

NATURAL CAPITAL

# Catering to our customers' needs in harmony with nature

As India's largest integrated power company, Tata Power is cognizant about the scale of impact its operations has on the environment. Proudly embracing our responsibilities, we have chosen to lead by example on environmental stewardship and ensure a positive outcome for our customers, communities and other stakeholders. We have taken ambitious targets to realize our vision of being carbon neutral, internalising circular economy on water and waste management and being a benchmark in the utility sector.

Strategic Business Objectives

- SBO1:** Profitable scale-up of Renewables, Distribution, Services and Energy Solutions business
- SBO2:** Focus on Sustainability with an intent to attain carbon neutrality
- SBO8:** Set new benchmarks in operational excellence and financial returns for existing businesses

Governance enablers

- Risk Management Committee
- Risk Management Policy
- Corporate Sustainability Policy
- Corporate Environment Policy

Material topics

- Carbon emission management
- Operational efficiency
- Resource availability
- Waste management
- Biodiversity

Key performance indicators

- GHG emissions (Scope 1, 2 and 3) and mitigation
- Auxiliary power consumption
- Station Heat rate
- Water consumption and recycling
- Waste generated & disposed
- Habitats protected/restored

Key risks addressed

- Regulatory risk
- Climate change and business continuity linked risks

Sustainable Development Goals



Interaction of natural capital with other capitals

	HUMAN	MANUFACTURED	FINANCIAL	SOCIAL & RELATIONSHIP	INTELLECTUAL
Capital tradeoffs	Interventions across eco-friendly initiatives instils a sense of environmental stewardship across our workforce	Our drive towards carbon neutrality and circular economy creates a suitable environment for the proliferation of renewables and energy-efficient products	Operational efficiency measures not only reduces GHG emission, it also reduces costs and impacts profitability	Responsibly managing waste and water pollutants as well as reducing our emissions creates a healthy environment for the communities in which we operate	Unique challenges in attaining sustainability targets spurs innovative and integrated thinking across the Company
Impact across the <IR> capitals	49 employees of CGPL participated in garden plant nursery initiative and sapling distribution	0.687 tCO2e/ MWh of carbon intensity achieved	₹1.77 crore Income from CER trading from designated projects in FY 21	6,750 customers own rooftop solar plants with 174 mWp capacity	100% Fly ash utilized in Jojobera due to innovative solutions such as reduction in drying time and increase in depth of Ash pond.

# Progressively reducing our environmental impact

We are committed to amplify our climate action and create a postive impact for the community and environment in which we operate. Leading by example, Tata Power became India’s first power utility to publicly pledge to ‘Carbon neutrality’ before 2050. We aim to leverage our unparalleled synergies across the Renewables Energy (RE) value chain to deliver scalable growth in the renewables space and realise our climate ambitions.

We continue to consciously align our efforts with the UN SDGs and the goals of the Paris Agreement, and have committed to setting scientific emission reduction targets through Science Based Targets initiative (SBTi). The targets will be aligned to keeping global temperature rise well below 2°C, compared to pre-industrial levels. The SBTi aligned targets will also provide the pathway to develop integrated solutions for becoming carbon neutral. To fulfil these commitments, Tata Power plans to conduct a thorough scenario analysis to identify interventions areas. Our overarching strategy and goals for decarbonisation, circular economy and thought leadership can be read on page 22.



## Our approach to managing GHG emissions:

**BUSINESS**

- Phasing out coal-based power plants and ramping up renewables and other forms of clean energy
- Improving operational efficiencies
- Providing clean energy to customers through RE 100 commitments\*
- Exploring viable technologies
  - Storage technology (hydrogen)
  - Carbon capture / mitigation
- Undertaking afforestation
- Implementing zero waste to landfill (biodegradable waste)
- Promotion of E-billing-1.5 lakh customer opted for e-billing in Mumbai distribution which saved around 2,630 trees.

**EMPLOYEES**

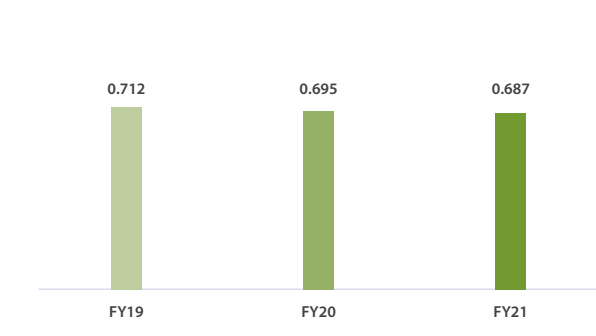
- Reducing travel by utilising digital forums
- Tracking travel emissions through a mobile application to identify reduction opportunities
- Promoting paperless office
- Implementing energy-saving initiatives
- Volunteering in afforestation programmes
- Championing ‘Greenolution’ with 1000+ Green Heroes

\* RE100 is the global initiative bringing together hundreds of large and ambitious businesses committed to 100% renewable electricity.

GHG emission scope	Million tCO2e*
Scope 1	34.500
Scope 2	0.031
Scope 3	0.003
Total	34.534

\*GHG emission includes T&D losses

## CO<sub>2</sub> intensity (tCO<sub>2</sub>e/MWh)



In line with our sustainability commitments, we have steadily expanded our renewable energy portfolio over the years. This along with our operational efficiency measures has led to the decrease in our carbon emissions per unit of energy we produce, enabling us to serve our customers with cleaner energy every year.

## Addressing air pollution

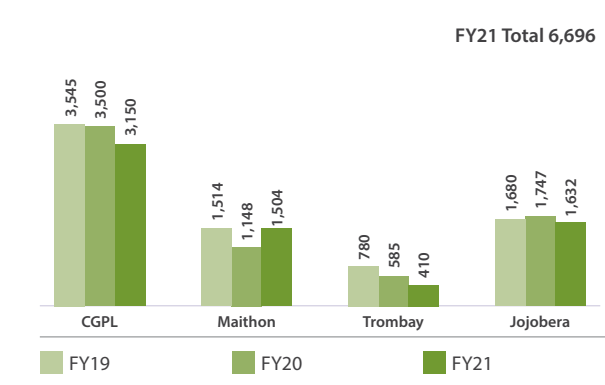
In addition to GHG, we are conscious about other air pollutants released from our operations. Further to compliance with regulatory norms, we have implemented measures to reduce emissions at source and ensure a healthy environment for our communities in which we operate. Acting on the precautionary principles, Tata Power curtailed SOx emissions from both units of Trombay thermal power plant by installing sea water-based Flue Gas Desulphurisation (FGD) units. This was undertaken much before the recent regulatory notification on control of SOx emissions was released. To address the issue of NOx emissions, ‘Low Burners’ and ‘Over Fire Air Dampers’ have been made an integral part of the installed boilers.

Air emissions trends from our four major thermal power plants (CGPL, Maithon, Trombay and Jojobera) are provided below:

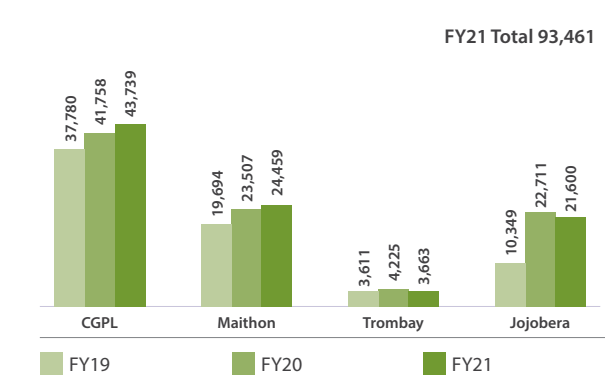
**Initiatives to reduce air pollution**

- Electrostatic precipitators made an integral part of boilers
- FGD installation planned at all coal plants by 2024 to reduce SOx emissions
- Reduced carbon monoxide generation through close monitoring of air fuel mix
- NOx emissions controlled through
  - Combustion optimisation over fire damper
  - Proper burner tilt operation

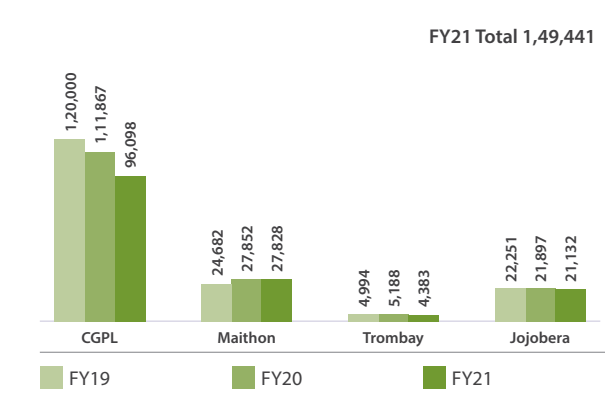
## PM emissions (in MT)



## NOx emissions (in MT)



## SOx emissions (in MT)



Delivering power efficiently

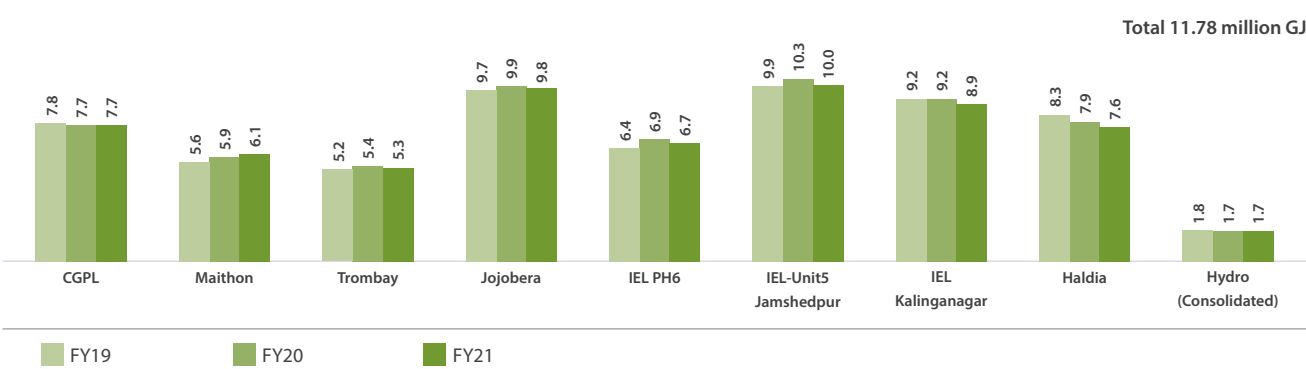
In the business of generating and delivering energy to our consumers, we also consume a part of this energy for our own operations to ensure that we deliver without interruptions. We drive efficiencies in our processes to conserve maximum energy and provide more output to our customers.

Auxiliary Power Consumption (APC)

**Initiatives taken to reduce APC**

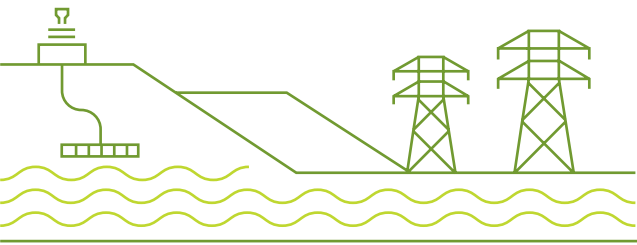
- Stoppage of Cooling Tower fans during winter season and low load operation
- Stoppage of high-tension equipment during low load operation
- Optimisation of excess O2 in boilers
- Conventional lamps replaced by LED lights in section of operational area of boiler and thermal generation
- Reducing operating pressure in feed water system

Aux energy consumption (% of total energy consumed)

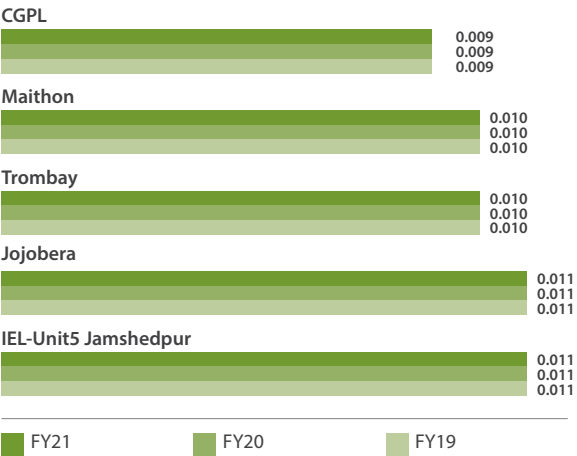


Station Heat Rate (SHR)

Further to our efforts to reduce auxiliary power requirements at the power station, we also focus on improving the conversion efficiency of our power generation systems. Reducing the heat rate not only results in lower coal consumption without compromising on customer energy requirements, but also reduces GHG emissions. Our SHR has remained consistent despite aging of plant.



Station Heat Rate (GJ/kWh)



Initiatives taken to reduce SHR

**CGPL**

- Laser-based combustion and temperature optimisation
- Power consumption optimisation of electrostatic precipitator and compressed air system

**Maithon**

- Optimisation of set points regarding coal flow, air flow, burner tilt position and so on
- Optimisation in steam consumption required for soot-blowing

**Trombay**

- Maintenance optimisation under Reliability Centered Maintenance (RCM) approach and Asset Performance Management (APM) analytics

**Jojobera**

- Optimisation of mill and Cooling Water Pump (CWP) operation
- Boiler Feed Pump de-staging for optimising APC
- Compressed air optimisation through low-pressure and high-volume independent conveying air compressors

**IEL Kalinganagar**

- Modified the Coke Oven Gas (COG) burner

**Haldia**

- Replacement of existing cooling tower glass-reinforced plastic blade fans with high efficiency light weight fiberglass-reinforced plastic blades fans



Generating power responsibly

Water stewardship

India is projected to experience severe shortage of water availability especially in the urban areas. Impacts of climate change has only exacerbated this risk further. Currently, a majority of the country’s power requirements are met by thermal power plants which consume a significant amount of water for daily operations. To ensure a water secure future for our citizens, we are making conscious efforts to reduce our dependence on freshwater and maximise the potential recycle and reuse of our process water in line with principles of circularity.

These efforts have led us to be water neutral in thermal generation business and water positive in the T&D and RE business, supporting our progress to be a benchmark in water management within the Indian utility sector. Going beyond our operations, we have developed rainwater harvesting structures and are also scaling up our participatory groundwater management programmes to increase groundwater recharge and ensure water availability for our communities.

Fresh water (Total Dissolved Solids <1000 mg/l) consumption (all figures are in million litres):

Source of water withdrawal	Plant	Water withdrawn	Water discharged	Water consumed
Surface water	Maithon	15,156	Nil	15,156
	Trombay	4	Nil	4
	IEL Kalinganagar	392	Nil	392
	Bhira	7,72,800	7,72,800	Nil
	Bhivpuri	2,34,040	2,34,040	Nil
	Khopoli	2,16,887	2,16,887	Nil
	Wind	Nil	Nil	Nil
	Solar	73	Nil	73
	Total	12,39,352	12,23,727	15,625
Ground water	Solar	194	Nil	194
	Total	194	Nil	194
Third-party water*	Trombay	878	91	787
	Jojobera	9,119	Nil	9,119
	IEL PH6	2,446	Nil	2,446
	IEL Kalinganagar	2,902	Nil	2,902
	Haldia	2,281	Nil	2,281
	Wind	3	Nil	3
	T&D	80	Nil	80
	Total	17,709	91	17,618
Total fresh water		12,57,255	12,23,818	33,437

\*Third party water data comprises of water purchased from municipal corporation, third-party treated effluent (e.g. Tata Steel provides clarified/treated water at IEL Kalinganagar) and packaged drinking water

Other water (Total Dissolved Solids <1000 mg/l) consumption

Source of water withdrawal	Plant	Water withdrawn	Water discharged	Water consumed
Seawater*	CGPL	46,93,967**	45,08,765	1,85,202
	Trombay	6,72,824	6,15,519	57,305
	Total	53,66,791	51,24,284	2,42,507
Total other water		53,66,791	51,24,284	2,42,507

\*Sea water is used for cooling only

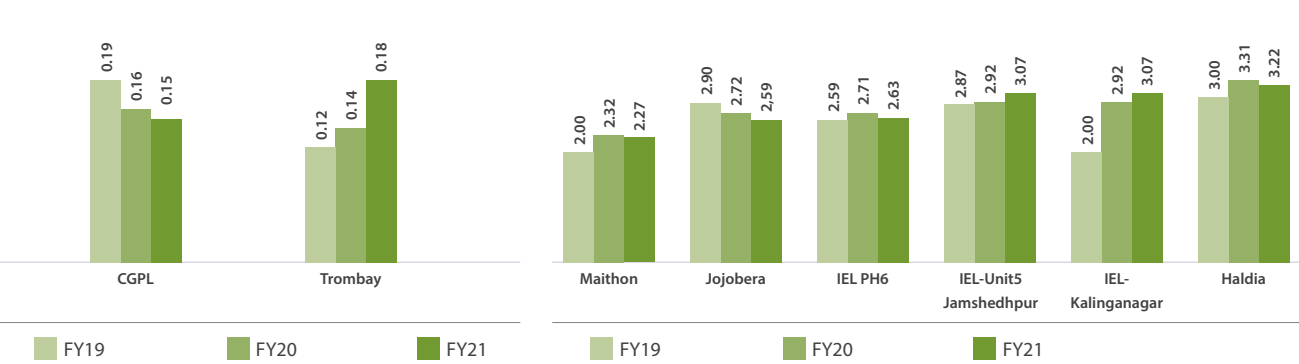
\*\*Water withdrawn from water stress area

Note: All figures are in million liters

Our major thermal power plants have Zero-Liquid Discharge (ZLD) (except sea water used for cooling), wherein the waste water is treated and reused. The quality of effluent discharge is ensured as per regulatory requirements at all applicable locations. Our hydro operations use minimal water for facility inhabitants and Sewage Treatment Plants are installed for

recycling waste water for gardening. Almost all of the water withdrawn for power generation is discharged into lower reservoir maintaining acceptable quality. In FY21, there were no incidents of non-compliance pertaining to the discharge limits at any locations.

Specific water consumption (m³/MWh)



Note: Specific water consumption at CGPL and Trombay considers water used for steam generation only. Cooling requirements are excluded as both plants utilise sea water for cooling.

Initiatives taken to reduce water consumption

<p><b>CGPL</b></p> <ul style="list-style-type: none"><li>Reduced Demineralized (DM) Water consumption through:<ul style="list-style-type: none"><li>Commissioning of condensate drain transfer system</li><li>Optimisation of steam consumption by reducing pressure</li><li>Strengthened system of daily checks with dashboard for monitoring deviation in DM water consumption</li><li>Achieved specific water consumption of 0.15 m3/MWh against the target of 0.170 m3/MWh and saved over 10,000 m3 of DM water in FY21</li></ul></li><li>Reduced service water consumption through:<ul style="list-style-type: none"><li>Phase wise replacement of Mild Steel (MS) water pipeline with Carbon Steel (CS) having internal coating for corrosion resistance thereby reducing leakages</li><li>Treated guard pond water used for dust suppression system</li><li>Led to savings of 2,054 m3 of service water daily</li></ul></li></ul>	<p><b>Hydro</b></p> <ul style="list-style-type: none"><li>Loading hydro stations at their best efficiency to reduce water consumption and generate more units led to savings of 15.27 million m3 of water which is equivalent to 19 MUs.</li><li>Utilising 2,100 m3 of water during monsoon for ground water recharge and gardening led to reduction in auxiliary consumption thereby reducing the loss and cost to the Mumbai consumers.</li></ul> <p><b>Trombay</b></p> <p>Several initiatives taken in combination to optimise raw water consumption and reduce DM water requirements</p> <ul style="list-style-type: none"><li>Rain water harvesting structure commissioned with expected collection potential of 15,000 m3</li><li>Cross-functional team set up to swiftly identify and address leaks in water lines</li><li>Diverted overflow water in the separator tank of vacuum pump towards gardening requirements</li></ul> <p><b>Jojobera</b></p> <p>Unused recovery water from ash pond is filtered and used as make-up water for unit basin thereby reducing freshwater requirement</p>
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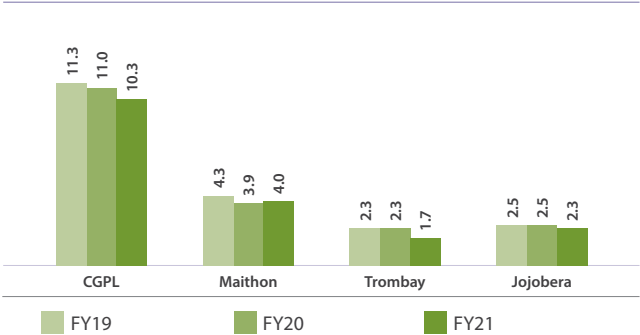
Judicious management of raw materials

As we transition towards renewable energy, we are reducing our dependence on conventional fuels and the risks associated with their availability. This has a substantial benefit on our environment in terms of decreasing the risks arising from the natural resource extraction process. As we phase out our conventional generation operations at the end of life, we anticipate decreasing trends in consumption of these resources. Our superior monitoring and improvement of operational efficiency measures also reduce resource consumption significantly. Further, we plan our operations and maintenance prudently to minimise forced shutdowns, thereby reducing consumption of light diesel oil and heavy furnace oil.

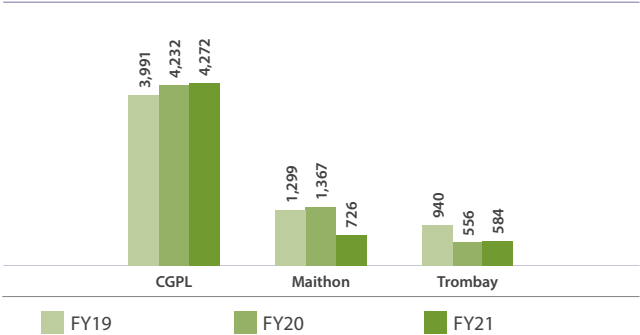


Power station	Coal (MT)	Light diesel oil (KL)	Heavy furnace oil (KL)	Natural gas (MT)
CGPL	1,03,04,531	527	4,272	N/A
Maithon	40,20,482	586	726	N/A
Trombay	16,75,287	229	584	3,02,483
Jojobera	22,69,890	1,278	N/A	N/A
IEL PH 6	N/A	1,594	N/A	N/A

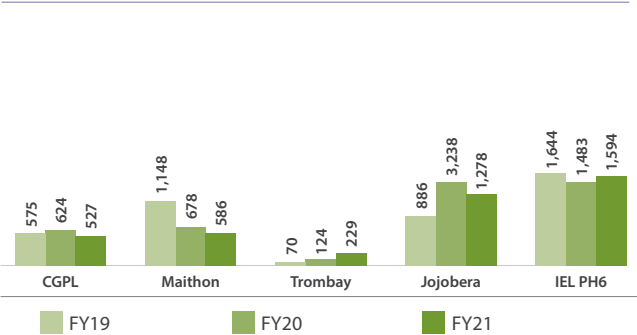
Coal consumption (in MT)



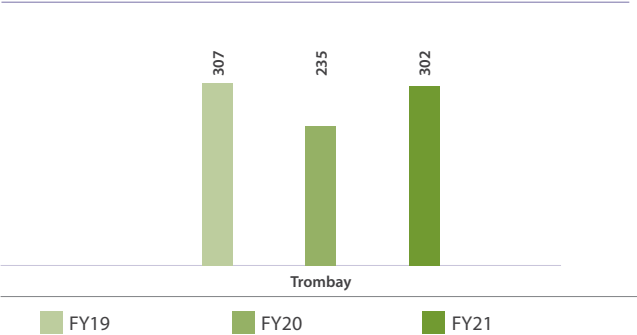
Heavy furnace oil (in KL)



Light diesel oil (in KL)



Natural gas (in '000 MT)



Preparing for a circular economy through waste management

Tata Power takes pride in going beyond compliance and has taken bold steps to improve waste management practices across its operations. We aim to benchmark our waste management practices in the industry, facilitate circular economy and maximise fly ash utilisation in the Indian utility sector thereby progressing towards zero waste to landfill.

We take a precautionary approach when we explore new business opportunities. In line with regulations, all business processes are assessed for probable waste generation before the start of operations. To minimise waste generation and optimise waste management, we evaluate various options of resources, technologies and processes which are further approved by statutory authorities.

During business operations, these processes are continuously reviewed and improvement initiatives are suitably undertaken and monitored for effectiveness.



Objectives

Benchmark waste & fly-ash management

(100% utilization)

Zero waste to landfill

biodegradable waste by 2026





Quantifying waste management:

Plant	Type of waste	Generated (MT)	Diverted from disposal (MT)	Diverted to disposal (MT)
CGPL	Hazardous	28.3	7.6	20.7
	Non-hazardous	7,59,555	5,83,437.1	53,563.9
MPL	Hazardous	20.7	20.7	Nil*
	Non-hazardous	16,15,834	7,64,468	19,06,906
Trombay	Hazardous	30.3	30.2	0.1
	Non-hazardous	42,398.2	34,200.2	8,873
Jojobera	Hazardous	14.3	14.3	Nil*
	Non-hazardous	8,41,452.1	5,99,690	4,49,515
IEL PH 6	Hazardous	14.5	14.5	Nil
IEL Kalinganagar	Hazardous	184.7	Nil	184.7
	Non-hazardous	495.5	Nil	495.5
Haldia	Hazardus	0.6	Nil	0.6
Bhira	Hazardous	16.0	16.0	Nil
	Non-hazardous	119.0	119.0	Nil
Bhivpuri	Hazardous	4.3	4.3	Nil
	Non-hazardous	179.0	179.0	Nil
Khopoli	Non-hazardous	114.3	114.3	Nil
Wind	Hazardous	0.1	Nil	0.1
	Non-hazardous	0.3	Nil	0.3
Total	Hazardous	313.8	107.6	206.2
	Non-hazardous	32,60,147.4	19,82,207.6	24,19,353.7

Note 1: Waste diverted from or to disposal may include leftover stock from waste generated in FY20

Note 2: Hazardous waste includes e-waste, battery waste and biomedical waste for the purpose of reporting here

\*Negligible amount of biomedical waste generated, which is disposed of through incineration at Common Biomedical Waste Treatment Facility

Waste diverted from disposal	Onsite (MT)	Offsite (MT)	Total (MT)
Hazardous waste			
Reuse	Nil	Nil	Nil
Recycling	4.3	58.5	62.8
Other recovery options	Nil	44.8	44.8
Total	4.3	103.3	107.6
Non-hazardous waste			
Reuse	8	Nil	8
Recycling	Nil	19,82,180.6	19,82,180.6
Other recovery options	Nil	19.0	19.0
Total	8	19,82,199.6	19,82,207.6

Waste diverted to disposal	Onsite (MT)	Offsite (MT)	Total (MT)
Hazardous waste			
Incineration	Nil	20.8	20.8
Landfilling	Nil	4.5	4.5
Other disposal options	Nil	180.9	180.9
Total	Nil	206.2	206.2
Non-hazardous waste			
Incineration	Nil	Nil	Nil
Landfilling	Nil	24,17,593	24,17,593
Other disposal options	1,213	547.7	1760.7
Total	1,213	24,18,140.7	24,19,353.7

Waste management initiatives and practices:

CGPL

- Waste generation points analysed for prioritisation and collection
- Enhanced awareness on waste segregation and management among employees and residents
- Food waste transported to Ashiyana Township for composting
- In association with M/s NEPRA, collection centre and Material Recycle Facility (MRF) at plant as well as township were set up to systematically manage waste and increase waste recycled

Maithon

- Coal reject stone and ash gainfully utilised in road repair
- Ensured that biomedical waste is disposed in an environment-friendly manner by implementing a barcode system for tracking (through GPS) till the authorised disposal centre.

Trombay

- Fly ash utilised for manufacturing Ready Mix Concrete (RMC) and bricks
- Bottom ash utilised for quarry filling (outside plant premises) and as a substrate for green lawns (within premises)
- Procuring biodegradable plastic and ensuring safe plastic waste disposal through government approved vendor
- Reducing waste oil generation by reconditioning used oil through filtration machine

IEL Kalinganagar

- Supported customer (Tata Steel) in complying with statutory requirements by collaborating in waste management practices and efficient handling of hazardous waste

Jojobera

- Reduced ash generation by using coal with low ash percentage (utilising the Government’s Shakti Scheme)
- Reduced oil waste generation through RCM process and condition monitoring, along with the use of additives and offline filtration to maintain oil quality
- Waste oil undergoes the centrifuge separation and ultrafiltration process to reduce contamination and enable oil to be recycled, leading to ₹7,146 per barrel savings
- Metallic scrap value increased after segregation and separate auctioning process as per metal types

Haldia

- 90% of used oil recycled through different filter machines (Centrifuge, Low Vacuum Dehydration & Degasification (LVDH) & Electrostatic Liquid Cleaner (ELC))
- Minimised wooden packaging waste by encouraging suppliers to use minimal metal structure which is reusable (added advantage of reducing fire load)
- Reusing damaged metal boiler tubes as structural handrail, safety barricade, cycle/helmet stand, canopy and so on.
- Empty chemical jars in unusable condition were cleaned thoroughly and used as containers for plants and trash
- Reject cartridge filters from DM plant are reused to improve aquarium water quality
- ₹6.5 lakh cost savings on procurement of fresh materials in addition to waste minimisation, safety empowerment and community satisfaction





Case study

Ash management at Jojobera



Challenges:

- High ash content (30-45%) in Indian coal, leading to the generation of fly ash of 4000MT/day (80% fly ash, 20% bottom ash)
- Unfavourable conditions – difficult rail route, dense population, high cost of disposal

Partnerships to address the issues:

- Tie up with fly-ash consumers Nuvoco (nearby) and Shree Cement (within 90 km)
- Negotiated with Shree Cement and Damia in West Bengal to dispatch 30% of ash generated and maintain higher utilisation pace
- Modernisation at Nuvoco led to increased demand, accounting for 40-45% fly ash utilisation

Policy advocacy to improve utilisation

- Discussions with NHAI to supply pond ash to use as sub-base for road construction, as well as embankment filler
- Discussions with nearby industries to fill bare land and reduce costs
- Discussions with real estate organisations for another avenue to improve utilisation and reduce costs

Upcoming plans to reduce disposal costs:

- Reducing moisture content in pond ash
- Council of Scientific and Industrial Research (CSIR) Jamshedpur research for brick manufacturing from pond ash
- Increase number of trips using one-time tare weighment facility and installation of higher-sized weigh bridge
- Improving drying time and larger operation depth in ash ponds by using smart cutting technology

Greenolution

Our teams drive our progress. We encourage them to contribute to developing future-ready solutions to today's waste problems thereby turning employees into 'Green Heroes'. We support their ideas on waste recycle/reuse and inform them about the positive impacts in terms of environmental and financial benefits.

Caring for our common habitat – Enhancing biodiversity

We, at Tata Power, are deeply committed to conserving natural habitats and strengthening biodiversity.

We firmly believe that our operations are in harmony with the environment in which we operate. We ensure that we undertake initiatives across our operations not only to minimize our impact on the surrounding biodiversity but also enhance it. Our aspirations have triggered a change in our approach from conservation of species to entire ecosystems, providing a holistic outcome to our efforts. We have a formal governance structure and execution strategy in place which enables us to effectively manage biodiversity across the organization.

Tata Power's principles for biodiversity management

- Integrating biodiversity into our operations
- 'Beyond the Fence' projects – i.e. outside the area of impact
- Creating a culture of care for biodiversity

ENTERPRISE

- Providing governance expertise
- Issuing guidance documents
- Partnering with experts

SITE-SCALE

- Developing action plan
- Monitoring compliance
- Managing impacts

INDIVIDUAL LEVEL

- Promoting sensitisation through exposure
- Volunteering



Mahseer

Tata Power has completed 50 years of Mahseer conservation for the blue-finned Mahseer (Tor Khudree), protecting and increasing the numbers of these Tiger of the Waters. The consistent efforts along with state fisheries department and communities has brought this species back from the brink of extinction and The International Union for Conservation of Nature (IUCN) has acknowledged Tata Power's efforts and upgraded the species from Endangered to the 'Least Concern' category





Highlights of our biodiversity initiatives:

<p><b>Grassland ecosystem conservation (at solar sites)</b></p> <ul style="list-style-type: none"><li>— First of its kind of project focused around Grassland ecosystem conservation</li><li>— Outcome of the change in our approach from species conservation to ecosystem conservation</li><li>— Temperature and humidity levels are beneficially affected by grassland, thereby improving efficiency of solar panels</li><li>— Seasonal biodiversity is assessed for harmonious integration of plantation initiatives</li><li>— The International Union for Conservation of Natura (IUCN) critically endangered species are being identified for planning conservation efforts</li><li>— Facilitates in water conservation, soil erosion and carbon storage in soil</li><li>— This approach will be replicated across additional solar installations</li></ul>
<p><b>Tree Mittra: A large-scale afforestation drive</b></p> <ul style="list-style-type: none"><li>— More than 3.5 million trees planted till date (mitigating approx. 70,000 tCO2e/annum)</li><li>— Over 1 million trees planted a year.</li><li>— An area of 6,000 hectares was aerially dispersed with over 100 tons of seeds of different tree species before onset of monsoon.</li><li>— Indigenous species selected to preserve ecosystem and improve survival rate</li><li>— Fruit bearing trees being included to increase benefit to community</li><li>— Wild orchid propagation and medicinal plant cultivation undertaken</li><li>— Involving diverse stakeholders: Customers, communities (Club Enerji), Employees (Greenolution), MoEFCC (species selection) etc.</li><li>— E-Platform under development to enable pledging for tree plantation during pandemic induced lockdown</li></ul>
<p><b>Western Ghats biodiversity hotspot conservation</b></p> <p>As the Hydro operations are in the proximity of pristine areas of high biodiversity value, Tata Power has set the following objectives to be observed by such sites:</p> <ul style="list-style-type: none"><li>— Protecting the existing flora and fauna</li><li>— Increasing green cover</li><li>— Preventing soil erosion and reducing siltation</li></ul> <p><b>Highlights of our conservation efforts include:</b></p> <ul style="list-style-type: none"><li>— Over 50 years of Mahseer conservation efforts (more than 12.6 million fish seeds produced till date)</li><li>— 300 fishery scientists trained</li><li>— 5 endemic and endangered orchid species selected for profleration</li><li>— 5 national workshops held for Knowledge Exchange</li><li>— Published books on "Birds of Lonavla and Khandala", "Wild orchids of the Northern Western Ghats", "Reptiles of Northern Western Ghats" and a monograph on “The Mighty Mahseer”</li></ul>

Transmission corridors

For operational transmission lines, trees are trimmed to maintain safe distance. Area adjacent to the corridor remains untouched, except for occasional maintenance requirement. This helps conserve and sustain habitat in and around the transmission lines. To support the conservation efforts, seeds and saplings are planted in the green belt areas.

Case study

Going beyond compliance at CGPL



- Coastal Gujarat Power Limited (CGPL) had a regulatory mandate of maintaining 33% green cover (as per Environmental Clearance obtained). As CGPL procured 1,242 hectares of land in total, 409.86 hectares of greenbelt was to be developed. However, CGPL developed additional 11.53 hectares to promote environmental conservation in its operations, aligning with SDG 13 and SDG 15.
- This was not a one-off initiative – dedicated protocol was set to obtain reliable ground-based Measurement, Reporting and Verification (MRV). 133 unique species were observed in the greenbelt. Since inception, CGPL has planted 62 different plant species belonging to 12 different groups (e.g. climber, grass, herbs, shrub, tree etc.)
- Results were confirmed using GIS (Geographic Information System) based mapping study, which also identified new plantation areas for further coverage. This study further recommended additional species to be considered for plantation based on agro-climatic zone and ecological characteristics of the region.
- Manmade ponds were developed in the green belt using recycled water. These ponds are intended to serve as potential eco-restoration zones and provide suitable habitat for diverse local and migratory species.
- Additional initiative undertaken along with employees – Garden plant nursery ‘NIDHIVAN’
  - 165 m2 nursery developed for nurturing plants and distributing saplings
  - Reused discarded items (e.g. paper cups, trays, empty drums etc.) used as sapling containers. Scrap material used to build nursery shed
  - Local seeds used for growing saplings
  - 300 nos of saplings (Mango and Papaya) distributed
  - 49 employees participated