

Energy Statistics 2007

HIGHLIGHTS

Primary Sources of Conventional Energy in India (Section 1)

1. Total production of three primary sources of conventional energy namely coal and lignite, crude petroleum, and electricity (hydro and nuclear), shows an increase during 2006-07 over 2005-06, while the production of natural gas shows a marginal decline during 2006-07.

2. Production of natural gas increased from 1,445 million cubic metres in 1970-71 to 31,747 million cubic metres in 2006-07. Total production of crude petroleum and coal & lignite has increased about 5 and 6 times respectively during the same period. Production of electricity has, however, gone up by about 4.7 times during 1970-71 to 2006-07, implying a smaller growth rate compared to others.

3. In terms of peta joules, coal and lignite is the major source of energy, accounting for about 49.8% of the total production from all the primary sources of conventional energy during 2006-07.

4. India is a net importer of coal and crude oil. However, for petroleum products, India has become a net exporter since 2001-02. Export of petroleum products in the year 2001-02 was 3.06 million tonnes, it increased to 15.43 million tonnes during 2006-07, showing an increase of more than 5 times.

5. Wholesale price index remained at the same level in respect of liquified petroleum gas and coking coal during 2006-07 as compared to 2005-06, however it has shown a slight increase in respect of electricity.

Coal and Lignite (Section 2)

6. Total production of coal & lignite increased by 386 million tonnes, from 76 million tonnes to 462 million tonnes during 1970-71 to 2006-07. On the other hand production of coal derivatives and coal by-products fluctuated between 20-27 million tonnes during the same period.

7. Consumption of raw coal by industry shows an increasing trend during the period 1970-71 to 2006-07. However, in 1970-71, the percentage share of consumption was the highest for 'Railways' followed by 'Steel and Washery' and 'Electricity' whereas in 2006-07, the highest percentage share of consumption was on account of 'Electricity' followed by 'Steel & Washery' and 'Cement'. The share of total consumption by Indian Railways has declined sharply not only in percentage terms but in absolute terms as well, on account of its policy to phase out all steam engines all over the country.

Petroleum products (Section 3)

8. Out of the total domestic production of 135.3 million tonnes of all types of petroleum products in 2006-07, high speed diesel oil accounted for the maximum share (39.5%) followed by naphtha (12.3%), fuel oil (11.6%), motor gasoline (9.3%) and kerosene (6.3%).

9. High speed diesel oil accounted for 32.9% of total consumption of all types of petroleum products in 2006-07. This was followed by naphtha (9.8%), fuel oil (9.5%), refinery fuel (8.4%) and liquefied petroleum gas (8.3%).

10. Transport sector accounts for the lion's share (50.4%) of the total consumption of high speed diesel oil in India.

Natural gas (Section 4)

11. The percentage of natural gas flared used to be as high as 33.7% of the gross production in 1989-90 but declined sharply thereafter. During 2006-07 only 3.0% of natural gas was flared thereby implying better utilisation of natural gas. Of the total quantity of natural gas off-take in India in 2006-07, the largest share was by power generation (38.1%), followed by fertilizer industry (27.1%).

Electricity (Section 5)

12. Total installed capacity (utilities only) for electricity generation, has increased from 14,709 MW in 1970-71 to 132,329 MW in 2006-07. Among the utilities, the largest share was on account of 'Thermal' electricity followed by 'Hydro' and 'Nuclear'. Average generation of electricity per Kilowatt of the installed capacity in India is found to be the highest for Thermal (5,711 KWH) followed by Nuclear (4,771 KWH) and Hydro (3,271 KWH).

13. Of the total electricity consumed in 2006-07, industry sector accounted for the largest share followed by domestic, agriculture and commercial sector. However, electricity consumption in domestic sector and agriculture sector has increased at a much faster pace compared to other sectors during 1970-71 to 2006-07. It is a cause of concern that transmission losses have increased from about 17% in 1970-71 to about 30% in 2006-07.

International Comparison (Section 6)

14. Of the total world production of 3,914 million tonnes of crude oil in 2006, India's share is about 1.0% whereas in consumption, its share is 3.1% of the total world consumption of 3,889.8 million tonnes. In case of production and consumption of natural gas, India's share is to the tune of 1.1% and 1.4% respectively.

15. In 2006, USA's production accounted for 8.0% of total world production of crude oil whereas it accounted for 24.1% of total world consumption. Countries which have large share in production of crude oil in 2006 (i.e. exporting countries) but have in-significant or much smaller consumption of oil, were mostly from the Middle East with top rank held by Saudi Arabia having a share of 13.1% in production against its consumption share of only 2.4% followed by Iran having percentage share of 5.4% in production and 2.0% in consumption. Most of the European countries with the exception of Denmark, UK and Norway consumed much more of oil as compared to their production. The major producers of natural gas in the world viz. the Russian Federation and USA, accounted for 21.3% and 18.5% respectively of world production; and 15% and 22% respectively of world consumption in 2006.

New and Renewable Energy (Section 7)

16. Total installed capacity for grid connected renewable power is more than 10 thousand Megawatt as on 31.03.07. Tamilnadu is the leading state with 3802 MW capacity followed by the state of Maharashtra with 1774 MW capacity and Karnataka with 1493 MW capacity. Contribution of Wind power is maximum at 70% to the total installed capacity followed by small Hydropower (19%) and Biomass power (11%).

17. Installed capacity for solar photovoltaic power is mainly off-grid at 1868 Kilowatt (peak value). In comparison, grid connected solar power is only 2 MW.

18. Up to 31st March 2007, through various initiatives in the ‘Off Grid Decentralised Energy Systems’ category, 3651 remote villages have been electrified, 3,837379 Biogas plants, 7068 Solar Photovoltaic Pumps and 1,180 water pumping wind mills have been installed in various parts of the Country.