

Sector Brief – June 2015

Current Scenario: Coal: Coal production increased by 6.0 % in March, 2015 over March, 2014. Its cumulative index during April to March, 2014-15 has increased by 8.2% over April to March 2013-14.

Crude Oil: Crude Oil production increased by 1.7 % in March, 2015 over March, 2014. Its cumulative index during April to March, 2014-15 has declined by 0.9 % over April to March 2013-14.

Natural Gas: The Natural Gas production declined by 1.5 % in March, 2015. Its cumulative index during April to March, 2014-15 has declined by 5.2 % over the April-March 2013-14.

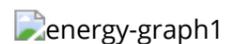
Electricity: Electricity generation increased by 1.7 % in March, 2015. Its cumulative index during April to March, 2014-15 has increased by 8.0 % over April to March 2013-14.

Renewable Energy: Till March 2015 India has generated 35776.96 MW of renewable energy from various sources. Figure 1 depicts the different volume of energy from different sources of renewable energy in absolute terms. North East India leads country's solar revolution. Nagaland, Sikkim and Arunachal Pradesh top the Indian states regarding Highest Average RES as % of total installed capacity. Mizoram is at the sixth place. However, position of Assam is not good at all; renewable energy provides only 3% of total energy of the state. The State has around 240 to 260 clear days every year and 4.4 to 5.6 KWh of solar power potential per square metre per day, The Energy Research Institute (TERI) estimates. The status of West Bengal is given in table 1.

Future Trend: By 2017, India's coal demand-supply gap is expected to grow 266 MT. India's annual oil product demand is expected to grow at a rate of 3.3% in 2015-16. The country is expected to consume 166.87 million tonnes in 2015-16 as against 161.57 million tonnes in 2014-15. The growth in the demand for diesel, which accounts for more than 40 percent of refined fuel consumption in India, is set to rise 4.1 percent to 71.32 million tonnes while that of gasoline is expected to grow 7.2 percent to about 19.72 million tonnes. India's kerosene demand is forecast to decline 3.7 percent as the federal government is encouraging use of liquefied petroleum gas, consumption of which is expected to rise 3.5 percent. Use of naphtha and fuel oil is projected to fall by 5.3 percent and 4.9 percent in 2015-16. As per reports; India's demand for natural gas is expected to reach 516.97 million cubic meter/day by 2021-22. For the two forthcoming five years plan India's electricity demand is expected to grow by 5.74%. Overall, it is expected for India that around 2 GW of solar capacity will be added in 2015. India expects its renewable energy industry to offer around \$160bn in business opportunities over the following five years, which makes it a major attraction for the global energy development firms.

Policy news: International community praises India for its effort towards renewable energy. India and Egypt enters into agreement regarding renewable energy, bilateral trade and technology transfer. By 2022 the renewable energy sector is expected to employ around 1 million people.

India might enhance crude oil import from Mexico. ONGC Videsh limited has decided to open an office in Mexico. India must also consider Canada for energy resources.



India is eyeing \$250 billion investment opportunity from USA in its growing energy sector. India's solar energy sector would get increased funding in recent future to get rid of the dearth of capital. The government has also decided to train 50000 people and make them solar professionals. Apart from USA; Germany is also showing significant interest in development of India's renewable energy as an example; India is set to get a \$1.1bn loan from German Government-owned development bank KfW to implement rooftop solar projects in the country. Investments worth \$250 billion lined up in coal, power and renewable energy, says Piyush Goyal.

The concerned bank has also offered \$1.55 billion to develop a 'green corridor' of power lines through nine Indian states. India has also sought funding from the World Bank and the Asian Development Bank for \$750m and \$500m respectively to boost its renewable energy portfolio. India's primary commercial energy consumption is at a sorry state (4.7% of global primary energy consumption; while China poses 23%) and might get a boost very soon.

International financial corporation and India enters into several funding agreement towards promotion and development of renewable energy in India. Since the agreement has been signed \$3 billion has been supported. The plan that involves; IFC and IREDA will eventually help government of India to attain 175 GW of renewable energy in next seven years.

Make in India offers huge opportunity in oil and gas; since India is a high importer of energy resources; hence, if some of that can be produced in India then that will help in the government's objective of reduction of 10% of energy import by 2022. India is also all set to stop import of poor quality coal in 2 years.

India sees lowest plant load factor in 15 years; power capacities operating at 65%. India-Australia pact on nuclear energy might be completed by the end of this year. Japan has agreed to finance India's coal fuelled power projects.

India and Bangladesh look forward for public private partnership on power exchange. African countries are expected to sign MoU with power surplus Gujarat regarding power along with other sectors.

Table 1: The estimated potential of important Renewable Sources of Energy in West Bengal

Sources and Systems	Potential
Biogas Plants	0.7 million
Improved Chulhas	6.6 million
Biomass Based Power	200 Mega Watt
Solar Energy	20 Mega Watt/Sq. KM
Wind Energy	115 Mega Watt
Small Hydro Power	250 Mega Watt
Tidal Power	100 Mega Watt
Urban and Industrial Wastes	250 Mega Watts