APPENDIX 3

NSW Wind Farm Greenhouse Gas Savings Tool - 183 and 326 MW

Bango Wind Farm Pty Ltd

NSW Wind Farm Greenhouse Gas Savings Tool

Your precinct: * P4. NSW-ACT Border Region

What is your precinct?
What precinct does your LGA reside in?

Year wind farm will be operational: * 2017

Size of wind farm: * Other (30 - 3000) MW

183 MW

Show greenhouse gas savings

*Mandatory field.

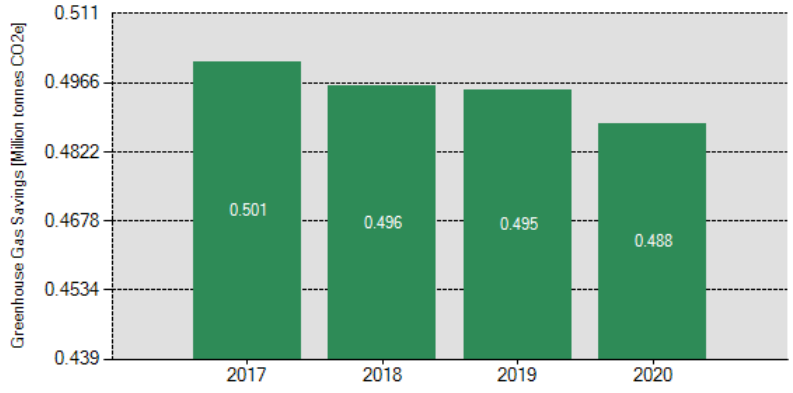
Uploaded dataset | Standard dataset

Greenhouse Gas Savings Summary

Your wind farm will:

- Save 2 million tonnes of greenhouse gas emissions by 2020.
- Generate 575 gigawatt hours (GWh) of electricity annually.
- Produce enough electricity to power 78,800 homes annually. (Based on an average NSW household electricity consumption of 7.3 MWh annually.)

Annual greenhouse gas savings from a 183 MW wind farm in P4. NSW-ACT Border Region.



This graph shows the greenhouse gas savings (in million tonnes of CO2 equivalent) that the wind farm will save.

As the graph shows, wind farms provide significant greenhouse gas savings. These savings are due to wind generation producing electricity, rather than generators with higher emissions, such as coal-fired power stations.

The amount of greenhouse gas emissions saved by NSW wind farms will depend on whether or not the Federal Government introduces an emissions trading scheme or carbon tax. This is because it would require generators to pay for their greenhouse gas emissions.

As gas fired electricity generation has less greenhouse gas emissions than coal fired generation, it will start to become more cost-effective and displace coal-fired generation. In turn, wind farms would start displacing a greater proportion of output from gas fired plants relative to coal fired plants. For the purposes of this modelling work it has been assumed that the Carbon Pollution Reduction Scheme (CPRS) proposed by the Federal Government will start in 2015. This is why the graph tends to slope downwards after 2015, as wind displaces more gas fired electricity generation than coal fired generation.

Consequently, if a carbon price is not implemented through the CPRS (or an alternative emissions trading scheme or carbon tax), the greenhouse gas abatement from NSW wind farms would be higher than projected in this study.

The *NSW Wind Farm Greenhouse Gas Savings Tool* is based on an independent study done by energy modellers, McLennan Magasanik Associates (SKM MMA). Please visit the Renewable Energy Precinct Resources page to download the study *Estimating Greenhouse Gas Abatement from Wind Farms in NSW*.

NSW Wind Farm Greenhouse Gas Savings Tool

Your precinct: * P4. NSW-ACT Border Region

What is your precinct?
What precinct does your LGA reside in?

Year wind farm will be operational: * 2017

Size of wind farm: * Other (30 - 3000) MW

326 MW

Show greenhouse gas savings

*Mandatory field.

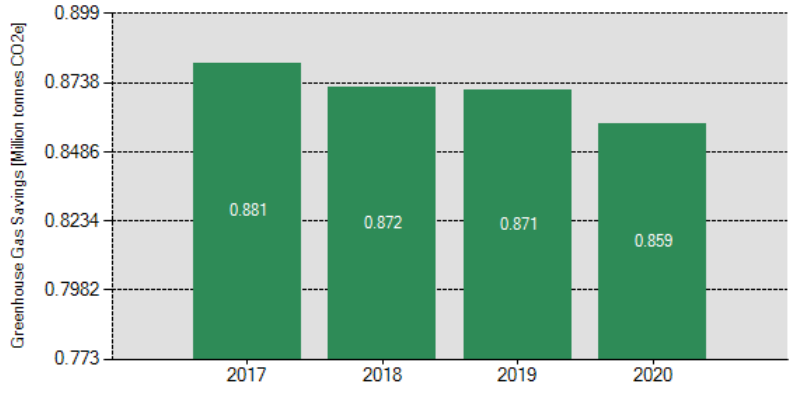
Uploaded dataset | Standard dataset

Greenhouse Gas Savings Summary

Your wind farm will:

- Save 3.5 million tonnes of greenhouse gas emissions by 2020.
- Generate 1,025 gigawatt hours (GWh) of electricity annually.
- Produce enough electricity to power 140,400 homes annually. (Based on an average NSW household electricity consumption of 7.3 MWh annually.)

Annual greenhouse gas savings from a 326 MW wind farm in P4. NSW-ACT Border Region.



This graph shows the greenhouse gas savings (in million tonnes of CO2 equivalent) that the wind farm will save.

As the graph shows, wind farms provide significant greenhouse gas savings. These savings are due to wind generation producing electricity, rather than generators with higher emissions, such as coal-fired power stations.

The amount of greenhouse gas emissions saved by NSW wind farms will depend on whether or not the Federal Government introduces an emissions trading scheme or carbon tax. This is because it would require generators to pay for their greenhouse gas emissions.

As gas fired electricity generation has less greenhouse gas emissions than coal fired generation, it will start to become more cost-effective and displace coal-fired generation. In turn, wind farms would start displacing a greater proportion of output from gas fired plants relative to coal fired plants. For the purposes of this modelling work it has been assumed that the Carbon Pollution Reduction Scheme (CPRS) proposed by the Federal Government will start in 2015. This is why the graph tends to slope downwards after 2015, as wind displaces more gas fired electricity generation than coal fired generation.

Consequently, if a carbon price is not implemented through the CPRS (or an alternative emissions trading scheme or carbon tax), the greenhouse gas abatement from NSW wind farms would be higher than projected in this study.

The *NSW Wind Farm Greenhouse Gas Savings Tool* is based on an independent study done by energy modellers, McLennan Magasanik Associates (SKM MMA). Please visit the Renewable Energy Precinct Resources page to download the study *Estimating Greenhouse Gas Abatement from Wind Farms in NSW*.