



Siemens Gamesa technological solutions

DinoTails® Next Generation World-leading noise reduction technology

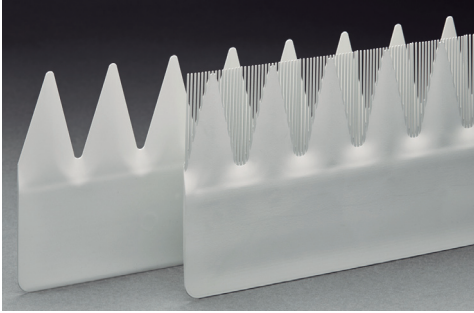
As your trusted onshore wind energy technology provider, we are continuously innovating and developing new technologies to improve the performance, sustainability and quality of our products. We are strongly committed to developing best-in-class turbine solutions and setting new industry standards, backed by almost 40 years of experience and over 95 GW installed across the globe. We maximize the efficiency of our wind turbines through proven technologies and solutions adapted to each project and its varying site conditions. One of these technologies is DinoTails® Next Generation.

Operation of turbines within certain noise levels is crucial for a significant percentage of onshore wind projects. To comply with local noise regulations, many wind turbines must run at curtailed power outputs, thus producing less energy (typically 2-4% AEP per dB). However, silent wind turbines can produce more power, which results in lower LCoE.

Siemens Gamesa introduced the DinoTails® concept in 2000. As an aerodynamic blade add-on, it reduces the sound power levels by using a serrated trailing edge mounted at the blade.

Inspired by nature

As a result of continuous innovation, Siemens Gamesa has recently pushed this concept even further through DinoTails® Next Generation, which uses a new approach. Inspired by the silent flight of the owl, this state-of-the-art technological solution improves the beneficial effect of the serrated edge by adding finer combs in between the teeth. These fine combs generate small flow structures, which further reduces the noise.



Proven technology

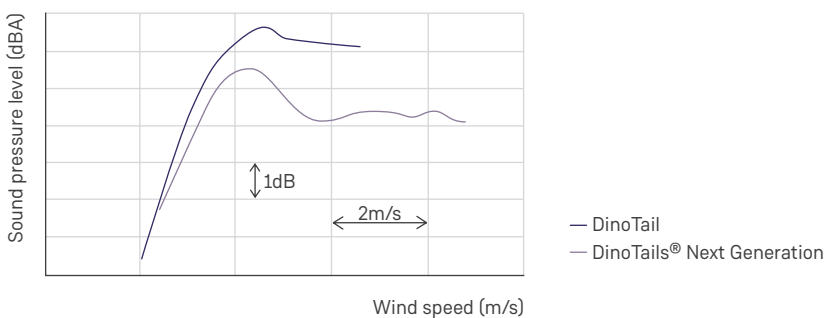
Siemens Gamesa has tested DinoTails® Next Generation using advanced validation methods, combining acoustic and aerodynamic wind tunnel tests with highly accelerated lifetime and power/noise curve measurements in the field. The results have shown robust performance with a significant noise reduction at all wind speeds without losing power.

Siemens Gamesa portfolio

DinoTails® Next Generation technology is now offered for the onshore Siemens Gamesa wind turbine platforms with substantial improvements to noise levels.

With a layout tailored for each turbine type, this world-leading noise reduction technology enables us to create value for our customers by maximizing AEP and reducing the LCoE in sites with noise constraints.

Noise curves



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