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2 September 2019
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By Email

Dear Ms Summerhayes

Crookwell 3 Windfarm (SSD 6695) Supplementary Assessment – Applicant’s response

We refer to your letter dated 22 August 2019 and to the supplementary assessment by the Department of Planning, Industry and Environment (**Department**) dated 14 August 2019 (**Supplementary Assessment**) in connection with the Crookwell 3 Windfarm application (SSD 6695) (**Project**).

Thank you for providing us with the opportunity to comment on the Supplementary Assessment.

The Supplementary Assessment does not appear to raise any new merit issues about the Project. The issues remain those raised in the Department’s earlier consideration of the Project and it would appear that the Department has not taken into account the detailed responses we provided in our letter to the Independent Planning Commission (IPC) dated 4 June 2019 and at our presentation to the IPC on 13 June 2019. A copy of this letter is attached.

It would also appear that the Department has not considered the following expert evidence that we had submitted to the IPC to address the concerns raised by the Department in its assessment report:

- Crookwell 3 Wind Farm DP&E Recommendations Relating to Visual Impact by David Moir dated 12 June 2019;
- Visual Assessment Review – presentation on the Proposed Crookwell 3 Wind Farm by David Moir dated (Issue A dated 7 June 2019 and Issue B dated 12 June 2019); and
- Crookwell 3 Wind Farm Planning Review by Mersonn Pty Ltd dated June 2019.

We have set out below a summary of the issues raised by the Department and our responses to each. We also **attach** the supplementary report of David Moir dated 2 September 2019 in response to the visual assessment issues raised by the Department.

| Department’s comments | Response |
|-------------------------------------|--|
| 1 Visual impact on landscape | <ul style="list-style-type: none"> • From Department’s original assessment, it could be inferred that |

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- Removing the Southern Cluster has reduced visual impacts on key heritage features such as Pejar Dam and St Stephens Church and on motorists travelling along Crookwell Road.

the Southern Cluster turbines were key to the impacts on the public domain (particularly on these key heritage features). By removing these, as the proponent has committed to, the impact on the public domain on what the Department considers to be sensitive land, should not be an issue anymore. However, this seems to be inconsistent to the extent that the Department now maintains in their latest assessment that landscape impacts are unacceptable.

- There also seems to be no justification for why the Department considers this particular landscape to be of high scenic value or why the potential impacts that could occur are any less acceptable than the impacts of Crookwell 2 or Gullen Range upon nearby residences, public viewpoints and the surrounding landscape.

2 Visual impact on residences

- Removing the Southern Cluster would reduce visual impacts on residences to the South-west and North-west of the Windfarm.
- However, the impacts to all receivers to the North-east and East and some receivers in the South-east would remain.
- The clustered nature of the majority of turbines in the Eastern Cluster result in significant direct and cumulative visual impacts. To adequately address these impacts, the majority of the Eastern Cluster Turbines would need to be removed.
- The *Wind Energy: Visual Assessment Bulletin* notes that 157 metre turbines result in high visual impacts on residences within 3.1 kilometres and potentially significant visual impacts on residences within 2.1 kilometres. All of the Eastern Cluster turbines have at least one residence within 3.1 kilometres of the Windfarm and 65% of the turbines are within 2.1 kilometres of non-associated residences.
- Mitigation measures such as vegetation screening would be ineffective due to

- Although other windfarms exist in the area, most are more than 20 kilometres away from Crookwell 3 and are unlikely to be sufficiently discernible (through a combination of distance, topography and vegetation) to influence the view (See 'Crookwell 3 Wind Farm DP&E Recommendations Relating to Visual Impact' Report by David Moir dated 11 June 2019 (**Landscape Architecture Report**) paragraph [58]).
- The Windfarm will impact residences to the East of Woodhouselee Road. However, this impact will be direct only, as opposed to direct and cumulative, due to the varying topography and extensive windbreak plantings surrounding these dwellings and nearby fields (See Landscape Architecture Report paragraphs [58] and [60]).
- Taller rotors are perceived as having a slower motion and are less likely to draw the eye than smaller rotors (such as those used at the Crookwell 1 windfarm) (See 'Crookwell 3 Wind Farm Planning Review' by Andrew Darroch dated June 2019 (**Planning Report**) paragraph [2.4].

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the large number of non-associated residences impacted and extensive horizontal views of the Windfarm.

- Of the 11 residences identified as being located within 2.1km, only 4 of them are non-associated. Furthermore, the proponent has committed to microsite turbines A3, A4 and A4 (within the standard 100m micro-siting allowance in a Development Approval), so that distance from any turbine to dwelling #106 Rosedale, exceeds 2km. This results in the number of residents living within 2km of the Project being 3 people.
- Vegetation screening can be utilised as an effective method of mitigating any direct impacts of the turbines, due to the prevalence of wind breaks and screen planting in the surrounding area. Additionally, due to the undulating nature of the topography in the area, most receivers will not experience extensive horizontal views.

3 Cumulative visual impact

- The Windfarm involves installation of turbines on elevated ridges, which when combined with Crookwell 2 Windfarm, would result in turbines covering an area of more than 10 kilometres.
 - The local area has a number of other wind farms (including Crookwell 1, Gullen Range and Gunning), meaning the landscape has limited capacity to absorb further turbines.
- The landscape surrounding the Windfarm is not a natural landscape and is generally highly modified, altered through agriculture and existing windfarms (See Landscape Architecture Report paragraph [20]).
 - The Green Bean LVIA2012 found that the surrounding landscape had overall medium sensitivity to accommodate change of the kind contemplated by the Windfarm (See Landscape Architecture Report paragraph [22]).
 - The assertion that the landscape has limited capacity to absorb further turbines is without basis. No methodology for how this assessment was made has been provided by the Department, particularly given the ambiguity in defining the benchmark where it can be determined that a landscape has reached saturation of a particular defining element (See Landscape Architecture Report paragraph [59]).
 - The longevity of the Crookwell 1 windfarm is likely limited, given the typical life expectancy of a wind farm is 20-25 years (Crookwell 1 commencing operation in 1998) (See Planning Report paragraph [2.1]).

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- The full complement of planning approvals for windfarms are often not realised. For instance, the Crookwell 2 windfarm was approved with 32 turbines, however is operation with 28 turbines and is unlikely to realise the remaining 4 turbines (See Planning Report paragraph [2.3]).
- Additionally, the cumulative effects will be the result of combined viewing of elements of Crookwell 1, 2, 3 and (to a lesser extent), Gullen Range. While other wind farms exist in the region, most are more than 20km away from Crookwell 3 and will not be visible from the local area.

4 Reduced benefits of the Windfarm

- Removing the Southern Cluster would reduce the renewable energy benefits of the Windfarm by more than 25%.
- The removal of the Southern Cluster would result in the Windfarm producing 71 megawatts (compared with 96 megawatts previously), 204 gigawatt hours (compared with 275 gigawatt hours previously) and 35,000 equivalent homes powers (compared with 48,000 previously).
- The proponent's commitment to remove the Southern Cluster would remove the less efficient, lowest wind resource turbines in the original proposal and also remove the associated impacts of medium voltage cable crossing under Crookwell-Goulburn Road.
- Therefore, only the more efficient, higher-yielding turbines would remain in the proposal, with an expected annual net energy production of 225-230 gigawatt hours from only 17 turbines (65 MW installed).
- The proponent notes that the production figures quoted by Department may be based on a single proportional estimate, and not on the specific knowledge of the wind resource on site and detailed modelling.
- The proponent's modelling demonstrates that, under the proponent's wind turbines removal commitment, only 74% of the originally proposed wind turbines would remain, producing, however, 84% of the expected original energy.
- ***Consequently, a significant visual benefit and overall impact reduction are achieved with only a minor reduction in total energy output.***

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5 Agreements with landowners

- Despite the nine agreements reached with affected landowners, agreements with a number of other landowners have not been obtained, despite the length of time for the approval process.
- The proponent has currently reached agreements with eleven landowners. This means two additional agreements in the area surrounding the Eastern cluster. Please see updated map in **Annex 1**, showing the current status of Neighbour Agreements.
- All but four of the landholders within a 2-kilometre radius of any turbines proposed for the Eastern cluster have entered into Neighbour Agreements with the proponent. One of the four remaining landholders (Rosedale, residence #106) is marginally under 2 km, and the proponent commits to microsite the proposed A3, A4 and A5 turbines further south (less than 100 m), to achieve a 2-kilometre distance from the residence. Another remaining residence (Atholvale, #69), is not inhabited and despite this, the proponent has used its best endeavours to reach an Agreement with the property owners, who have not accepted it. Despite this, the proponent has formally committed not to use Boltons Road for the purposes of wind farm construction or access, as this road marks the boundary between their property and the wind farm site. The other remaining property without agreement (Cottonwood, #62), has also been offered a Neighbour Agreement with special provisions protecting them from a potential and unlikely loss of property value, however they have opted not to enter into the Agreement.
- Based on the above, and subject to the micrositing commitment stated above, there would only be 3 properties within 2 km of a proposed Eastern Cluster turbine without a Neighbour Agreement. This means 80% of those properties accept the proposed Development and there would be only 3 inhabitants within the two-kilometre buffer which have not accepted Neighbour Agreements.
- ***With overwhelming local support for the Project, the significant benefits that it will generate in terms of renewable energy, and the Proponent's commitments to reducing impacts for landholders identified as being affected, a small***

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number of properties without Neighbour Agreements should not be sufficient reason to reject the Project.

6 Timing

- The Windfarm has been under assessment for approximately nine years. It is in the interests of all stakeholders to make a final decision.

- The proponent agrees that a final decision is in the best interest of all stakeholders, provided that all factors stated above are carefully and fairly considered.
- The proponent notes that the Crookwell 3 wind farm project was previously recommended for approval, even when the proposal involved a larger number of turbines.
- The proponent finally notes that it has reached a commercial agreement with an electricity retailer for a long-term agreement to supply electricity and associated green products, which would positively impact on meeting relevant renewable energy targets both at a State and Federal levels if the project is built. At the moment, the only missing requirement enabling the construction and operation of the Crookwell 3 (Eastern Cluster) wind farm project would be the Development Approval.

7 Stakeholder concerns

- Upper Lachlan Shire Council (**Council**) expressed concerns that the Windfarm is not compliant with the *Upper Lachlan Development Control Plan 2010*.
- The Council's concern regarding the number of cable crossing was addressed by removing the Southern Cluster.
- The former Office of Environment and Heritage expressed concerns regarding biodiversity impacts, primarily relating to the Eastern Cluster.
- WaterNSW expressed concerns that the Windfarm had not been shown to have a "neutral and beneficial" impact as required for development in the Sydney drinking water catchment.
- Of the 18 submissions received within 5 kilometres of the Windfarm, 15 objected

- 49/81 (over 60%) of submissions support the proposal (See Planning Report paragraph [5.1]).
- Only 15 objectors lived within a 5kilometre radius of the Windfarm (See Planning Report paragraph [5.1]).
- People are more likely to make submissions if they object rather than when they perceive a greater public benefit.

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to the Windfarm and 3 supported. Of these, 12 raised concerns regarding the Eastern Cluster.

8 Land use planning

- All turbines in the Eastern Cluster are prohibited under the *Upper Lachlan Local Environmental Plan 2010 (ULLEP)*. The Windfarm is inconsistent with the objectives of the E3 – Environmental Management zone.
 - Under the *State Environmental Planning Policy (Infrastructure) 2007* electricity generating works are only permissible with consent in prescribed rural, industrial or special use zone. This does not override local planning controls.
- There is no reason why turbines cannot be located in the E3 zone.
 - At the time the application was lodged, the applicable Local Environmental Plans were the *Crookwell Local Environmental Plan 1994* and the *Mulwaree Local Environmental Plan 1995*. The Windfarm is permissible with consent under both of those instruments (See Planning Report paragraph [3.1]).
 - The Windfarm is consistent with the key aims of the ULLEP, being to encourage sustainable management, development and conservation of natural resources and to promote the use of rural resources (See Planning Report paragraph [4.4]).

We would also like to raise an additional aspect relating to Native Vegetation Management, outside the matters that Department has referred to in its Supplementary Assessment.

One of the host landowners, (which would host turbines A5, A9, A12, A13, A5, A16, A17, A20, A21, A22, A24 and A25 (majority of the Eastern Cluster)), has committed to extending the term of previous Management Contracts he entered into with NSW Department of Land and Water Conservation, in line with the design life of the wind farm and enter into a new one around the wooded area in the vicinities of turbine A12. The proponent commits to cover the extra costs associated with such Management Contracts, in addition to the funds provided by the successor of Department of Land and Water Conservation under such extended Management Contracts.

Yours sincerely



Guillermo Alonso
Director and Engineering Manager

Global Power Generation Australia Pty Ltd

Annex I: Proposed Site Infrastructure Map with current status of Neighbour Agreements

