

# NuVinci® CVP Technology for Vertical Axis Wind Turbines.

Only Viryd with our patented, award-winning NuVinci Continuously Variable Planetary transmission (CVP) allows OEMs of vertical axis wind turbines to:



- Reduce drivetrain costs up to 40%
- Reduce drivetrain weight up to 35%
- Improve number of kWhrs per year by up to 20%
- Use off-the-shelf components
- Design with proven, highly-scalable technology
- Scalable for systems with power outputs from 1-100 kW



Award-winning NuVinci technology



**Viryd**<sup>™</sup>  
Technologies  
More Power to You.<sup>™</sup>

# The Revolution of the Vertical Axis Wind Turbine.

Rotors are becoming more sophisticated and more efficient. Viryd does not make rotors, but rather enables innovative rotor designs by allowing the Systems Engineers to completely de-couple the rotor speed from the generator speed.

Our drivetrain starts with a straightforward, highly efficient, reliable, speed increaser. This allows the OEM to use a standard induction generator.

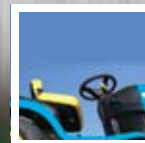
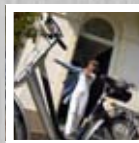
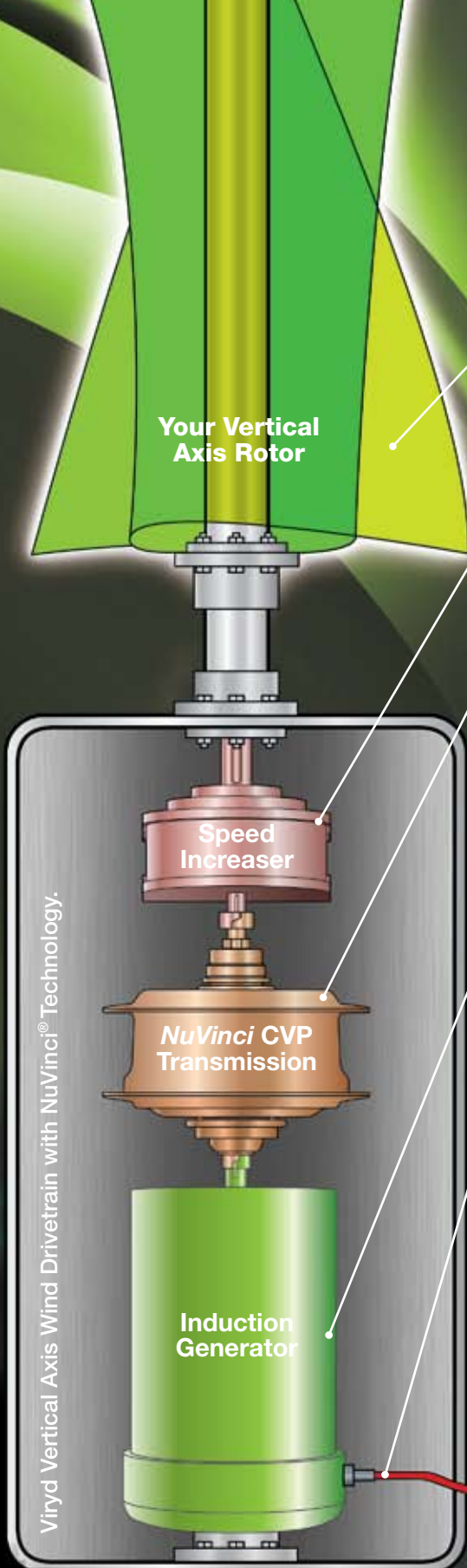
Here is the real innovation...Our revolutionary *NuVinci* continuously variable planetary (CVP) transmission. This enables the System Engineer to simultaneously optimize rotor speed (both for efficiency and safety in high wind) and the generator speed.



The implementation of the speed increaser and the *NuVinci* transmission allows the use of a standard, off-the-shelf induction generator – highly efficient, low cost, highly reliable.

Since a constant speed induction generator is used, the system can connect directly to the grid without costly and failure-prone inverters.

For more information or to discuss a turnkey Vertical Axis Drivetrain with *NuVinci* technology, contact Viryd today!



*NuVinci* technology is driving change and new designs in everything from bicycles to wind.

[www.NuVinci.com](http://www.NuVinci.com)



Direct to Grid

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