

The EVI Newsletter

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Carbon Advisory Business

Thinking Grid

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Today, electricity lost annually in the traditional grids is enough to power India, China & Canada and currently, the reducing peak demand in America by a mere 5% would yield savings of about \$66 billion over 20 years. According to the Commissioner of Federal Energy Regulatory Commission Jon Weelinghoff, the challenge that we face today is "if we could make the electric grid even 5% more efficient, we would save more than 42 Giga Watts of energy, which is equivalent to production from 42 large coal fired power plants".

The smart grid has thus become the buzz of electric power industry as a means to meet this challenge. A smart grid is an electricity distribution system with a layer of intelligence. Installation of Smart Grids would help in the development of Infrastructure for generation, transmission, distribution systems along with Infrastructure for Smart Customer Interface, Automation for distribution, Smart metering-Device monitoring and self healing diagnostics & Communication infrastructure provides opportunities for monitoring.

Visibly it is not very different from the existing grid. The smart grid, as the name suggests, has "Smart Meters" that interface with all home appliances, controls the thermostat, forecast the price per unit in the day. Or present an on demand snapshot of power consumption by each home appliance along with "Sensors" to monitor the flow of electricity, sense the load & proactively inform the power utility of any impending outage and a "Two way communication n/w" -To feed desired consumer preferences (whether opti-

mized for price or comfort) to power utility, dynamically enabling real time, calculation of price per unit in relation to existing demand. With the Smart-grid technology we have a wide range of possibilities:

- A power company can optimize grid performance, prevent outages
- Empower the consumer to measure and control his consumption
- Choice of clean energies such as wind and solar
- Interact with distributed power sources or plug-in hybrid electric vehicles
- Reduce power demand during peak usage periods
- Best in-home smart-grid technologies can achieve reductions in peak demand of up to 25%, which would result in savings of more than \$325 billion over a 20 year period

The Obama administration has called the development of a "smart" electric power grid an "urgent national priority,"

and allocated a \$11 billion funding to smart grid "A \$16 billion investment in incentives over the next four years would drive \$64 billion toward smart grid projects. That, in turn, would create about 280,000 new direct positions across the energy sector" - GridWise Alliance, a coalition of organizations that advocates a smart grid.

"It's the marriage of information technology and automation technology with the existing electricity network. This is the energy Internet," said Bob Gilligan, vice president for transmission at GE Energy, which is aggressively pursuing smart grid development. "There are going to be applications 10 years from now that you and I have no idea that we're going to want or need or think are essential to our lives."

Experience with Smart Grid:

Enel – Italy's largest gas company, spent around €2.1 billion (\$3 billion) installing its 30m smart meters in Italy, but now saves around €500m a year as a result, so its investment paid for itself within five years.

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Carbon Credit sale may fetch Reliance Power Rs. 4,000crores.

The Reliance Power headed by Anil Ambani is expected to earn Rs 4,000 crore+ over the next 10 years by selling carbon credits from its upcoming Sasan Power Project in Madhya Pradesh. Company source revealed that "The Company is expected to get the nod from the "UN-managed Clean Development Mechanism executive board" for 37.5 million of carbon credits by June". Furthermore "The project has received the host country approval from the Indian government and the German agency TUV Nord has been appointed as the designated operation entity for evaluating the eligibility for the credits". Research agencies such as the New Carbon Finance and Barclays estimated carbon prices to trade between 17 to 26 euros per unit and their estimate is that the prices will move even higher due to limited supply of carbon credits.

The project is in the final stages of validation and is expected to be submitted to the CDM executive board for registration in this quarter. R-Power recently completed its financial closure for the 4,000 megawatt Sasan ultra mega power project. The power project has an estimated investment of about Rs 19,500 crore and has a debt equity ratio of 75:25. The debt would come from a consortium of 12 state-owned banks and lenders led by SBI and other financial institutions.

New Emission Targets set by Japan:

Japan has set a new target that would reduce its emissions 15 percent by 2020 from 2005. This goal has been slammed as inadequate by environmentalists and other international officials. Campaigners fighting climate change have asked Japan to set high targets to build momentum before they head for the global climate talks later this year in Copenhagen.

As of now Japan's target of reducing emissions 15 percent, comes to just 8 percent below emission levels in Tokyo in 1990, which as per environmentalists, is not much more than 6 percent cut by 2012 that Tokyo committed to, under the Kyoto Protocol.

This target has been called "ambitious" by the Prime Minister of Japan Taro Aso and the one that would require sacrifices from Japanese companies and the public. The Japanese pledge would reduce emissions by about 8 percent by 2020, according to estimates by E.U. officials. This announcement by Japan was described as a "long awaited first step" by the E.U.'s environment commissioner, Stavros Dimas. He emphasized that advice by United Nations scientists pointed to the need for developed countries like Japan to reduce their emissions by much greater amounts — from 25 percent to 40 percent by 2020 compared with 1990 levels. Mr. Dimas suggested that the government in Tokyo could also do more to help finance carbon-reduction projects in other parts of the world as part of its contribution to the global climate effort.

Brazil ready for emission targets

Brazil on Wednesday declared it was open to adopting targets for greenhouse gas emissions if rich countries did more to curb climate change. The President on Brazil Luiz Inacio Lula da Silva said that "Brazil should not be afraid of the challenge". He further added that issue was not a taboo for them," saying that he may attend global climate talks scheduled for the end of this year in Copenhagen. The President also said that developing countries, should not be expected to make the same sharp emissions cuts as rich countries.

Last year, Brazil abandoned years of opposition to deforestation targets and said it would reduce Amazon destruction by 50 percent in a decade. The President also said that, he would veto clauses in an Amazon land reform bill that would grant companies and non-residents land titles. The objective of the bill would be to legalize land holdings of millions of people who had settled in the Amazon in recent decades, but environmentalists criticized it as a land giveaway that could spur more deforestation.

EVI News



The last month also saw the opening of Emergent Ventures International Inc., EVI's office in the USA. based in San Francisco, EVI Inc would focus on participating in the growing US carbon market, with an emphasis on international and domestic offsets, Climate Value Advisory, and project finance services.

Climate change market opens new doors for investments

Shares in companies that are wholly engaged in tackling climate change far outstrip the general market. Since the past five-and-a half years climate change investments have outperformed global equities by 46 per cent. This is set against the backdrop of the drastic fall in share prices over the last nine months, and the continuing economic downturn. Despite shaky market conditions, climate change investing remained not only valid, but essential for growth. The data contained in the report suggested that companies that were strongly committed to tackling climate change are already seeing the most growth and are best placed to gain from (economic) stimulus packages.

Since late 2007, HSBC has tracked the performance in share prices of companies that are strongly engaged with climate change. The index now covers 377 companies, up from 300 at its launch. Besides producers of low carbon energy, the companies listed in the HSBC climate index include those in sectors such as energy efficiency and management, water waste, pollution control and financial.

Some of the new companies to join the index include Exide Technologies, a manufacturer of fuel cells, and Canadian Solar, which makes solar panels. HSBC said that around 40 per cent of companies could be termed "pure-plays," meaning they made at least half their earnings from activities that cut emissions. Pure-play climate stocks had generated the best returns, the bank's survey said, outperforming both the HSBC Climate Index and global equities by 45 per cent and 43 per cent respectively since January 2004. HSBC further added that the companies involved in producing clean energy had been the best performers among the pure plays.

Climate negotiations in Bonn

Another round of negotiations over the post-2012 regime to tackle climate change is going to come to an end this week. By then all countries will have to submit their ideas and proposals for what the Copenhagen outcome will look like. These proposals will be worked into legal texts by the heads of the two negotiations parties, under the Kyoto Protocol and the Climate Change Convention. The main purpose of the meetings will be to elaborate on the texts so that the options that will require political decisions are ready before the ministers meet in Copenhagen in December this year.

Carbon Market out of UN deal? Possible...

Rich countries may act on their own to reduce greenhouse gas emissions by developing a carbon market they hope will lure in poor nations even if U.N. climate talks get bogged down, experts said. Nearly 200 countries have been trying to reach an agreement to replace the Kyoto Protocol on global warming with a December deadline at a meeting in Copenhagen approaching.

But there remains a large rich-poor divide. Developing countries want industrialized countries to make deep cuts in greenhouse gas emissions in the international agreement. Industrialized countries want poor countries to take on binding commitments.

To get past the differences, the rich world, including the European Union and the United States, may form a carbon market outside or parallel to the U.N. talks. Rapidly developing countries like China may be inspired to join the market to sell emissions offsets such as clean energy projects.

Carbon Market

Gossip:

Australian Firms under investigation—accusation "Carbon scare mongering"

Carbon market which hasn't even come out of its infancy phase and it has started experiencing gossip mongers trying to effect the growth.

Few corporate which all are, incidentally, major resources firms and greenhouse gas emitters as well Have adopted an altogether new tactic to delay one of the bills in the parliament that might effect their future prospects.

The Australian Conservation Foundation (ACF) and the Climate Justice Program, accused these companies to exaggerate the impacts of the planned carbon trading scheme.

"Some of Australia's biggest corporate polluters appear to be presenting the worst case to government and the public, in an effort to gain excessive free permits, while presenting the best case to investors, in order to keep their share prices up," Don Henry, executive director of the ACF said.

The Australian Competition and Consumer Commission (ACCC) has been asked to investigate claiming the statements have been made to convince lawmakers to delay the carbon scheme and/or to increase government compensation to large emitters.

"Imagine if we succeed in inspiring our audiences to reduce their own impacts on climate change by just one percent. That would be like turning the State of California off for almost two months."

- Rupert Murdoch

Market Report

Madhur Prabhakar

Compliance Market

Carbon market went through a very volatile phase over the past month with trading volumes dropping in the beginning on BlueNext as surplus selling decreased from industrials. First week of June saw few downward fluctuations which surprisingly didn't correspond with oil prices, indicating

no relation of carbon market with oil prices. CERs also fell in line with EUAs

in the past month. The fall of prices can also be attributed to supply superseding demand as many of the larger utilities are expected to take a summer break from market until the end of year when they will initiate their dealings for the next year and therefore affecting the price movement in the market.

On 2nd June, Exchanges across Europe experienced record volumes of EUA sales with 42.69Mn changing hands. Paris based Bluenext Exchange experienced

its highest trading volume and more than twice its daily average of this month wherein more than 19.22 Million spot contracts changed hands. Though the prices constantly came under pressure but remained in trading range of last couple of weeks. EUA traded at €14.84, down €0.37 on previous close. But since then the market is experiencing a downward trend with

pressure.

Monday the 15th experienced another steep fall when EUA prices fell by €0.50 and closed at €12.50, taking CER along with it as well, which traded around €10.7.

According to UNFCCC, there is serious dearth of good quality CDM projects which will affect the Issuance in the long term, so long term prospects (2010) for EUA's and CER's are looking promising as the

market will be flooded with buyers who are currently hesitant in trading carbon.

ommodity	18/05/09 Close		15/06/09 Close	
	BlueNext Spot	ECX Dec09	BlueNext Spot	ECX Dec09
EUA	€13.95	€14.23	€12.19	€12.57
CER	€11.74	€11.69	€10.61	€10.84
CCX CFI 2008	US\$ 1.15		US\$ 1.10	

Secondary CER's trading in the range of €10.6-€11.7. it was followed by one of the expected 5 EUA auctions in UK taking place on 4th June. The auction dealing in 4.2 million tons came out to be five times oversubscribed and the certificates being handed out at the spot price of €13.83.

Analysts thought it to be a very positive sign until large parts of the auction volume found their way on to the secondary market, which created instant price

Voluntary Market

The voluntary market continues to be sluggish with both prices and demand remaining subdued. VCS prices ranged in the USD 4.5-5.5 range with emphasis on recent vintages and exotic locations.

CCX prices continued its steep fall over the past month, although volumes traded were high. Prices ranged from \$1.40 to \$1.10 per metric ton of CO2 across 2008 vintage till previous close.



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Emergent Ventures India is a global Consulting firm providing Climate Change Mitigation solutions. Our solutions entail emissions reduction & management advisory, clean technology implementation, development of renewable energy projects and carbon finance. At EVI, we pride ourselves on a potent mix of rigorous analytical skills, boundless creativity, and a roving eye for "Sustainable Solutions for the Environment." We provide services to clients in Pakistan, Thailand, Indonesia, Malaysia, Bangladesh, Sri Lanka, Africa and Europe. Recognizing that clients must adapt to the low-carbon society of the future, EVI helps companies understand potential risks & opportunities arising from climate change and provides solutions in the area of risk mitigation and clean technology adoption. In collaboration with our clients, we strive to turn those insights into on-the-ground sustainable development by using innovative financial solutions like Carbon-backed financing and debt-equity sharing, making otherwise expensive technological changes possible by attracting greater investment

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