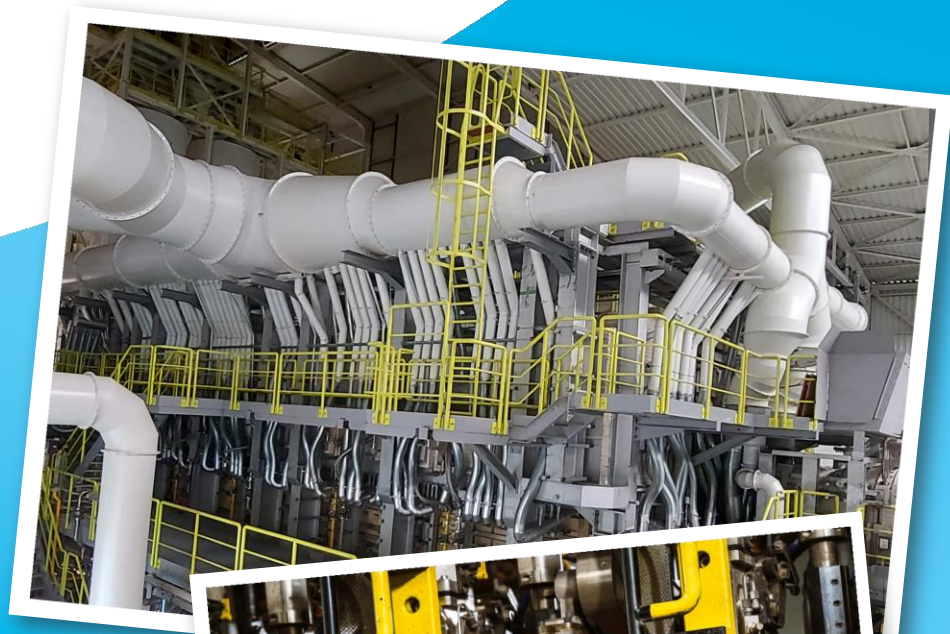


# Ardagh Glass Packaging's NextGen Furnace

The NextGen Furnace is a groundbreaking, hybrid furnace, built at the Ardagh Glass Packaging (AGP) facility in Obernkirchen, Germany. It began commercial glass bottle production in Oct 2023 and has since been gradually ramping up the proportion of electrical heating to a target of 80%, to significantly reduce carbon emissions. It is the world's first hybrid furnace for container glass packaging.

NextGen  Furnace



## Project aim

To decarbonise container glass production with breakthrough hybrid melting technology.

To reduce CO<sub>2</sub> emissions from the furnace by replacing gas combustion with up to 80% electrical heating using renewable electricity from solar installations in Germany.

## Awards

- Edie Net Zero – Manufacturer of the Year award
- Packaging Europe Sustainability Awards – Climate award
- DENA German Energy Agency – Think Big! award



Approximately  
35,000 tonnes  
of CO<sub>2</sub> saved in  
the first year

## Benefits



The furnace can achieve commercial-scale production of up to 350 tonnes per day.



It uses up to 70% recycled content, which helps reduce emissions and promotes resource circularity.



The furnace produces amber glass – the most challenging colour to melt – with flint and green to be tested based on commercial demand.



It is projected to save 69% in carbon emissions per bottle, amounting to 45,000 tonnes of CO<sub>2</sub> annually with the current production footprint.

## Current status



The furnace operates with an average of 60% electrical heating, resulting in a 64% reduction in emissions per bottle.<sup>1</sup>



Approximately 35,000 tonnes of CO<sub>2</sub> have been saved in the first year of production.



AGP continues to increase the level of renewable electricity in the furnace, aiming for a target of 80%.



The furnace has been showcased at multiple glass conferences, and presented to the glass community, with numerous furnace tours since production began.

<sup>1</sup>LCA calculation: January to June 2024

## Challenges

To roll out the technology to other AGP facilities, there is an urgent need for electrical grid connection with the appropriate infrastructure and regulatory support, in each location.



Scan the code to see the NextGen Furnace in action

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