



# UD Trucks Carbon Neutrality 2050



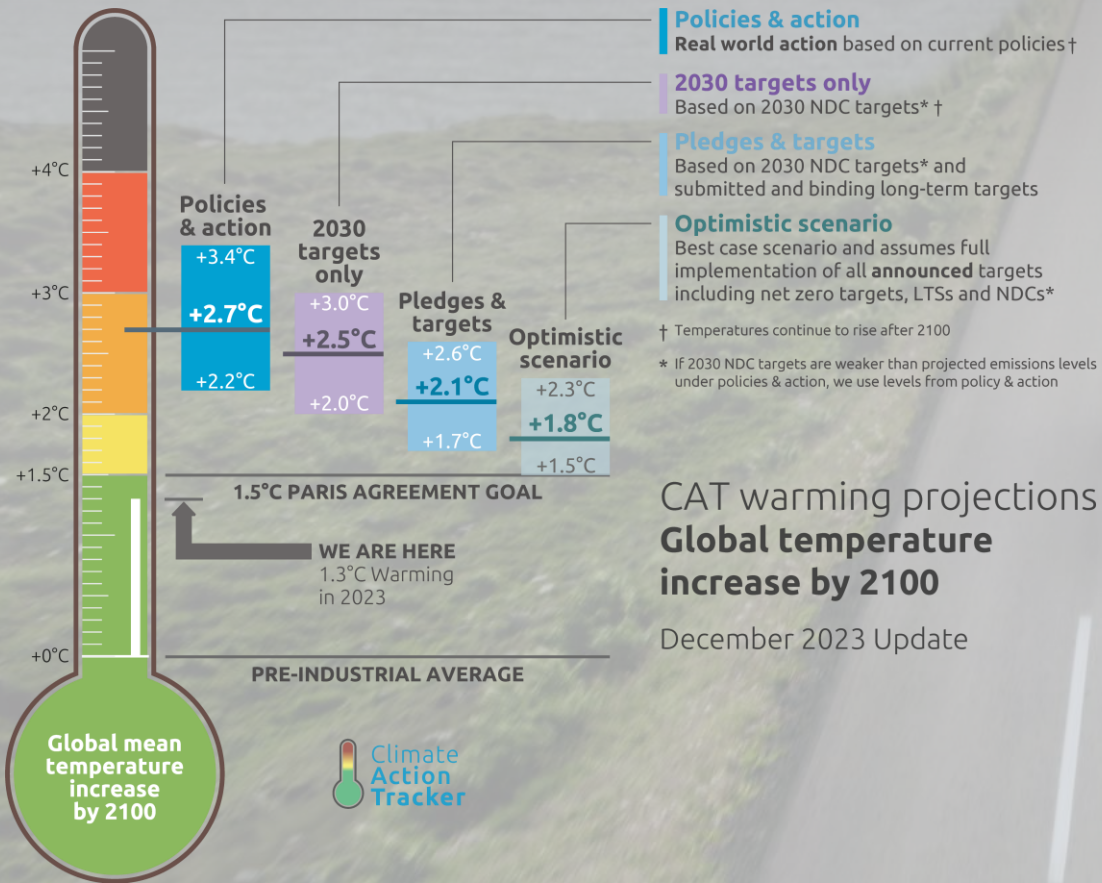
# Background: UD Trucks Sustainability Goal

- Our carbon neutrality goal is in line with our Better Life strategy, as UDT communicates to the global community our commitment to emerging as a frontrunner in sustainable transportation solutions.
- UDT is responsible for ensuring that the company's goals are in harmony with ISZ, the United Nations, and other pertinent authorities.
- This objective will establish the basis for our organization to strive for carbon neutrality across all aspects, including products, services, and operations.
- Additionally, as a company, it is required for us to declare our commitment to carbon neutrality publicly.





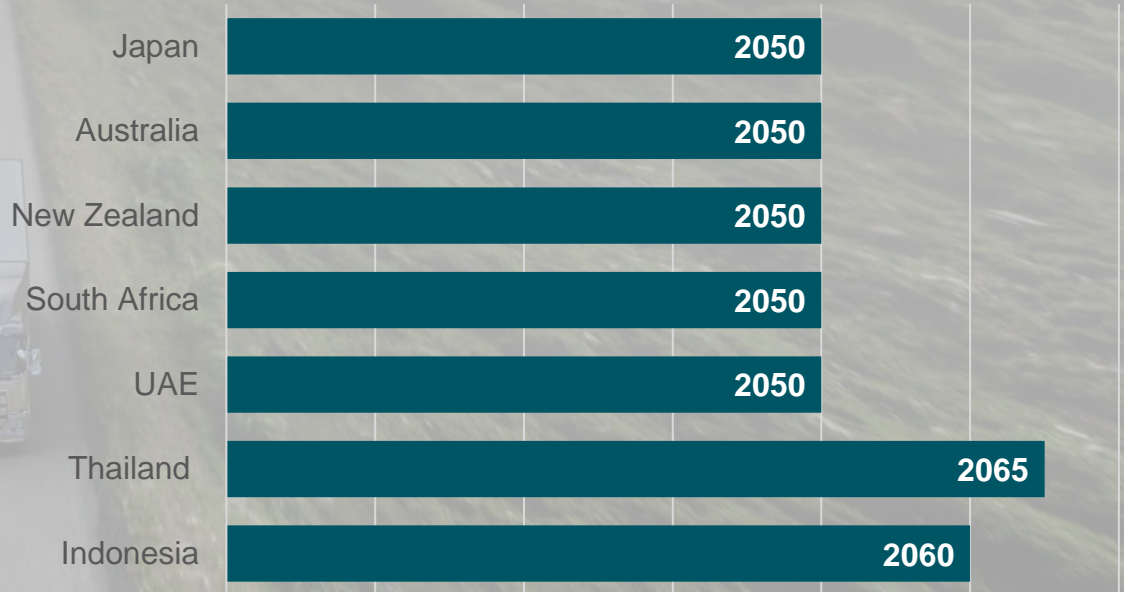
# To comply with the Paris Agreement and NDC



CAT warming projections  
**Global temperature increase by 2100**

December 2023 Update

## Most UD Trucks Key markets aim for 2050 Net-zero

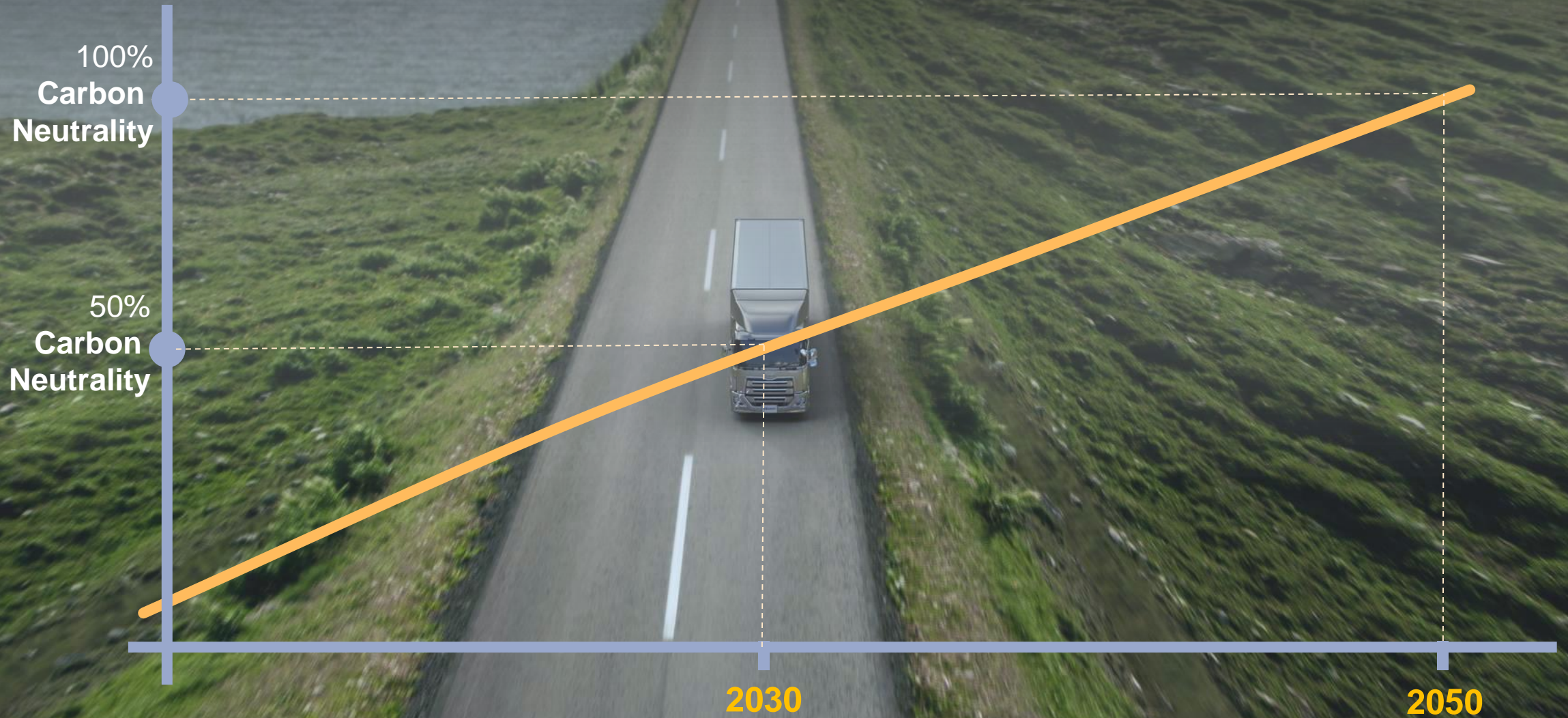


Source: <https://climateactiontracker.org/global/cat-thermometer/>



# UD Trucks Sustainability Goal: Carbon Neutral by 2050

As part of the UDT Better Life strategy, UD Trucks is committed to achieve carbon neutrality by 2050.





# Scope of UDT Carbon Neutrality

**Priority 2030**

Scope 1  
**Direct Emission from operation controlled by UDT**

*Using renewable energy sources, optimizing production processes, and reducing waste and emissions from manufacturing facilities.*

Scope 2  
**Indirect energy emissions**

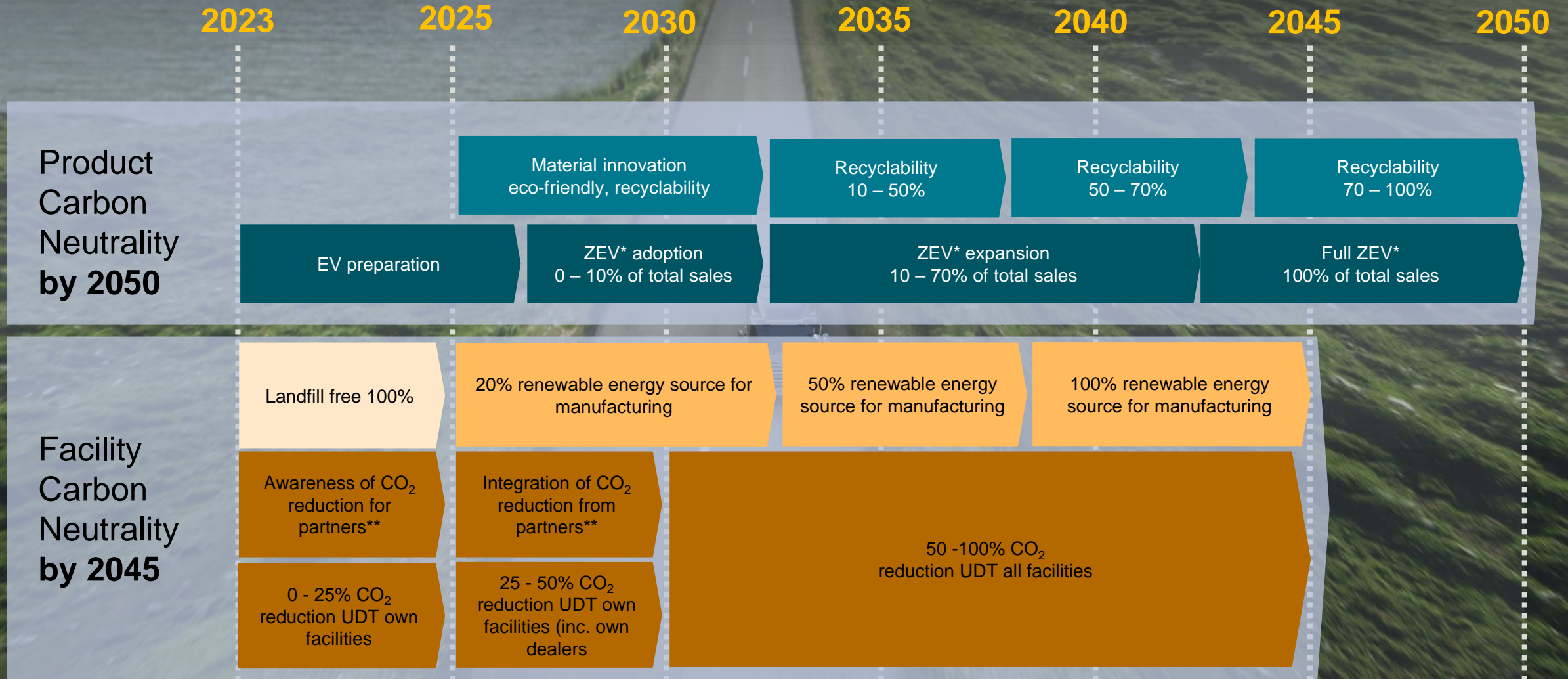
*Influence suppliers to reduce the emissions associated with the production of components and materials used in their vehicles.*

**Priority beyond 2030**

Scope 3  
**Other indirect emissions**  
3a. Indirect emissions related to purchased or acquired goods and services  
3b. Indirect emissions related to sold goods and services

*This includes emissions generated from the production of the metals and components it purchases, the transportation of purchased products from its suppliers (and between its suppliers and their suppliers), as well as use of its sold Trucks*

# Facility, product, and services Carbon Neutrality roadmap



\* ZEV is not limited xEV but also H2-ICE, alternative fuel and other potential technology in the future

\*\* Partners are not limited to private dealers, importers, suppliers, and manufacturing plants



# Product Carbon Neutrality by 2050

## Ensure Ongoing Emission Regulation Compliance

Continue rigorous efforts to comply with emission regulations to uphold environmental standards



## Enhance Fuel Efficiency

Introduce new product features such as automated transmission and 13L engines. Offer innovative services like telematics, driver coaching/training, and UD Trust to optimize fuel efficiency



## Promote Vehicle Recyclability

Establish a remanufacturing program or part exchange initiative to improve the recyclability of vehicles.



## Market Trial and Understanding

Conduct trials to comprehend the market's needs for Zero-Emission Vehicles (ZEVs) and tailor future developments accordingly.



## ZEV Heavy Duty (ZEV HD) Development

Lead the development of Zero-Emission Vehicle Heavy Duty (ZEV HD) engines within the group through the OHDP.



## Build ZEV Ecosystem

Develop a comprehensive ecosystem to support the implementation of Zero-Emission Vehicles in the market.

\* ZEV is not limited xEV but also H2-ICE, alternative fuel and other potential technology in the future



# Sustainable sourcing to reach the common goal

## Step 1 Awareness

### Sourcing evaluations

- Utilize SAQ for evaluation evaluations
- Prioritize suppliers that demonstrate a commitment to environmental sustainability.
- Consider products and materials with lower carbon footprints, such as those made from recycled or renewable resources.

### Awareness

- Engage with suppliers to encourage them to adopt sustainable practices and reduce their own carbon emissions.

## Step 2 Integration

### KPI setting

- Establish key performance indicators (KPIs) related to carbon neutrality and regularly assess and improve upon them.
- Conduct regular audits to ensure that suppliers adhere to environmental standards and practices.
- Explore opportunities for carbon offsetting initiatives

### Integration

- Integrate carbon neutrality requirements into supplier contracts and agreements.
- Clearly outline expectations for suppliers to adhere to environmentally sustainable practices and set specific targets related to carbon reduction.

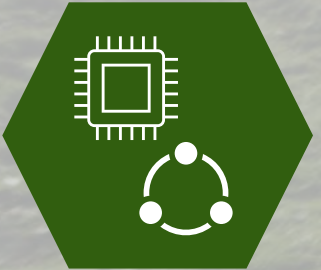


# Operations towards 2050



## Journey to Environmentally Sustainable Factories

- Conduct a comprehensive assessment of your current environmental impact, including energy use, waste generation, and emissions, and Identify key performance indicators (KPIs) to measure and track progress.
- Invest in energy-efficient technologies and practices
- Use certifications to demonstrate your commitment to sustainability to customers and stakeholders.
- Transition to renewable energy sources such as solar, wind, or hydropower.



## Modernization and Circular Economy

- Explore and adopt advanced technologies such as Industry 5.0 to optimize production processes.
- Implement smart sensors and data analytics for real-time monitoring and control.
- Redesign products and processes to minimize waste and promote reuse and recycling.



## Carbon offsetting

- Invest in carbon offset projects to compensate for unavoidable emissions.
- Explore and support innovative carbon removal technologies.



# UD Trucks facility for CN 2050

## Carbon Footprint Assessment

Assessing the current carbon footprint of your facility and office. Identify the major sources of emissions, including energy consumption, transportation, and waste.

## Offsetting and collaboration

- Invest in carbon offset programs to compensate for emissions that cannot be eliminated.
- Participate in industry initiatives and partnerships to share best practices and collective efforts.



## Energy Efficiency Improvements

- Implement energy-efficient technologies in your facility, such as LED lighting, smart HVAC systems, and energy-efficient appliances.
- Transition to renewable energy sources for powering your facility and office. Install solar panels or purchase renewable energy credits to offset traditional energy use.



## Employee Engagement

- Encourage employees to adopt energy-saving practices, such as turning off lights and electronics when not in use.
- Encourage employees to use public transportation, carpool, bike, or walk to work.
- Foster a culture of sustainability by encouraging employees to contribute ideas and participate in green initiatives





# UD Trucks Thailand – Solar panel installation

- UD Trucks Thailand, in collaboration with Berkeley Energy Commercial Industry Solutions (BECIS), has installed 1,850 solar panels at its factory in Samut Prakan, near Bangkok.
- The solar panel installation is expected to provide 1,477 MWh of renewable electricity annually, reducing CO2 emissions by approximately 16% or 700 tons per year.
- The solar rooftop has the capacity to supply up to 25% of the electricity used at the plant.
- The Samut Prakan factory has implemented initiatives focused on zero waste to landfill, 100% waste recycling, and reducing energy consumption.
- The solar panel project is the first of its kind at a UD Trucks factory and represents a significant milestone in sustainability efforts.





# UD Trucks South Africa – Dealership facility in Cape Town

- On September 12 2023, UD Trucks Southern Africa inaugurated a larger and more prominent facility for its Cape Town dealership.
- The new flagship dealership features advanced vehicle servicing facilities, eight double drive-through workshop bays, and four double drive-through body building bays, including a spray booth.
- The facility is powered by roof-mounted solar panels generating 4.5MWh of power per month, with a backup system of 6 lithium batteries for power outages or adverse weather conditions.
- Water management is a key focus, with 90% of wash bay water recycled, rainwater stored in tanks with a 60,000-liter capacity, and separate collection of paper, plastic, cardboard, and glass waste for recycling, reducing landfill waste by 90%.





# UD Trucks Japan – Ageo

- Daily efforts to improve production efficiency and quality while prioritizing environmentally conscious operations.
- 2025 targets set for reducing CO2 emissions, energy consumption, and improving the recycling rate.
- Initiatives include LED lighting conversion, electrification of in-house vehicles, and large-scale energy loss reduction measures.
- Achieved a recycling rate of over 99% through the renewal of the Ageo Plant recycling station and other awareness activities.
- Ongoing efforts on expanding remanufactured parts for the aftermarket.

