



Vestas De-icing System on V112-3.3 MW

Winterwind

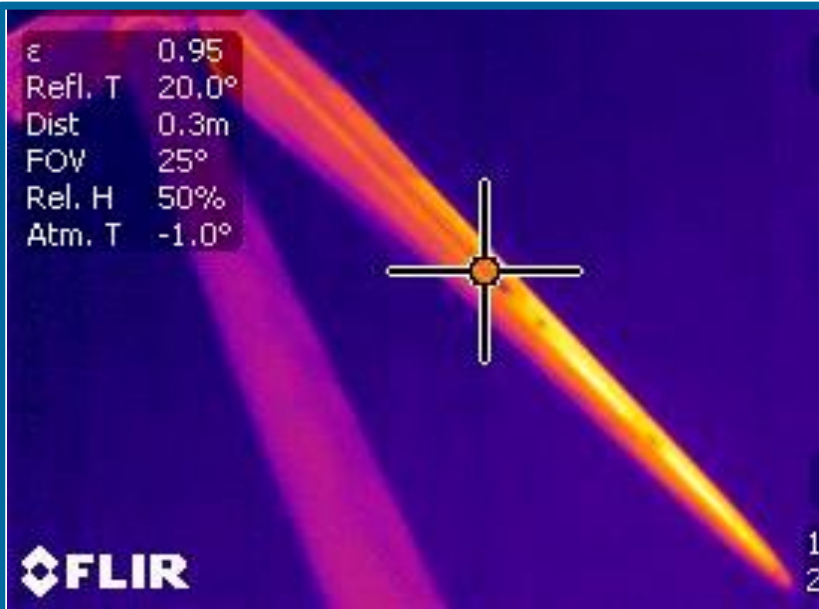
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Vestas De-icing system

Designed for production optimization and operation



- **Active** blade de-icing solution
- **Hot Air technology** within each blade root
- **Simultaneous** de-icing of blades
- **Automatic system** based on power curve and ambient conditions

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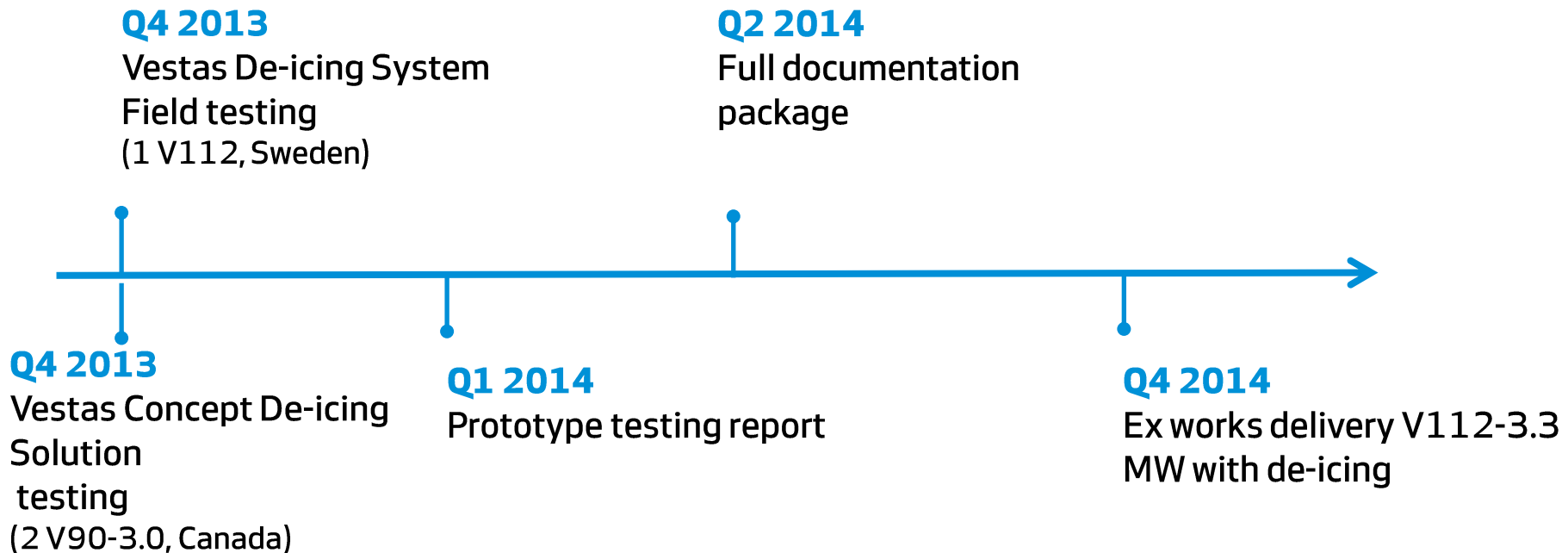


- No impact on overall turbine performance – **20 year lifetime** maintained
- **No impact** on lightning protection
- **Easy access** for service from the hub and blade root end
- Full **turbine software** implementation
- Follow type certificate with a **statement of compliance**

Timeplan

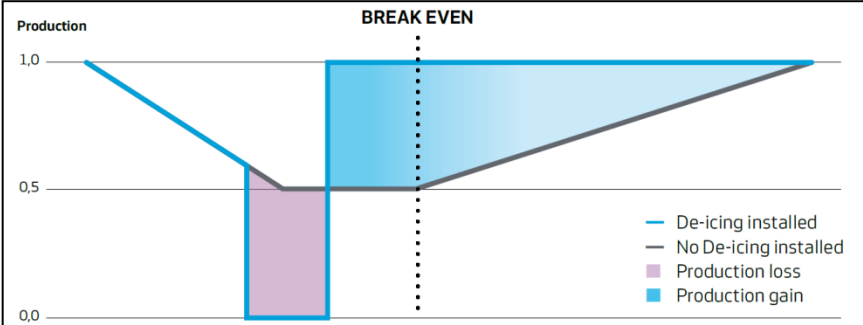
What is being installed and when can the products be delivered

- 3 turbines are being tested in this winter season
- 30 turbines are to be installed in Sweden in 2014 with de-icing
- = minimum 33 turbines in 2014 with de-icing with will gain high knowledge of the system

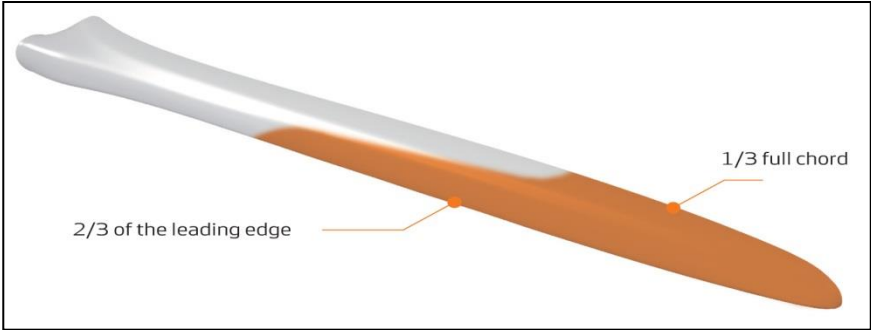


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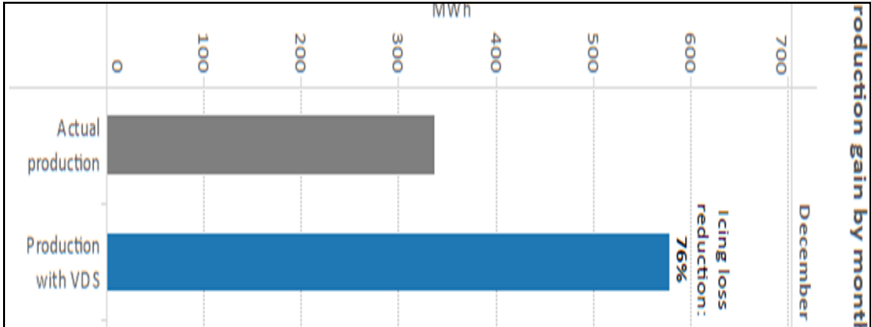
De-ice when it matters



De-ice where it matters



Bankable solution



The Vestas logo is positioned in the top left corner of the slide. It features the word "Vestas" in a white, italicized, sans-serif font, followed by a registered trademark symbol (®). The background of the top half of the slide is a vibrant blue sky with wispy white clouds, and a faint, curved white shape is visible on the left side.

Wind. It means the world to us.™

Thank you for your attention

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