

N163/5.X

5.9 MW
Nominal Power

20 Years (Baseline Scenario)
Service Life

IEC S
Wind Class

22,190 MWh / year per turbine
Annual Energy Production

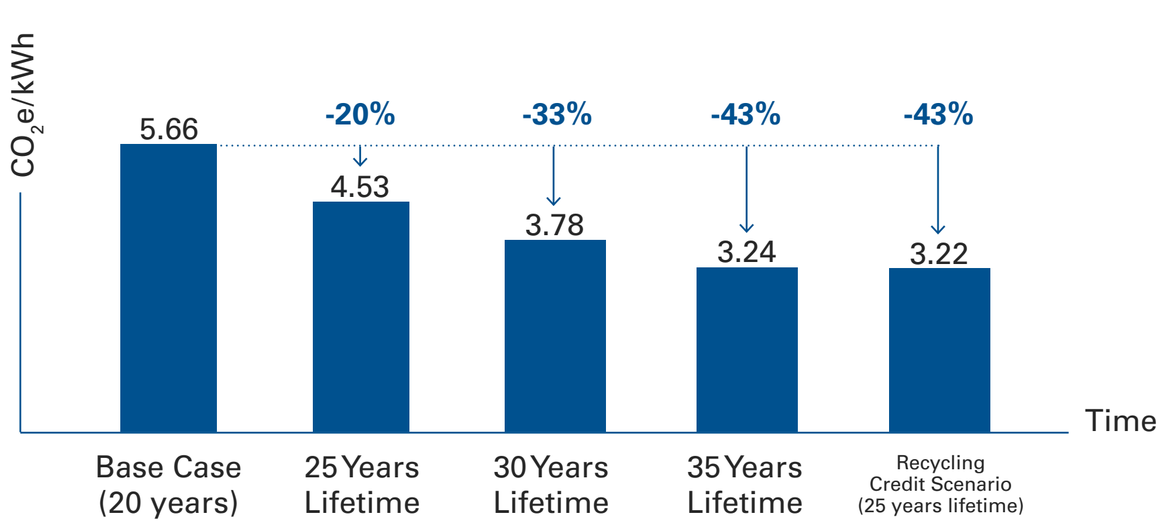
KEY SUSTAINABILITY INDICATORS*

Energy Payback Time	Return on Energy	Land use	Recyclability
~4.2 months	~56.7 times	~0.556 ha/turbine	~95%

*Based on internal LCA study, baseline scenario.

LIFETIME AS A KEY SUSTAINABILITY DRIVER

Carbon Footprint by Lifetime Scenario



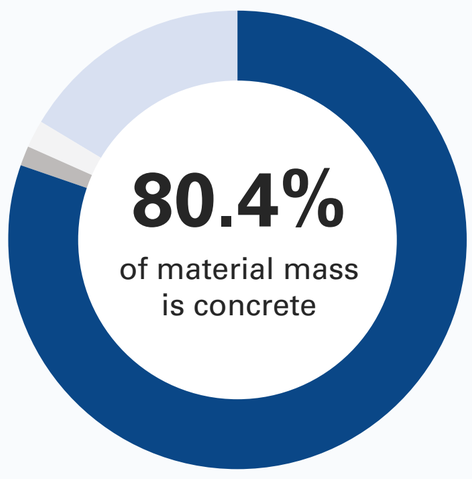
A longer operational lifetime enables more renewable electricity to be generated from the same assets and materials, enhancing overall environmental performance.

–43%

Carbon footprint reduction per kWh across the turbine's extended operational lifetime from 20 to 35 years.

MATERIAL CHOICES SHAPE CARBON FOOTPRINT

Material production accounts for around 86% of the total global warming potential. **By offering low-emission steel and low-carbon concrete solutions**, Nordex directly addresses the largest material-related carbon hotspots.



80.4%
Concrete

16.3%
Steel

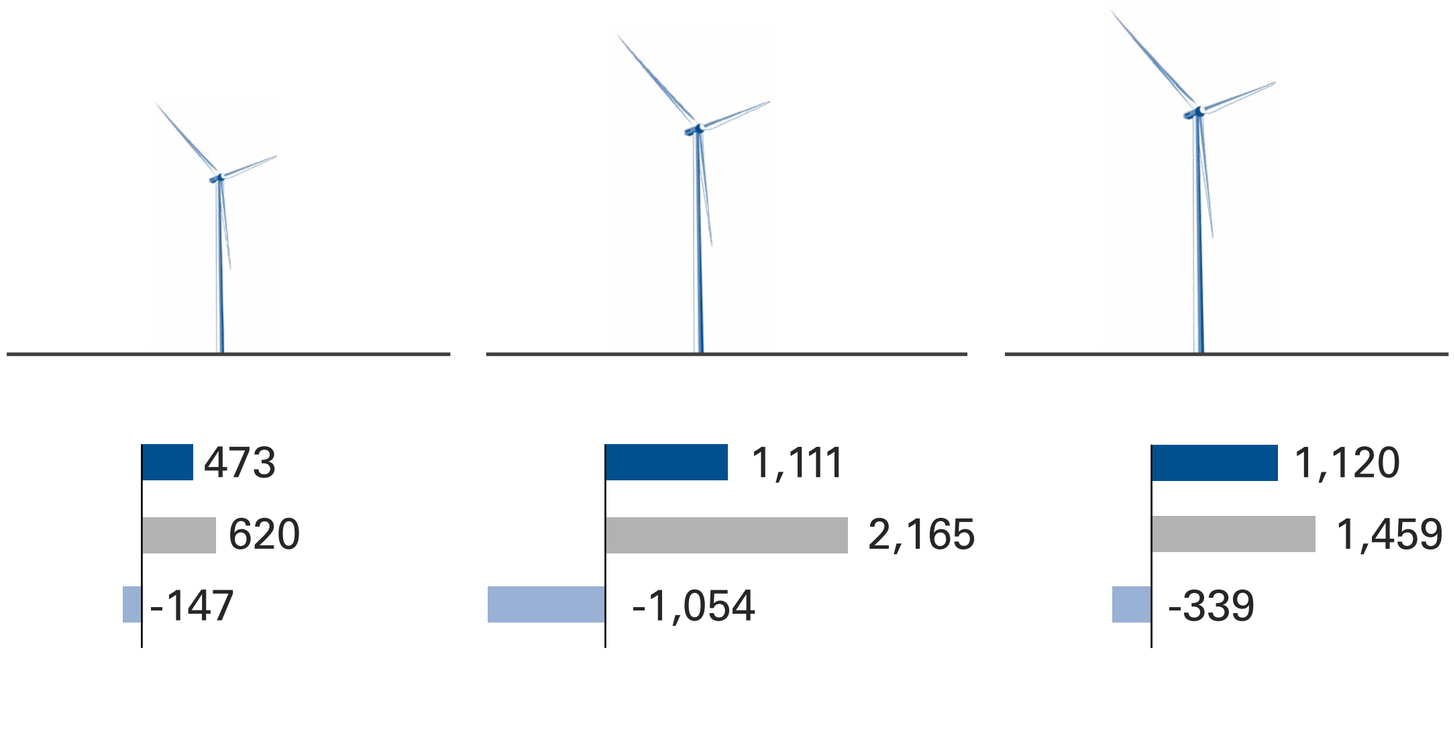
1.2%
Glass and carbon fibre reinforced plastic

2.0%
Other Material
0.6% Polymers
0.1% Operating fluids
<0.1% Electrics/electronics
0.1% Aluminium
0.2% Copper
1.0% Others

Tower type: concrete

IMPACT OF TOWER CONFIGURATIONS

Life Cycle Results with End-of-Life Credits



The choice of tower material influences the overall carbon footprint. Concrete towers deliver the lowest life cycle emissions, while steel towers maximize recycling benefits.

- **Total life cycle (t CO_2e):** Life cycle emissions, including end-of-life credits
- **Life cycle emissions before end-of-life (t CO_2e):** Material production, transport, construction and operation
- **End-of-life credits (t CO_2e):** Benefits from material recovery and recycling

Verified transparency. Nordex environmental product declarations (EPDs) provide transparent and standardised life cycle information across the entire product life cycle. They enable customers to assess environmental impacts based on independently established LCA methodology.

Powering Tomorrow. Proven Today.
Transparent across our entire product life cycle.