

FARMING IN ARGENTINA. IT'S WIND'S TURN

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ABSTRACT

- Argentina has the potential to create a strong wind power industry.
- Plenty of opportunities exist based on the fact that:
 - Capacity factors over 35% are achievable in over 50% of the territory
 - Wind and hydro resources present interesting complementation and optimization opportunities.
 - Electricity demand and costs of supply have grown and are expected to continue to grow significantly.
 - There exist relevant HR, engineering and manufacturing capabilities (including three companies engaged in wind turbine design and production).

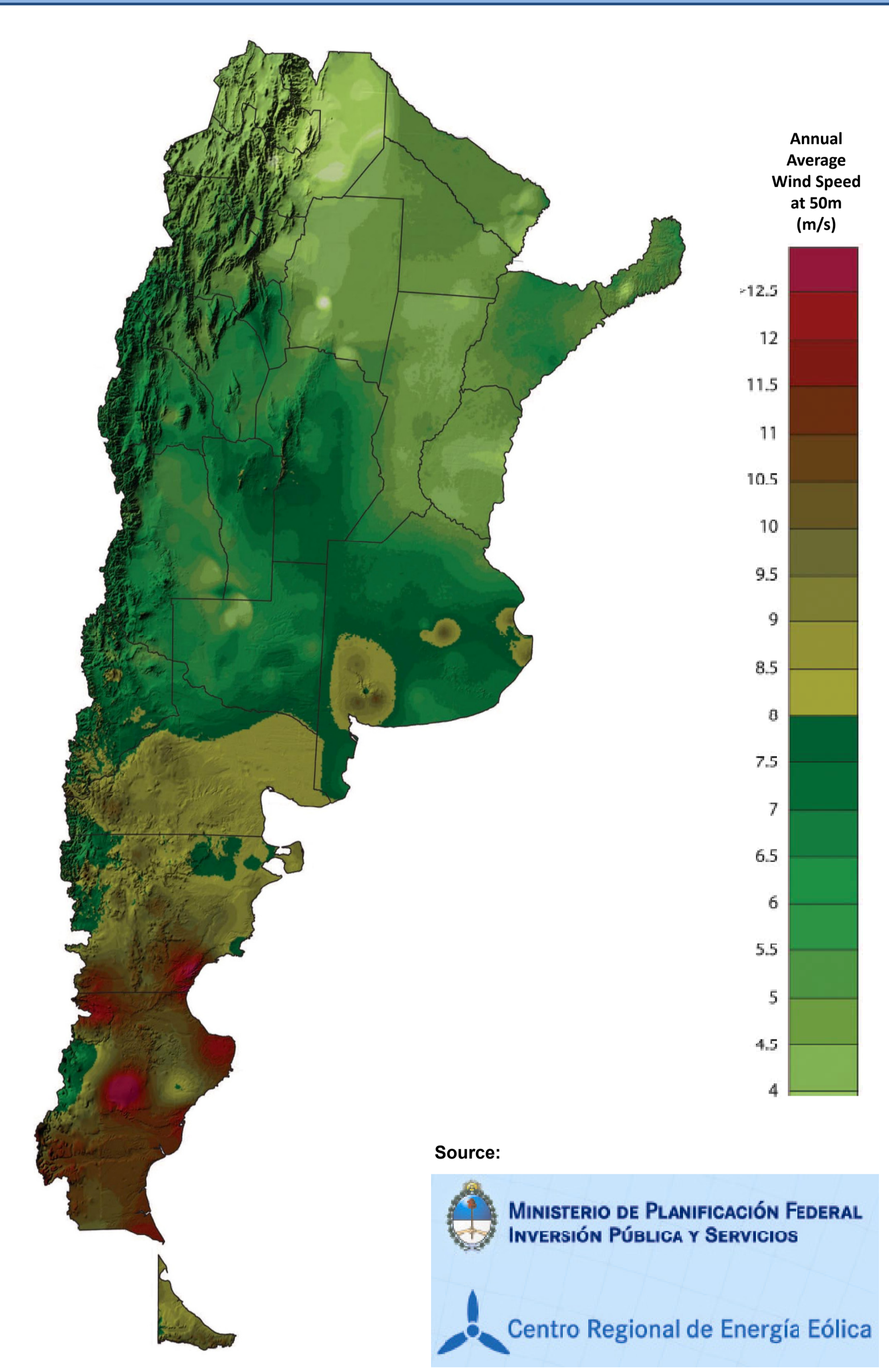
METHODS

- Analysis based on real data from the national grid ISO (CAMMESA) for the year 2008.
- We assumed:
 - 2 GW of new wind power to be installed in Patagonia, Comahue and southern Buenos Aires.
 - No transmission capacity constraints.
 - Wind off-sets more expensive fossil fuels as it is available
- We estimated:
 - Hourly wind generation based on measured wind resource.
 - Potential system cash costs savings (from fuel substitution).
 - CO₂ emission reductions based on the amount of fossil fuels saved and typical emission factors.

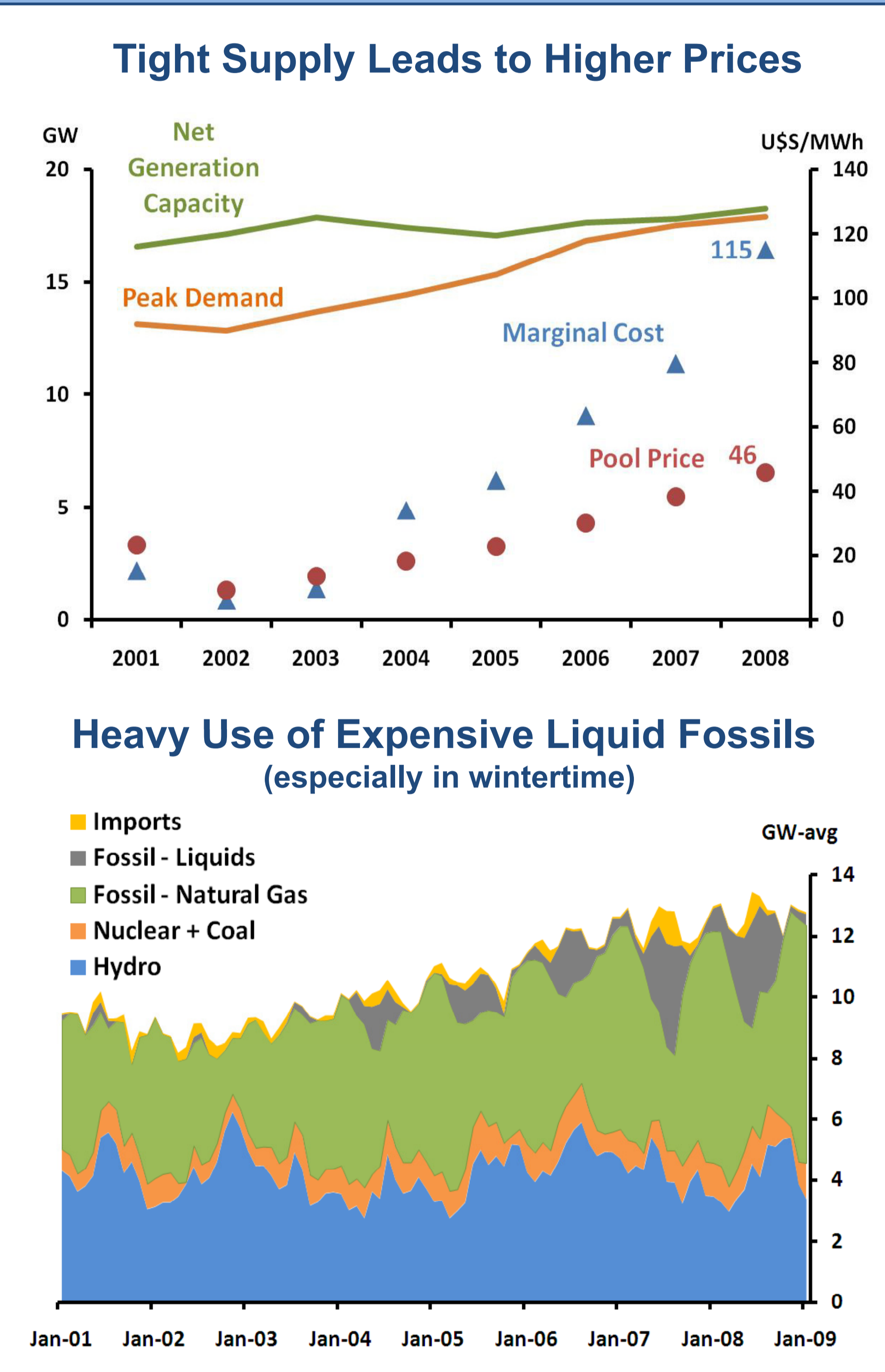
FINDINGS & CONCLUSIONS

- 2 GW of wind could:
 - Satisfy 7% of total electricity with zero-emissions power.
 - Save fossil fuels worth more than US\$ 70 per each MWh of wind power generated.
 - Reduce energy related CO₂ emissions by 4%
- ISO or Government could make wind generation projects viable by re-directing part of the potential system benefits via incentive schemes that complement pool prices.
- Wind-Hydro complementation exists and further work should be pursued in this area to estimate additional benefits.

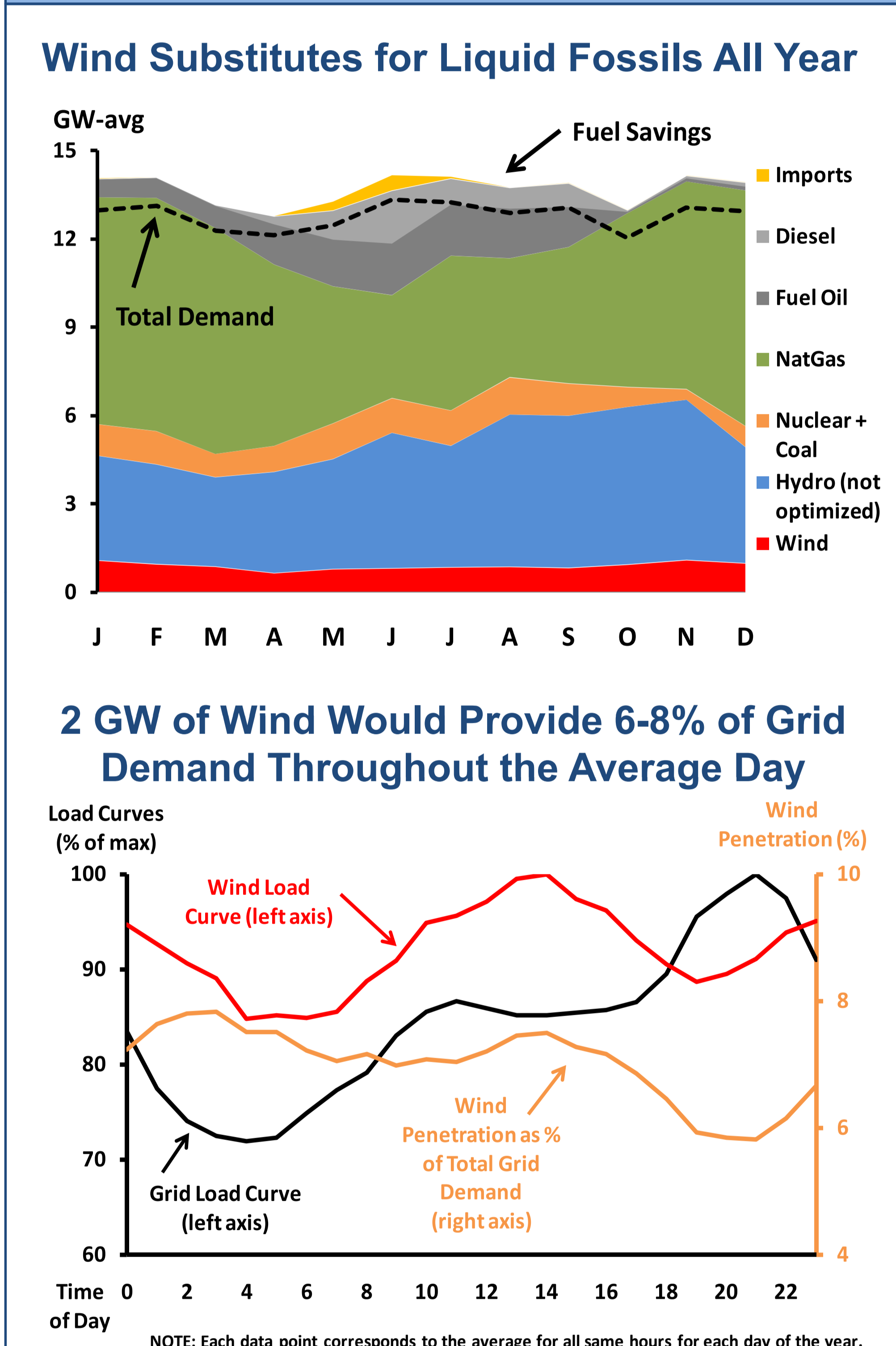
FABULOUS WIND RESOURCE



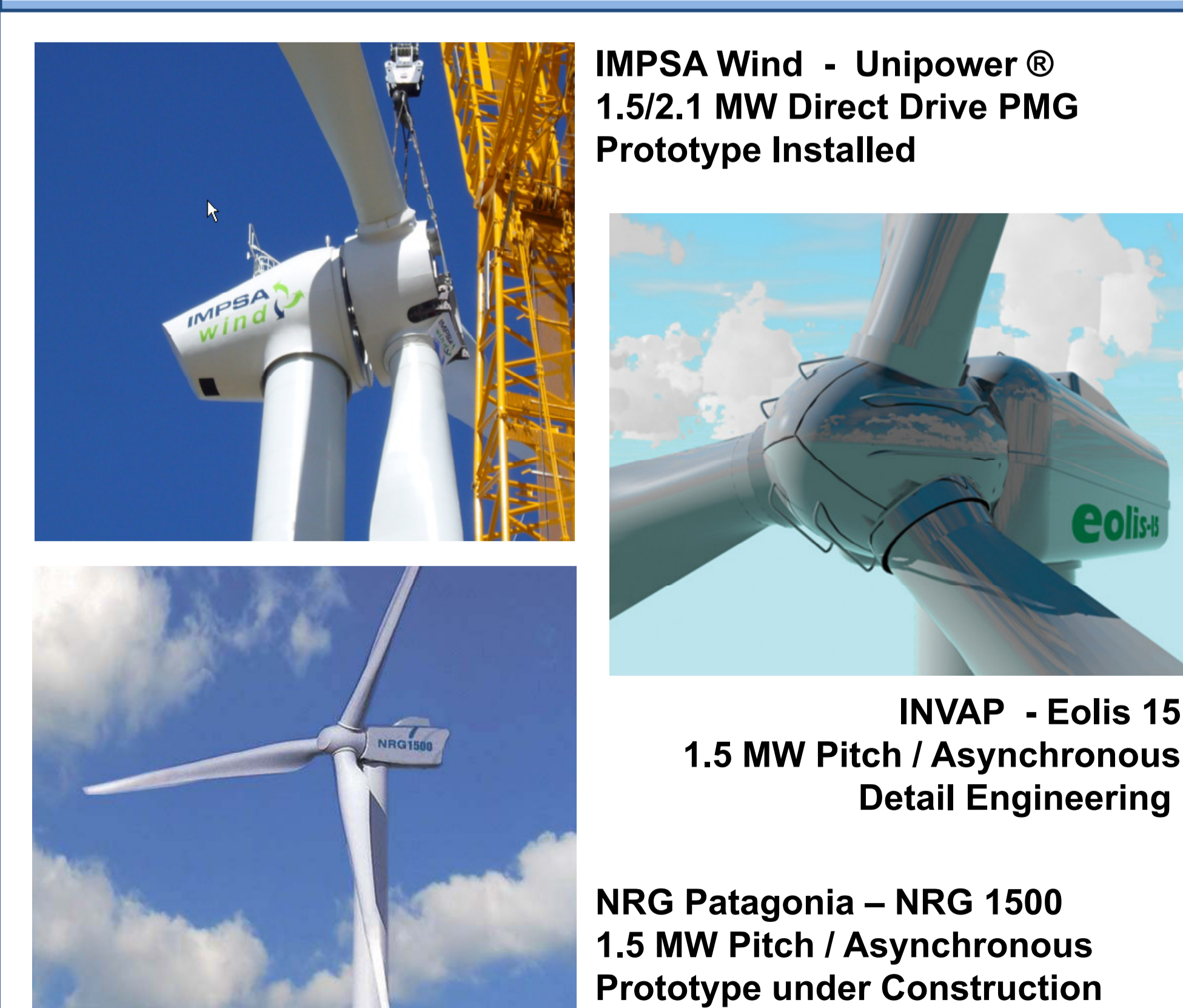
GROWING DEMAND & COSTS



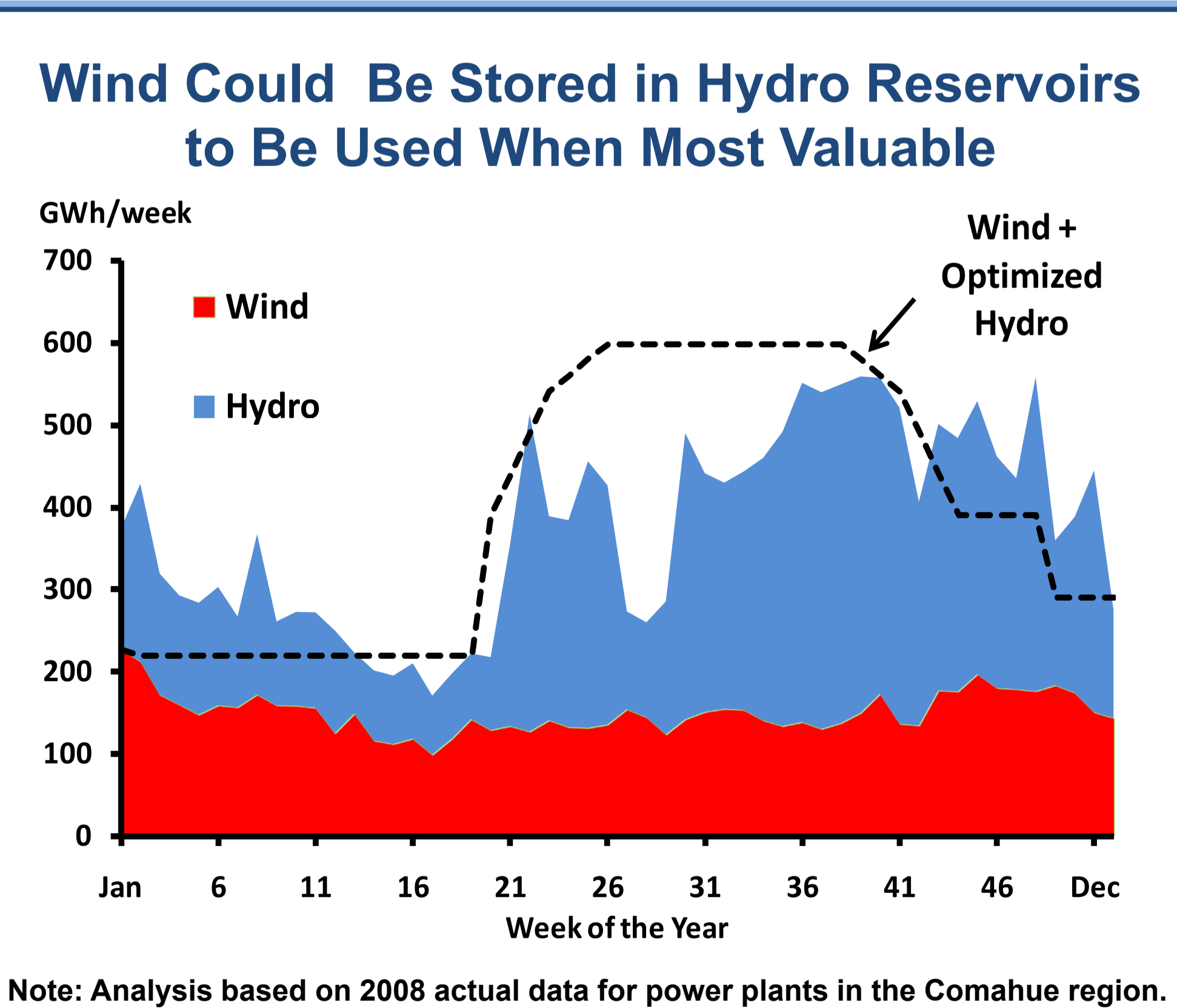
SIMULATION OF 2GW NEW WIND



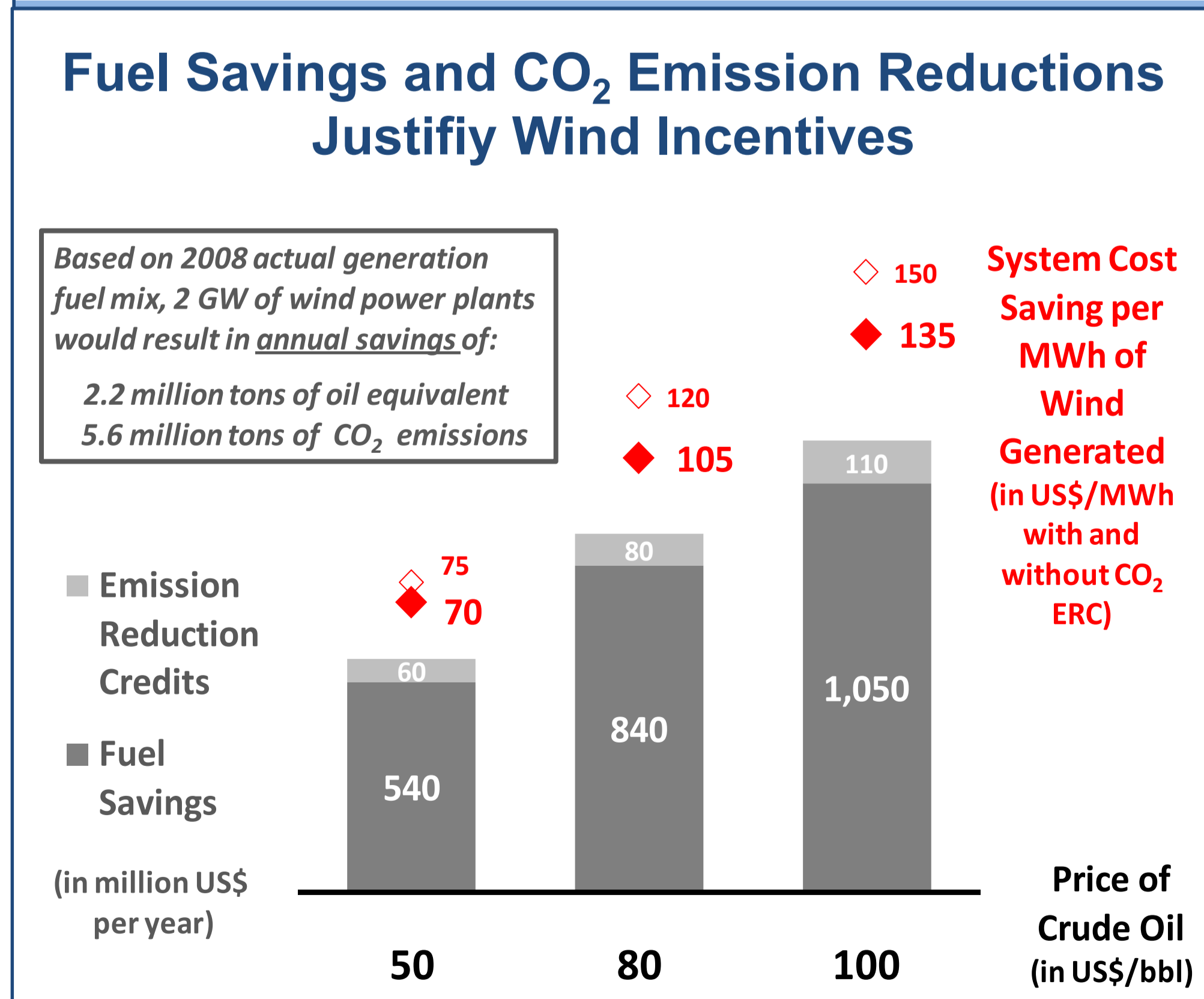
DOMESTIC TURBINE DEVELOPMENTS



WIND & HYDRO WORK TOGETHER



SYSTEM SAVINGS & INCENTIVES



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Acknowledgements: Eugenia Ares (Tecgas), Hugo Brendstrup (INVAP), Emilio Bressan (NRG Patagonia), Nicolás Brown Bustos (Tecgas), Juan M. Chamorro (Tecpetrol), Emilio Guiñazú (IMPSA Wind), Sebastián Kind (Argentine Renewable Energies Chamber), Héctor Mattio (CREE), Carlos St. James (Argentine Renewable Energies Chamber), Carlos Stadler (independent).

