

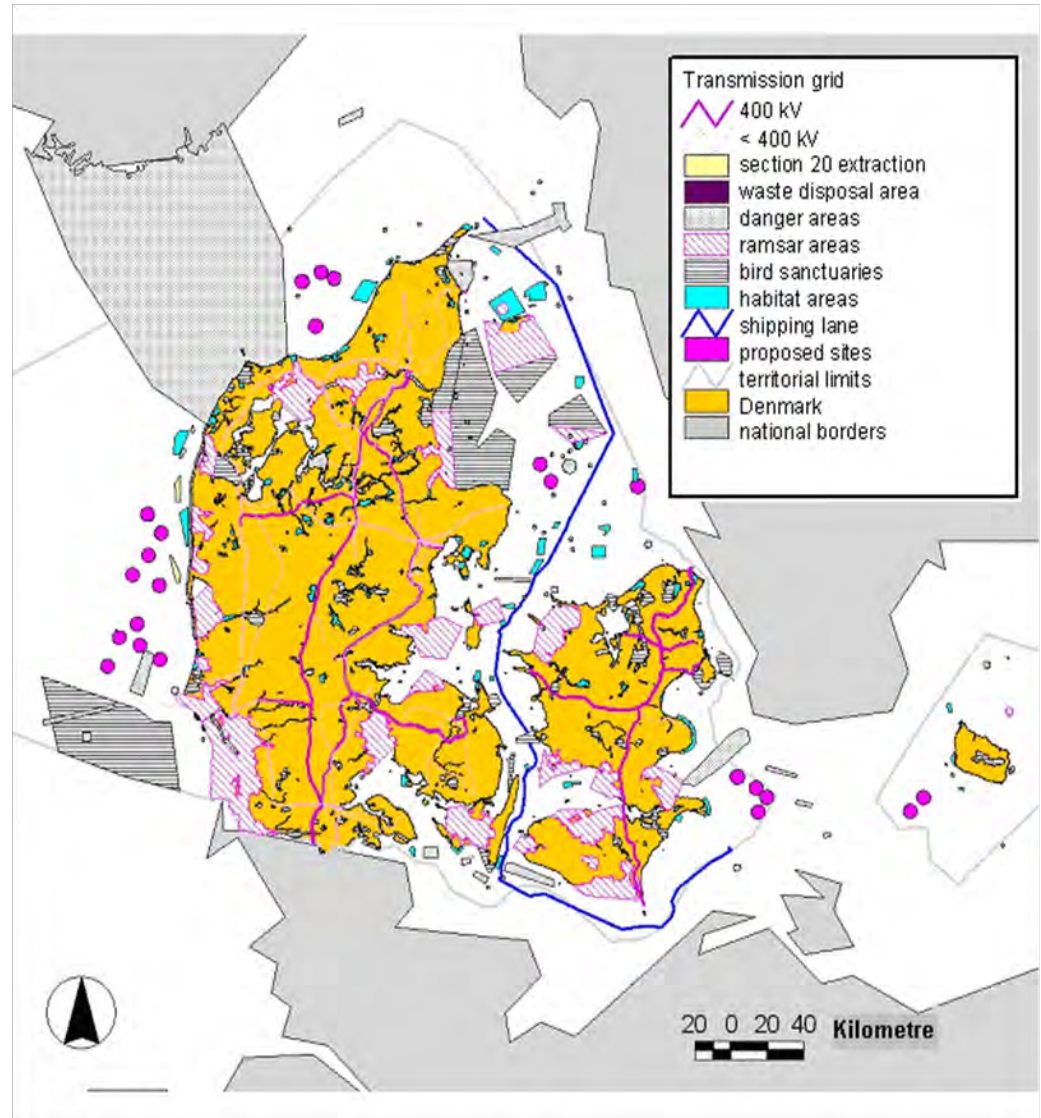
The effect of geographical spreading on wind power fluctuations

Poul Sørensen
Wind Energy Systems (VES)
Wind Energy Division

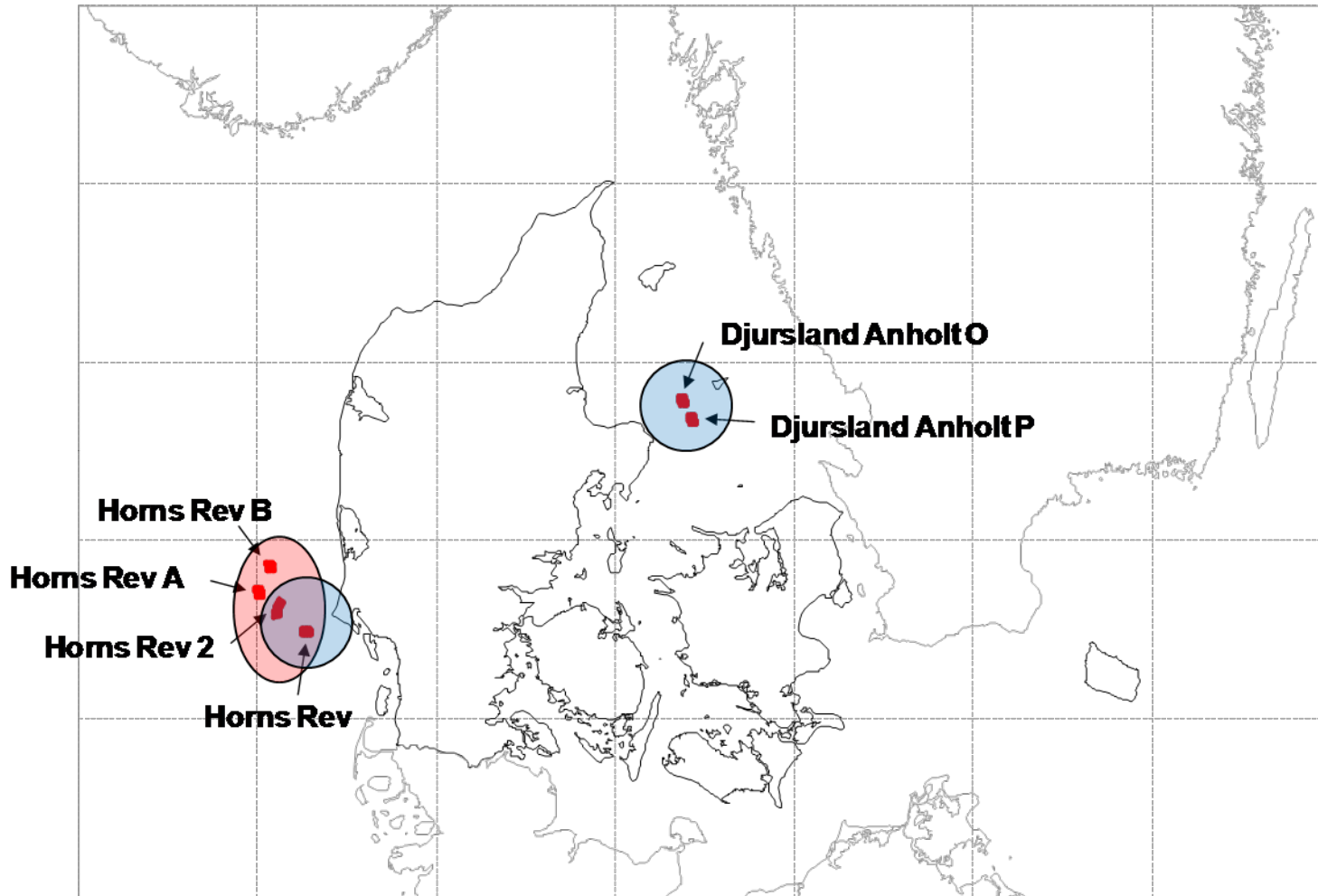
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Plans for future offshore wind farms

- Report on future Offshore sites
- Update of action plan from 1997
- 23 Sites each 44 km² for a capacity of 4600 MW Wind Power
- Production 18 TWh, or just over 8% of total energy consumption in Denmark or approximately 50% of Danish electricity consumption
- http://www.ens.dk/graphics/Publikationer/Havvindmoeller/Fremtidens_%20havvindm/UKsummery_aug07.pdf



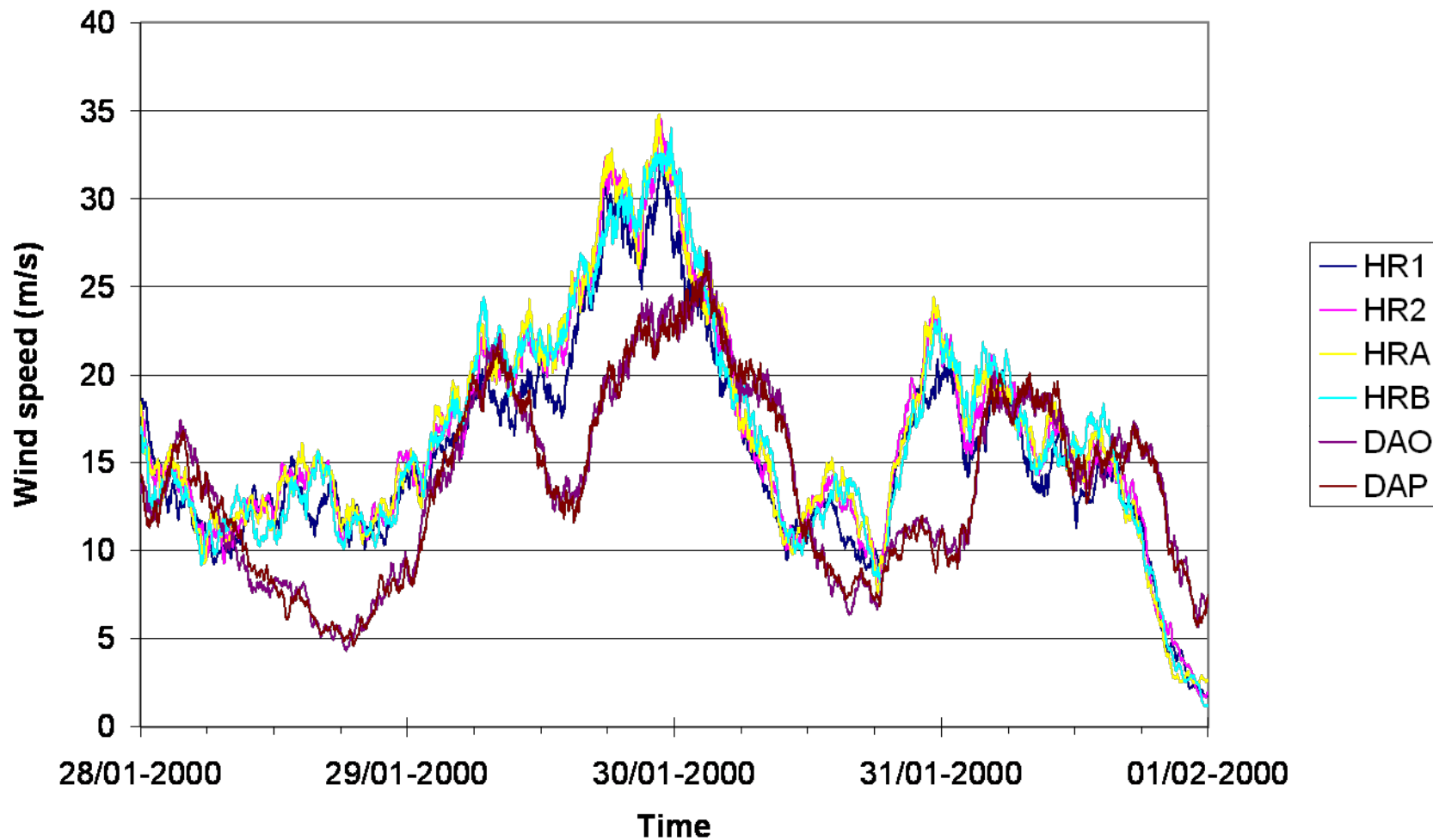
Study cases



Study cases - wind farms data

Name	Symbol	Wind turbine power	Total power	Annual mean wind speed
Horns Rev	HR1	80 × 2.0 MW	160 MW	9.6 m/s ^{*)}
Horns Rev 2	HR2	91 × 2.3 MW	209 MW	10.4 m/s ^{*)}
Horns Rev A	HRA	40 × 5.0 MW	200 MW	10.6 m/s ^{*)}
Horns Rev B	HRB	40 × 5.0 MW	200 MW	10.5 m/s ^{*)}
Djursland Anholt O	DAO	40 × 5.0 MW	200 MW	9.0 m/s ^{*)}
Djursland Anholt P	DAP	40 × 5.0 MW	200 MW	9.0 m/s ^{*)}

Simulated wind speeds (wf averages)



Power fluctuations – the 2 cases

