

**Vestas**<sup>®</sup>

**Wind.** It means the world to us.<sup>™</sup>

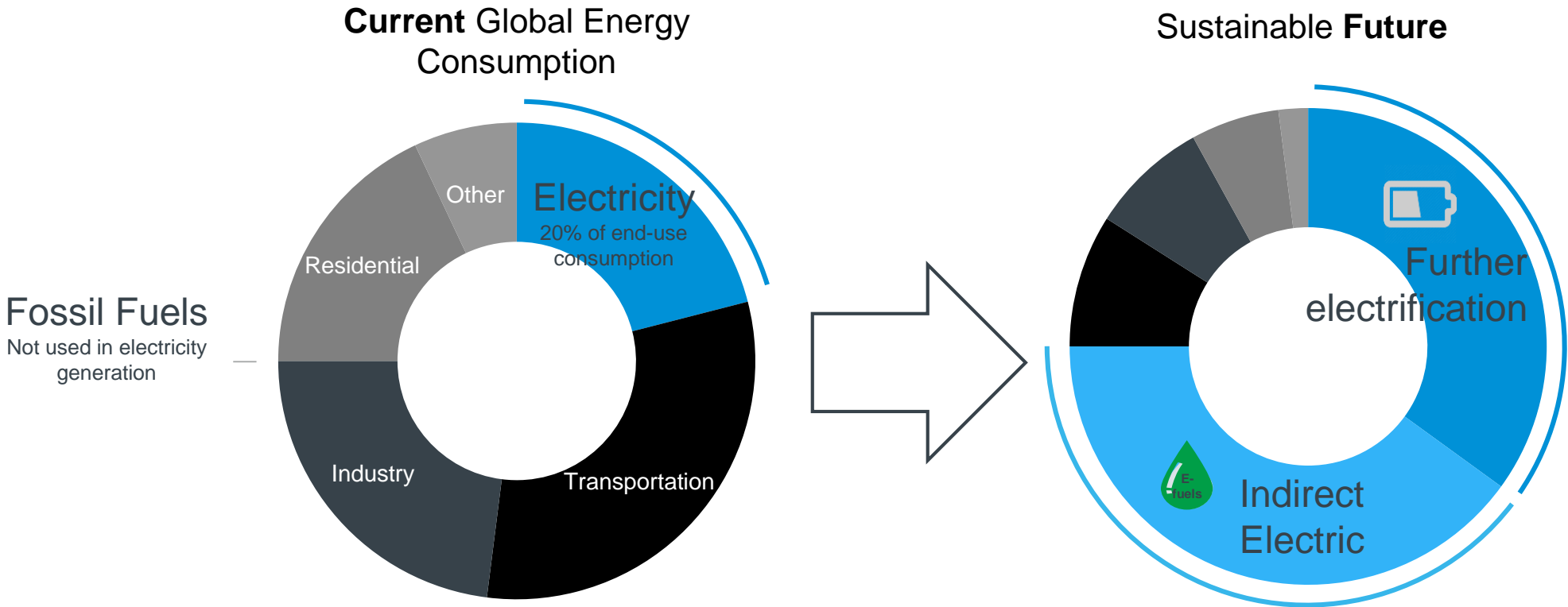
# Power-to-X at Vestas

Niels Vinther Voigt

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# RE has beaten coal – Next frontier: **Beat Oil and Gas**

Direct electrification in some sectors. **Electro-fuels in other.**

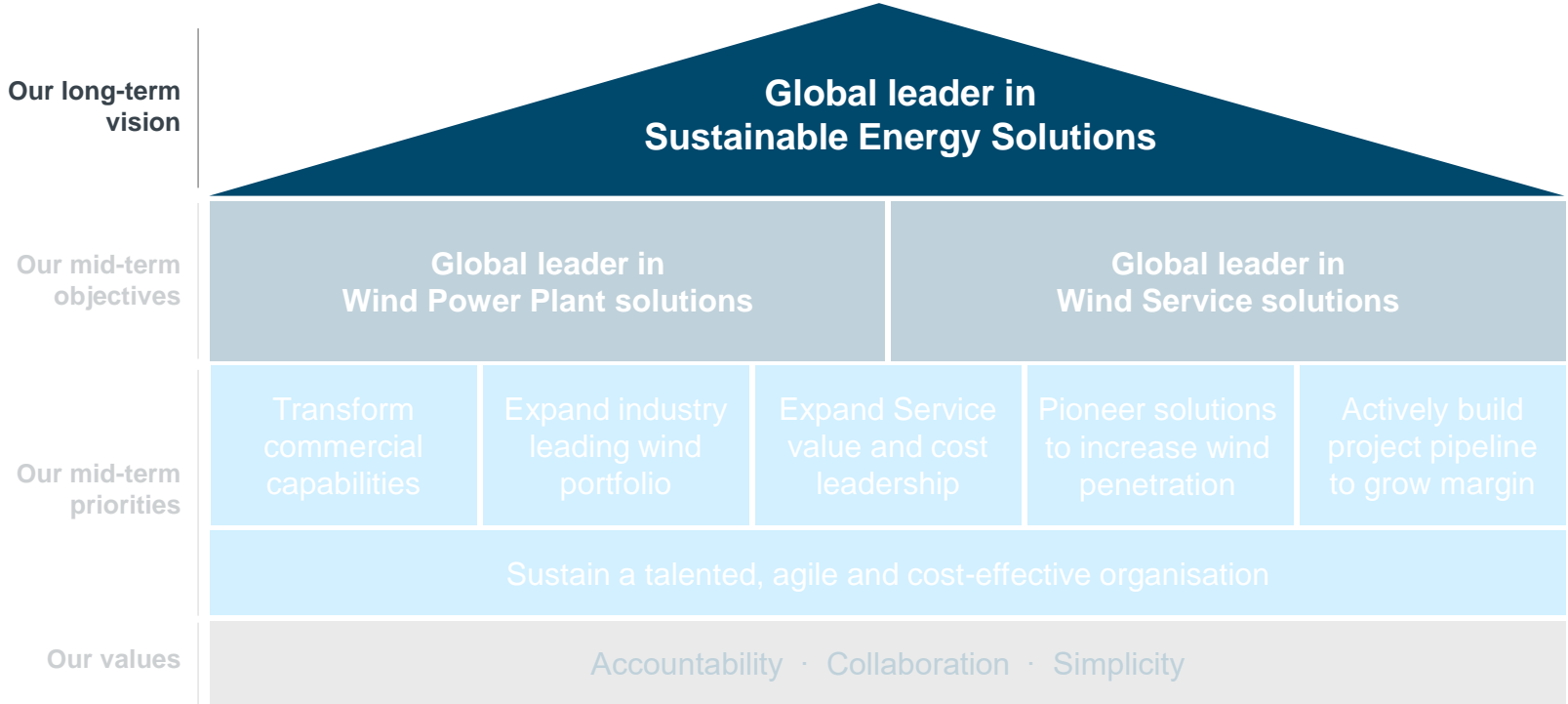


\*Actual percentages, source: IEA Energy Balances

Indirect electric includes e-fuels, industry, and heating

\*Estimated illustrative percentages

# Vestas' corporate strategy



# Offtakers will drive development

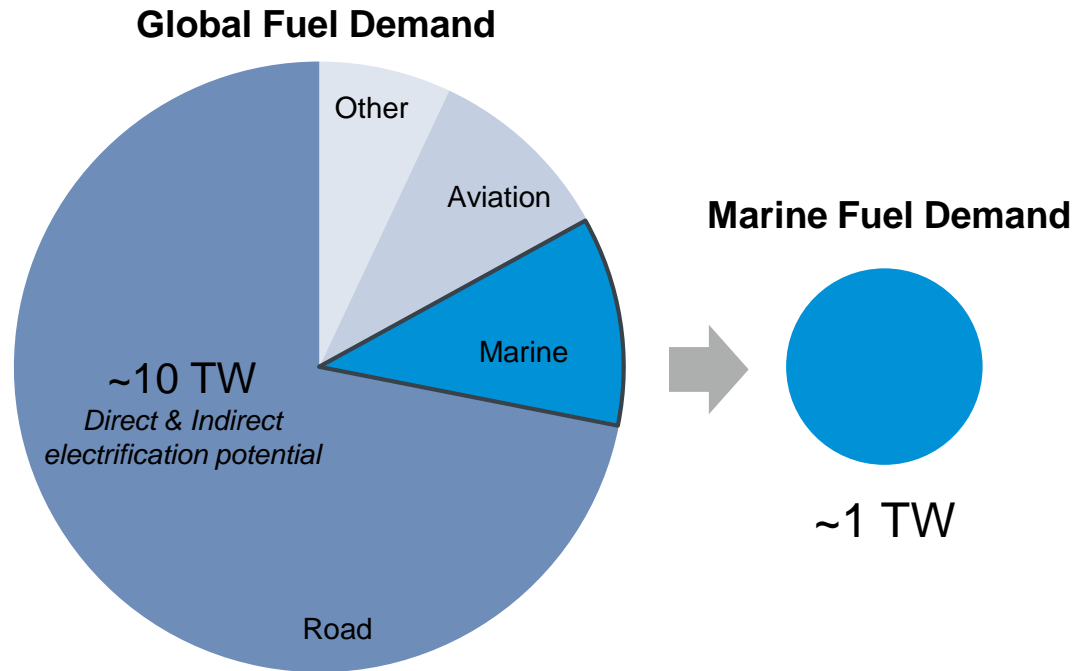
Industries have to take a standpoint



# Case: Marine e-fuel market projection through 2050

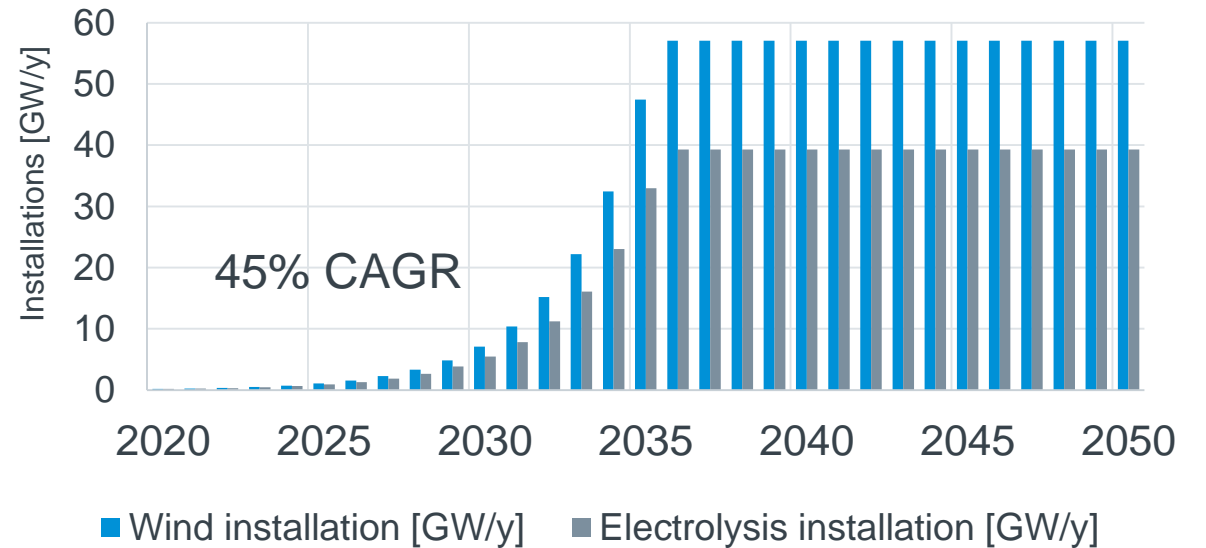
Scale comfortably within reach

Scenario: Cover all marine shipping fuel



Roll-Out

## Installing 1 TW e-fuel production capacity



Current installed wind capacity: ~550 GW (+ >50 GW/y)

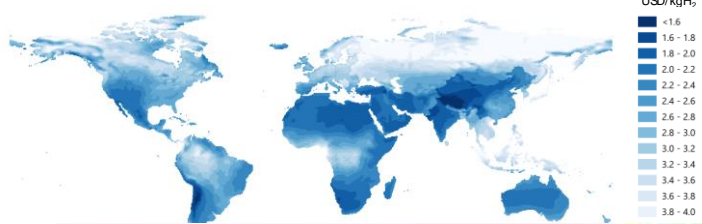
# Resources and Costs

With Power-to-X we can pick the world's best resources

Renewables hydrogen costs are set to decline



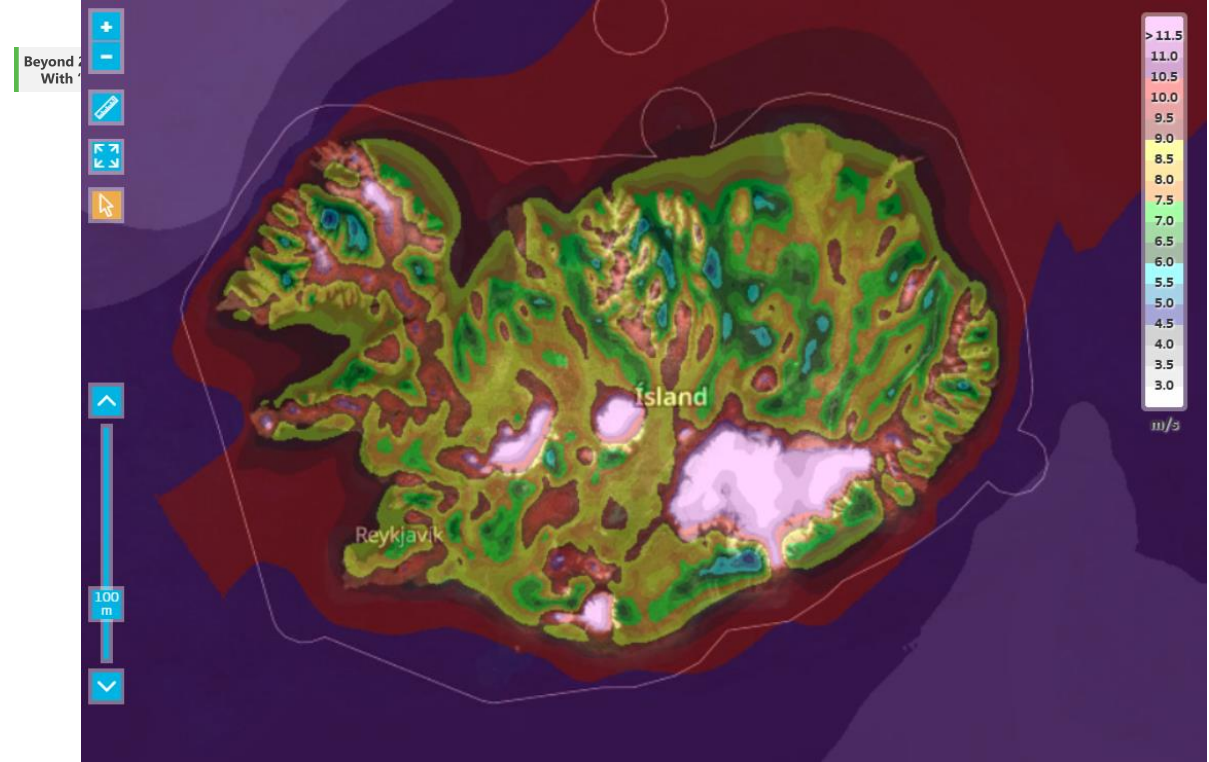
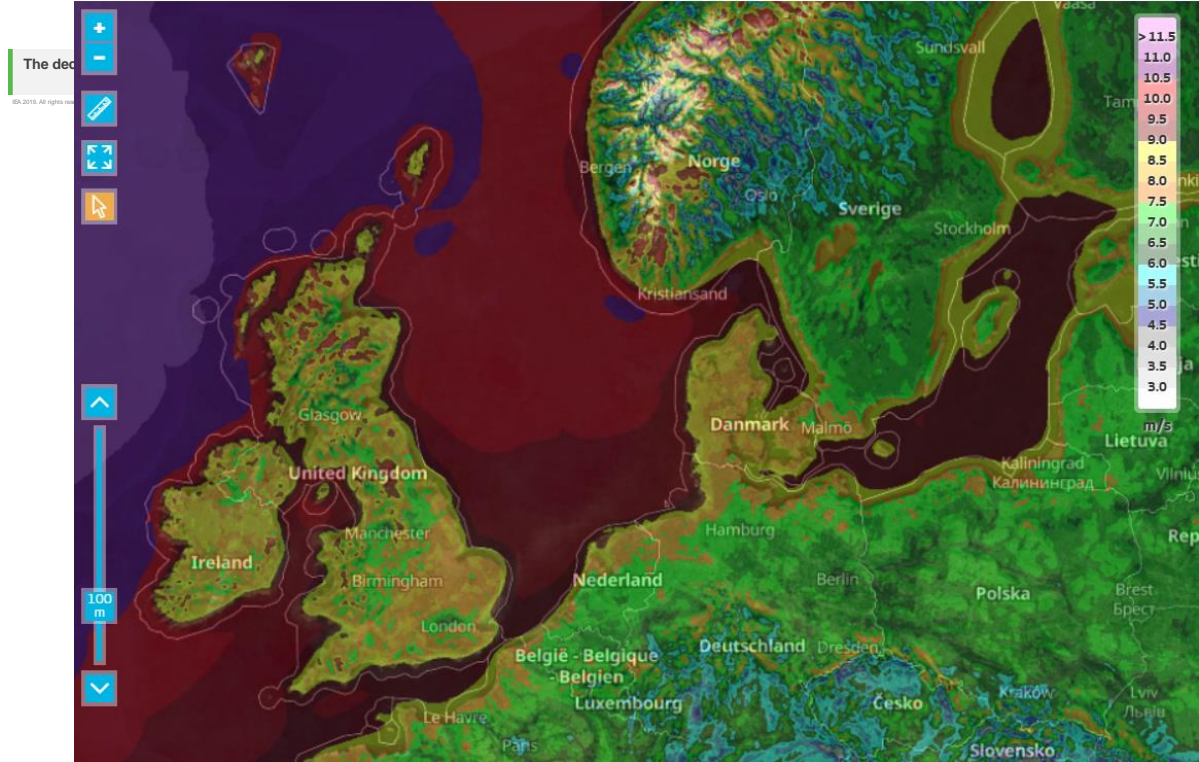
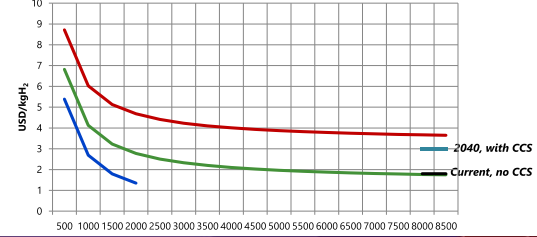
Long-term hydrogen production costs from solar & wind systems



Green hydrogen from water electrolysis can compete...



Cost of hydrogen from electrolysis for various electricity price and load factors



A wide-angle photograph of a wind farm. Numerous white three-bladed wind turbines are scattered across a rolling landscape of green and yellow fields. The sky is a clear, bright blue. The text "Thank you" is centered in the upper half of the image, with a thin white horizontal line underneath it.

Thank you