

Growing as a climate-smart enterprise

Our climate action plan is based on our understanding of climate risks and opportunities. We are also a signatory to the India CEO Forum on Climate Change, and have pledged to undertake necessary action.

We are among the 24 signatories to the India CEO Forum on Climate Change, which is driven by the Government of India's Ministry of Environment, Forest and Climate Change. The forum encourages corporates to make commitments to reduce GHG emissions and share best practices to develop resilience and help India meet its obligations towards the Paris Agreement. As part of this initiative, we have pledged to undertake measures spanning six thematic areas.

We recognise the physical and transitional risks presented by climate change and are building capabilities to make our business climate-resilient. We recognise extreme weather events and water stress as key physical climate risks. We are also working towards decarbonising our energy mix to insulate our operations against transitional risks. While we devise risk mitigating actions, we endeavour to capitalise on the opportunities presented by the transition to a low-carbon economy and emerge as a climate-smart enterprise. We are in the process of integrating the TCFD (Task Force on Climate-related Financial Disclosures) recommendations into our risk management approach by FY23.



ENERGY MANAGEMENT

Transitioning towards greener sources

Our approach to energy management revolves around three thrust areas:

Monitor

Enabling stringent control of energy consumption

- * Internally developed energy management software
- * Periodic energy audits conducted by independent third parties

Decarbonise

Enhancing share of greener fuel alternatives

- * Replacing furnace oil to biomass-based boilers
- * Adoption of other renewable sources of energy

Minimise

Employing energy-efficient equipment

- * Enhancing operational efficiency of utilities
- * Energy-efficient illumination

GRI 103-1, GRI 103-2



Monitor

Enabling stringent control over energy consumption

We track our energy consumption to identify opportunities for energy conservation and process optimisation. In FY21, our total energy consumption stood at 3,158,195 GJ. Currently, 40% of our total (direct and indirect) energy requirements are met through grid electricity, which also contributes to 62% of indirect energy.

Energy source

	Energy Consumption (in GJ)		
	FY19	FY20	FY21
Energy from non-renewable sources	703,850	859,601	688,486
Energy from renewable sources	386,376	354,611	438,049
Grid electricity	1,246,514	1,278,025	1,254,541
Power purchased from renewable sources	10,163	14,728	32,108
Steam purchased (biomass briquette fuel-based)	475,746	490,634	745,010
Total energy consumed	2,822,648	2,997,600	3,158,195
Energy Intensity (GJ/Revenue in ₹ Million)**	23.96	21.96	20.56

**Revenues of sites mentioned in the reporting boundary have been considered for this calculation



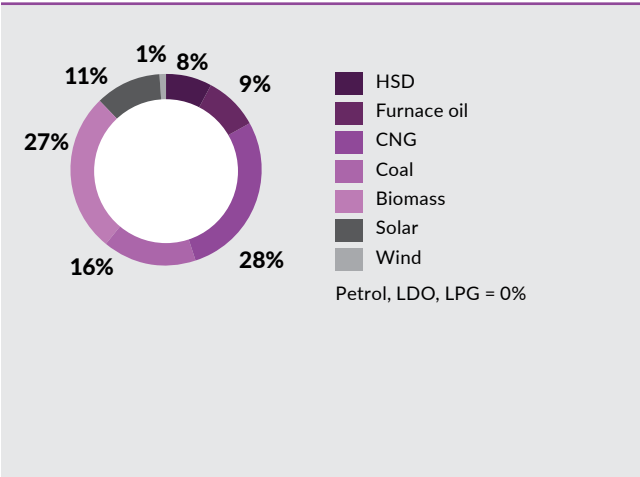
Decarbonise

Enhancing share of cleaner fuel alternatives

We have been gradually shifting to cleaner fuel options and making consistent investments in renewable energy. Our renewable sources of energy encompass wind, solar and biomass. At majority of our manufacturing facilities, we have adopted agro-waste based solid fuel and natural gas boilers. Further, we have outsourced steam production to third-party vendors who utilise biomass briquettes to generate steam using our own boilers. We purchase this steam for our process requirements. Currently, over 38% of our energy needs are met through renewables sources, underpinning our ambition to transition to a low-carbon economy.

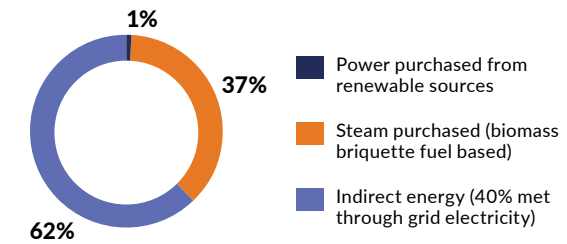


Direct energy mix

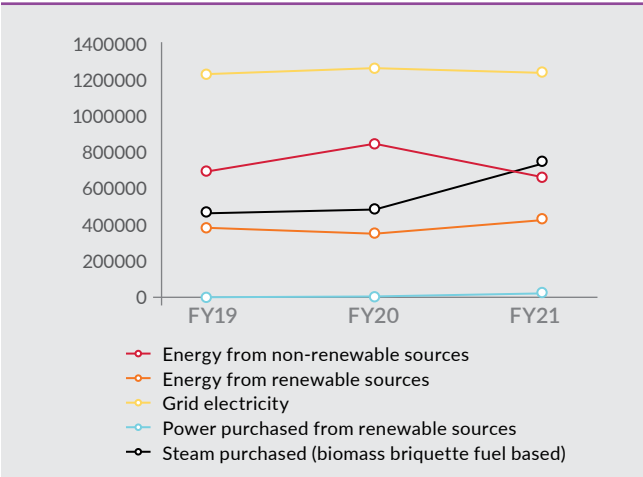


GRI 302-1, GRI 302-3

Indirect energy mix



Energy consumption trends (GJ)





Minimise

Employing energy-efficient equipment

We have been undertaking numerous energy conservation projects across our manufacturing facilities. Our key focus areas are:

Enhancing operational efficiency of utilities

- * Energy-efficient refrigeration and air-compression systems
- * Online cleaning systems in chillers
- * Simultaneous generation of heating and cooling through heat pumps

Energy-efficient illumination

- * Only energy-efficient LED/CFL lighting used across facilities
- * Motion sensor lights and solar streetlights installed at some of our facilities to minimise energy wastage

Through our efficiency measures and initiatives, we were able to reduce consumption of electricity, steam and fuels such as coal, natural gas, furnace oil, diesel and biomass in our operations, leading to overall energy savings of 355,836 GJ*.



*The measures undertaken in FY21 are considered for determining the energy saving. Accordingly, baseline of FY20 is considered for energy reduction calculations



EMISSION MANAGEMENT

We are committed to contribute to global climate mitigation efforts by reducing our carbon footprint. We periodically monitor our Scope 1 (direct) and Scope 2 (energy indirect) GHG emissions through a robust GHG inventorying process. We also monitor other air emissions, such as Ozone Depleting Substances (ODS) and oxides of Nitrogen and Sulphur (NOx and SOx). With respect to ODS, we are gradually transitioning to gases with lower Ozone Depleting Potential (ODP) and Global Warming Potential (GWP), such as R 134-A and R 404 instead of R22.

In FY21, our efforts to enhance energy efficiency and increasing share of renewables helped us reduce our Scope 1 and Scope 2 emissions. We initiated the process of developing a comprehensive inventory of our Scope 3 (other indirect) emissions**. For FY21, our Scope 3 emission was found to be 3007 tCO₂.

Measures to manage indoor air quality through Maximum Achievable Control Technology (MACT):

- * Nitrogen blanketing in equipment
- * Installation of breather valves
- * Efficient gas scrubbing systems
- * Use of vent condensers
- * Use of dry vacuum pumps
- * Vapour detection systems on solvent recovery vents, enabling system shutdown in the event of vapour release
- * Use of high efficiency particulate air (HEPA) filters to control indoor air quality in the pharmaceutical powder handling areas

Emissions (in tCO₂)

Scope 1 emissions***

FY21		49,529
FY20		62,469
FY19		48,235

Scope 2 emissions****

FY21		275,302
FY20		294,656
FY19		283,928

** Categories considered in Scope 3 (as per GHG protocol) are:
Business travel, employee commute, purchase of goods (paper only)
*** Based on IPCC emission factors for stationary combustion
**** Based on CEA emission factors for grid electricity



WASTE MANAGEMENT

Waste minimisation, segregation and safe disposal are the cornerstones of our approach to waste management. We have been leveraging digitalisation to minimise waste generation and optimise usage of resources. The disposal mechanism is based on claims made by the authorised vendor at the time of waste collection. We have replaced paper-based medication guides with e-guides to minimise waste generation from a product life-cycle perspective. To minimise solid waste generation, we have been undertaking process validation to minimise the rejection of capsules. Packaging optimisation to minimise packaging waste is also an important waste management thrust area. End-use plastic (from sold products) is collected from the market and recycled through third-party for further use, fulfilling our EPR obligations.



Hazardous waste

Waste disposal mechanism (MT)	FY19	FY20	FY21
Recycling	2,400	2,084	2,994
Recovery	3,647	3,368	4,098
Incineration	1,431	997	1,832
Landfill	3,403	3,268	3,467
Co-processing	1,184	1,115	1,694

Non-hazardous waste

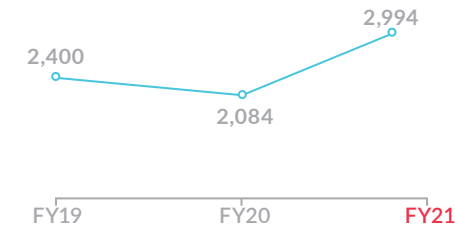
Waste disposal mechanism (MT)	FY19	FY20	FY21
Reuse	67,742	51,344	50,099
Recycling	16,588,866	20,220,699	9,566,539
Landfill*	180,080	1,813,540	4,092,969

*Data for FY20 and FY19 is not available for some of the sites in the reporting boundary

Co-processing (hazardous waste) (in MT)

FY21		1,694
FY20		1,115
FY19		1,184

Recycling (hazardous waste) (in MT)

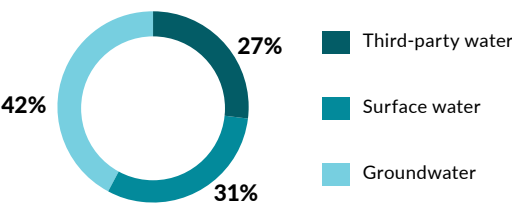




WATER MANAGEMENT

We recognise water stress as an imminent environmental risk with catastrophic implications. We employ the 4R principle of reduce, reuse, recycle and recharge in our water conservation endeavours.

Water withdrawal FY21



We stringently monitor the water footprint of our manufacturing processes in order to minimise our reliance on fresh water sources. We have established tertiary treatment at majority of our locations, along with monitoring devices to ensure compliance with statutory norms. Our key manufacturing sites have achieved 'Zero Liquid Discharge' status through such water management measures. For sites with discharge, we follow the standards laid down by the Ministry of Environment, Forest and Climate Change (MoEF) and adhere to the requirements of the Consent to Operate issued by the respective State Pollution Control Boards. In FY21, we consumed 2,258,504 KL of water across our manufacturing facilities. Although groundwater is currently our major source of water (41.6%), we have progressively reduced our reliance on it. Around 17% of our water withdrawal is in water-stressed areas*. We have established stringent water consumption reduction KPIs across all our manufacturing facilities.

Overview of water withdrawal

Source of water withdrawal (KI)	FY19	FY20	FY21
Third-party water	462,580	490,182	620,115
Surface water	661,424	660,804	708,714
Groundwater	1,497,941	1,257,781	947,837
Total	2,621,945	2,408,768	2,276,665

Water withdrawal from water-stressed sites

Source of water withdrawal (KI)	FY19	FY20	FY21
Third-party water	58,129	57,407	57,005
Surface water	0	0	70
Groundwater	322,861	320,212	329,036
Total	380,990	377,619	386,110

Overview of water discharge

Water discharge (KI)	FY19	FY20	FY21
Third party water**	23,420	19,259	18,161
Water discharged in water-stressed areas	0	0	0

* Water stress areas have been ascertained using the WWF water risk filter and areas with risk rating of 3.8 and above are considered as water-stress areas.

** As per the state government directive, two sites currently discharge domestic sewage to a common sewage treatment plant for further reuse by municipal corporation.

GRI 103-1, GRI 303-1, GRI 303-2, GRI 303-3, GRI 303-4

OUR APPROACH TO WATER CONSERVATION

Reduce

- * Consideration for water usage minimisation is embedded during design and R&D phase
- * Active monitoring of water consumption at each facility through monitoring devices to identify action areas for water conservation
- * Installation of sensor-based water taps

Reuse

- * Water reuse in feasible operational processes is actively explored and undertaken
- * We undertake steam condensate recovery from thermal evaporators

Recharge

- * Rainwater harvesting with the objective of enabling groundwater recharge

Recycle

- * Efficient effluent handling and recycling enabled by tertiary treatment
- * Tertiary treatment using filters, softeners, ultra-filtration, nano-filtration and reverse osmosis systems
- * Treated water is used in cooling tower make-up water and horticulture

Water consumption (KL)



12 of 14 facilities (~86%) in reporting boundary

are Zero Liquid Discharge

628,090 KL

Water was recycled

GRI 303-5, GRI 103-2

