



IndianOil

Fuelling a  
*Sustainable  
Future*



SUSTAINABILITY HIGHLIGHTS FY 2022-23

# About IndianOil

IndianOil, a Maharatna PSU under the Ministry of Petroleum and Natural Gas, is India's foremost integrated energy conglomerate. As a leader across the entire hydrocarbon value chain, we are dedicated to delivering sustainable and affordable energy solutions that steer the nation's energy landscape. Beyond conventional operations, our commitment extends to diversification into alternative energy sources, where cutting-edge technologies drive our pursuit of innovation and corporate responsibility. This includes a global presence focused on prioritizing sustainability and aligning with the United Nations Sustainable Development Goals. IndianOil stands at the forefront of shaping an eco-conscious future, contributing to responsible energy solutions for India and the global community.



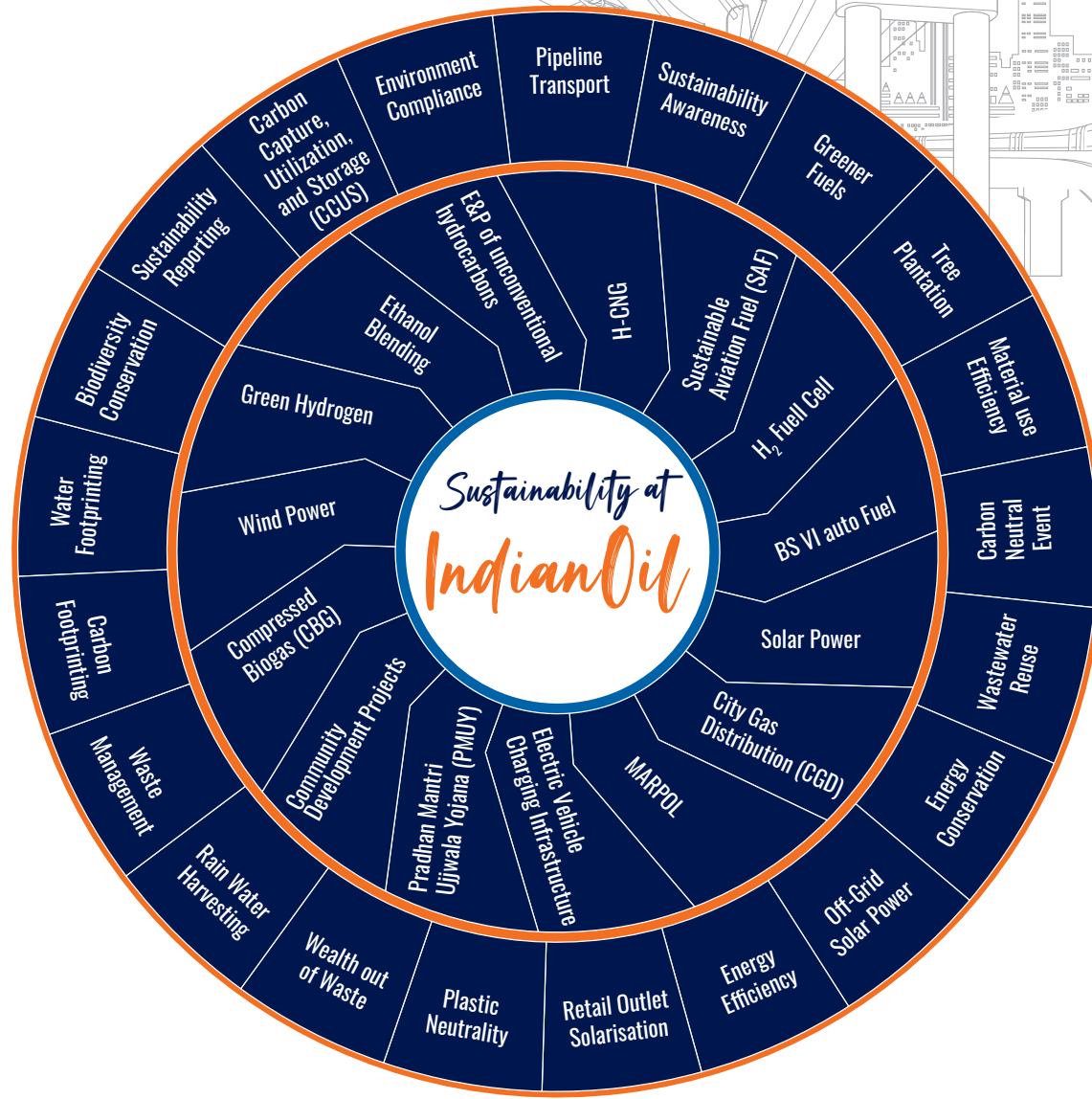
# Fuelling a Sustainable Future

Welcome to the IndianOil Sustainability Highlights for the fiscal year 2023-24. At IndianOil, we firmly believe that sustainability is not just a choice; it's our responsibility towards our planet and future generations. In these pages, we take you on a journey through our commitment to sustainability, showcasing our achievements and setting our vision for a greener and more sustainable world.

**“Our story of success is not written in letters of gold, but in green, as we march towards our goal of achieving net zero operational emissions by 2046. To realize this vision, we have committed to undertake an investment of over ₹2 lakh crore.”**

sd/-  
Shrikant Madhav Vaidya  
(Chairman)





# Road to Net Zero 2046



# Accelerating towards Net Zero



Transparent and accurate accounting of GHG emissions



Achieve Net-Zero operational emissions



Renewable Energy - Sourcing renewable power for expansion of refineries



Low Carbon Technologies - Invest in technology and partnerships for developing low carbon energy solutions



Value Chain Emission - Engage with value chain partners to reduce emissions



Enhancing Green Portfolio - Meet Increased Consumer Demand for greener fuels in the product mix



Fostering Sustainable Practices



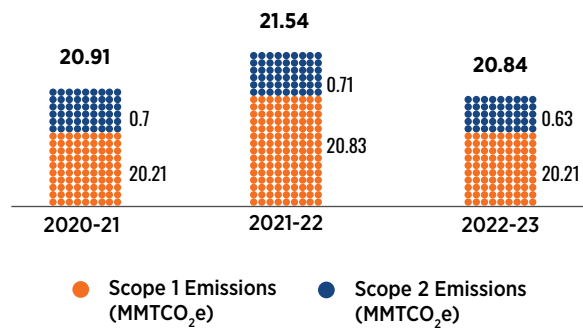
Establish IndianOil as a leader in environmental sustainability



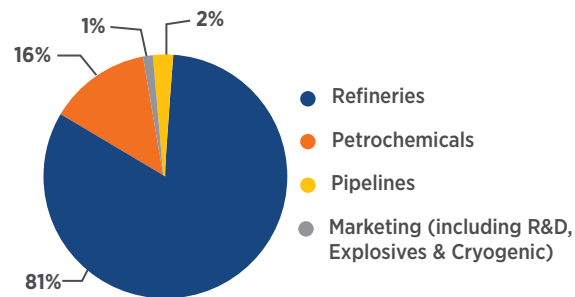


# Transparent Accurate Accounting of GHG Emissions

## Emissions (Scope 1 & Scope 2)



## Emission Contribution by Business Units



20.21 MMTCo<sub>2</sub>e

Total Scope-1 Emissions

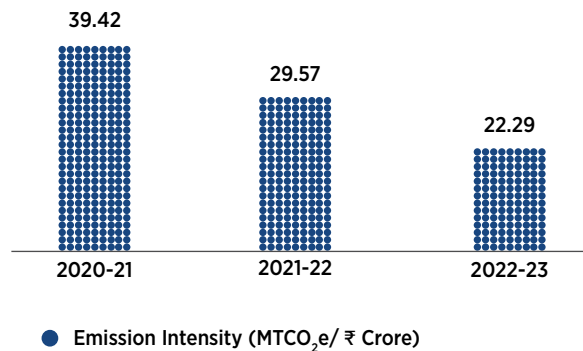
0.63 MMTCo<sub>2</sub>e

Total Scope-2 Emissions

301.50 MMTCo<sub>2</sub>e

Total Scope-3 Emissions

## Emission Intensity





Achieve Net-Zero

## Operational Emissions

### Energy Conservation Projects (ENCON)

The energy conservation (ENCON) projects implemented in refineries and petrochemical plants during the reporting period have the potential to save 2,55,379 Standard Refinery Fuel Tonnes (SRFT) in refinery complexes. A total of 0.81 MMTCO<sub>2,e</sub> emissions were avoided by implementation of these projects

### Green H<sub>2</sub> Captive

We are establishing a cutting-edge 10 KTA Green Hydrogen Plant at Panipat Refinery. Furthermore, we have set up India's first Hydrogen dispensing station at our R&D Centre in Faridabad, NCR, followed by a station in Gujarat Refinery, to promote hydrogen mobility.

**3.80** MMTCO<sub>2,e</sub>

Total Emissions Avoided/ Offset in FY 2022-23

**119**

Energy Conservation Schemes

**2,55,379** SRFT/Year

Energy Saving

**₹ 840** Crore/Year

Monetary Savings

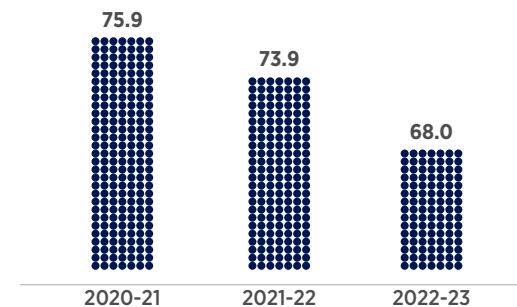
**886431**

Cumulative number of non-LED lights replaced with LED

**0.06** MMTCO<sub>2,e</sub>

Emission reduced from LED lights by replacement of conventional lights

### Specific Energy in Refineries (MBN)



Reduction in Energy Intensity Index (Refineries) from **104.1** in **FY 2021-22** to **96.1** in **FY 2022-23**

<sup>1</sup> MBN is the short-form for MMBTU of Energy consumption / Billion Barrel of Crude processed / NRGF (Refinery complexity factor)





Renewable Energy

# Transformation

₹ 582.80 Crore

Investment in renewable energy and greening efforts

71.10 MW

Solar Photovoltaic (PV) Capacity

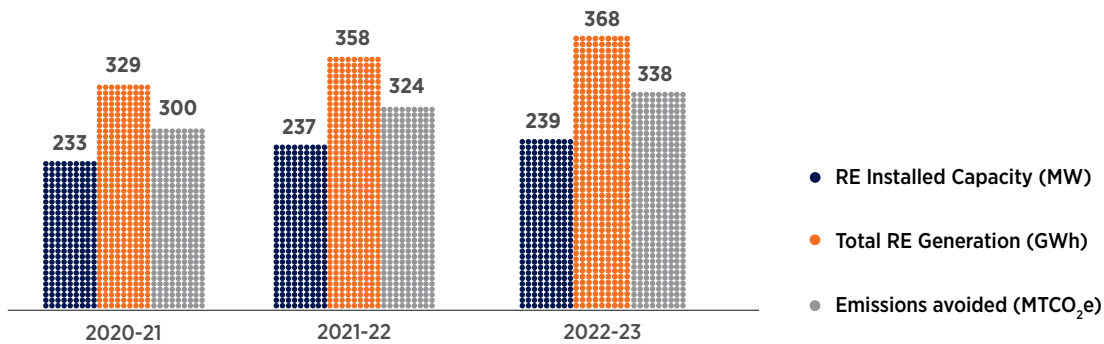
167.6 MW

Wind Capacity

0.34 MMTCO<sub>2e</sub>

Emission avoided through Renewable Energy Generation

## Renewable Energy Portfolio







Enhancing Green

## Portfolio

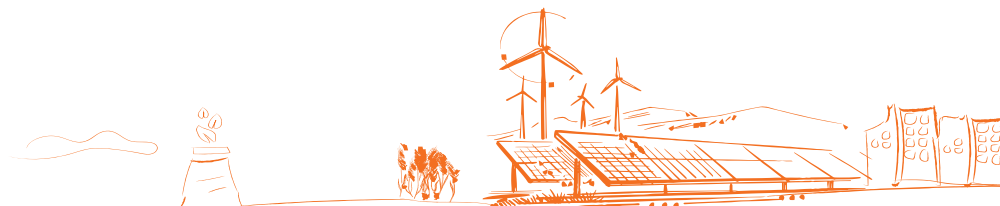
- | Setting-up Compressed Bio Gas plants at various locations
- | Strive to achieve target of blending 2% Bio fuels in Aviation Turbine Fuel (ATF) by 2030

**22** *Compressed Bio-Gas Plants*  
Commissioned, offering Biogas through 46 Indigreen outlets

**86.8** *TMTPA Capacity*  
Sustainable Aviation Fuel Plant setup in Panipat

**5.461**  
EV Charging stations installed in our Retail Outlets (Ros)

**76**  
Battery Swapping Stations installed in our Retail Outlets (Ros)





Value chain

# Sustainability

Our strategic focus on digitalization, low-carbon transportation, strategic storage, energy efficiency and renewable power utilization across value chain with a focus on responsible sourcing of material.

93

No. of vendor development programs organized

29.21%

Total Procurement from MSMEs

0.35%

Procurement from Women owned MSMEs

24 Start-Ups

Incubation under start-up funding scheme

0.86%

Procurement from SC/ST MSMEs

17.564 km

Pipeline Network

## Solarisation of Retail Outlets

1,490 ROs

Solarised in FY 2022-23

123.4 MW

Installed capacity

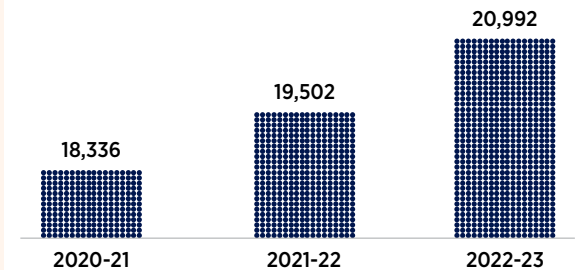
159.10 GWH

Power generation

1.17 MMTCO<sub>2</sub>e

Emission avoided

Total Solarised Retail Outlets (ROs)





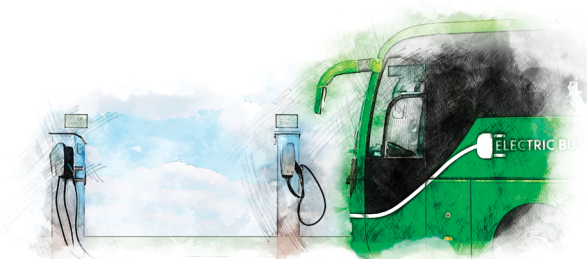
## Investing in low-carbon energy solutions

- | In line with India's goal of achieving Net-Zero emissions by the year 2070. IndianOil has committed to achieve Net-Zero operational emissions by 2046.
- | Committed to undertake a CAPEX expenditure in excess of ₹2 Lakh Crore
- | IndianOil has embraced towards development of green energy portfolio of 200 GW of renewable energy, 7MMT of biofuels and 9 MMT of biogas by the year 2050.



## Establish IndianOil as a leader in environmental sustainability

- | Promoting entrepreneurship to set up CBG plants for automotive and industrial fuels.
- | Joined hands with ReNew Power and Larsen & Toubro (L&T) Limited to strengthen the green hydrogen ecosystem in India.
- | Formed a Joint Venture with Praj Industries Ltd. To develop SAF and other biofuels.
- | Collaboration with SJVN Limited for expanding the renewable bouquet.
- | Signed MoU with LanzaJet to explore Sustainable Aviation Fuel production using ATJ technology.



₹ 698 Crore

Cumulative R&D expenditure

1,646

Cumulative No of Patents filled

1,554

Effective Patents

127

Cumulative Patents filled in FY 2022-23

155

Cumulative Patents granted in FY 2022-23





Fostering

## Sustainable Practices

₹264.03 Crore

CSR Expenditure

31,095

Permanent Employee

9.25 Lacs

Swadhyaya Courses Completed

₹2,40,185

Contribution Made to Exchequer

7,75,868 hrs

Hours of Training provided to employees

4,62,669

Hours of training under Swadhyaya

0.081

Lost Time Injury Frequency rate

90%

Hires below 30 years of age

17,388

No. of Employees

83,398

Safety Clinics organised for LPG Customers

1,455

New Hires

1,882

No. of courses covered under Swadhyaya

52,000

Eye Tests conducted for Tank Truck drivers who deliver our products

70%

Increase in women hire

### Enhancing workforce skillsw

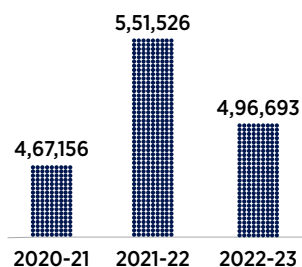
Madhyama, Saarathi, Harvard Manage Mentor, Executive MBA, Swadhyaya, Pratidhwani



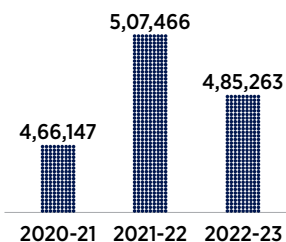
# Waste Management & Circular Economy

IndianOil employs robust waste management strategies, minimizing waste generation and enhancing recycling efforts. Our initiatives aim to reduce our environmental footprint and promote responsible resource use

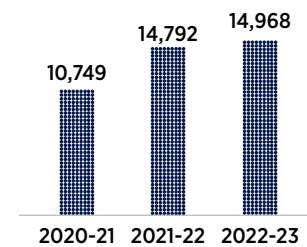
### Total Waste Generated (MT)



### Total Waste Recycled (MT)



### Total Waste Disposed (MT)



## Introducing 'Unbottled' – Our Green Initiative

This ambitious undertaking is projected to contribute to the recycling of 20 million PET bottles.



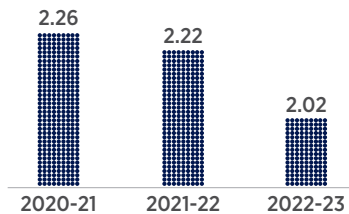
# Water

## Stewardship

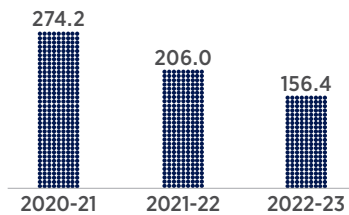
IndianOil is committed to responsible water stewardship. We optimize water use, minimize wastage, and employ advanced technologies for water efficiency. Our recycling and treatment systems ensure high water quality, reducing our environmental impact and conserving precious resource.

### Specific Water Consumption

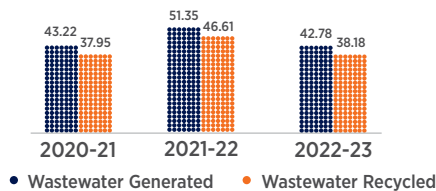
Specific Water Footprint (KL/ MT Crude Throughput)



Water Intensity (KL/ Turnover in `Crore)



Wastewater generated & Recycled (billion litres)



**146.19** Billion Litres  
Total Water Consumption

**9%**  
Year-on-year reduction in specific water consumption

**38.18** Billion Litres  
Recycled Wastewater Usage

**103.40** Billion Litres  
Freshwater Consumption

**5.1** Billion Litres  
Total Wastewater Discharged in FY 2022-23

**2,900** hectares  
Catchment area covered in FY 2022-23

**7.2** Billion Litres  
Total Rainwater Harvesting Potential during FY 2022-23



## Biodiversity

**Conservation**

Biodiversity conservation is integral to IndianOil's sustainability mission. We actively protect and restore ecosystems, promoting biodiversity in our operational areas. Through responsible practices, we minimize our environmental footprint and support a healthier planet.

**Afforestation & Greenbelt Development**

In FY 2022-23, we have planted approximately 6.6 Lakhs trees within and beyond the boundaries of IndianOil and over 50 Lakhs trees are estimated to be surviving at the end of FY 2022-23.

**Van Mahotsav**

IndianOil actively participates in the Van Mahotsav week celebrations every year. Last year during this event, we took a significant step towards greening India by planting around 50,000 trees.

**Miyawaki Afforestation**

In the FY 2022-23, we have made remarkable strides in environmental conservation by planting approximately 3.6 lakhs trees using the innovative Miyawaki afforestation method, as well as other traditional methods.

**Tiger Conservation**

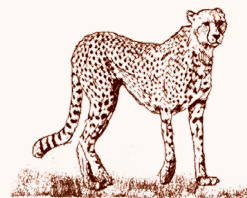
The protection and conservation of tigers hold significant importance in preserving India's rich biodiversity and natural heritage.

**Rhino Adoption**

IndianOil's commitment to wildlife conservation extends to the protection and support of critically endangered species like the Indian one-horned Rhino.

**Project Cheetah**

IndianOil's dedication to wildlife conservation. As the first corporate entity to partner with the National Tiger Conservation Authority (NTCA), we played a major role in the ambitious initiative to reintroduce cheetahs to Indian soil.



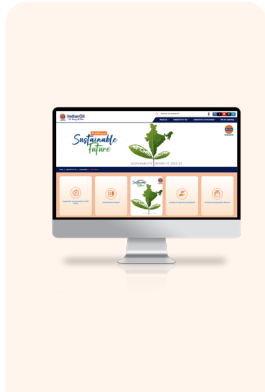
This document may be read together with our Sustainability Report FY 2022-23, Integrated Annual Report FY 2022-23 and our website.



IndianOil Sustainability Report FY 2022-23



Integrated Annual Report FY 2022-23



IndianOil Website



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