

WOODEN PLATFORMS

- a greener choice for wind turbine production



Resolux Group

A Gexpro Services Company



Platforms for wind turbines

Platforms for internal use in the wind turbines are one of Resolux Group's product offerings. Resolux Group demonstrates its commitment to environmental stewardship by introducing sustainable alternatives like wooden platforms. These platforms represent a conscious effort to promote greener practices in wind turbine production, aiming to mitigate the climate impact of wind energy generation. The wooden platforms aim to offer a swift and lightweight construction, as well as a sustainable solution.

The wooden platform offers strength and stability with its bonded structure. It is designed to last up to 100 years, it's crafted from softwood veneers and weather-resistant adhesive. Sustainably sourced from northern forests and certified by PEFC and FSC, it's considered an environmentally conscious choice. Resolux Group prioritizes ethical sourcing in its supply chain. Certified with CE marking, the platform meets performance standards, providing a biobased alternative to steel and aluminium.

ADVANTAGES BY USING WOODEN PLATFORMS

Easy, and enables fast construction 


Lighter weight, without compromising strength and durability 

Lower CO₂-footprint on materials 

Captures CO₂ in the wood 

More robust risk-averse supply chain; for wood vs. steel/aluminum 

Cost out possibilities; for serial production 

Easy ramp-up for serial production 

Cost competitive solution (vs. galvanized steel/alu platform) 

Unlock the power of sustainability and resilience with wooden platforms - built to weather any storm, ensuring longevity and eco-friendly performance for your wind turbines.

WOODEN PLATFORMS

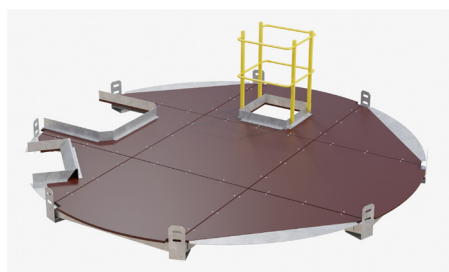
by Resolux Group

Function of the Wood

STRUCTURAL INTEGRITY: Wood offers an incredibly robust and dimensionally stable composition due to its homogeneous bonded structure. This ensures that the platforms provide sturdy support for wind turbine components, maintaining their structural integrity under various loads and conditions.

SERVICE LIFE: The platforms are specifically designed to match the lifespan of wind turbines, with a targeted longevity of up to 100 years. This prolonged service life ensures that the platforms can withstand the rigors of long-term operation without experiencing significant degradation or deterioration.

MANUFACTURING PROCESS: Crafted from 3 mm thick rotary peeled and strength-graded softwood veneers, the platforms are meticulously manufactured using advanced techniques. The use of weather and boil-resistant phenol formaldehyde adhesive ensures strong bonds between the veneers, while strategic orientation of some veneers crosswise enhances the transverse strength and stiffness of the products. This meticulous manufacturing process results in platforms that are not only durable but also capable of withstanding various environmental conditions and operational stresses.



Certifications:
The trees are
CE marked
according to the
EN 14374 standard.



SUSTAINABILITY

At Resolux, our objective is to mitigate the climate impact of wind energy production. To achieve this goal, we are intensifying our efforts to prioritize environmentally sustainable product development.

Resolux Group demonstrates its commitment to environmental stewardship by introducing sustainable alternatives like wooden platforms.

CARBON FOOTPRINT REDUCTION: Wooden platforms contribute to reducing the overall carbon footprint of wind turbine production compared to steel and aluminium alternatives. By opting for wood, renewable energy companies can align their operations with sustainability goals and actively work towards lowering greenhouse gas emissions.

NATURAL AND RENEWABLE RESOURCE: Wood is a renewable resource that can be sustainably harvested and replenished. Choosing wooden platforms supports responsible forestry practices and helps preserve natural habitats, making it a preferable option for environmentally conscious consumers.

CERTIFIED ETHICAL SOURCING: The wooden platforms offered by Resolux Group are sourced from northern forests and certified by reputable organizations such as PEFC and FSC. These certifications guarantee that the wood is harvested sustainably and ethically, without contributing to deforestation or habitat destruction.

COMPLIANCE WITH STANDARDS: Wooden platforms certified with CE marking meet stringent performance standards, ensuring quality and safety in wind turbine construction. By adhering to these standards, renewable energy companies can mitigate risks associated with non-compliance and prioritize responsible manufacturing practices.

CONFLICT MATERIALS: is committed to use non-conflict materials in our supply chain including Russian veneer and birch product.



The wind power sector now makes it possible to reduce CO₂ emissions.

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UN's Sustainable Development Goals (SDGs)



#12 Responsible consumption and production

With Wooden Platforms, Resolux supports Sustainable Development Goal 12 "Responsible Consumption and Production".

Sustainable Development Goal 12 focuses on securing the earth's resources that are running out.

By using renewable natural resources such as wood, we can reduce the risk of exhausting the earth's natural resources while also reducing CO₂ emissions.

By incorporating responsible production and materials into an existing product, the aim of Wooden Platforms is to mitigate the effects of climate change.

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AVOIDED EMISSIONS FOR WOODEN PLATFORM

Rapport

To ensure valid and transparent data on the CO₂ savings achieved by transitioning from aluminum or steel to wooden platforms, a third party, CEMAsys, has conducted a Climate Footprint analysis. They have concluded the following:

” In conclusion, this analysis confirms that Resolux Group’s wooden platform offers a more environmentally friendly option compared to aluminium and steel platforms in terms of greenhouse gas emissions. The study consistently shows that the wooden platform outperforms its metal counterparts, supporting Resolux Group’s commitment to sustainability in wind turbine production.”

Source: CEMAsys 2024



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Avoided emissions - Aluminium

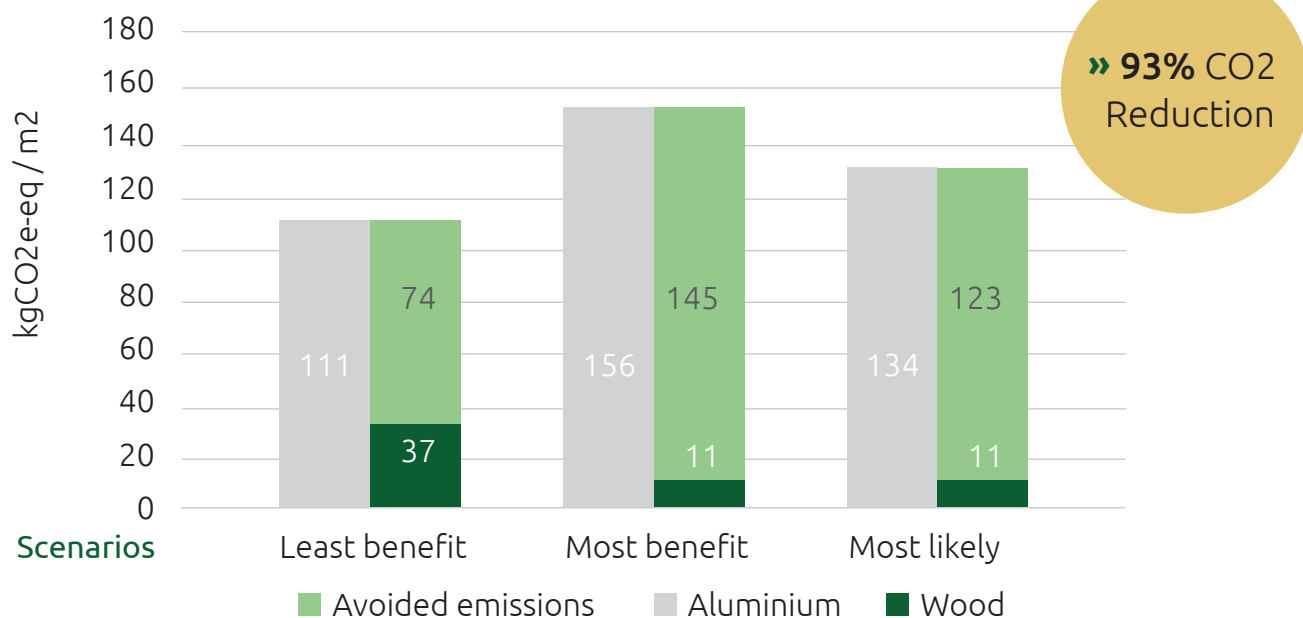


Diagram 1: Results of comparative GHG emissions between the wooden and aluminium platform based on the various cases.

Avoided emissions - Steel

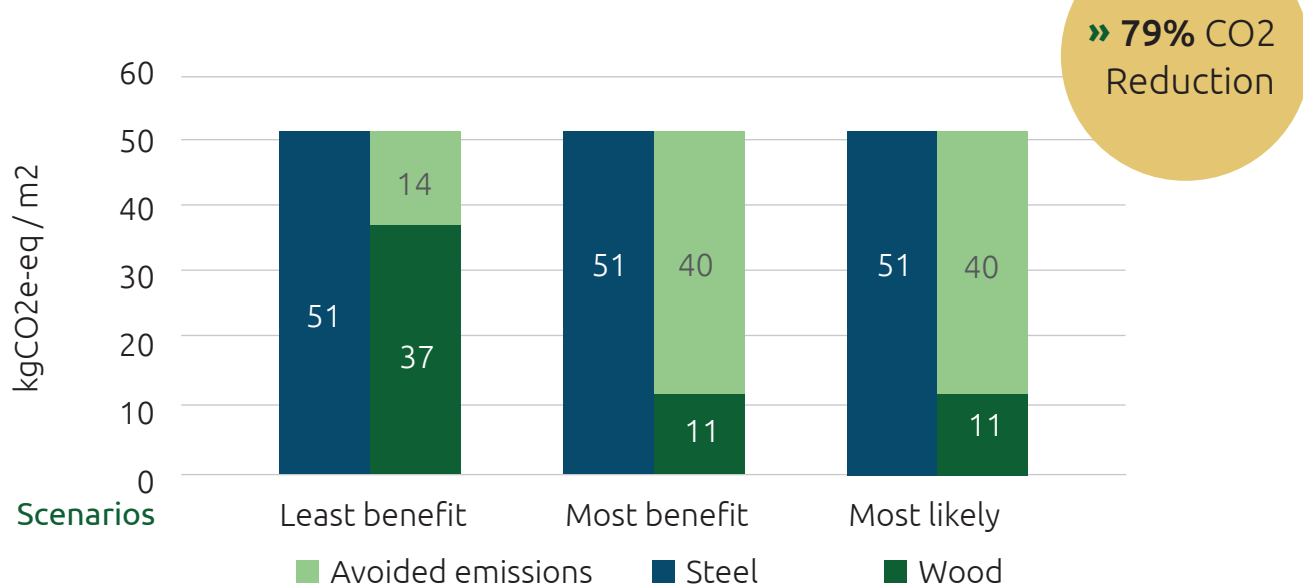


Diagram 2: Results of comparative GHG emissions between the wooden and steel platform based on the various cases.

Today, Frontier Technologies,
Resolux Group & Gexpro Services
go a step further



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Let's innovate together for a better future...



Resolux Group



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