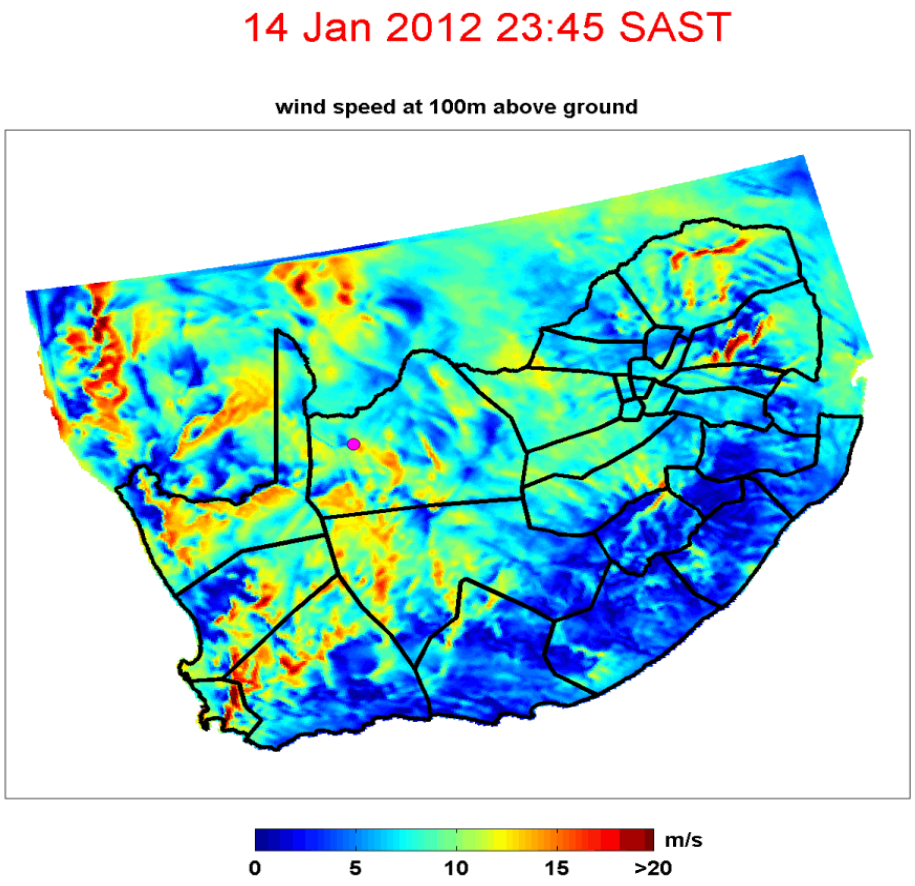
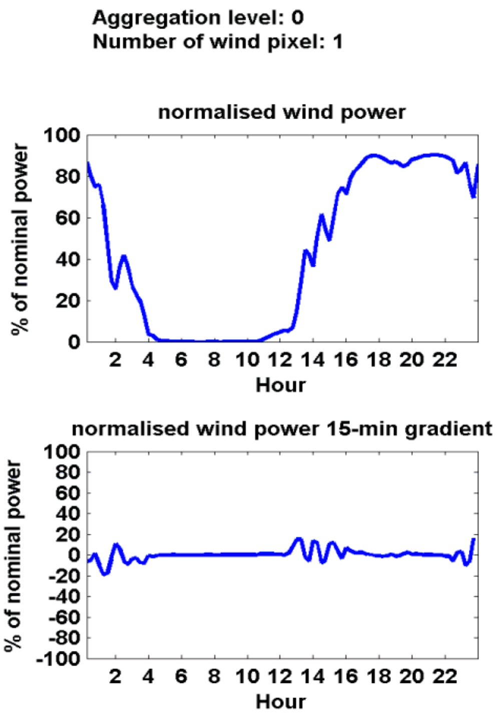
A single wind farm changes its power output quickly

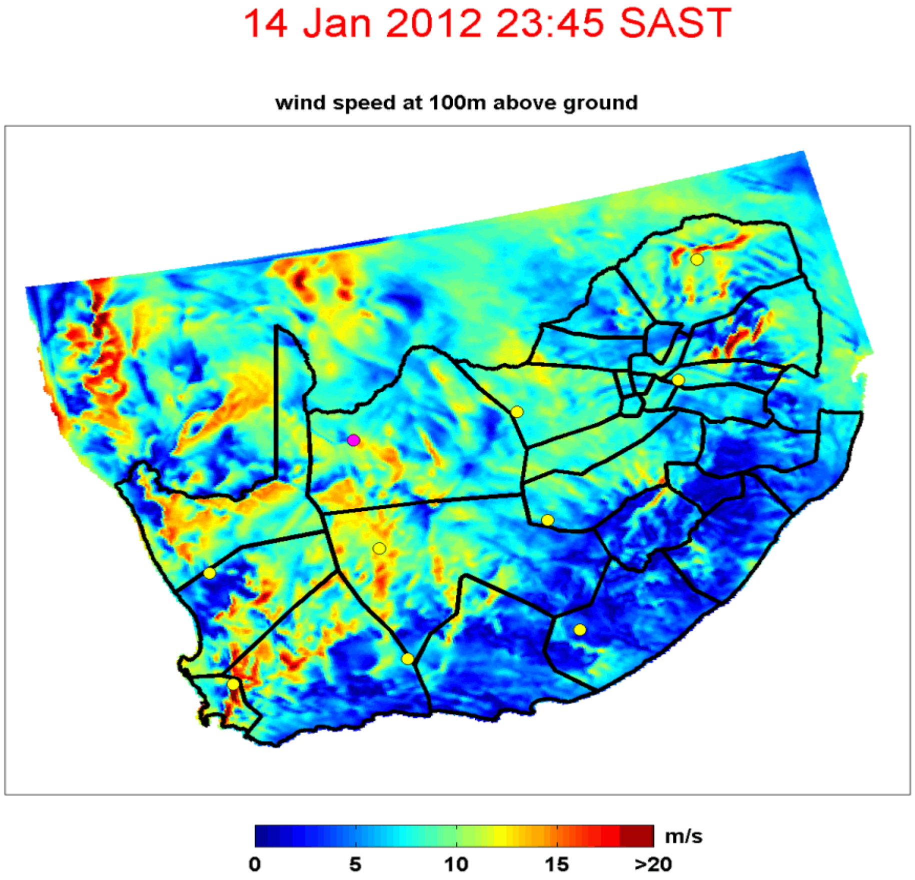
Simulated wind-speed profile and wind power output for 14 January 2012

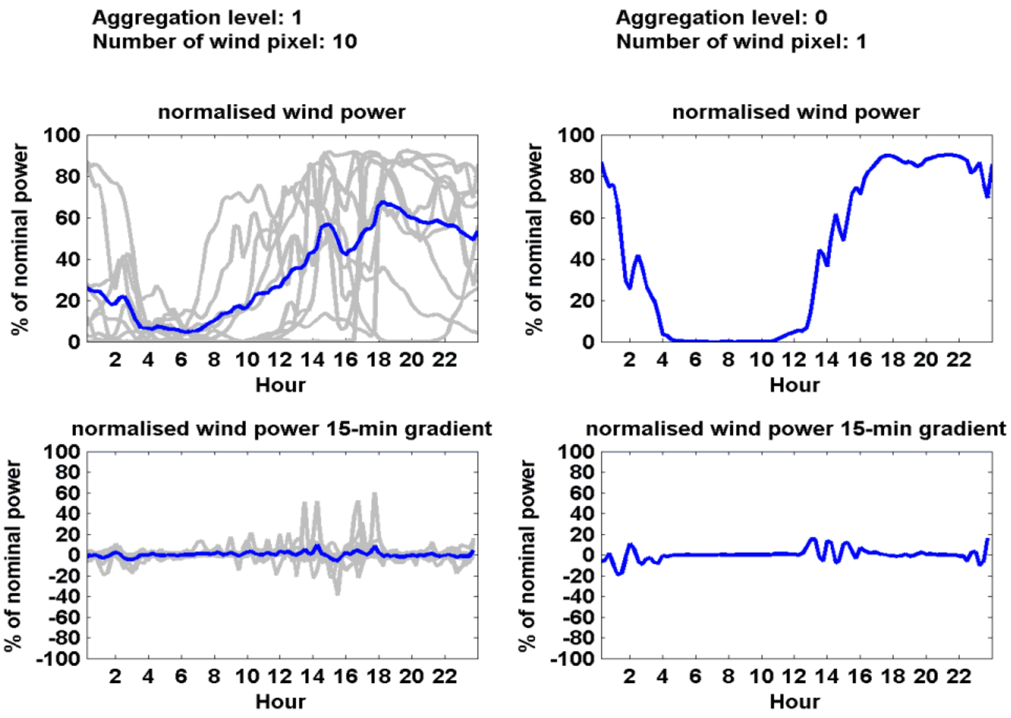

14 Jan 2012 23:45 SAST
wind speed at 100m above ground
m/s
0
5
10
15
>20



Aggregating just 10 wind farms' output already reduces short-term fluctuations

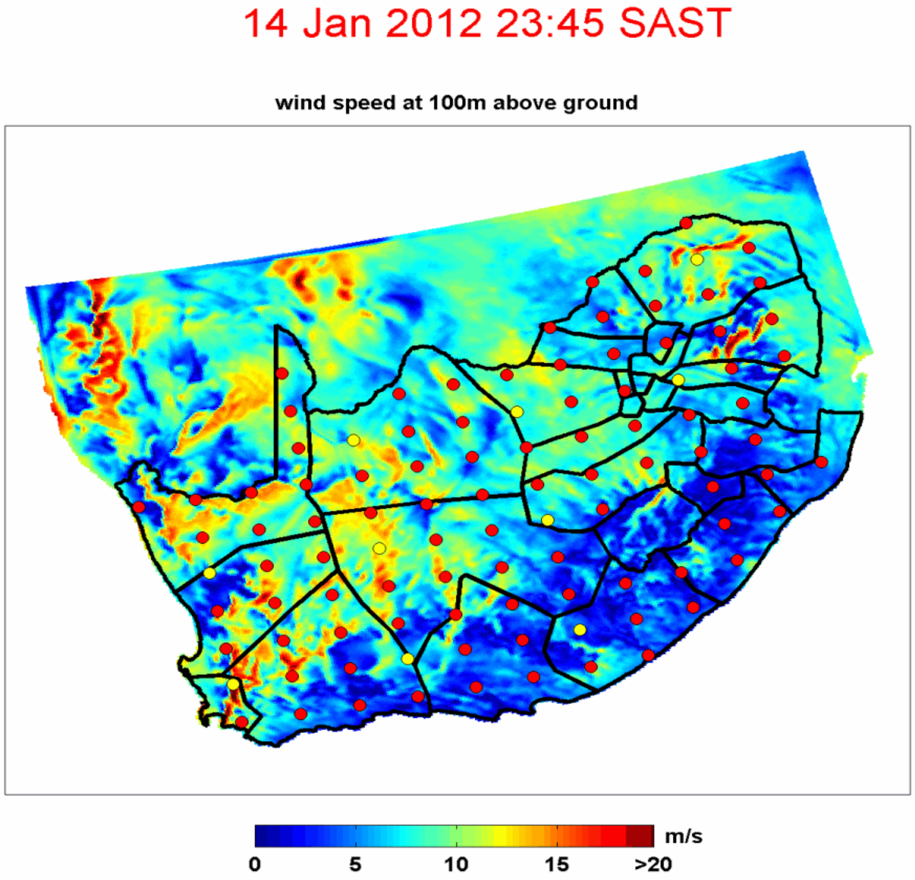
Simulated wind-speed profile and wind power output for 14 January 2012


14 Jan 2012 23:45 SAST
wind speed at 100m above ground
m/s
0
5
10
15
>20



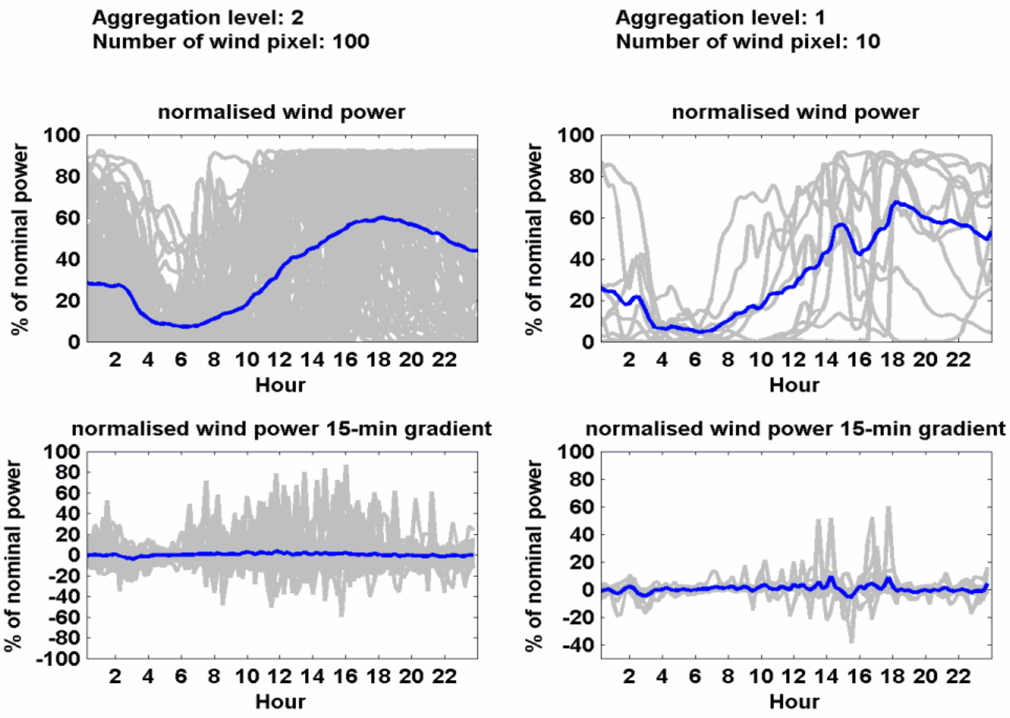
Aggregating 100 wind farms: 15-min gradients almost zero

Simulated wind-speed profile and wind power output for 14 January 2012



14 Jan 2012 23:45 SAST

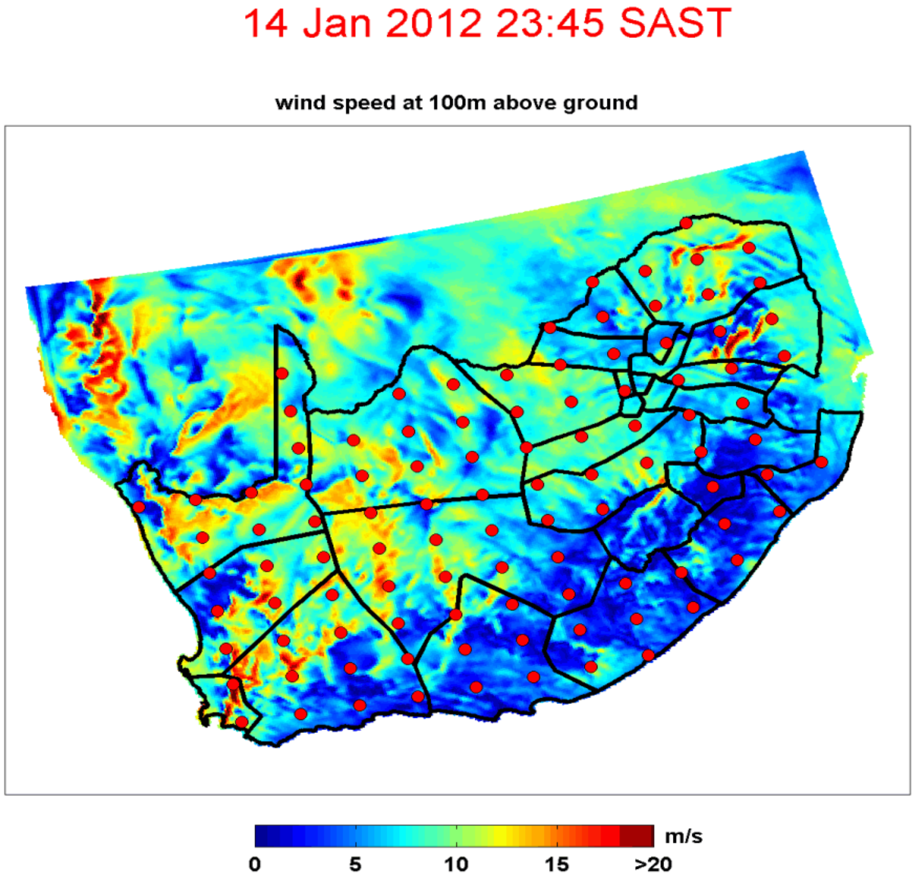
wind speed at 100m above ground
0
5
10
15
>20
m/s

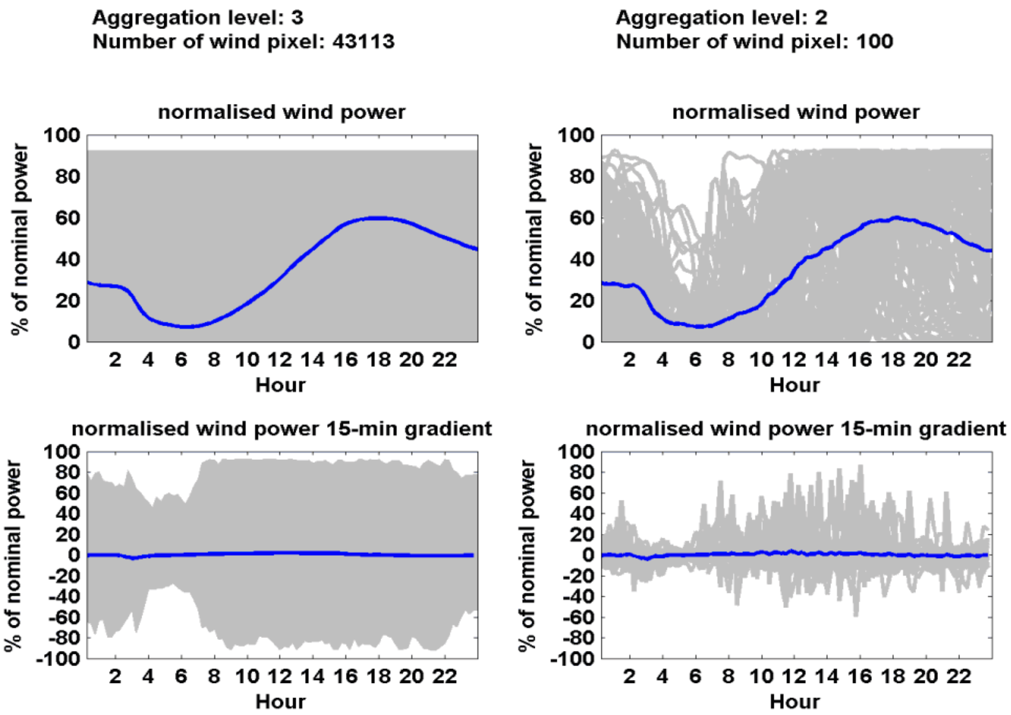


REV 1

Aggregation across entire country: wind output very smooth

Simulated wind-speed profile and wind power output for 14 January 2012


14 Jan 2012 23:45 SAST
wind speed at 100m above ground
m/s
0
5
10
15
>20



REV 1