ENERGY DEVELOPMENT COUNCIL

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Editorial

Dear Reader,

Where have all the Nepalis gone?

The challenges in Nepal's energy sector are not just the results of poor policy, politics and investment. The real cause lies in the fact that Nepalis have deserted their true values.

Just as you don't get dentists without toothaches or cardiologists without heart attacks, Nepal's inability to get its energy sector performing has spawned an industry of energy therapists.

The diagnosis by Nepal's energy therapists contains the standard list: inadequate planning, policy uncertainty, political instability, weak governance, lack of investment and poor investment climate. In short, everything that ails poor underdeveloped countries ails Nepal – except in our case the lights are off most of the time.

The diagnosis is not surprising, or at least, not new. But it is wrong. To make things better, we have to start with the honesty and courage to face up to what truly ails our sector.

Mr. Bishal Thapa
Vice-Chairperson

Nepal's overall policy and structural framework on energy is broadly adequate for its state of development, size and needs. Could it be improved – of course. Could there be greater efficiency – of course. But merely adopting these reforms will not make Nepal's energy sector spark up.

Nepal's fragmented political context with constant changes in government and uncertain environment is always cited as the critical factor that has stalled progress. Certainly, these factors haven't created an enabling environment for investment. But it is a stretch to argue that these factors have been the key causes of stalled progress. Even in the face of such uncertainty, the basic structures of the state do remain: justice, law and order, basic services, health, education. In other words, despite the challenges, at the core the state continues to function.

The prime cause of Nepal's failing electricity sector is the extremely high levels of political interference and the culture of corruption it has institutionalized. No amount of policy or structural reform can repair that unless there is a counterbalancing force that can withstand political interference and prevent corruption.

Consider the case of Nepal Electricity Authority (NEA). NEA is Nepal's monopoly electric utility, vertically integrated across generation, transmission and distribution. The unbundling of NEA is one of the big reform tickets have been put forth as a solution. Unbundling, reformists have argued, will allow a healthy electricity market to develop. But will it really?
Unbundling is a standard text book approach, widely implemented around the world and an easy prescription. But Nepal doesn't have the prerequisites that will allow unbundling to produce the impact it has in other countries. More importantly, it will not address the problem that currently ails the country: political interference and the resulting corruption.

What will happen with the unbundling of NEA?

First, in the true spirit of bhad-phad (sharing the spoils), the Nepali Congress will get the generation company, Maoists will get the transmission company and UML will get the distribution company (or some variant of it). Then circumstances will change and bhad-phad will result in a new configuration of control.

Patronage will continue exactly as it was. Four unions, each representing the interests of a political party, will multiply into twelve unions. The politically driven process of appointments will continue – except there will be three times more seats to fill, which political parties should welcome with relish. Political interference and corruption will continue exactly as before – except it will be far more dispersed, far for more difficult to spot and impossible to control.

In the absence of a counterbalancing force, the net result of unbundling will simply be further decay–perhaps more swift and non-reversible. The policy and structural reform of unbundling doesn't create the counterbalancing force that can fight back political interference.

So what is this counterbalancing force?

Simple, civil society, Across all our institutions, including NEA, civil society is actually represented with a seat on the table, often as independent directors, observers, advisers, etc. However, in the face of such widespread political interference and corruption, what have they done so far – nothing. Most are merely political appointments whose sole purpose is to return the favour to those that appointed them.

Civil society must regain its independence and reassert itself. It is the only force that can get institutions to perform in the true spirit of the policy; it can participate, monitor and demand correction when a lapse is spotted. It can fight back political interference and create a corruption free environment.

As Nepal returns from Dashai and Tihar holidays, celebrating the victory of good over evil, Nepalis have a simple choice to make: do we as civilians simply crumble to the pressure of corruption because it has become the norm, or do we adopt the values we celebrated over the holidays.

Fulfilling the aspiration of reliable electricity for all of Nepal doesn't require policy and structural reforms. It requires Nepalis to return home to the values of integrity, honesty and courage.

Jai Nepal.

In this Issue

EDC Activities

Executive Committee Meeting of EDC

EDC executive committee meeting was held on Friday, 30th September, 2016 at EDC office, Kamaladi, Kathmandu.

Mr. Sujit Acharya Chairperson of Energy Development Council along with Executive members Mr. Uttar Kumar Shrestha (CEO of Butwal Power Company), Mr. Kushal Gurung(CEO of Wind Power) and Ms.Itnuma Subba (Executive manager of EDC) attended the meeting.

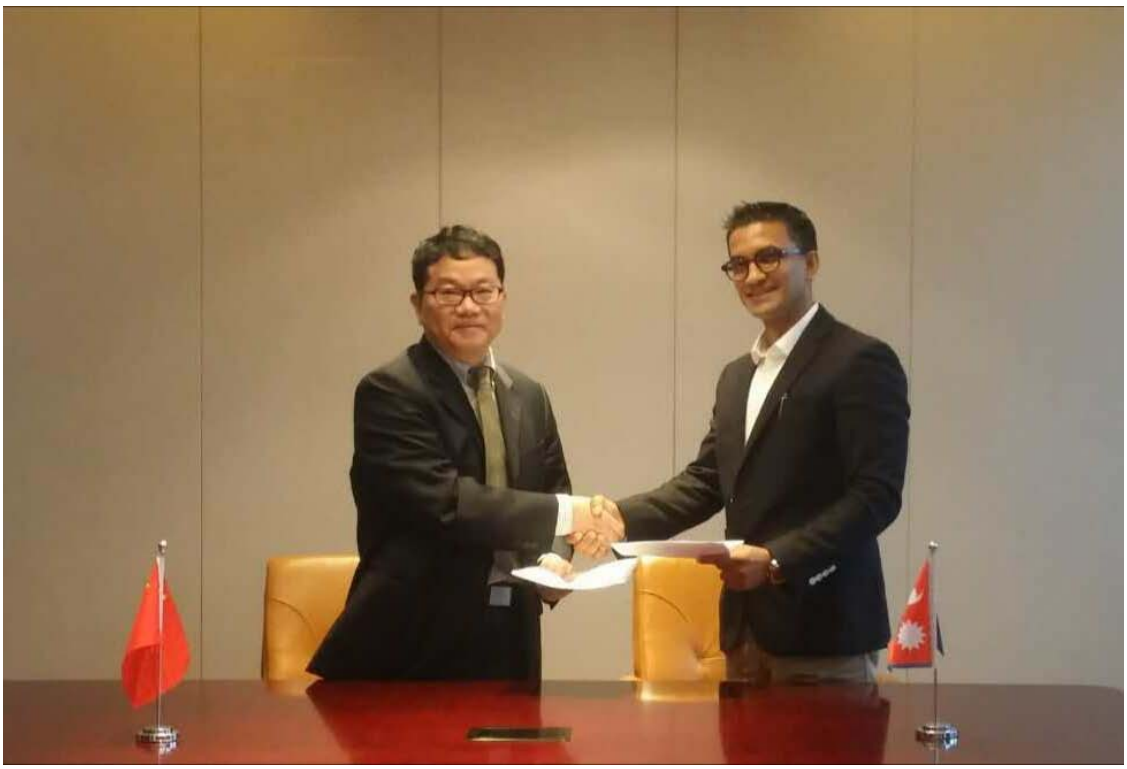
The meeting discussed about the EDC plans for the year ahead including various projects to be executed. The meeting also decided to appoint Mr. Kushal Gurung as the new Chair of Executive Committee.

EDC Meeting with Nepal Electricity Authority with Mr. Kulman Ghising, Managing Director of NEA.

On October 26, 2016, EDC had a meeting with NEA Managing Director, Mr. Kulman Ghising.

The agenda was mainly to discuss about the possible MOU for executing the digital energy library project. The MD expressed a positive feedback and the proposal is being taken into further consultation.

EDC signs MoU with Hangzhou Regional Centre



EDC signed MoU with Hanzhou Regional Centre (HRC) on 20th October, 2016 for comprehensive hydropower and renewable energy cooperation. The MOU was signed by Mr. Xu Jincai, Director of HRC and Mr. Sujit Acharya , Chairperson of EDC.

HRC is an organization formed by Ministry of Commerce, Chinese Government and United Nations to help developing countries build up their technical capacity in hydro and renewable energy.

Media Coverage

Mobilizing Investment for Energy Access

INNOVATIVE GOVERNANCE AND CAPACITY BUILDING MEASURES NEEDED

In 2010, United Nations came up with the goal of providing sustainable energy for all (SE4All) by 2030. The goal has three objectives which are ensuring universal access to modern energy services, doubling the share of renewable energy in global energy mix and doubling the rate of improvement in energy efficiency. Ensuring access to affordable, reliable, sustainable and modern clean energy for all is also the part of Sustainable Development Goal (SDG) set by UN. To realize this huge task, apart from formulating coherent policies, building the capacity of institutions and mobilizing qualified human resources, mobilization of investment in affordable and clean energy is one of the most challenging one. As estimated by many experts, in order to achieve SDG and SE4All targets, over US$1 trillion annual investment from both the public and private sectors during the period of 2010-2030 is needed. As per the objective set, the required investment globally is about US$ 50 billion per year on access to modern energy, US$650 billion annually for promotion of renewable energy and US$560 billion annually for energy efficiency improvement.

Nepal's energy scenario is very pathetic and supply is vulnerable. Broadly seen, problem is created due to insufficient commitment and ownership, no clear mandate for organizations involved, poor coordination among ministries, inadequate commercialization of renewable energy solutions, etc. Access to modern energy desperately needed for Nepal as reliable and adequate energy supply is required to stimulate sustained economic growth and energize rural areas for country's overall socio-economic development as Nepal is envisioning to be the middle income country by 2030.

By introducing proper financing mechanism and commercial business model for the sector will attract more private investment

Apart from that Nepal's energy security is vulnerable as we cannot still ensure our people a continuous quality energy supply. We have challenges for reducing dependency on single energy source by diversifying sources, increasing renewable energy share in national energy mix and scaling it up as we are endowed with abundant renewable energy resources like hydro, solar, wind, and biomass. Increasing energy efficiency by using efficient technology and changing the behavior of energy use should also be the part of our energy strategy.

Looking at the investment requirement, private sector has a key role to play in delivering the set results. Mobilizing investment through governmental institutions alone cannot address the energy challenges. Such scale of investment can only be mobilized by promoting private sectors' participation which demands a mix of various types of coherent policies and financial incentives to create enabling environment. Government must give priority and be innovative in setting rules and creating a facilitating mechanism so that existing bottlenecks and hurdles like land acquisition, forest clearances, etc. can be addressed.

By introducing proper financing mechanism and commercial business model for the sector will attract more private investment. Innovative governance and capacity building measures in the sector targeting investment will be key to meeting the goals. A public-private partnership approach can also build the confidence of private sector in the large energy projects. Country needs collaboration with the private sectors to deliver these developmental goals of energy access in a defined period of time.

The author is a professor at Thapathali Campus, Institute of Engineering, Tribhuvan University and Former Vice -Chairperson of National Planning Commission, and EDC Advisory Member.

The article is derived from the link: ***http://epaper.thehimalayantimes.com/index.php?pagedate=2016-10-16&edcode=71&subcode=71&mod=1&pgnum=2*** published on 16 October, 2016.

Guest Corner

UK

Onshore windfarms more popular than thought, UK poll finds

Public support for onshore windfarms is far higher than widely believed, according to a new opinion poll, even in rural areas.

Wind turbines are also far more popular than fracking or nuclear power, contrasting with the UK government's decision to block onshore windfarms but back shale gas exploration and new nuclear power plants.

The ComRes poll, conducted for climate change charity 10:10, found that 73% of the British public supported onshore windfarms, with just 17% opposed, and the rest not sure. Strong support remained even when only considering the views of those from rural areas, who might live near windfarms : 65% support versus 25% against.

However, when people were asked what level of support they thought windfarms had across the country, just one in 10 said it was more than 70%. The average level of support estimated by people was just 42%, far below the true figure. Research for 10:10 conducted by Imperial College London showed that more than two-thirds of newspaper comment and editorial articles in the last five years were negative overall about windfarms.

"The UK public love wind power and they don't even realise," said Max Wakefield, at 10:10, which launched its Blown Away campaign on Thursday. "It's plainly not true onshore wind is unpopular with the UK public. It's time our politicians caught up. Onshore wind is already the cheapest tool we have to achieve energy independence, keep bills under control and tackle climate change."

The government's own polling has consistently shown that renewable energy has 75-80% public support. But the Conservative victory in 2015, with 37% of the vote, has all but ended onshore windfarm developments, fulfilling a manifesto pledge to do so.

The new poll showed even stronger public support for solar energy - 83% for and 8% against - but ministers have slashed solar subsidies.

Fracking was supported by 34% and opposed by 45% in the poll. Ministers overruled Lancashire council earlier in October to grant permission for shale gas exploration, leading to accusations of double standards, as local communities have the final say over windfarm applications.

Some 73% of the British public polled by ComRes support onshore windfarms in contrast with government decisions to block them

The Conservative victory in 2015 all but ended onshore windfarm developments. Photograph: Danny Lawson/PA

Nuclear power was supported by 46% in the new poll and opposed by 37%. In September, the prime minister, Theresa May, gave the go-ahead for a new heavily subsidised nuclear plant at Hinkley in Somerset. Offshore windfarms, which are supported by ministers, are also popular with the public, with 80% supporting and 10% opposing.

The ComRes poll interviewed 2,037 British adults online on 12-13 October 2016 and data were weighted to be representative of all British adults.

(The article is available at the link: ***https://www.theguardian.com/environment/2016/oct/20/onshore-windfarms-more-popular-than-thought-uk-poll-finds*** published on 20 October, 2016.)

CHINA

Electric car set to pass two million land mark globally

BEIJING: A surging market in China is leading the way and Chinese made models have pushed into the top five best-selling models. Europe is the second biggest market, followed by the US, but their traditional car manufacturers face a stern challenge from China and from Tesla, whose much anticipated Model 3 is expected to go into production in 2017.

Electric vehicle (EV) sales have now passed one percent of the whole auto market in Europe and China and experts believe a turning point has been passed . 'It is still very small , but what we have seen ever the past few months is a complete culture change,' said Greg Archer, at Transport and Environment, which published a new EV report showing sales in Europe doubled in 2015 to 145000.

EVs dominated the flagship Paris motor show earlier this month. VW pledged in June to deliver 30 all electric models by 2025, and battery ranges are going up and prices down. 'Above all we have seen the price of battery fall and fall,'said Archer. 'It is very clear that EVs are going to be seriously competitive to conventional vehicles. The revolution is underway and Europe is well placed to take a leading position.'

Archer also said China had its eye on the global EV market, as well as on cutting its own air pollution crises.' 'The Chinese have made a policy choice that they want to be the leaders in EVs,' he said.' 'They are creating a strong domestic market in which their manufacturers can grow and gain expertise. They realized they did not have the brands or expertise on conventional vehicles, so they aim to leapfrog the EU and US to become the main EV provider. It is huge risk to European car industry.'

Norway is the world leader and has shown how fast the car market can shift to EVs with support. One in three of all new cars sold in Norway is now an EV, a proportion that is rising every month, spurred by big tax breaks and major investment in charging infrastructure.

The world's best selling EVs in 2016, according to EV volumes, were the Nissan leaf followed by Tesla Model S. But the third and fourth spots were taken by models from the Chinese firm, Build Your Dreams(BYD), with the Tang SUV and the Qin model. Chevrolet's Volt took up fifth place.

The article is available at the link : ***http://epaper.thehimalayantimes.com/index.php?pagedate=2016-10-18&edcode=71&subcode=71&mod=1&pgnum=2*** published on 18 October , 2016.

3 Trends That Show Why Microgrids Are About More Than Just Resiliency

Partnership models create greater incentives to explore microgrids for broader solutions.

-By Olivia Chen

Microgrids have come to embody resiliency. However, in recently deployed and prospective projects, a mixed-ownership model is aligning microgrids with broader energy goals.

In GTM Research's recent U.S. Microgrids 2016: Market Drivers, Analysis, and Forecast report, GTM Research estimates microgrid market growth will exceed expectations as business model innovation continues to evolve with stakeholder interests.

1. Microgrids provide mutually beneficial cost savings for utilities and end-customers

Demonstration projects and operational microgrids have proven their sweet spot is delivering reliable power during inclement weather. In fact, utilities are increasingly approaching the microgrid as a viable "non-wires" alternative to defer costly grid investments.
In recently deployed projects, utilities generally cover project costs, including design, permitting, finance, construction and O&M -- subsequently leasing the facility to the end customer at a reduced price. Utilities are motivated by a desire to address local grid congestion on the distribution grid through fast-ramping resources, while end-customers desire guaranteed onsite generation for continuous electrical supply.

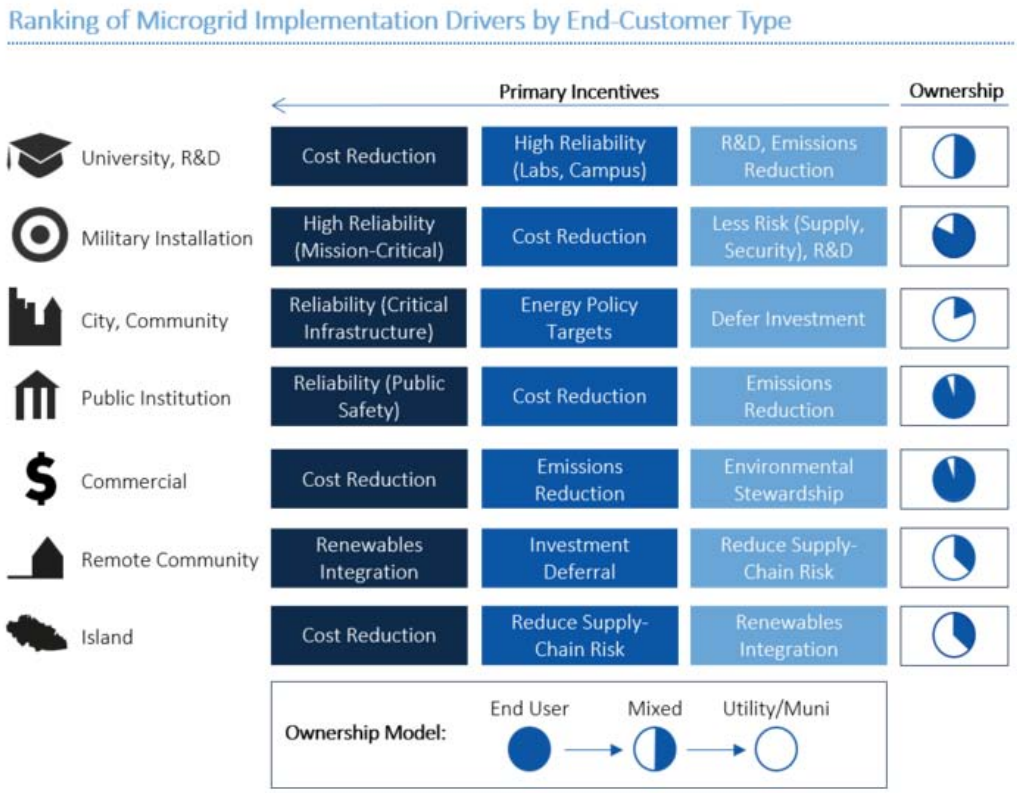
2. Microgrids can reliably and cost effectively incorporate renewable

Regulatory incentives and carbon-reduction targets support greater renewables penetration as much as falling solar and battery costs. The solar-plus-storage model has become an especially compelling option for project developers seeking to incorporate renewables alongside reliability.

The consideration of energy storage has become a requisite in microgrid planning, and recent projects show that utilities can have their fast-ramping resource alongside renewables. GTM Research projects that by the end of 2016, renewable generation is expected to represent 15 percent of annually installed microgrid capacity, and it is primed for strong growth over the next four years.

3. Customization help builds different business cases for microgrids

The microgrid has traditionally been a skeleton concept with no one-size-fits-all solution. A rise in multi-stakeholder ownership models illustrates that different institutions and communities can find their own value proposition, building on the microgrid together to create an attractive and mutually beneficial business case.



The link is available at the link: ***http://www.greentechmedia.com/articles/read/3-Trends-That-Suggest-Microgrids-Are-for-More-Than-Just-Resiliency*** published on 7 October, 2016.

INDIA

India Already Has a Problem With Wasting Renewable Energy on the Grid

The country can learn from China, Germany and Texas on how to mitigate the problem.
by Jamie Manley

India ratified the Paris climate agreement this week, officially underscoring its commitment to reduce greenhouse gas emissions. Yet just two years after embarking on an ambitious campaign to scale up renewable energy, India is facing a curious problem: too much solar and wind power in some parts of the country.

In July, for the first time, the southern Indian state of Tamil Nadu was unable to use all the solar power it generated. Later in the month, Jayaram Jayalalitha, the chief minister of Tamil Nadu, wrote a letter to Prime Minister Narendra Modi urging him to speed up the construction of an inter-state green energy corridor that would allow renewable power to be transmitted and used in other states instead of being wasted.

And in August, Tarun Kapoor, India's joint secretary of the Ministry of New and Renewable Energy, wrote a letter asking electricity regulators to fully utilize solar power following complaints that grid operators were letting renewable energy go to waste.

As developing countries lead the world in renewable energy investment, India's experience highlights a larger question: Will the grid be a major roadblock for renewable energy development across the developing world?

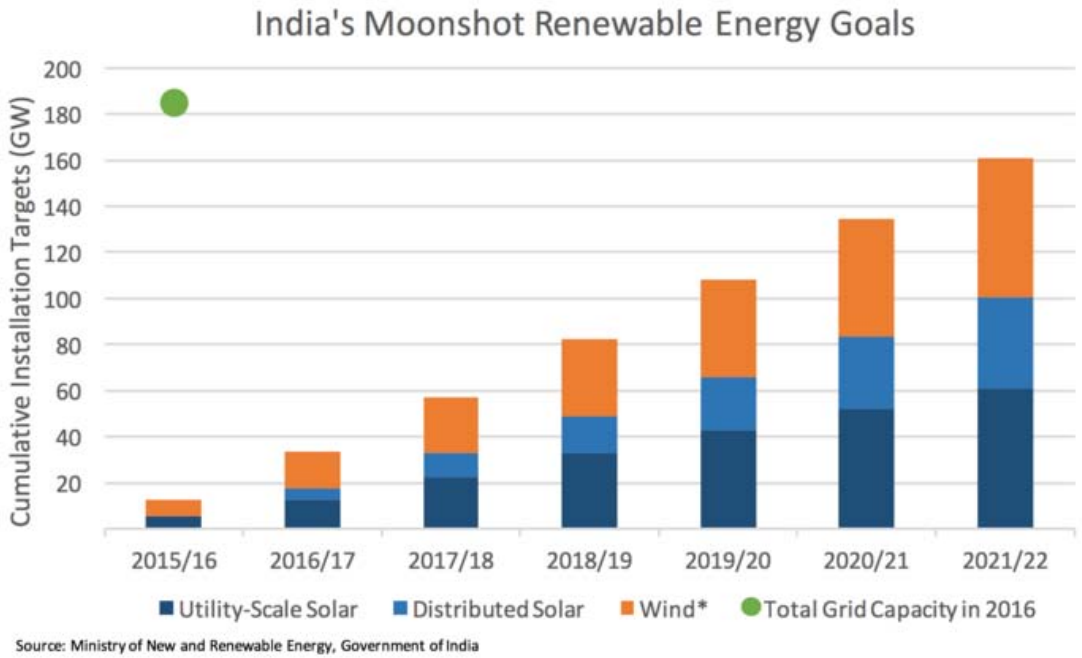
From India to China to Chile, a significant portion of future renewable energy could go to waste without careful planning.

Solar and wind only accounted for 3.5 percent of the power generated in India in 2015. But if the government achieves its ambitious targets for renewable energy deployment, the amount of solar and wind power on the grid could quadruple by 2022. Yet there are already signs that the grid's ability to absorb these new power sources could be a major bottleneck for renewable energy growth in India, jeopardizing the country's energy and climate goals.

Although there is not clear national data, regulatory filings from Tamil Nadu, where the problem is thought to be the most extreme, put the curtailment rate for wind power between 33 percent and 50 percent -- an astonishingly high figure.

The problem is, in part, a technical one. Solar and wind power are not as easy to control as traditional fossil fuel plants, so power grids need to become flexible enough to handle last-minute changes in power generation.

Distance is also an issue. In India, six states in the western and southern regions account for 80 percent of all of the country's currently installed solar capacity, but only 38 percent of power demand. For grid operators used to being able to turn fossil fuel plants on and off at will, these changes can take some getting used to.



Source: Ministry of New and Renewable Energy, Government of India

If new measures are not put into place to accommodate variable renewable energy sources, a situation can arise where the physical grid -- or the grid operator -- is unable to use solar and wind power when it becomes available.
Other countries have already dealt with this problem with varying degrees of success. Germany and the U.S. have relatively high levels of solar and wind penetration and low curtailment rates, while China has had major issues with curtailment as the share of wind and solar in the energy mix increases.

Indeed, China currently has more wind and solar power capacity than any other country in the world after scaling up very quickly. In the five years between 2010 and 2015, the share of solar and wind power generated in China quadrupled. Yet in 2015, the U.S. still produced more electricity from wind than China, despite having only 58 percent of China's installed wind capacity. A large reason for this discrepancy is that much of China's solar and wind power is wasted: 21 percent of wind power was curtailed in the first half of

2016 (with Gansu province reaching a 47 percent curtailment rate), and solar curtailment reached 11 percent in the first three quarters of 2015.

Although China has been able to build out renewable energy capacity quickly over the past decade, it has taken much longer to develop the transmission infrastructure and make the institutional changes required to utilize all of this new power.

How can India learn from China's mistakes and rapidly scale up renewables without waste?

Luckily, the challenge has not caught Indian policymakers by surprise. There are already a number of initiatives underway to help integrate renewables into the grid. Perhaps most important is that, unlike China, India already has a wholesale power market, which can provide much-needed flexibility for utilities to buy and sell power at short notice.

There is also the aforementioned green energy corridor, a series of transmission lines that will connect states with excess renewable energy to areas where there is demand. And similar to China, solar and wind already have "must run" status, meaning that any power they generate should always be accepted by the grid.

Yet even these steps may not be enough. A recent survey found that 31 percent of senior corporate leaders in Indian solar companies think that grid integration will be the biggest challenge for expanding solar in India going forward.

The first priority for India when addressing this issue is to finish the green energy corridor and other new transmission lines so that renewable power can be transmitted where it is needed. There are significant power surpluses in some states and power deficits in others.

For instance, Uttar Pradesh has a peak power deficit of 9.7 percent (meaning 9.7 percent of demand at peak times cannot be met with the power available in the state), whereas the bordering state of Madhya Pradesh has a peak power surplus of 8.3 percent. Yet the power connection between the two states was at full capacity 73 percent of the time in May 2016, meaning some surplus power in Madhya Pradesh may not have made it to Uttar Pradesh. Nationally, 10 percent of the power supply available on the short-term markets last year could not be used because of transmission constraints.

New investment in inter-state power lines will help balance out such disparities. It is particularly important for India to attract private investment in these projects. The green energy corridor will cost an astounding USD $3.4 billion, and is funded in part by government funds and partially by a $1 billion loan from the Asian Development Bank and €1 billion loan from GIZ. But the public sector can only fund so many multibillion-dollar projects, and many state utilities are already in poor financial conditions.

Private capital is projected to be required for 47 percent of infrastructure investment in India between 2012 and 2017. India's planning commission has created a framework for public-private partnerships for transmission investment, but land acquisition and permitting are still major roadblocks for private developers hoping to complete a project on schedule. Reducing the time and cost of land acquisition will be essential to making infrastructure projects attractive to developers and unlocking the private capital needed to finance transmission lines.
Second, focusing on deploying distributed energy technologies like rooftop solar can help increase the amount of renewable energy in use where new transmission lines are infeasible or too expensive.

India hopes to get 40 percent of its solar capacity from rooftop solar by 2022, but the market has been slow to take off despite a 30 percent capital subsidy from the government. The barriers to rooftop solar deployment are often more institutional than technical. In China, slow subsidy disbursement and a lack of financing have caused rooftop solar deployment to fall short of government targets. In India, a recent survey found that 93 percent of senior corporate leaders in the Indian solar sector did not think the country would even reach half of its rooftop solar target by 2022, citing ineffective net metering policy, unavailable and expensive financing, and consumer awareness as top issues.

There are a number of potential solutions: Training for distribution utilities unaccustomed to having customers generate their own electricity; streamlining the application and approval process; creating certifications to ensure installer quality; and even allowing rooftop solar systems to serve as backup power when the grid goes down. Quickly implementing such solutions can allow renewables to grow without worsening curtailment.

Energy storage can also play an important role in reducing curtailment. The cost of storage is still a major barrier to mass adoption, but prices are dropping quickly.

Moreover, Germany and Texas have achieved low curtailment rates with minimal energy storage and high renewable energy penetrations through improved grid planning and changes to the power market structure. Still, India is planning on installing 10 giga watts of pumped hydro energy storage across the country to accommodate increased renewable energy penetration (China is taking similar measures to reduce curtailment). As the price of energy storage drops, it will become an increasingly compelling complement to variable renewable energy.

Finally, India can look to other countries to find grid planning and operational solutions to help manage curtailment as renewable power scales up. One such change, highlighted in a recent Paulson Institute report on curtailment, is to create financial incentives against curtailing renewables.

Currently, Indian solar and wind generators are not compensated for curtailment, and compensation should not be necessary because renewables have “must run” status. However, financial incentives can help reinforce such regulations when mandates alone are insufficient. China has had a similar experience with “must run” mandates: multiple policies have stated that solar and wind should always receive priority on the grid, but curtailment continues to be an issue because there are few penalties for ignoring this regulation.
A recent regulation released by China’s National Development and Reform Commission requires that coal plant owners pay wind or solar plant owners whose energy is curtailed, creating a stronger incentive for grid operators to fully utilize renewables. An even simpler solution would be to compensate solar and wind projects for any curtailed energy at a fixed rate. This not only penalizes grid operators that choose to curtail renewables, but also provides more certainty for power producers when trying to forecast revenue.

Even smaller changes to how the grid is operated can make a difference. In Texas, grid operator ERCOT shifted from 15-minute dispatch intervals on the intra-day market to 5-minute intervals, allowing for more granular planning around variable wind and solar power plants. (India currently uses 15-minute dispatch intervals.) ERCOT also shifted from targeting 0 percent curtailment to a maximum acceptable curtailment rate of 3 percent of annual renewable energy production -- a more cost-effective solution than trying to utilize every unit of electricity generated at peak times.

Such institutional changes can provide flexibility to the grid without the high risk and cost of major new transmission and storage projects.

India has already set a moonshot goal for renewable energy deployment that would have been unthinkable just a few years ago. Indeed, in the five years between Copenhagen and Paris, India went from being a hindrance to an enthusiastic participant to in the United Nation’s global climate negotiations.
Yet a successful energy transition will require a broader change in the infrastructure and institutions that support renewables -- not just targets themselves.

The link is available at the link : ***http://www.greentechmedia.com/articles/read/how-can-india-avoid-wasting-renewable-energy*** published on 4 October, 2016.

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.	Hydroelecticity 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.	
35.	Nepal Hydropower Association	

S.No.	Name of the Organization	Organization logo
36.	National Association of Community Electricity Users Nepal	
37.	Dudhkoshi Power Pvt. Co. Ltd	
38.	ICTC Energy Pvt. Ltd	
39	High Himalayan Hydro Construction Pvt. Ltd	
40	Himalayan Bank	
41	Ankhukhola Hydropower Pvt Ltd	
42	Comtronics Pvt.Ltd	

ENERGY DEVELOPMENT COUNCIL

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