



Wind | Solar | Energy

PROACTIVE COATINGS

Solutions for Ice Mitigation, Self-Cleaning, and Heat Reduction



WHO WE ARE

- Active since 2018
- Over 12,000 blades coated
- 17+ countries worldwide
- Founded our EU branch in 2024

LOOKING AHEAD

- Pilot programs underway with OEMs
- 2025 marks the beginning of our reapplication program
- Introduction of SURFACE SLIP

PHAZE BREAK



NEINICE
ICEPHOBIC COATING



NEINICE ICEPHOBIC COATING

FEATURES:

- Icephobic
- Hydrophobic
- Impact-resistant
- Self-cleaning
- Environmentally friendly
- Compatible with all LEPs and turbine substrates



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SAME
TURBINE
SAME DAY



WITHOUT NEINICE



WITH NEINICE

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PHAZE BREAK

THE STUDY OF A TURBINE

- A 4MWh turbine typically generates only 35% of the potential 4MWh

FACTORS INFLUENCING LOSSES

- Frequency and Duration of Icing Events
- Wind Turbine Technology
- Location
- Operational and Maintenance Practices



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QUANTIFYING THE LOSS

- The typical 4MWh turbine generates only 35% of its potential – about 34 MWh per day
- 24 hours x 365 days = 8760 hours/year
- 4MW x .35 x 8760 = 12,264 MWh/year
- 12,264/12 months = 1022 MWh/month
- 1022 MWh/month divided by 30 days = 34 MWh/day

LOW ICING CONDITIONS

Loss: 1-5% of annual output.

Min: Loss of 123 MWh/year

Max: Loss of 613 MWh/year

Using a conservative sell price of 1 MWh
at \$50 your losses are between **\$6,150 -
\$30,650**

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MEDIUM ICING CONDITIONS

Loss: 5-15% of annual output.
Min: Loss of 613 MWh/year
Max: Loss of 1,839 MWh/year
Using a conservative sell price of 1
MWh at \$50 your losses are between
\$30,650 - \$91,950

HIGH ICING CONDITIONS

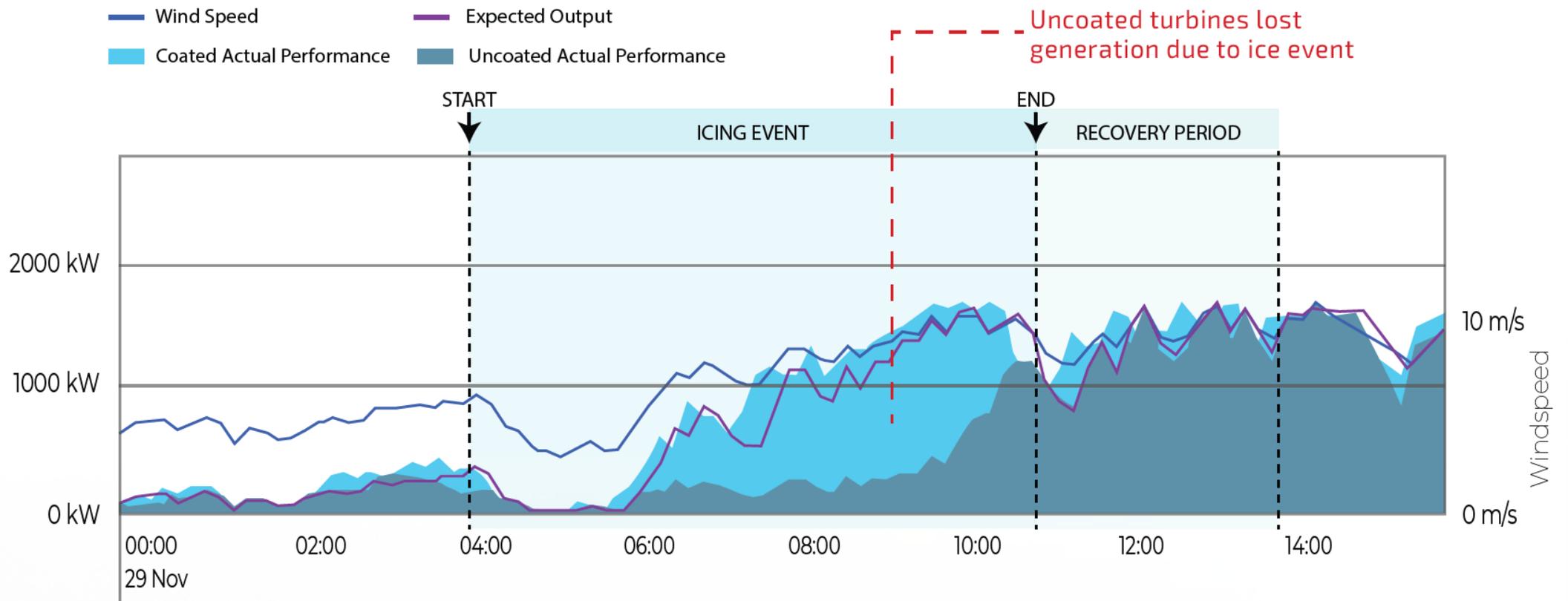
Loss: 15-25% of annual output.
Min: Loss of 1,839 MWh/year
Max: Loss of 3,066 MWh/year
Using a conservative sell price of 1
MWh at \$50 your losses are between
\$91,950 - \$153,300



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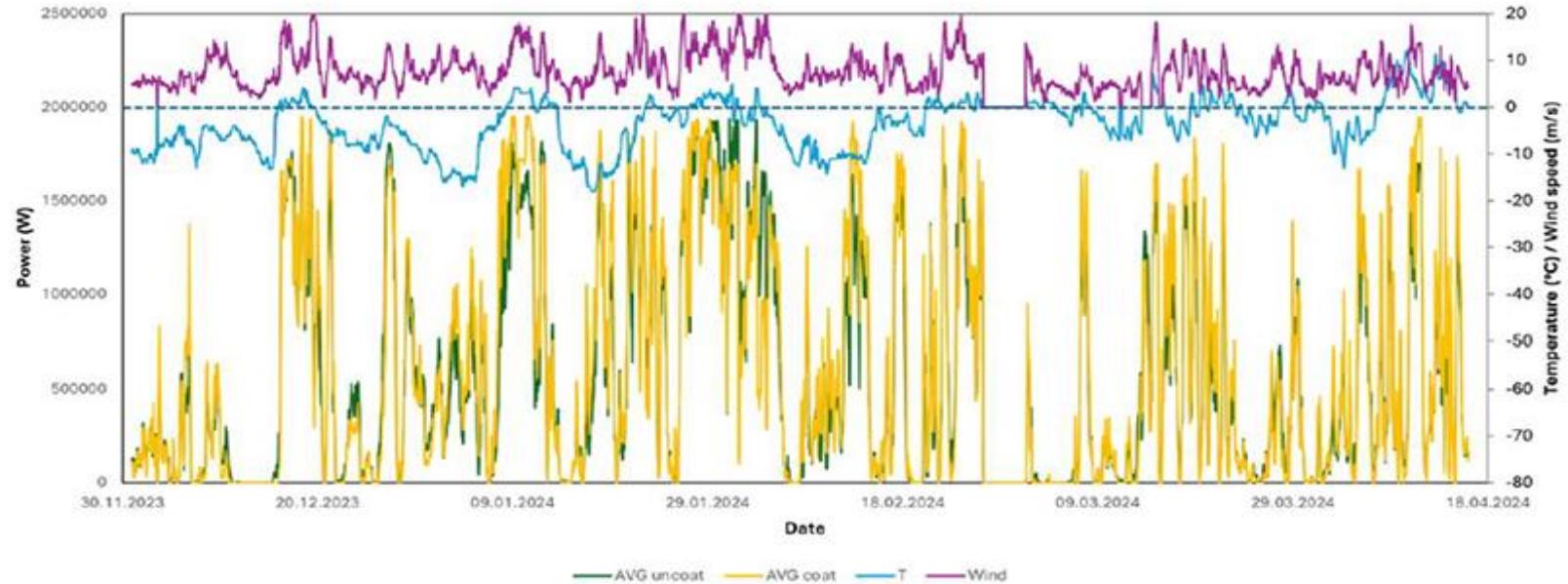
This comparison is from Idaho, USA and shows the performance of turbines coated with Neinice to uncoated turbines during a 1-day ice event.



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Average coated vs uncoated WTG power generation



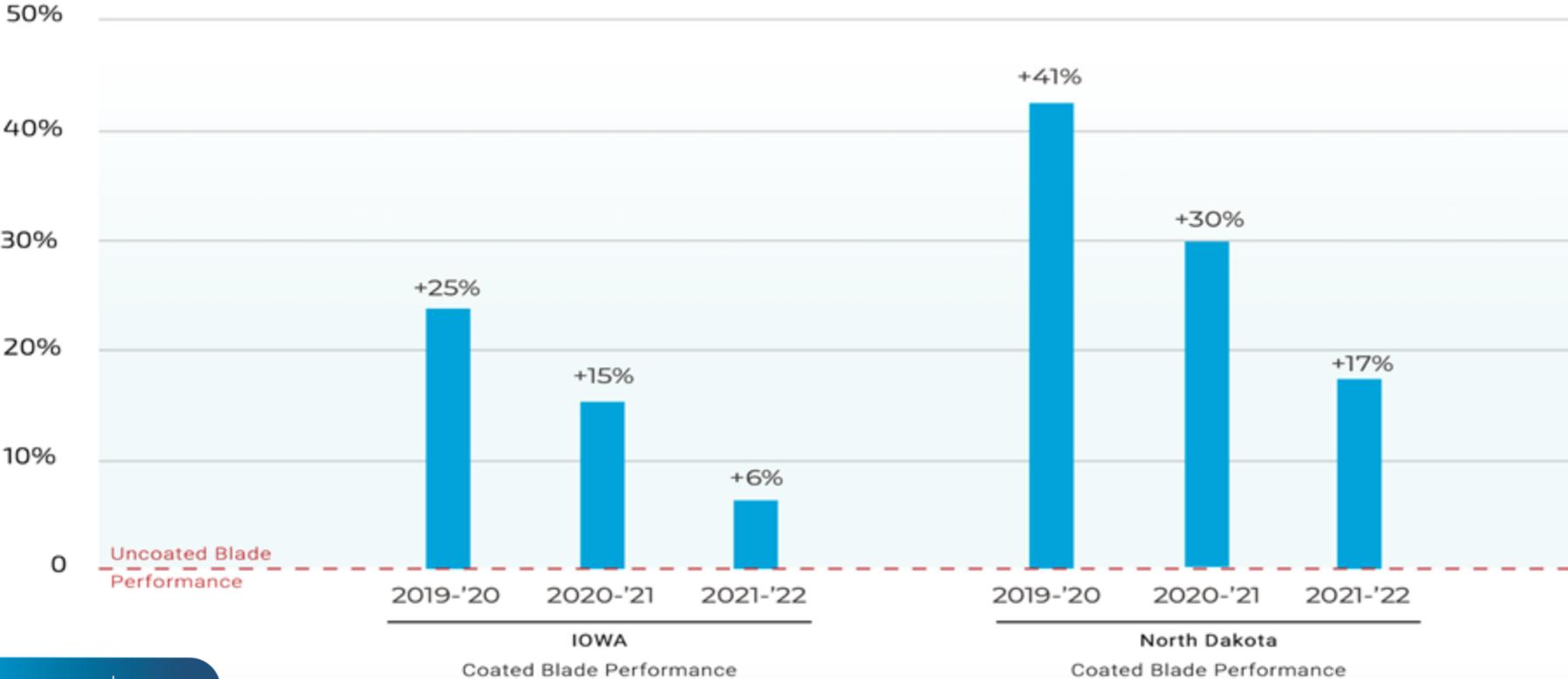
Overall, coated and uncoated turbines behave similarly, as is evident from the average power generation. However, the coated group on average generated 7.7 % more energy (1.96 GWh vs 1.83 GWh)

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NEINICE FIELD PERFORMANCE

Percentage improvement of Coated blades over Uncoated blades during ice events.



Questions?

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