



# Energy Management



## Continuous Initiatives towards Reducing Climate Impact

### Adopting Green Energy

Our primary energy consumption comes from coal and furnace oil for steam generation, High-Speed Diesel (HSD) for diesel generator sets and vehicles. Electricity used in operations and corporate offices also forms a substantial part of our energy usage. To address this, we have adopted a twin-pronged strategy: optimizing energy consumption and transitioning to cleaner energy sources.

Our commitment to renewable energy has yielded significant results. During the reporting year, we procured 33,000 MWh of Renewable Energy Certificates (RECs). Along with rooftop solar installations, renewable electricity purchases through Power Purchase Agreements (PPAs), and I-RECs, these efforts increased renewable energy's share to 47.4% of our total electricity consumption.

Energy	Unit	FY 23	FY 24
Total Electricity consumption	MWh	77,078	84,066
Electricity from Renewable Sources (PPA+On-site+I-RECs)	MWh	7,565	39,885
<b>% of Renewable Energy share of consumed Electricity</b>	<b>%</b>	<b>9.8%</b>	<b>47.4%</b>
<b>Fuels Consumption</b>			
Coal Consumption	MT	22,149	21,732
HSD consumption	KL	742	508
Furnace Oil Consumption	MT	64.50	63.62
Petrol Consumption	KL	0.76	3.26
<b>Energy by Source</b>			
Energy From Electricity Consumption	TJ	277.5	302.6
Energy From Fuels Consumption	TJ	592.2	573.3
<b>Total Energy in TJ</b>	<b>TJ</b>	<b>869.7</b>	<b>875.95</b>
<b>Energy Intensity - TJ/Production</b>	<b>TJ/MT</b>	<b>0.01528</b>	<b>0.01445</b>

Granules made significant strides in energy management during FY 24, reaffirming its commitment to sustainability. Total electricity consumption increased from 77,078 MWh in FY 23 to 84,066 MWh in FY 24. Renewable energy contributions saw a notable rise, with renewable electricity (via PPA, on-site generation, and I-RECs) growing from 7,565 MWh to 39,885 MWh, boosting the renewable energy share from 9.8% to 47.4%.



Fuel consumption trends showed a reduction in diesel (HSD) use from 742 KL to 508 KL and a slight decline in coal consumption from 22,149 MT to 21,732 MT, reflecting improved efficiency measures. While total energy usage increased slightly from 869.7 TJ to 875.95 TJ, energy intensity improved from 0.01528 TJ/MT to 0.01445 TJ/MT, indicating more efficient energy use relative to production.

In March 2023, a 320 kWp solar power plant was installed at the Gagillapur facility, generating approximately 1,200 kWh of power daily and increasing the renewable energy share by 0.22%.

Looking ahead, Granules remains committed to expanding its renewable energy capacity. By FY 25, the company plans to commission a 1 MW rooftop solar plant at the Gagillapur unit, advancing its journey toward a sustainable energy future.

### Promoting Energy Efficiency

Reducing energy consumption is central to our commitment to energy savings, focusing on equipment replacement and retrofitting for optimal performance.

In FY 23-24, Granules saved 915,945 kWh through initiatives like replacing vacuum pumps (70,296 kWh), upgrading to energy-efficient blower motors (474,272 kWh), and installing interlocks on RT pumps (28,244 kWh). Rooftop solar panels enabled direct solar energy use, and systems like auto cutoff for cooling tower fans, VFDs on motors, and automatic tube cleaning improved efficiency.

Granules purchased 33,000 MWh in Renewable Energy Certificates, avoiding 28,700 metric tons of greenhouse gas emissions and achieving 17.98% renewable energy use. These efforts resulted in financial savings of ₹ 120.23 lakhs, demonstrating our commitment to resource optimization and operational excellence.

#### Our Goal

**Achieve 100 % Sourcing renewable electricity by FY 30**

**47.4%**

Of Electricity Consumption from Renewable sources (PPA, On-site Rooftop, I-RECs) in FY 24

**84,066 MWh**

Electricity consumed in FY 24

**1 MW**

On-site rooftop solar capacity at our Gagillapur unit

**876 TJ**

Energy consumed in FY 24

### Outlook

Granules will continue refining its GHG emission estimation approach using the templates and methods developed during this exercise for future assessments. Supplier-specific emission factors gathered will remain effective but will be updated periodically as supplier sustainability programs evolve. As new GHG emission factors are published, we will ensure timely updates to maintain accuracy. Additionally, we will continue obtaining third-party assurance for our GHG inventory to enhance transparency and reliability, reaffirming our commitment to rigorous emissions management.

