



ALBERTA CIRCULAR PLASTIC DAY

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DOW CANADA

March 15, 2023

Fort Saskatchewan
PATH₂ZERO 
DOW GROWTH & NET-ZERO TRANSFORMATION

Dow Restricted



FSP₂Z VIDEO

THE VIDEO CAN BE [ACCESSED HERE](#)



ACCELERATING OUR ACTIONS: DOW'S SUSTAINABILITY TARGETS



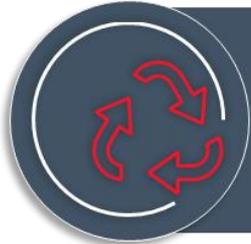
PROTECT THE CLIMATE

By 2030, Dow will PROTECT THE CLIMATE by reducing its net annual carbon emissions by 5 million metric tons compared to its 2020 baseline (15% reduction). By 2050, Dow intends to be carbon neutral (scopes 1 + 2+ 3 plus product benefits).



STOP THE WASTE

By 2030, Dow will STOP THE WASTE by enabling 1 million metric tons of plastic to be collected, reused or recycled through its direct actions and partnerships.



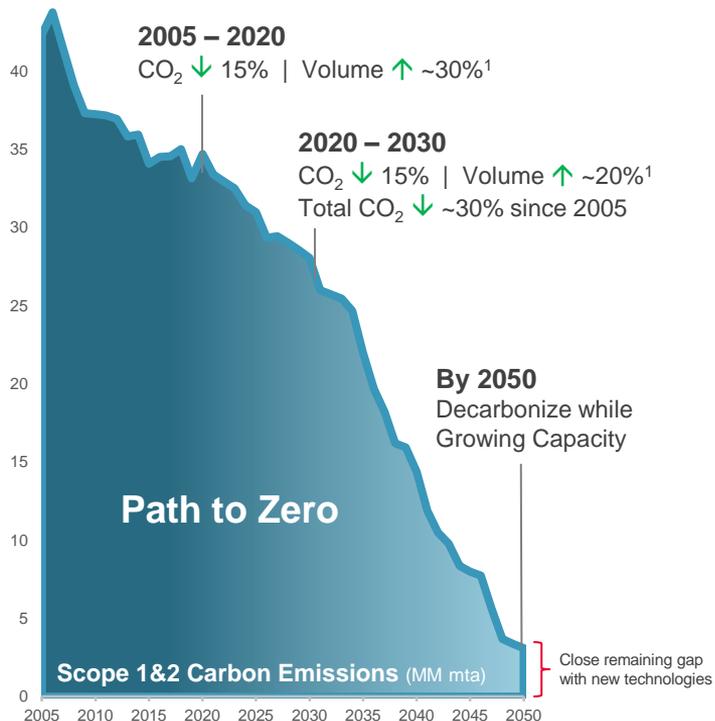
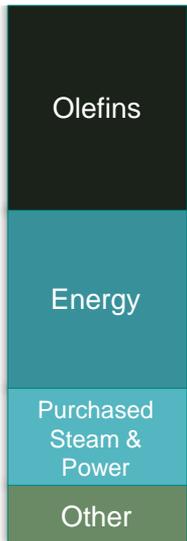
CLOSE THE LOOP

By 2035, Dow will CLOSE THE LOOP by enabling 100% of Dow products sold into packaging applications to be reusable or recyclable.



CLEAR PATH TO ZERO-CARBON EMISSIONS WHILE DRIVING GROWTH

Dow Current Emissions



Progress to Date and the Path to 2030

- Reduced carbon emissions by 15% between 2005-2020 while growing the volume of our products by 30%
- Target to reduce carbon emissions another 15% (for a total of 30%) by 2030, while growing volume another 20%

Phased Strategy to Decarbonize and Grow

- Replace end-of-life capacity with higher-efficiency capex and opex assets while lowering emissions (e.g. TX-9)
- Serve customers' increasing demand for low-carbon footprint and sustainable products
- Scale and innovate carbon-efficient economical technologies

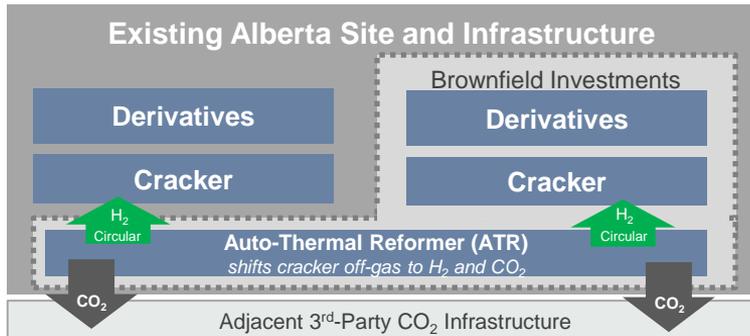
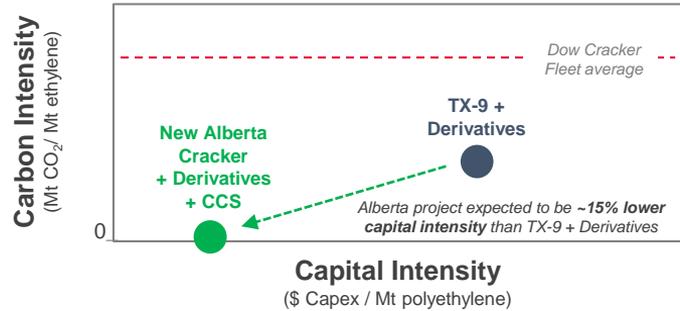
Affordable and achievable path to zero-carbon emissions while supporting attractive growth

¹ Volume growth represents ethylene capacity, excludes JVs



ANNOUNCING WORLD'S FIRST NET-ZERO CARBON EMISSIONS SITE IN ALBERTA

Ft. Saskatchewan, Alberta Project Enables Net-Zero Carbon Emissions with Lower Capital Intensity



Decarbonize & Grow to Produce ~3MM mta of Certifiable Low- to Zero-Carbon Emissions C2 Derivatives

- Includes brownfield investments to expand ethylene and derivatives capacity by ~2MM mta
- Enhances mix with low-carbon emissions polyethylene products with differentiated pricing
- Leverages existing feedstock advantage, proven low-risk technology (TX-9) and local & national support
- Upgrades existing infrastructure for circular-H₂, clean energy, & CCS with multiple potential partners

This one project decarbonizes ~20% of Dow's global ethylene capacity while growing polyethylene supply by ~15%

TIMELINE AND MILESTONES FOR FORT SASKATCHEWAN PATH₂ZERO

Alberta Net-Zero CO₂ Emissions site

Secure partner agreements & subsidies; PID in 2022



Board, regulatory approval and FID in 2023

Phase 1 construction begins 2024



Phase 1 construction completed; RTO 2027

Phase 2 construction completed; RTO 2029

Alberta decarbonizes 20% of Dow's global ethylene and derivatives capacity while expanding PE capacity by ~15% (>1MM CO₂ mta reduction)

2022

PATH₂ZERO

2030

~5MM mta CO₂ reduction



Fort Saskatchewan
PATH₂ZERO
DOW GROWTH & NET-ZERO TRANSFORMATION

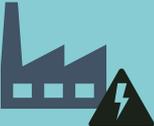
(1) The target presented expected to be achieved by projects
Dow Restricted

PID: Preliminary Investment Decision
FID: Final Investment Decision
RTO: Return to Operations



PUBLIC POLICIES ARE CRITICAL TO A ZERO-CARBON EMISSIONS PATH

Smart policies that incentivize investment can help energy-intensive industries advance carbon neutrality by 2050

Technologies Ready to Scale with Supportive Policy	Advancing Industry Climate Progress
 <p>Circular Hydrogen</p>  <p>Carbon Capture, Utilization and Storage</p>  <p>Modular Nuclear Energy</p>	<ul style="list-style-type: none"><li data-bbox="1033 305 1767 453">→ Adopt transparent, revenue-neutral, market-based carbon price signals<li data-bbox="1033 485 1767 682">→ Government incentives de-risk development and accelerate adoption of low- to zero-emissions technologies and solutions<li data-bbox="1033 715 1767 862">→ Simple, credible framework for measuring and reducing scope 3 emissions
Next-Generation Technologies in Development	
 <p>Electric Steam Crackers</p>  <p>Advanced Recycling & Advanced Batteries</p>	

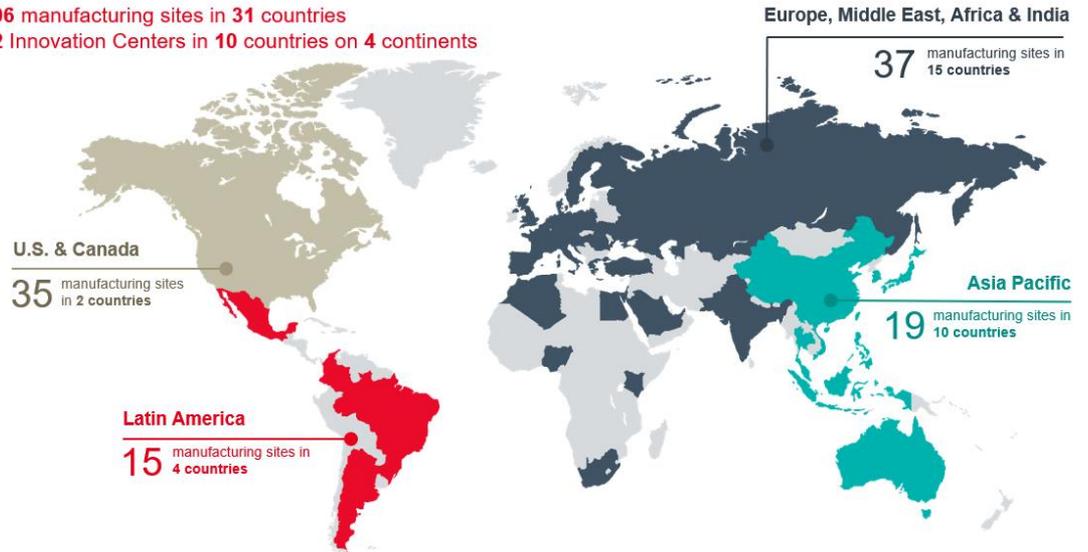
Note: Reflects American Chemistry Council Policy Recommendations for a Lower Emissions Future



Global Manufacturing Footprint



106 manufacturing sites in **31** countries
12 Innovation Centers in **10** countries on **4** continents



SUSTAINABILITY & CIRCULARITY PROJECTS – MURA TECHNOLOGY

Mura Technology

- Dow & Mura announce largest commitment of its kind to scale advanced recycling of plastics
- Dow and Mura Technology to build multiple facilities in the U.S. and Europe, adding as much as 600 kilotons of aggregate advanced recycling capacity by 2030.
- Expansion of Mura's pipeline builds on its first plant in Teesside, U.K., which is on track to be fully operational in 2023.
- Rapid scaling of Mura's revolutionary HydroPRS™ (Hydrothermal Plastic Recycling Solution) advanced recycling process, which can be used to recycle all forms of plastic, including flexible and multi-layer plastics, which have previously been deemed 'unrecyclable'.
- Dow to become a key off-taker of circular feed from Mura, supplying major brands across the globe with sustainable products and helping to scale the elimination of plastic waste.
- Dow's support of Mura Technology provides critical resources for Mura to finance and deliver on its multi-year pipeline of advanced plastic recycling projects.

SUSTAINABILITY & CIRCULARITY PROJECTS – VALOREGEN

Valoregen

- Valoregen to build largest single hybrid recycling site in Damazan, France, which will have capacity to process up to 70 kilotons of plastic waste per year.
- Dow will be the main off-taker of post-consumer resins (PCR) from Valoregen's new plant.
- In the future, the site will uniquely combine advanced and mechanical recycling facilities in one ecosystem.
- The project, which is expected to be operational and delivering recycled materials at the end of Q1 2023, will mark an important step in bringing together mechanical recycling (which processes certain plastic waste into secondary products) and newer, advanced recycling processes (which breaks down mixed, hard-to-recycle plastics into their original naphtha-like liquid form to manufacture new virgin-like polymers).
- Valoregen's ultimate aim is to create a unique ecosystem capable of recycling all forms of plastic waste in one place. Both mechanical and advanced recycling technologies are complementary and essential to achieving Dow's commitment to incorporate at least 100,000 tonnes of recycled plastics in its product offerings sold in the European Union by 2025.
- Dow will be the main recipient of post-consumer resins, which it will use to develop new plastic products marketed under Dow's [REVOLOOP™](#) product range.

SUSTAINABILITY & CIRCULARITY PROJECTS – NEXUS CIRCULAR

Nexus Circular

- Dow and Nexus Circular Announce Plans to Build New Advanced Recycling Facility in Dallas, TX, Expediting Circular Plastics Production in USA
- The new facility will process and convert over 26,000 MTs of previously non-recycled plastics into high-quality circular feedstocks to accelerate sustainable virgin plastics production.
- Nexus Circular project will construct an advanced recycling facility in Dallas, Texas. The new facility will process and convert over 26,000 MTs annually of previously non-recycled plastic into circular feedstock that will be delivered back to Dow as a raw material to create new, recycled plastics for food-contact, health, hygiene, and fitness applications.
- Nexus Circular is a commercial leader in advanced recycling that uses a proprietary process and pyrolysis (high temperature decomposition) technology to transform waste plastics into high-quality circular feedstocks its partners use in the production of circular polymers.



Seek

Together™