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2020-09-02

Dale Holder
Cape EAPrac
c/o Michael Johnson
Atlantic Renewable Energy Partners (Pty) Ltd
By email

Dear Dale

TRAFFIC AND TRANSPORT SPECIALIST OPINION – PROPOSED AMENDMENT OF POSTMASBURG SOLAR PV ENERGY FACILITY 2

In 2015, Cape Environmental Practitioners (Pty) Ltd. was appointed by Postmasburg Solar PV Energy Facility 2 (Pty) Ltd. as independent environmental assessment practitioners (EAP) to conduct the Environmental Impact Assessment (EIA) for the proposed Postmasburg Solar PV Energy Facility 2, a commercial PV energy facility and associated infrastructure near Postmasburg in the Northern Cape Province (EIA Ref No: 14/12/16/3/3/2/698). The project was granted Environmental Authorisation (EA) on 25 May 2015.

Postmasburg Solar PV Energy Facility 2 (Pty) Ltd. now wish to include a Battery Energy Storage System (BESS), which will cover approximately 3.125ha, adjacent to the on-site substation within the approved project footprint (Figure 1). In terms of Regulation 31 and 32 of the 2014 National Environmental Management Act (NEMA) Environmental Impact Assessment (EIA) Regulations, Postmasburg Solar PV Energy Facility 2 (Pty) Ltd. wishes to apply for an amendment to the EA issued. Cape Environmental Practitioners (Pty) Ltd. have been appointed as the EAP and to conduct the amendment assessment.

One of the potential environmental issues identified during the former EIA process was the potential traffic and transportation impacts caused by the construction and operation activities. A Traffic and Transportation Assessment, conducted by Aurecon in 2014, was therefore, included as one of the specialist studies.

Based on the requirements of Regulation 32 of the EIA Regulations, specialist input regarding the proposed amendments is required to enable the DEA to make an informed decision on whether to grant or reject the amendment application.

Traffic Statement

The original assessment estimated that the total trips would be between 3 000 and 4 000 heavy vehicle trips, which will be made over an estimated period of 9 to 12 months. Choosing the worst case scenario of 4 000 heavy vehicles over this period travelling on an average of 22 working days per month, the resulting daily number of vehicle trips will be in the order of 15-20. The impact of this on the general traffic would therefore be negligible as the additional peak hour traffic would be at most 2 trips.

Traffic as a result of the BESS

The exact design of the BESS will depend on the specific manufacturer. It is customary to develop the final detailed design of the facility only once an Independent Power Producer (IPP) is awarded a successful bid under the Renewable Energy Independent Power Producer Procurement Programme

(REIPPPP), after which major contracts are negotiated and final equipment suppliers identified. Therefore, at this stage the exact supplier/manufacturer has not yet been identified. However, a BESS typically includes batteries that have been assembled in containerised/modular enclosures. While each manufacturer has slightly different individual battery container/module dimensions, they all typically fall within the following ranges:

- Length: 6m – 12m
- Width: 1.5m – 2.5m
- Height: maximum of 3m

Based on research it is estimated that for BESS with a capacity of up to 400MWh, approximately 160-240 pre-assembled containers/modules would be required. Each one of these pre-assembled containers/modules would be transported to site on a flatbed trailer.

240 heavy vehicles over a 9-12 month construction period travelling on an average of 22 working days per month, results in daily number of vehicle trips in the order of 0.9 -1.2.

Based on the above a BESS system of up to 800MWh, could be expected to add up to 500 additional trips or up to 2.5 additional trips per day over the construction period. The additional impact on general traffic of a BESS system up to 800MWh is deemed negligible.

Conclusion

The above shows that the proposed amendments would not cause a significant change in the number of trips required and thus will not introduce any new traffic impacts, nor significantly alter the impacts considered in the former 2014 Report, for which the original project received Environmental Authorisation.

Yours faithfully



Hermanus Steyn
Associate