

## **ENERGY CONSERVATION**

### **Power and Fuel Consumption:**

Sl. No.	Particulars	Unit	2023-24	2022-23
<b>I.</b>	<b>Electricity Purchased</b>			
	a. Purchased Units	M.KWH	835.42	831.12
	b. Total amount paid to the supply agencies (Approx.)	Rs. in Crore	610.05	627.41
	c. Rate/Unit (Average)	Rs. /KWH	7.30	7.54
	d. Specific Consumption of Electricity (Approx.)	KWH/Cum	4.04	5.24
<b>II.</b>	<b>Demand of Power</b>			
	a. Average demand of power	MVA	178.84	180.16
	b. Contract Demand	MVA	199.33	199.89
	c. % Utilisation	%	89.72	90.00

### **Implementation of Solar Projects:**

Total of 1.906MW Roof Top Solar has been installed so far in ECL at different locations. During the year 2023-24, net generation from the plant was 8.47 Lakh kWh which resulted in savings of Rs. 42.72 Lakh.

### **Energy Conservation:**

In order to implement energy efficiency measures in different units and establishments, steps have been taken to replace 450 conventional fans with BLDC Fans (Super Fans), 152 old ACs with energy-efficient ACs, 12 old water heaters with energy-efficient water heaters, 2508 conventional lights with LED Lights, and 05 old motors with energy-efficient motors. Further, the Company has installed 50 auto-timers for street lights. The total anticipated savings from these energy efficiency measures is about 1.5 Million Units, valued at Rs. 1.10 Crore (Approximately) during year 2023-24, which resulted in a reduction of CO<sub>2</sub> emissions by 1237 Te. Net Gain received from improvement of Power Factor in F.Y. 2023-24 is Rs. 11.95 Crore (Approximately).

### **Underground Machinery Performance:**

Equipment	2023-24		2022-23	
	On Roll	Productivity (TPD)	On Roll	Productivity (TPD)
SDL	225	70	204	66
LHD	33	88	38	98
Continuous Miner	11	1310	9	1440
Road Header	1	44	1	162
Longwall	1	1802	1	2797
Highwall	2	1204	1	1031

### **Performance of CHPs:**

As on 31<sup>st</sup> March, 2024, the two Major CHPs at Sonapur Bazari and Rajmahal handled 21.05 MT of coal in F.Y. 2023-24 in comparison to 13.62 MT of coal during the year 2022-23.

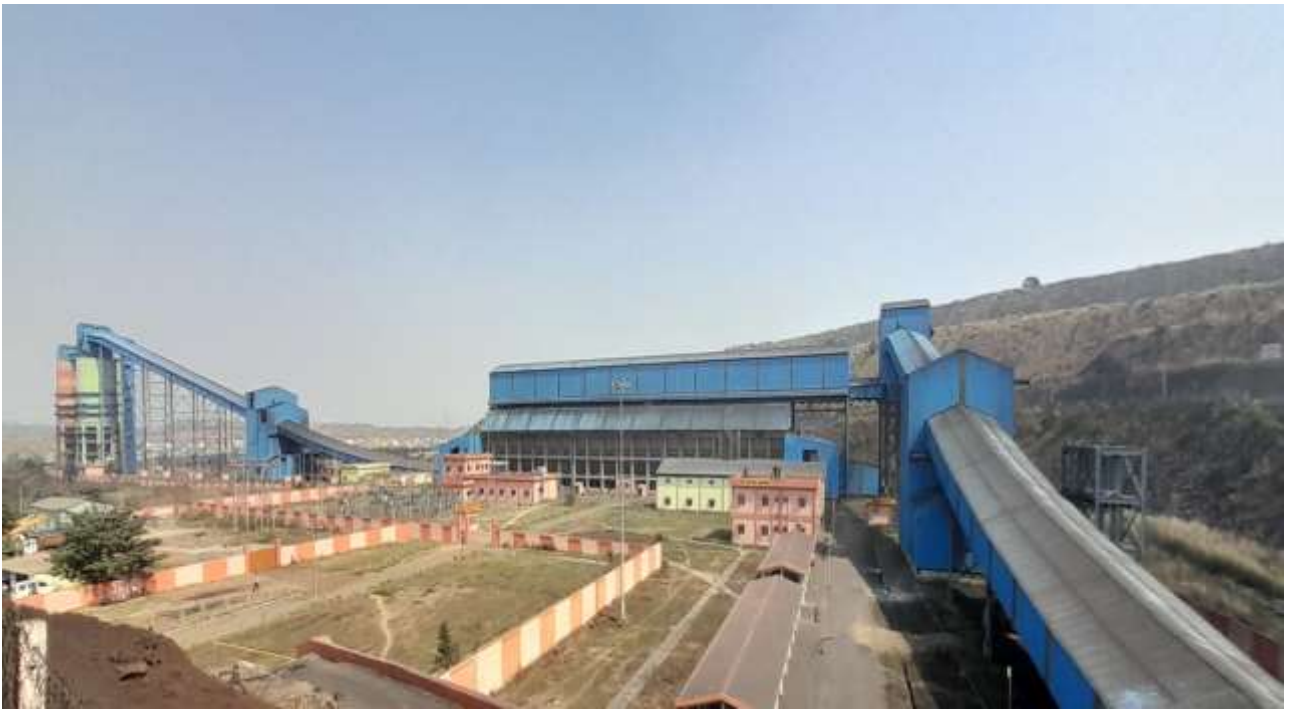
### **Major achievements during 2023-24:**

Work Order has been issued for Installation and commissioning of 35 MW Ground Mounted Solar Plant in ECL.

16 Nos. of new Electric Vehicle were procured in ECL.

Work order has been issued for conversion of 04 Nos. of Steam Winder to Electric Winder.

LOA has been issued for installation and commissioning of 3.73 MW Roof Top Solar Plant in ECL.



### **Solar Power Initiatives in ECL**

The ever-increasing global concern over climate change has prompted a shift towards sustainable and eco-friendly energy sources. Among the various renewable energy options, solar power stands out as a shining example of how innovation and technology can make a significant impact on reducing carbon emissions. As the world grapples with the challenges of climate change, the adoption of renewable energy sources becomes paramount in curbing carbon emissions. Among them, solar power has emerged as a shining beacon of hope in the fight against global warming. With the capacity to significantly reduce carbon dioxide (CO<sub>2</sub>) emissions, solar energy is equivalent to planting hundreds of trees over the span of decades. In this blog, we explore the remarkable impact of solar power in reducing CO<sub>2</sub> emissions and its equivalent contribution to tree planting.

Coal India Limited has already instructed to all its subsidiaries with directives to prepare the modalities / action plan for becoming Net Zero Company. Coal India Limited has communicated that to become a Net Zero Company; ECL has to install 525 MW Solar Power Project. Subsequently, ECL has taken initiatives to install Solar Power Projects in its area of operation. ECL has already installed 1.906 MW Solar Power Project, which has generated 7.12 Lakh kWh power during the F.Y. 2022-23 resulted in saving of Rs. 34.75 Lakh and generated 8.47 Lakh kWh power during the F.Y. 2023-24 resulted in saving of Rs. 42.72 Lakh.

ECL has planned to implement following Solar Power Projects during the F.Y. 2024-25:

**Ground Mounted Solar Plant of 35 MWp capacity:** The work for installation of Solar Power Plant at all the three sites is in progress and expected to be commissioned by August, 2024.

**Roof Top Solar Plant of 3732 kWp capacity:** The work for installation of 3732 kWp Roof Top Mounted Solar Plant is in progress and expected to be commissioned by October, 2024.

**Floating Solar Plant of 5 MWp capacity:** The project for 5 MW Floating Solar Plant at Salanpur Area is in progress and expected to be commissioned by March, 2025.

**Ground Mounted Solar Plant of 5 MWp capacity:** The project for 5 MW Ground Mounted Solar Plant at Sonepur Bazari Area is in progress and expected to be commissioned by March, 2025.

Apart from this, ECL has also identified suitable land in its area of operation for installation of Solar Power Plant during the F.Y. 2025-26 to become a Net Zero Company in near future.

