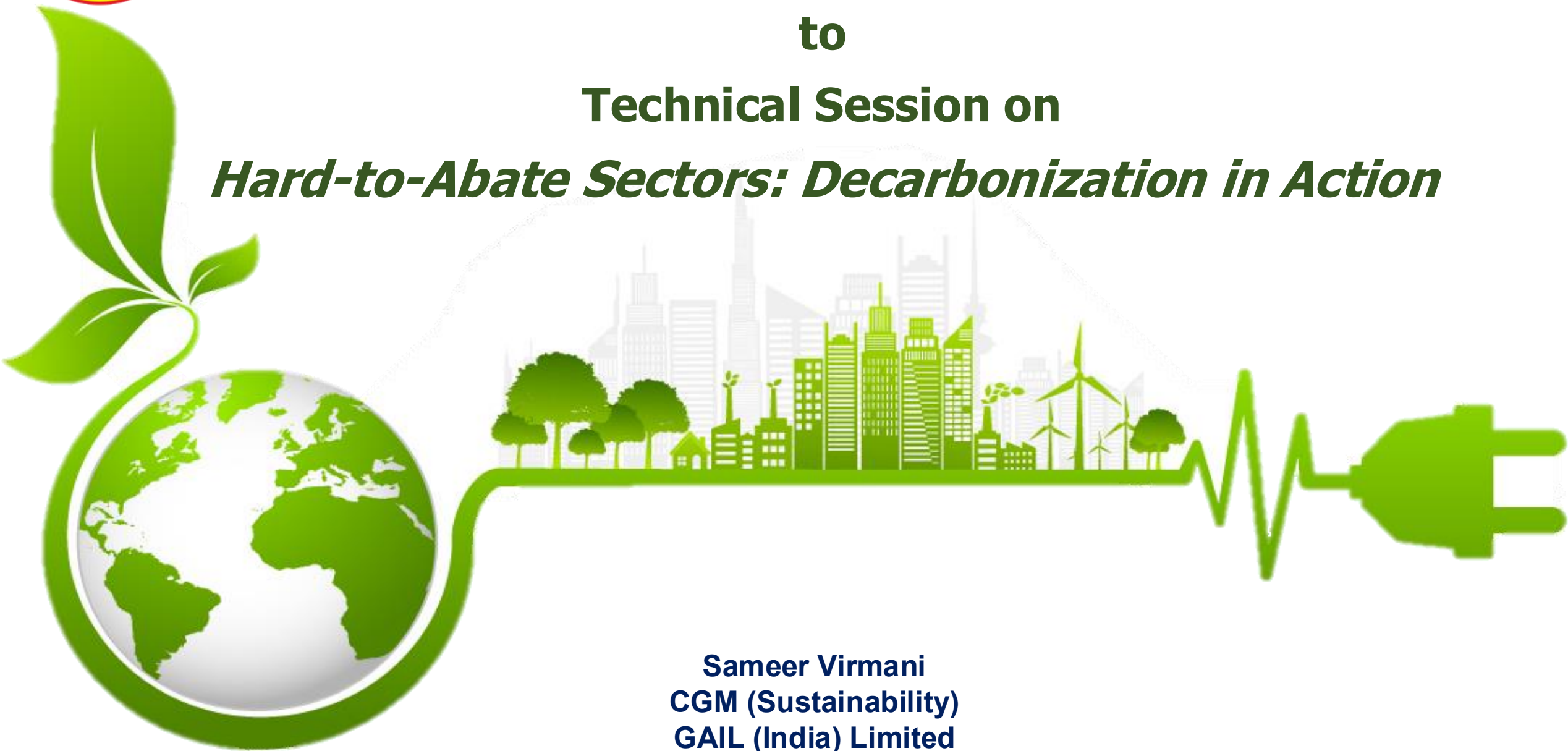




**Welcome**  
**to**  
**Technical Session on**  
***Hard-to-Abate Sectors: Decarbonization in Action***



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1

## **COP-26: 2021**

India set a net-zero Emissions target for 2070, highlighting its commitment to cleaner energy and reduced import dependence. Considering the alarming effects of Global Warming, over 190 countries have come together to announce their Net Zero Targets.

2

## **Natural Gas in Energy Mix**

The government aims to boost the share of Natural Gas in the primary energy mix from 6% to 15% by 2030. Natural Gas is the cleanest fuel with the lowest GHG emissions and is considered as the transition fuel.

Therefore, by increasing the consumption share of NG in India's energy mix, industries can lower their GHG emissions.

3

## **GAIL's Initiative**

GAIL developed a Net-Zero Emissions target in FY 2022-23 and further accelerated its decarbonization goals, by advancing its Net Zero Emissions target for 100% reduction in Scope-1 & 2 emissions from Year 2040 to 2035.





# GAIL's SCOPE-1 & 2 Emissions



GAIL has set its ambitious Net Zero target for 100% reduction in Scope-1 & 2 emissions by 2035 and 35% reduction in Scope-3 emissions by 2040.

Emissions breakup (Mn tCO <sub>2</sub> e) in last 03 years				
No.	GHG Contribution	FY 2022-23	FY 2023-24	FY 2024-25
1	Scope-1	3.67	3.47	3.43
2	Scope-2	0.31	0.39	0.43
	<b>TOTAL</b>	<b>3.98</b>	<b>3.86</b>	<b>3.86</b>





# Net Zero Emissions Roadmap 2035



## Business-as-usual (BAU) Scenario

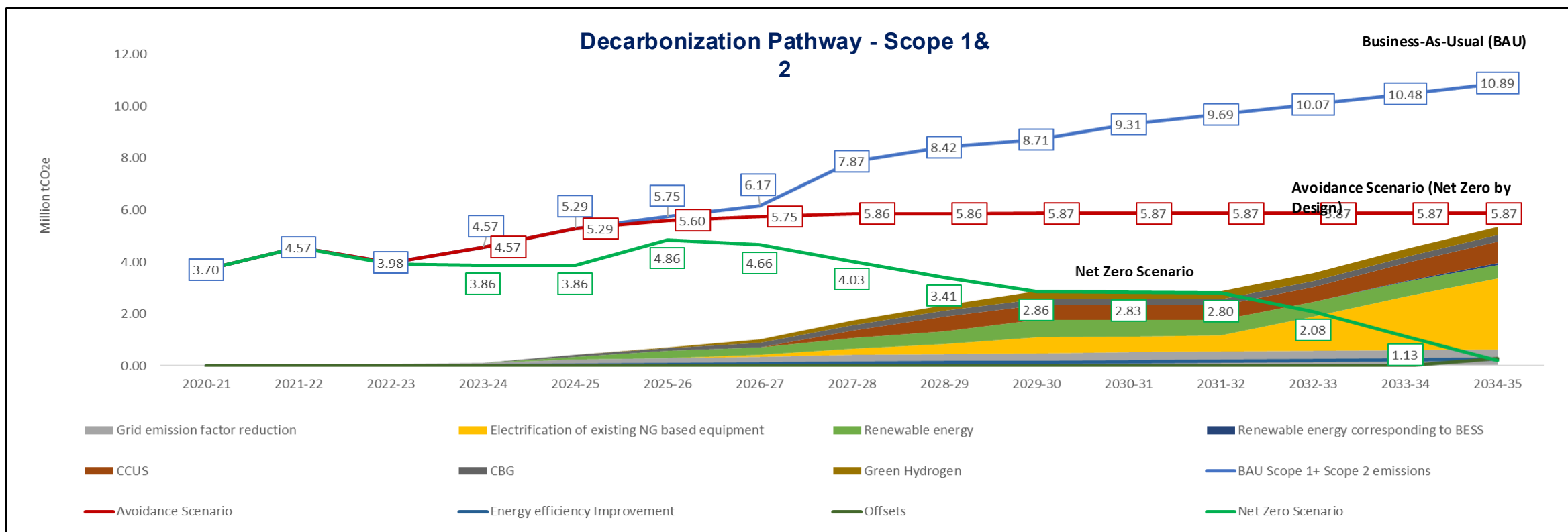
Projections made considering no interventions by GAIL to curb Scope-1 & 2 emissions.

## Avoidance Scenario

Emissions expected to peak at 5.87 MntCO<sub>2</sub>e by 2028. New Expansion Projects to be preferably 'Net Zero by Design'.

## Net Zero Emission Scenario

The desired scenario, accounting for all decarbonization levers to gradually reduce emissions to "Zero".





# Net Zero Levers



**Electrification  
of existing NG  
based  
equipment**

**Renewable  
Energy**



**Energy  
Storage  
System**

**Green  
Hydrogen**



**Compressed  
Biogas**

**CO<sub>2</sub>  
valorisation**



**Energy  
Efficiency  
Improvement**

**Offsetting  
Afforestation &  
Carbon Credits**





GAIL has a Renewable Energy portfolio of **145 MW**



Slated to reach **3500 MW** by 2035

## Upcoming Projects:

- 170 MW Wind Project in Maharashtra
- 100 MW ground-mounted in UP
- 17.5 MW in Floating Solar in Pata, UP
- 14 MW Rooftop Solar across various GAIL sites
- 7.75 MW Floating Solar in Vijaipur, MP
- 1.85 MW ground-mounted in Vijaipur, MP

**18 MW**  
Solar



**117 MW**  
Wind



5.76 MW Rooftop Solar Plant at GAIL, Pata Warehouse

**Additionally, MoU has also been signed with the Government of Karnataka to establish 01 GW of Renewable Energy capacity in the state.**



GAIL has set-up India's 1st **10 MW PEM based Electrolyser** at Vijaipur, Madhya Pradesh to produce **4.3 TPD** of Green Hydrogen.

The plant was inaugurated by **Shri. Pankaj Jain, Hon'ble Secretary, MoPNG** on 24<sup>th</sup> May 2024.





GAIL Vijaipur has successfully completed the 1st pilot project of replacing "Gas Turbine to Electric Motor". A Siemens make 3.6 MW Motor has replaced the Allison (now Siemens) make 4.1 MW (ISO) Gas Turbine. This will lead to reduction of CO<sub>2</sub> emission ~ 6500 TPA.





GAIL has set up **05 TPD CBG Plant** at Ranchi, Jharkhand to process 150 TPD of Municipal Solid Waste (MSW).

The plant was inaugurated on **2<sup>nd</sup> October 2024** by **Hon'ble PM Shri Narendra Modi**.

GAIL further plans to install total **26 CBG Plants** by the year 2030.



## GAIL's strong focus on ESG has consistently enhanced its Performance, as reflected in the various Awards and Recognitions, as mentioned below:

- GAIL sites are actively participating in the CII GreenCo Rating Certification Program and 10 sites have got various Certifications: Platinum: 3 sites, Gold: 1 site and Silver: 6 sites. In recognition of consistent effort and dedication toward Sustainability, GAIL was conferred with the **"GreenCo Champion Award"** during the CII GreenCo Summit 2025 held in Hyderabad on 12.06.2025.
- Acknowledging GAIL's commitment to Sustainable practices and Environmental stewardship, GAIL was conferred with **"Sustainability Organization Award 2024"** at the 24<sup>th</sup> Global Greentech Environment & Sustainability Awards organized by the Greentech Foundation in New Delhi on 12.06.2025.
- In recognition of GAIL's proactive initiatives toward achieving an ambitious Net Zero emissions target, GAIL was honored with the prestigious **"Sustainable Best Initiative of the Year 2025 Award- Achieve Net Zero"** by UBS Forums in New Delhi on 11.06.2025.





*Thank You*



**NET ZERO** BY 2035