



2023 NET SALES

\$45B



EMPLOYEES

~35,900



MANUFACTURING SITES

98



GLOBAL REACH

31 countries

in which Dow manufactures products

All data as of December 31, 2023

PATH TO ZERO-EMISSIONS, RELIABLE AND SAFE ENERGY: THE OPPORTUNITY OF ADVANCED NUCLEAR

PREETI PATEL

MAY 2024

ENERGY AND FEEDSTOCKS REQUIRED TO MANUFACTURE OUR PRODUCTS

>10GW

of energy from fuel to produce heat, power and steam imported and used

>1GW

of power and steam purchased from utilities

>80

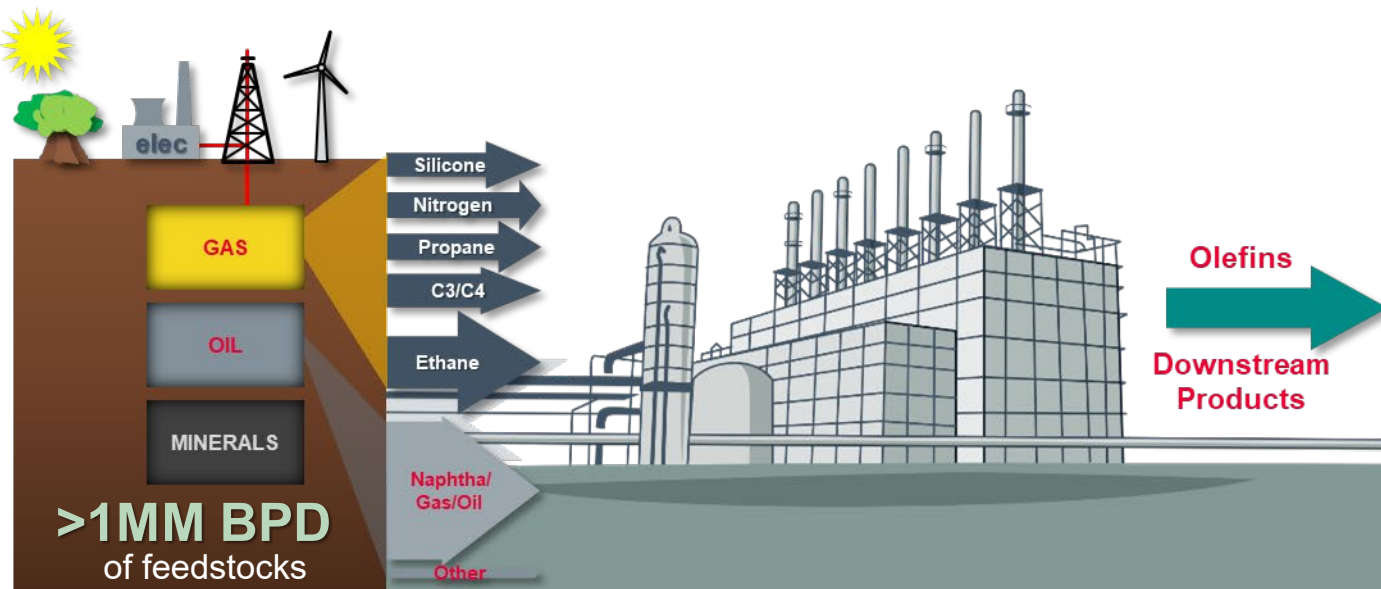
gas & steam turbines & boilers

>200

furnaces

25

major sites



SOLUTIONS FOR DIVERSE MARKETS

PACKAGING & SPECIALTY PLASTICS



INDUSTRIAL INTERMEDIATES & INFRASTRUCTURE



PERFORMANCE MATERIALS & COATINGS



NET ZERO IS POSSIBLE BY 2050 - THE PATH AND TIMING MATTER

Protect the Climate

Near Term:

By 2025, we intend to reduce our Scope 1 & 2 carbon emissions¹ by 2MM metric tons (mta) vs. our 2020 baseline².

Mid Term:

By 2030, we intend to reduce our net annual Scope 1 & 2 carbon emissions by 5MM mta vs. our 2020 baseline¹.

Long Term:

By 2050, Dow intends to be carbon neutral (Scope 1 + 2 + 3 plus product benefits).

Our Approach to Climate Protection



Optimizing Our Manufacturing Facilities & Processes for Sustainability



Increasing Use of Clean Energy & Steam



Investing in Transformative Next-Gen Manufacturing Technology



Developing Low-Carbon Products & Services



Building a Value-Generating Scope 3 Decarbonization Pathway

Aligning Timing with Growth and Asset Renewals

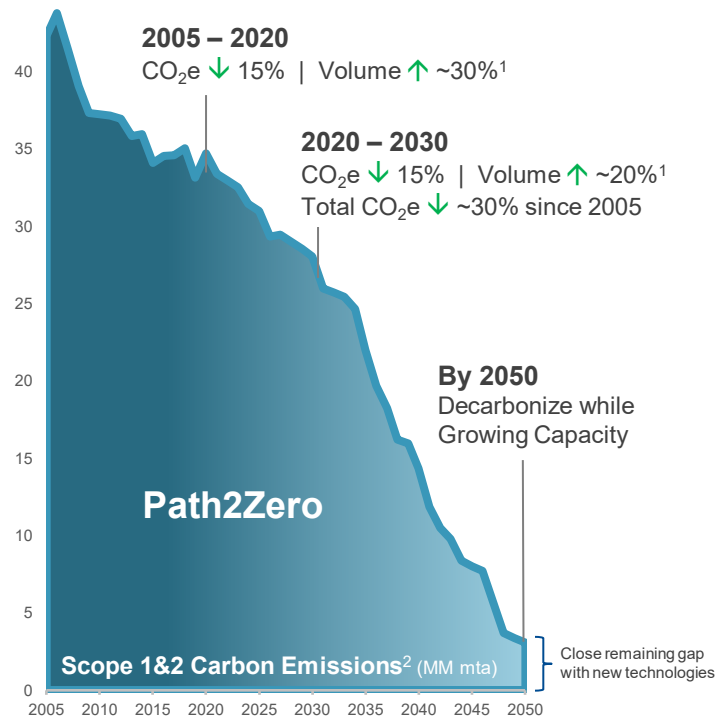
Dow Current S1/2 Emissions

Olefins

Energy

Purchased Steam & Power

Other

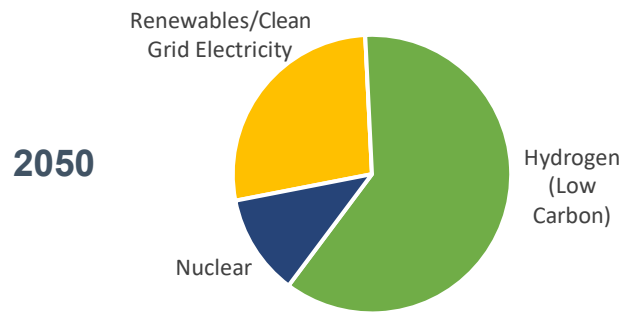
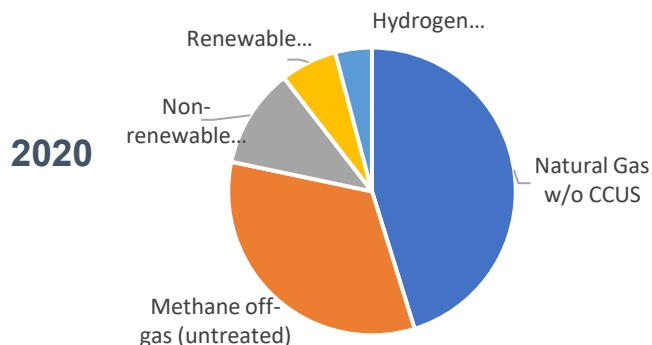


1. Volume growth represents ethylene capacity, excludes JVs
2. All references to carbon are specific to GHG emissions in carbon dioxide equivalent (CO₂e).



ENERGY DECARBONIZATION STRATEGY

Energy Generation by Dow



Includes cracker off gas feedstock

Hydrogen Combustion

- Circular H₂ for hydrocarbons furnaces
- Develop CCS alternatives to support H₂ production and downstream decarbonization
- Advance dry low NOx capabilities for H₂ fired cogeneration

Renewables

- Renewables currently 41% of purchased power vs 25% in 2020; maximum of ~50%
- Significant contributor to Dow's 2030 CO₂ reduction target
- Regional strategies to ensure reduced emissions at the lowest cost

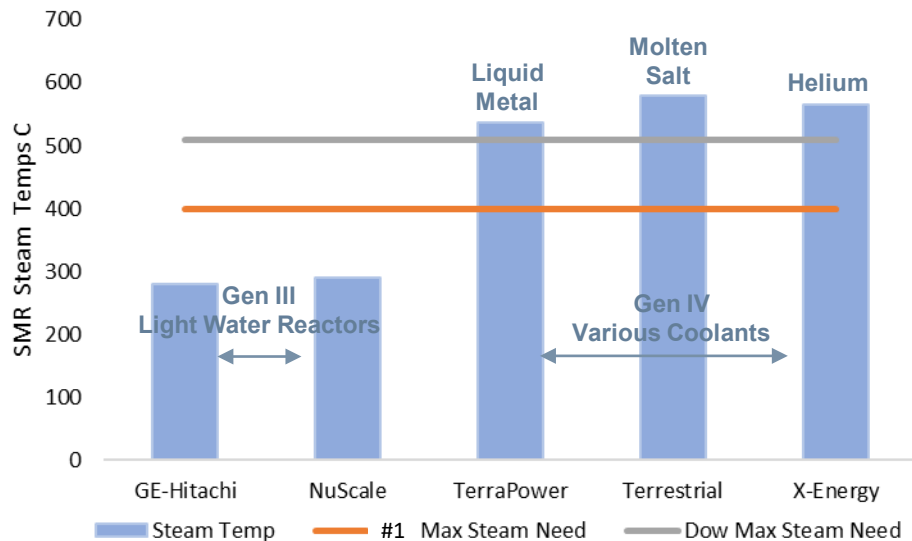
Nuclear

- Advance Seadrift, TX nuclear project with US DOE to replace gas turbines and decarbonize site
- Evaluate additional Dow sites and alternative advanced nuclear technologies for alternative use cases

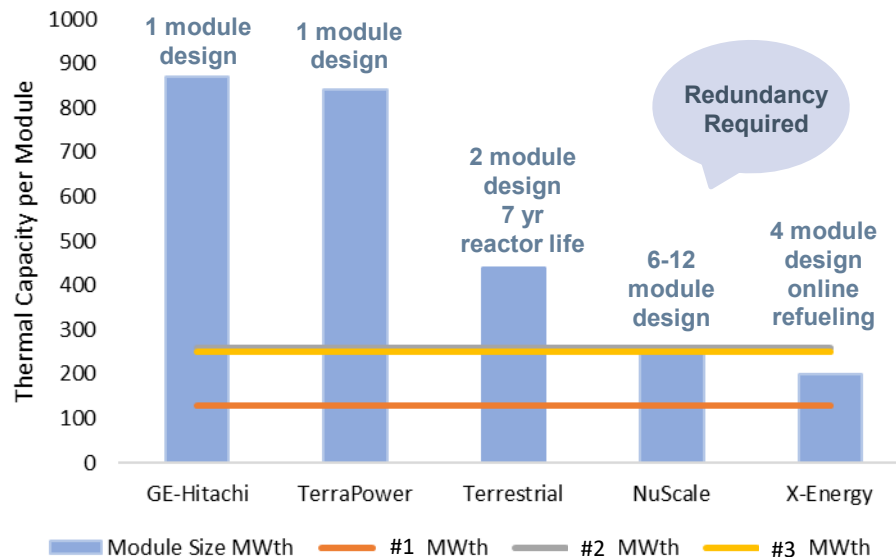


SMR COMPARISON: RELIABILITY, REDUNDANCY, READINESS

Gen IV Steam Temps Meet Dow Needs



Module Size Enables Redundancy



- X-energy's combination of high temperature and smaller module size make it an ideal option for a medium sized petrochemical manufacturing site such as Seadrift

DOW'S SEADRIFT, TX ADVANCED SMALL MODULAR NUCLEAR PROJECT

Safe, Reliable, Zero Emissions Power and Steam Production

- Replacing site's existing energy and steam assets with 4 of X-energy's Xe-100 HTGR reactors
- Safe design, compact footprint, competitive cost, and enhanced power and steam reliability
- Supported from U.S. DOE's Advanced Reactor Demonstration Program ("ARDP") Cooperative Agreement
- Emissions reduction of ~440,000 MT CO₂e/year
- Preparing to submit Construction Permit applications to the U.S. Nuclear Regulatory Commission in 2024
- Expected to be operational by ~2030

Dow's Strengths to Support Advanced Nuclear Development

- Dow's process drives for low capex, meeting financial targets, and driving investments with an acceptable return while maintaining a competitive cost profile.
- We are experts at delivering mega projects – engineering, construction, project management
- We have the desire and business incentive to decarbonize

Dow Seadrift, TX site, future home of SMR

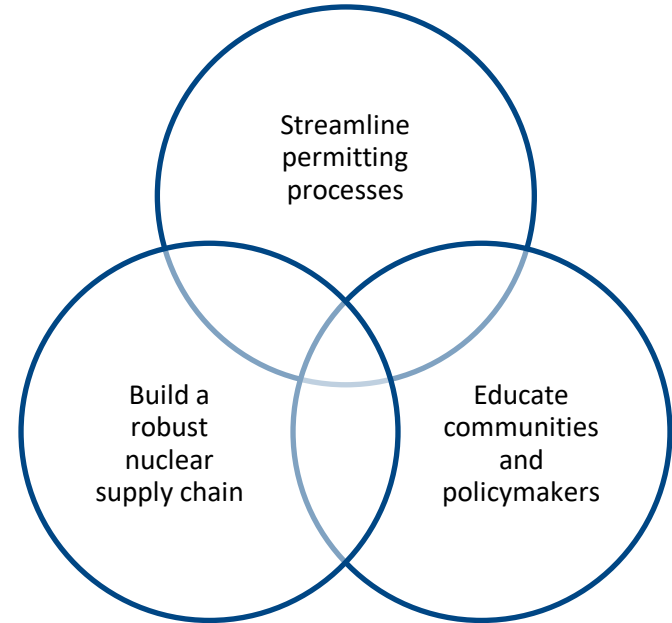


INDUSTRIAL STEAM AND POWER ARE A HUGE OPPORTUNITY FOR ADV. NUCLEAR

Non-negotiables for Industrial Investment in Nuclear Projects

- **Timing:** Companies will install advanced nuclear to replace end-of-life of existing assets, therefore projects must be delivered on the same timeline of alternatives
- **Budget:** Capital cost must be clear, competitive and constant
- **Fuel assurance:** Industrial customers need confidence that fuel supply will enable steady operation and operating cost

Nuclear Industry Priorities to Enable Industrial Adoption





Seek

Together™