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TRADING ENERGY

Northpool Energy Trading Meteorologische Noden

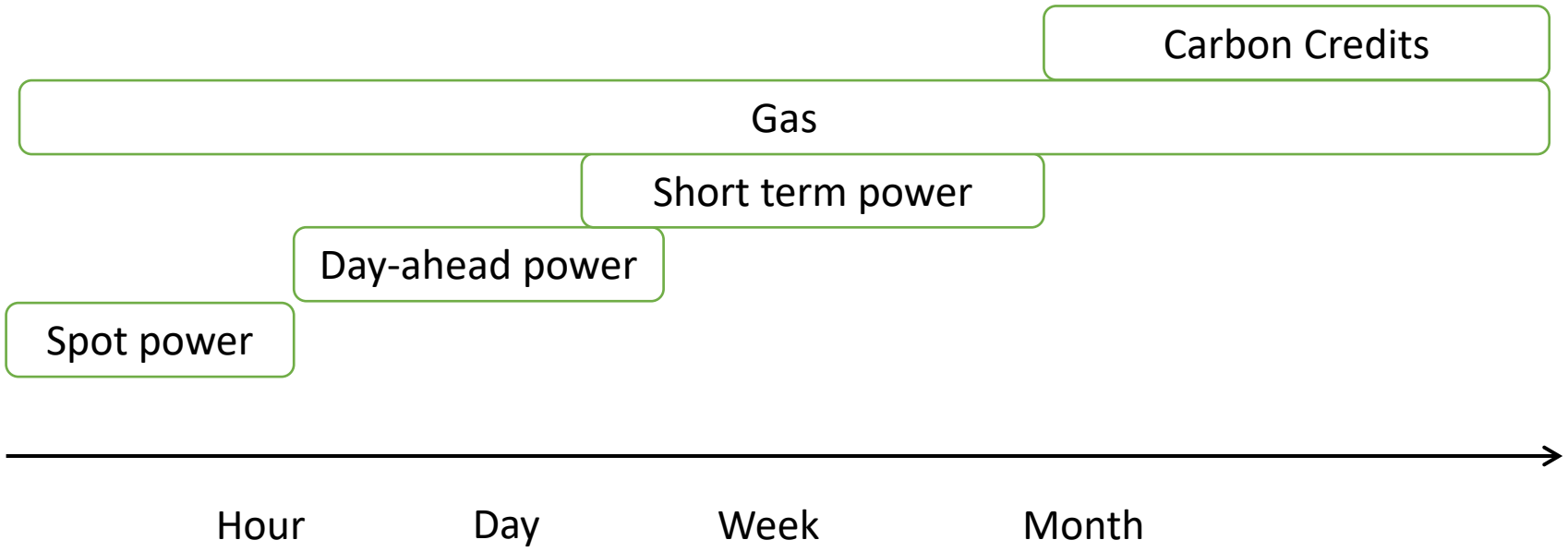
Jelle Wisse





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Energy Trading Northpool

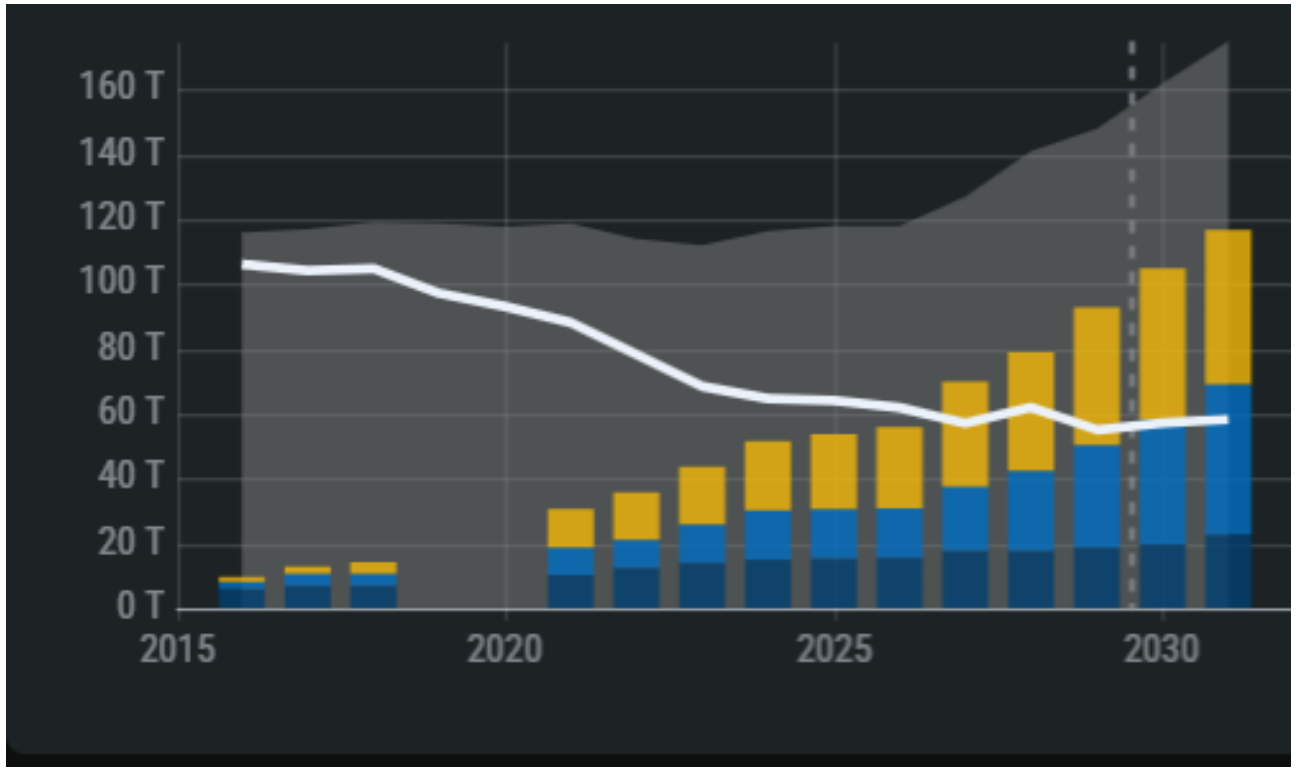




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Sterke groei in renewables maakt meteo cruciaal voor trading!

Elektriciteitproductie en demand in Nederland



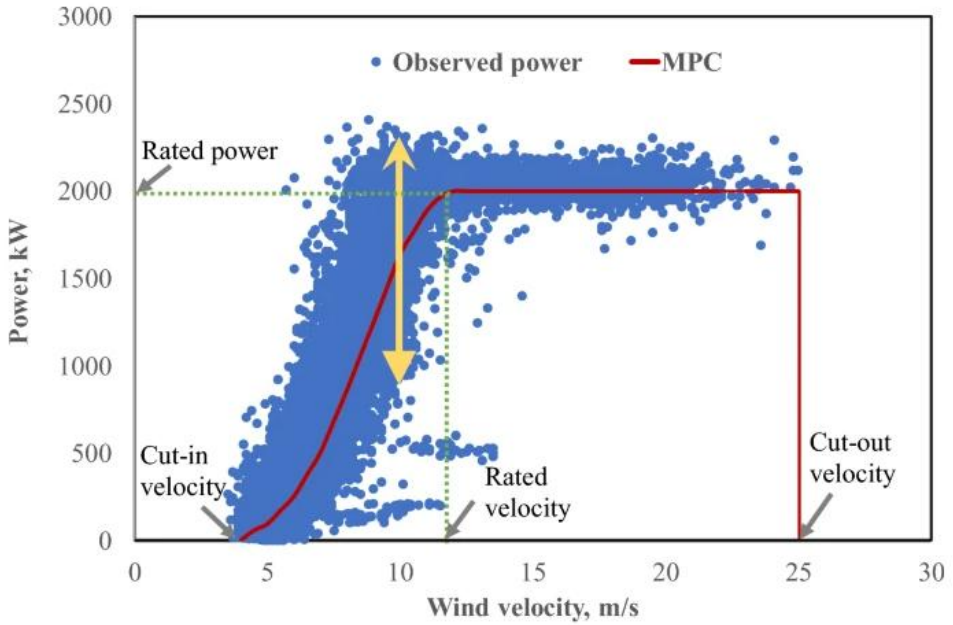
Source Montel

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Meteorologie bij Northpool

Data voor power, demand en prijsmodellen

Fig. 1



Operationele weerdesk



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Onze noden/ uitdagingen ….

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Weinig observaties van de grenslaag beschikbaar

Meetmast Cabauw

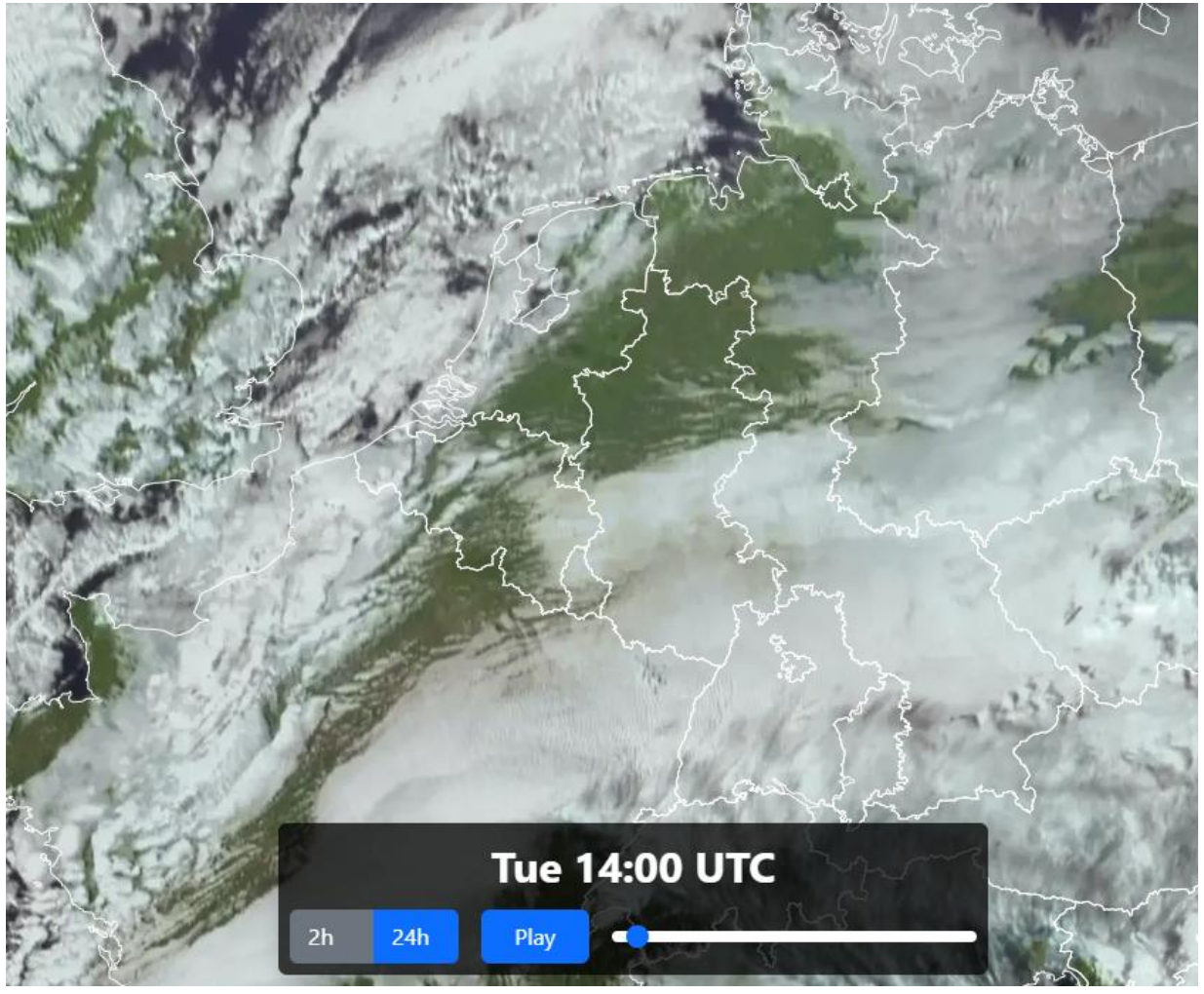


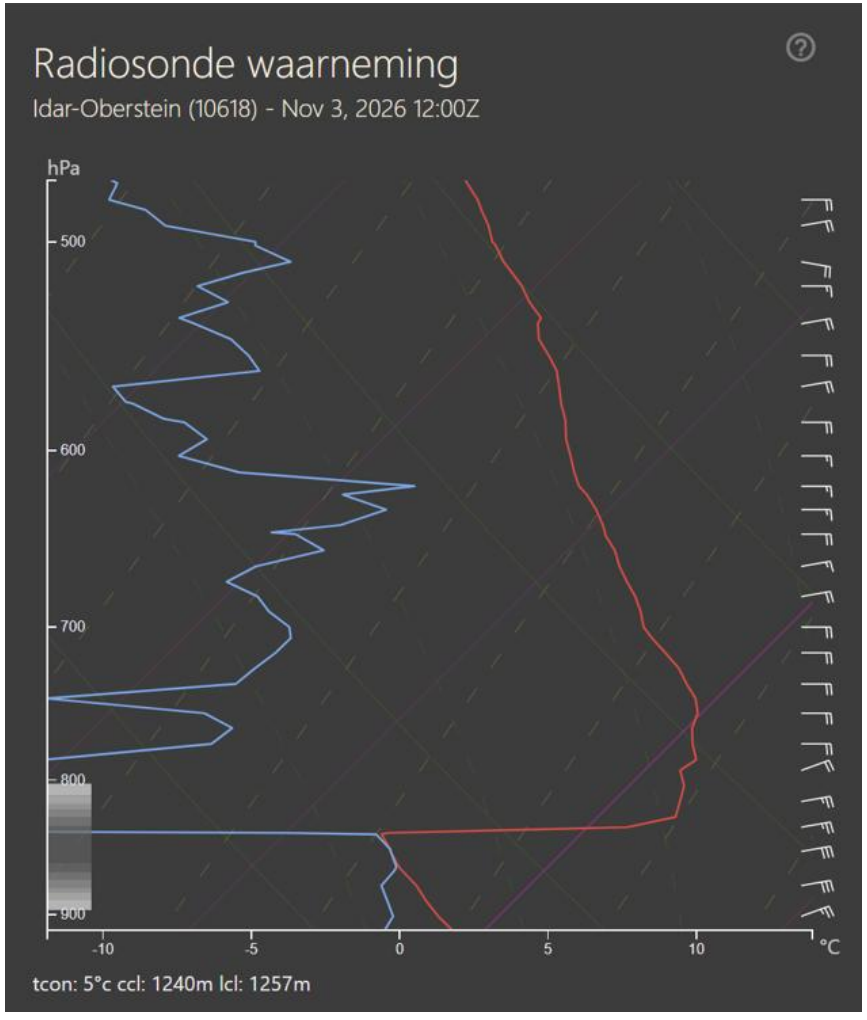
1 soms 2 weerballonen per dag in de Bilt



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Nowcasten van stratus/lage bewolking

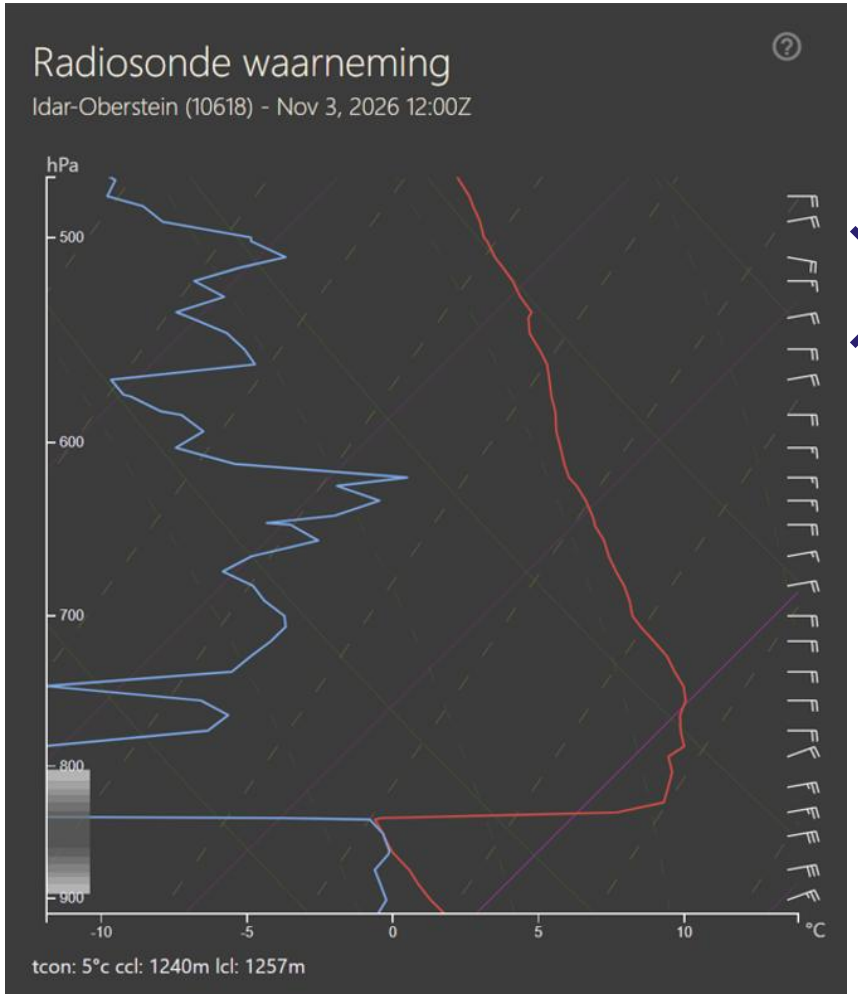




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Verwachten van (type) convectie

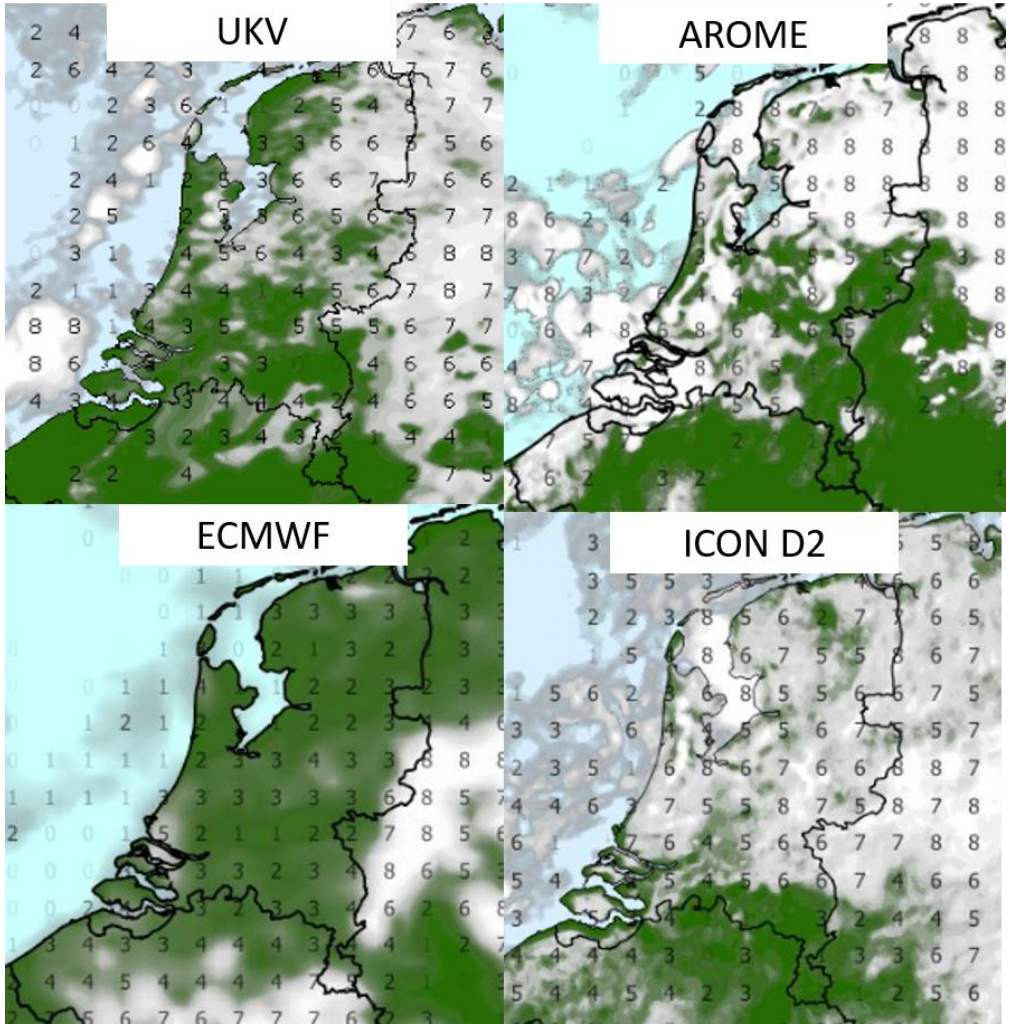




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Convectie case afgelopen week

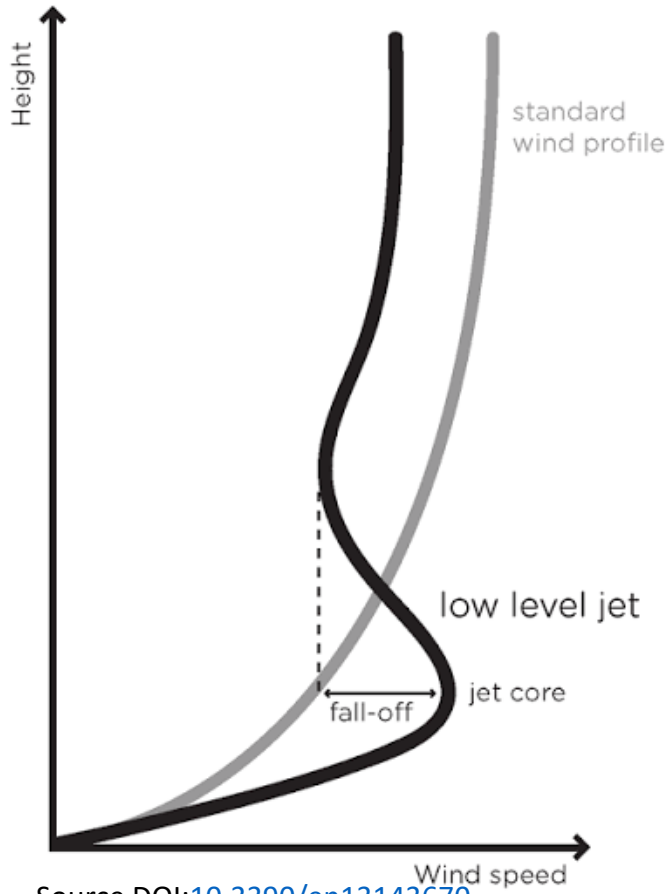




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Nowcasten wind tijdens stabiele condities

Evolutie van de nightjet

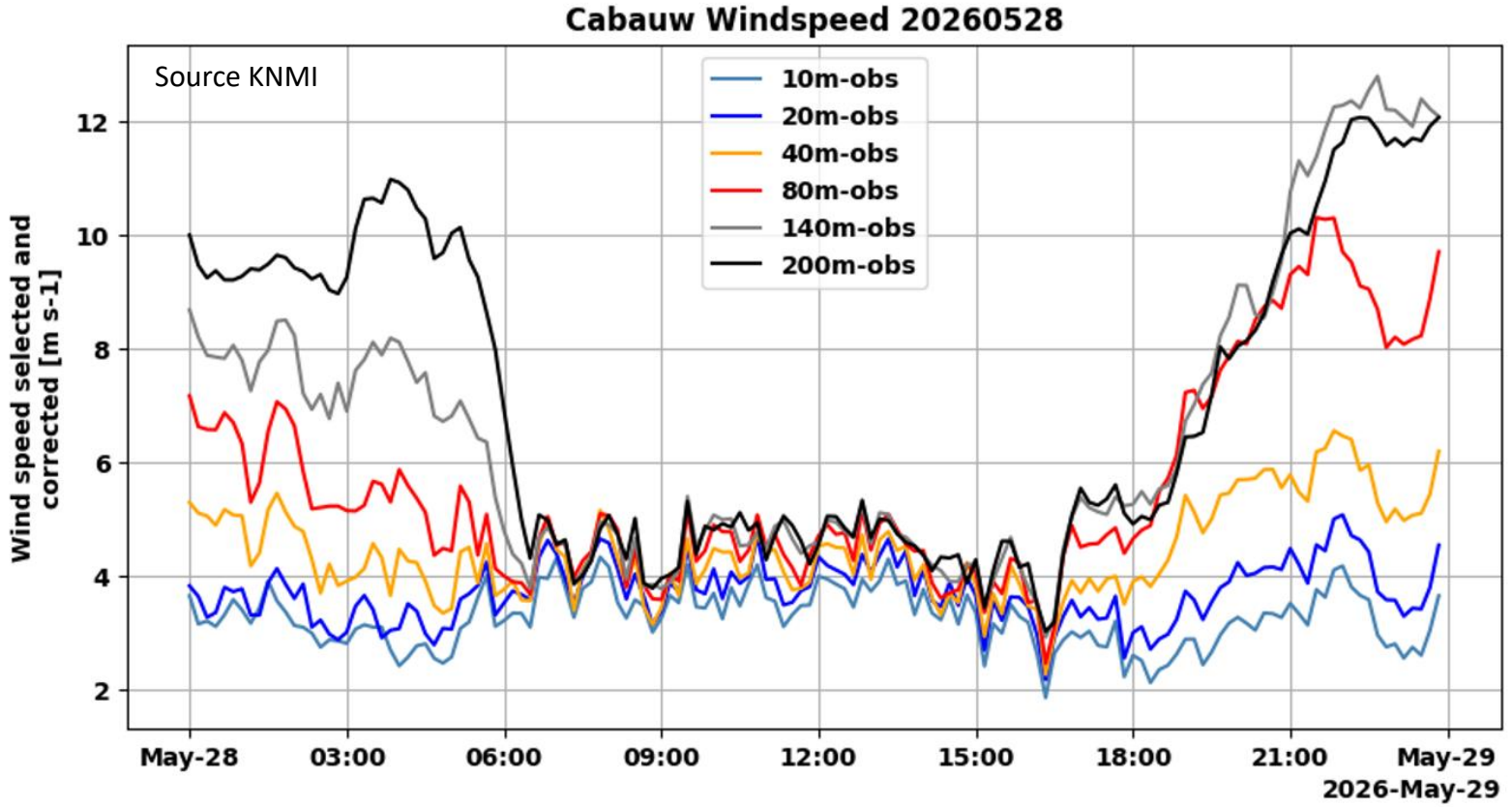


Source DOI:10.3390/en13143670

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Nowcasten wind tijdens stabiele condities

Hoe sterk en waar is de nightjet?





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Meer observaties van verticale profielen…

Gebruiken van weather drone op KNMI hoofdstations?



Weather drones



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Andere noden…

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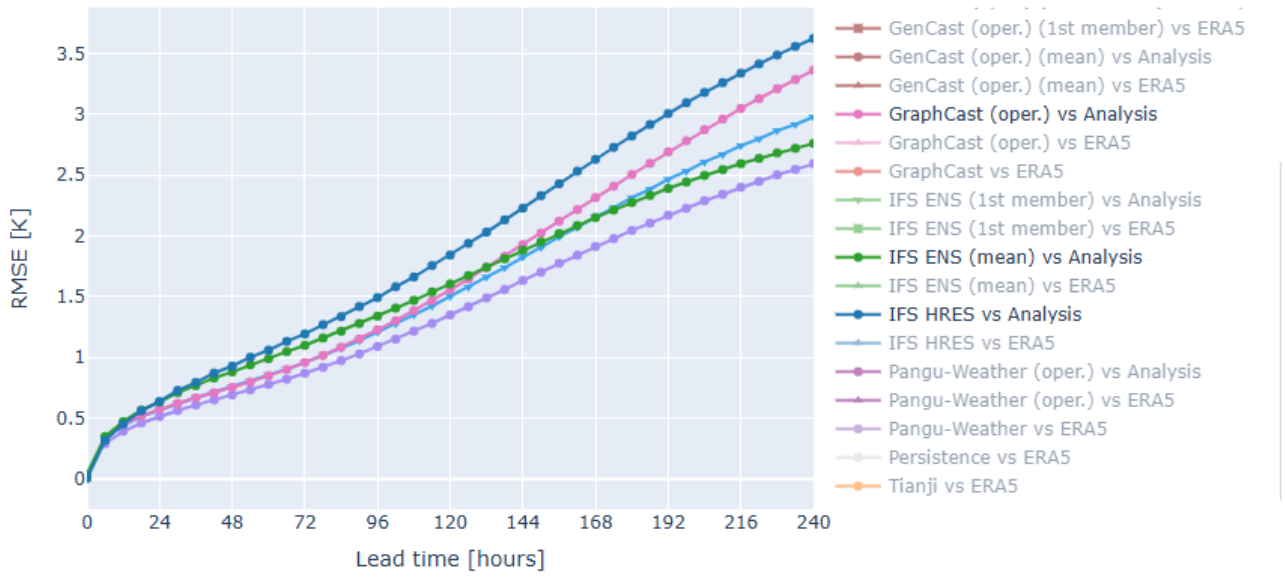
Objectieve en bruikbare verificatie van weermodellen

Zinvolle metrics en parameters voor energie

Uitsplitsing naar periode en situatie

ICON ECMWF-AIFS GenCast UKMO ECMWF-IFS GFS Arome WeatherNext3 Harmonie FGN Aurora JMA Arpege Aladin Pangu Tianji

T850 global



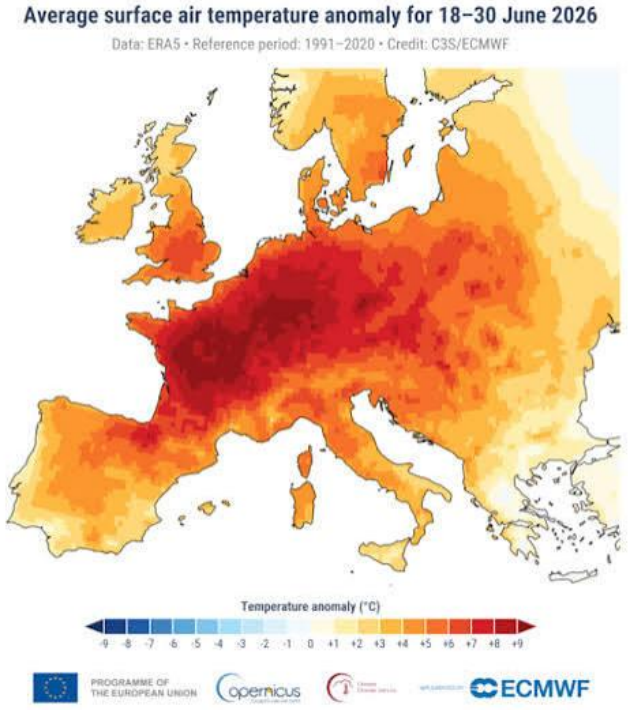
Source Weahterbench

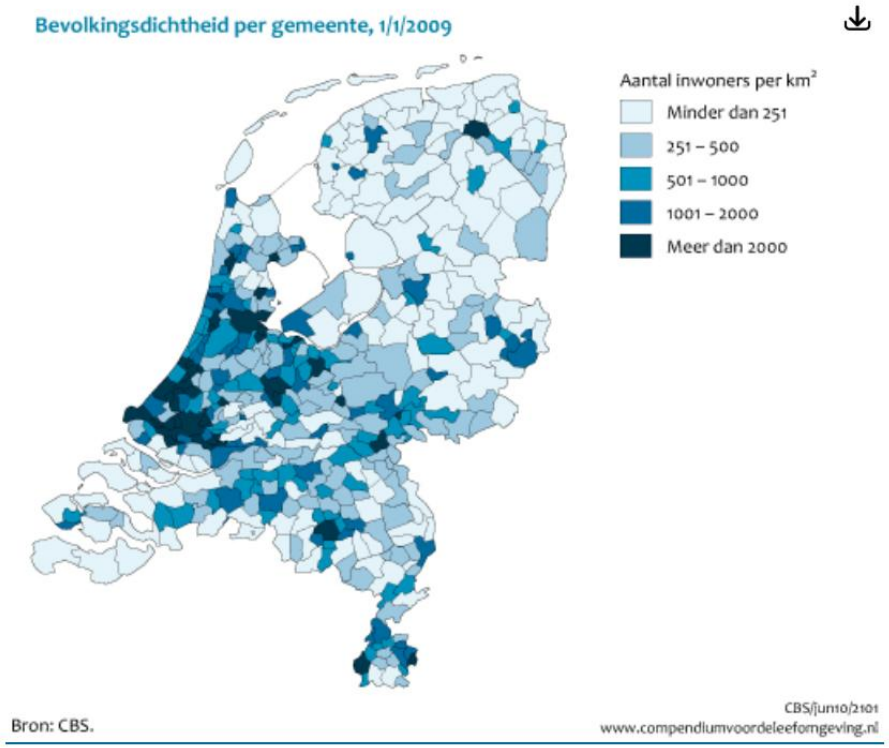
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Betere reanalysis datasets

Onderschatting van temperatuur in stedelijk gebied

Impact offshore windfarms op windklimatologie





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Vragen?

Dank voor alle weerdata die tegenwoording beschikbaar zijn!

