



UPGRADES MADE BY NORDEX

XTENDED POWER ALPHA/BETA

Two products – one goal: increasing your turbine's yield

➤ Comprehensive field tests demonstrated that existing turbines achieve yield increases through an optimised pitch and an intelligent turbine control. With our product combination of two independent but complimentary products we generate an annual extra yield of up to two percent.



XTENDED POWER ALPHA/BETA

➤ **Your benefit: the competence of the manufacturer**

As a manufacturer, we know your wind turbine best and use our many years of experience to provide you Upgrades made by Nordex with precisely fitting upgrades products for your turbines. In addition to that we place a top priority to high availability and safety, as well as on increasing the yield of older turbines.

With our new Xtended Power alpha/beta product package, existing turbines can achieve extra yield of up to two percent. The products at a glance:

Improved Start-up: optimised pitch control

With the Improved Start-up upgrade, Alpha and Beta generation turbines profit from better performance at wind speeds lower than six meters per second. Fine-tuned blade adjustment control results in better inflow conditions, which, in turn, increase performance. The Improved Start-up technology is a standard feature of our newer turbines. To upgrade existing turbines to the same standard of technology, we offer a project-specific simulation of the improved performance.

Advanced Power: intelligent turbine control

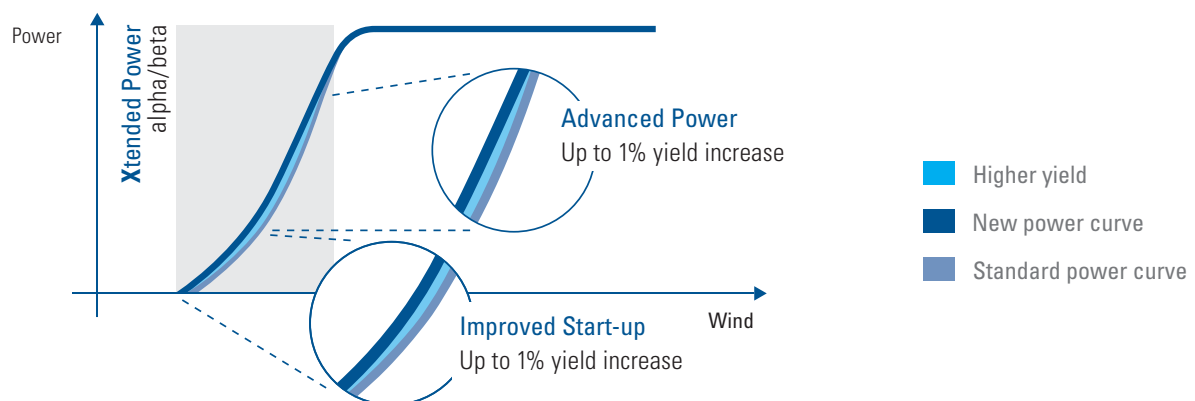
Our Advanced Power technology makes it possible to increase performance at moderate wind speeds by incorporating additional environmental parameters in turbine control. This technology

is a standard feature of all Nordex Gamma and Delta generation turbines. We adapted the concept and developed a upgrades product for the turbines of our Alpha and Beta generation. A turbine's yield is influenced by factors such as air pressure and temperature. Older turbines do not yet have the technology required to account for actual influencing factors, and turbine control is only supported by standard parameters. The Advanced Power solution enables the intelligent interplay of sensors, the evaluation of measured data and automatic responses. This customised response to actual environmental conditions optimises the control of your turbine.

Comprehensive field tests demonstrated yield increases of up to one percent per year for each product, the Advanced Power solution and the Improved Start-up solution.

Fast, efficient solution: process and duration

Our Upgrades made by Nordex offer you a customised upgrade package based on your requirements. Modernisations of existing turbines by the Nordex Group are known for their flexibility: Service technicians can install standardised products on the turbine directly on site – without the need for lengthy project planning or downtimes.



➤ We are happy to provide you with an offer for the product package Xtended Power alpha/beta. Please contact us.