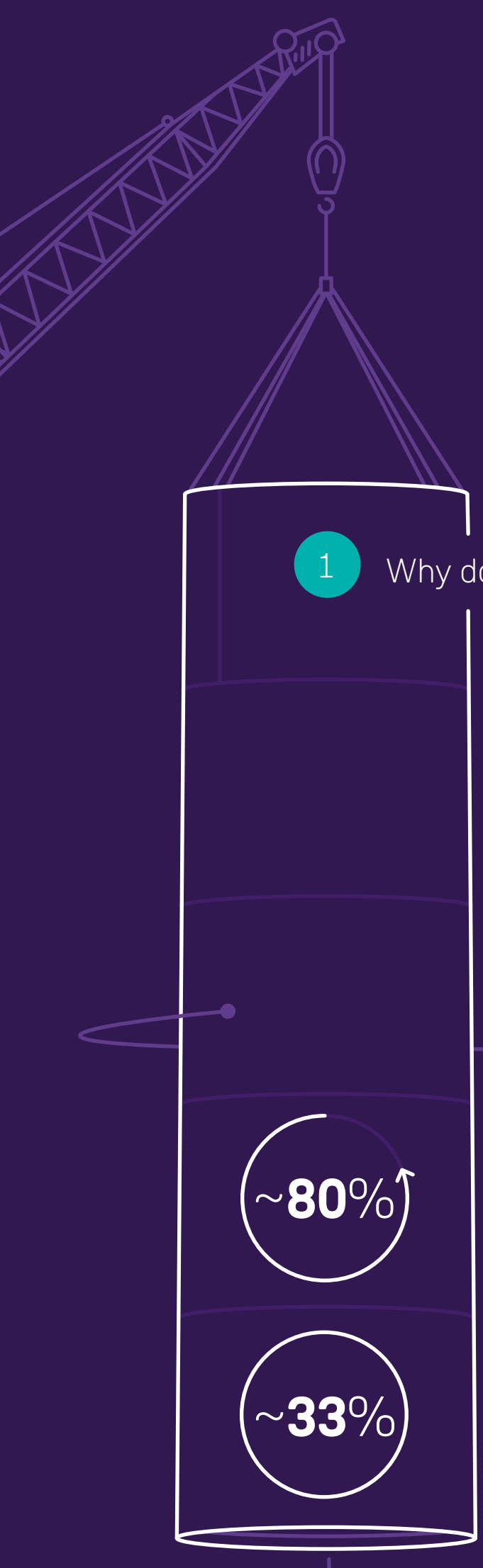
GreenerTower

The next step toward net-zero

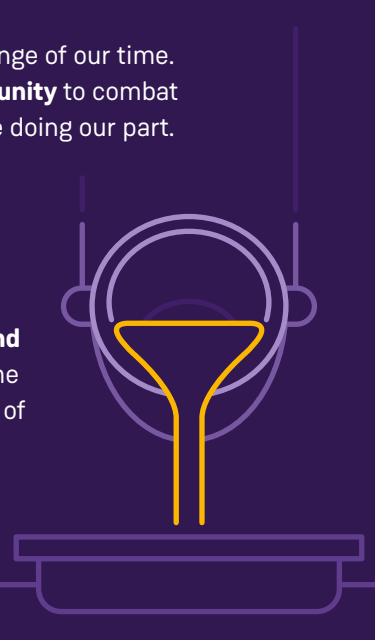
We are pursuing an ambitious target to reach net-zero CO_2 equivalent emissions by 2040. The use of GreenerTowers alone will **reduce our turbine's carbon footprint by an impressive 20%.**

This is the next important milestone on our journey to produce even more sustainable wind energy.



1 Why do we need the GreenerTower?

Climate change is the challenge of our time. **We must seize every opportunity** to combat it. At Siemens Gamesa, we're doing our part.



Steel is essential for the wind industry, but at the same time it is the largest single source of CO_2 equivalent emissions for wind turbines.

Towers consist of ~80% steel plates. This component causes the largest individual CO2 equivalent impact and steel plates are therefore the main focus area for the GreenerTower.

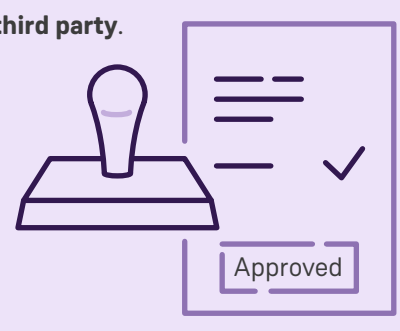
Tower production accounts for **~33% of all turbine** related CO_2 equivalent emissions.

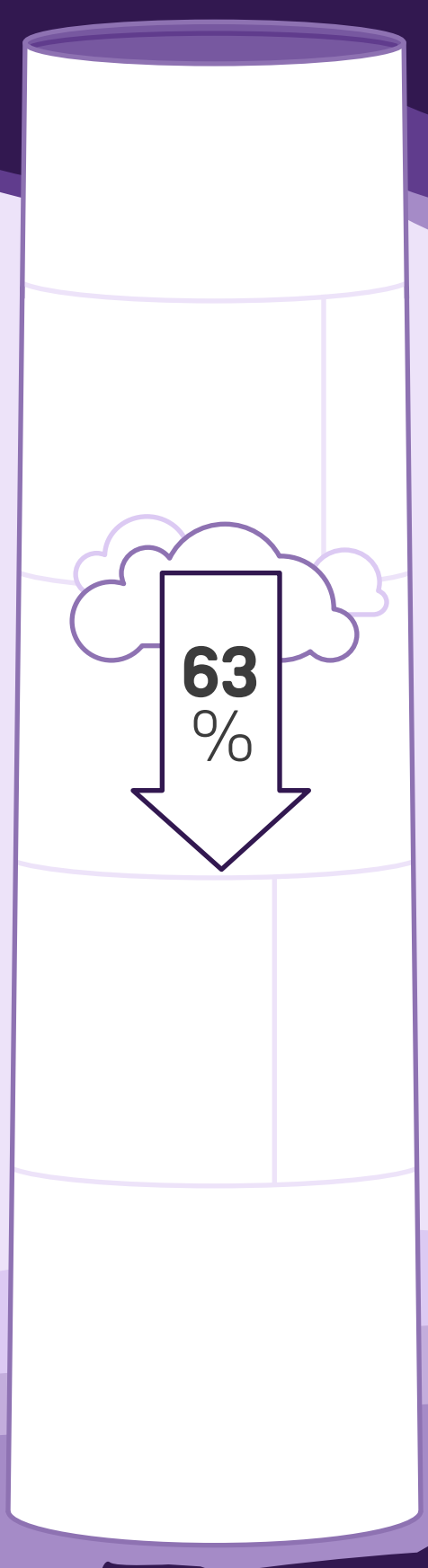
2 In essence, what is the GreenerTower?

The GreenerTower has the **same properties, quality and warranties** as a conventional steel tower.

For the GreenerTower, a maximum of 0.7 t of CO_2 equivalent emissions are permitted per ton of steel. This means a CO_2 **reduction of at least 63% compared to conventional steel production**.

CO_2 equivalent emissions from the steel production must be **certified by third party**.





3 Imagine what would happen, if all turbines installed by Siemens Gamesa in one year would utilize GreenerTowers?



330 x

It would equal one year of CO_2 savings from a forest area 330 times bigger than Central Park, New York City.



466,000 x

It would be the same as removing 466,000 cars from the roads in Europe for a year.

The savings would be equal to the CO_2 equivalent emissions from more than

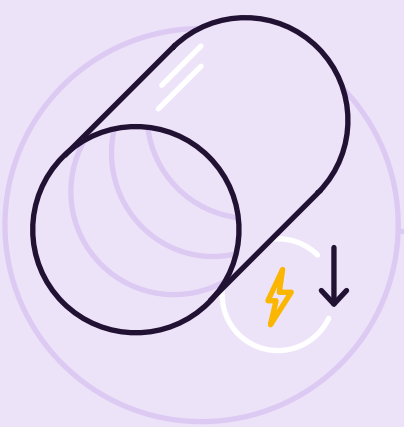


100,000

European citizens.

4 How do we achieve the GreenerTower CO_2 reductions?

The GreenerTower is based on the exact same design and offers the same quality as a conventional steel tower. The only, but crucial, difference is that the steel production is significantly CO_2 reduced. **This is how we can achieve it:**



Use of **less energy intensive** steel manufacturing processes.

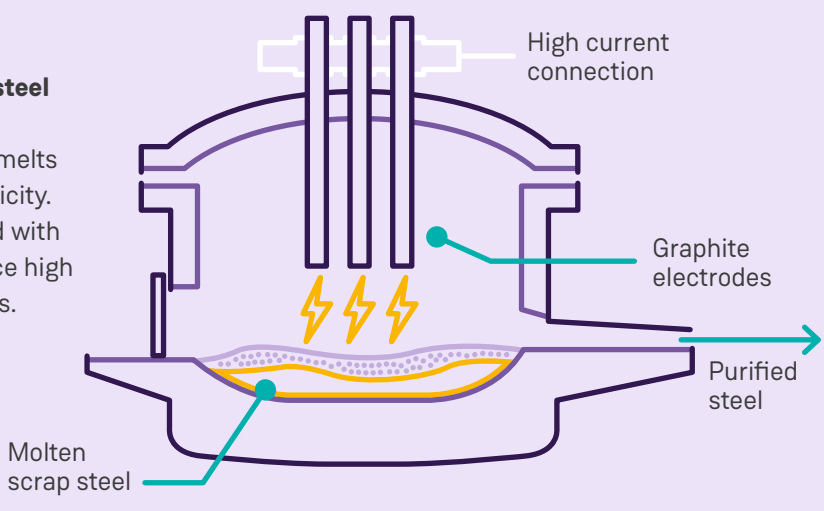


Increased use of scrap steel in the steel production.



Increased use of **renewable energy** sources.

One way to achieve CO_2 reduced steel production is with an electric arc furnace: The electric arc furnace melts scrap steel using renewable electricity. The molten steel is then combined with the right amount of alloy to produce high quality steel for our GreenerTowers.



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RENEWABLE ENERGY