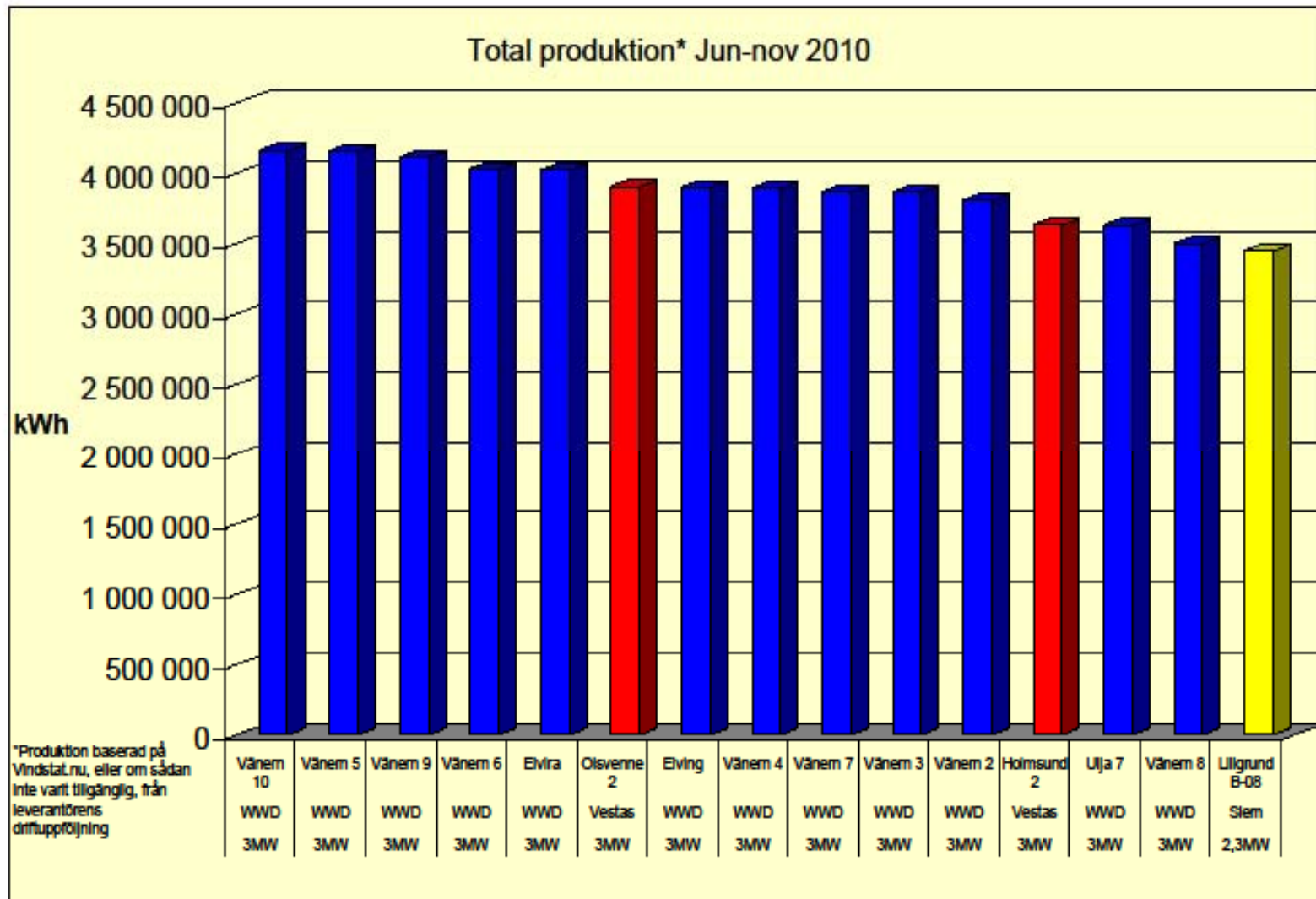


WinWind small supplier – large turbines – outstanding production



WinWinD has strong arctic expertise

- Over 10 years of experience in Nordic conditions
- Blade Ice Prevention System

WinWinD's Blade Ice Prevention System

- The turbines are ice-free regardless of harsh winters!
- The first successfully operating blade ice prevention system in multi-megawatt scale
- The world's biggest rotor with blade heating system
- 30 MW operating in Swedish Lapland

WinWinD's ice prevention system truly works!

Turbines operate non-stop



WinWinD has pioneered in the field of wind turbine ice prevention. The blades heat up from $-7,6\text{ }^{\circ}\text{C}$ to $+20\text{ }^{\circ}\text{C}$ in only 120 seconds. One turbine uses only 1,95 % of produced energy to blade heating. 30 MW operating in Uljabuouda, Sweden.

Our Ice Prevention System

- WinWinds ice prevention system is designed to ensure proper electricity production on sites with heavy icing
- The Ice Prevention System consists
 - **heating elements**
 - **power supply**
 - **control system**



Operational experience

WinWind Ice Prevention System has optimized the function of the heating elements, power supply and control system and achieved:

- Reliability
- Optimized energy consumption of the system
- Durability
- Control
- Productivity in extremely demanding conditions
- Financial security

WinWinD 3

Simply productive!



Ready for production Q3/2011

WinWinD 3 Advantages

- Light nacelle weight – 80 t
- 120 m rotor diameter
- Exceptional productivity – especially at low wind speeds

- Proven concept with 30 % less moving parts than conventional drive train system
- Designed for high availability
- Maximal grid compliance



120 m Rotor

The biggest rotor in WinWinD's history and one of the biggest in the markets

- Excellent yields in low-wind-speed sites
- Compatible with WinWinD 3
- Manufactured in-house by WinWinD which enables full capacity and quality control



Thank you

