieve Darrieussecq contacted the minister, Dan Tehan, after he said he would seek "clarification" over the project.

French energy company Engie Green plans to erect turbines on the grounds of the former Bullecourt killing fields in northern France where some 10,000 Australians were killed or wounded in April and May 1917.

Many bodies were never found, and the planned site for the wind farm is a natural burial ground near the Bullecourt memorial that is visited regularly by Australian families.

Darrieussecq told Tehan that she "understood and shared his feelings", the ministry said in a statement following the phone conversation.

"She assured him that she would be personally involved in the search for a solution in keeping with the memorial character of the site and the respect due to the remains of soldiers who died in combat," the statement said.

14 Hydrogen Powered Trains under Construction

The train of the future will be driven with hydrogen, will run completely emission-free and will start its first passenger service in Lower Saxony.

It is called "Coradia iLint" and is built by rail manufacturer Alstom for the Local Transport Authority of Lower Saxony (Landesnahverkehrsgesellschaft Niedersachsen, LNVG).

A total of 14 fuel cell trains will be built at the Salzgitter site and are scheduled to convey travelers between Cuxhaven, Bremerhaven, Bremervörde and Buxtehude from December 2021.

The new trains will replace the diesel multiple units of the transport authority Elbe-Weser-Verkehrsbetriebe (evb) and will reduce the pollutant emission in daily service to zero.

The supply of the train with hydrogen will be ensured by an own filling station of The Linde Group. The Coradia iLint can cover up to 1,000 kilometers with one tank fill, and can reach a maximum speed of up to 140 km/h.

The prototype will take up pilot operation in the evb network in spring 2018 together with a second vehicle.

Olaf Lies, Economy and Transport Minister of Lower Saxony, said: "From now on there will be a real alternative to diesel trains in non-electrified rail transport. Hydrogen and fuel cells are an ideal combination for climate protection as well as for the energy and transport revolution. They allow the storage of energy and emission-free travelling on rail. We fund innovative technologies and make a sustainable contribution to the energy revolution in the transport sector."

Gazprom Launches Russia's Largest CNG Station in Moscow

An opening ceremony for a new natural gas filling station of Gazprom – the largest station of its kind in Russia and Europe – took place in Moscow. The facility has a capacity of 29.8 million cubic meters of CNG per year, and is equipped with 12 CNG pumps and a dispenser for mobile refueling stations. Thanks to the advanced, reliable equipment manufactured primarily in Russia, the new facility can service some 2,000 vehicles per day.

The station is located in Moscow's Northern Administrative District next to the operating building of the Zelenograd Motor Combine (formerly 11th Bus Park) owned by Mosgortrans and servicing 155 natural gas-powered buses.

"Russia has the largest reserves of natural gas in the world. In view of that potential, a few years ago we embarked on an ambitious effort to develop the refueling infrastructure that uses affordable and eco-friendly vehicle fuel. In the past three years, Gazprom's investments into the gas filling network have exceeded RUB 10 billion. We have built 43 state-of-the-art stations in 24 Russian regions," said Viktor Zubkov, Chairman of the Gazprom Board of Directors.

Renewables Could Reliably Contribute 50% to Power Grid

Australia's power grid can reach penetrations of 50% renewable energy without a significant requirement for storage to support reliability, according to a new report commissioned by Australia's chief scientist, Alan Finkel.

While the Turnbull government has made much of the need for storage to increase security and reliability in the national power grid, the new report from the Australian Council of Learned Academies (Acola) says at an aggregated national level, 50% renewables is possible without major investments in storage for reliability purposes.

But the report also points out that the requirement to shore-up network security as power systems decarbonise in accordance with international climate policy commitments is an ongoing task, and that transition means energy storage is now a major global growth industry.

Australia's politics only barrier to clean energy system, report finds

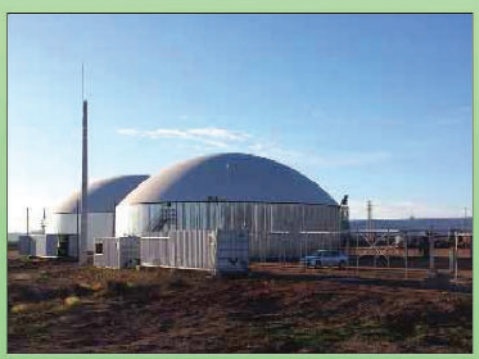
It notes that new energy security requirements create opportunities to expand energy storage capacity for reliability at a lower marginal cost than would otherwise be the case.

6.2-MW Biogas Project Enables Sustainable Growth in Uruguay

The German plant manufacturer WELTEC BIOPOWER recently signed the contract for a biogas plant extension of the milk powder producer Estancias del Lago (EDL) in Uruguay.

From late 2018, the plant with its eight digesters will generate a rated thermal input of more than 6 Megawatt from cattle manure and fodder leftovers. The company will use the biogas for drying and steam generation purposes in the production process.

Founded in 2007, the agricultural company EDL now farms an area of about 37,000 ha. On this area, the South Americans grow maize, sorghum and soya as feed for their approximately 14,000 dairy cows.



The company foundation was accompanied by the establishment of a huge site in Durazno, north of the capital Montevideo. Apart from the cowsheds with milking centres and feed silos as well as the biogas plant, the premises now host a dairy and a grain mill.

In Durazno, Estancias del Lago produces about 20,000 t of milk powder a year for export. Most of the milk solids are sold to China, Brazil and the Middle East.

In 2013, WELTEC had set up the first 800-kW biogas plant for EDL. Back then, expansion plans were already being considered.

KODAK MOMENTS

People can learn to manage stress and lead happier, healthier lives. Here are some tips to help you keep stress at bay:

- Keep a positive attitude.
- Accept that there are events that you cannot control.
- Be assertive instead of aggressive. Assert your feelings, opinions, or beliefs instead of becoming angry, defensive, or passive.
- Learn and practice relaxation techniques; try meditation, yoga, or tai-chi.
- Exercise regularly. Your body can fight stress better when it is fit.
- Eat healthy, well-balanced meals. Don't rely on alcohol, drugs, or food to reduce stress. Ease up on caffeine, too.
- Learn to manage your time more effectively. Make time for hobbies and interests.
- Set limits appropriately and say no to requests that would create excessive stress in your life.
- Get enough rest and sleep. Your body needs time to recover from stressful events.
- Seek out social support. Spend enough time with those you love. Seek treatment with a psychologist or other mental health professional trained in stress management or biofeedback techniques to learn more healthy ways of dealing with the stress in your life.

Contact Us

Hydro Solutions
empowering hydropower

Dillibaza,Charkhal Kathmandu,Nepal
P.O. Box: 3572, Kathmandu, Nepal
Email: info@hydrosolutions.com.np
Tel: + 977-1-4424644/4424655