

Access, Traffic and Transport

Relevant Policy and Guidance

The access, traffic and transport assessment will be carried out in accordance with relevant legislation, policy and guidance documents including:

- Scottish Planning Policy (2014);
- the Institution of Highways and Transportation (IHT) publication “Guidelines for Traffic Impact Assessment” (1994);
- the Guidelines for the Environmental Assessment of Road Traffic (1993) from the Institute of Environmental Management and Assessment (IEMA);
- Transport Scotland “Transport Assessment and Implementation: A Guide” (2012); Department for Transport (DfT) “Design Manual for Roads and Bridges (DMRB) (2008);
- D&G Roads and Transport Guidelines and Standards; and
- East Ayrshire Roads and Transport Guidelines and Standards.

Baseline

The Site is located in commercial forestry approximately 10 km to the south west of Sanquhar. Access to the site is currently provided by minor roads, including Euchan Water Road and an un-named road leading to Polskeoch (U405).

The Site is located in an area subject to a number of recent windfarm planning proposals. While most of the potential routes to the Site will have been subject to assessments for delivery of abnormal loads for windfarms in the past, only recently have turbine blades of this size been considered for delivery along the route with regards to the proposed Sanquhar II development. The Sanquhar II development proposes delivery along the A76 (either from the north or south) and includes the proposed use of Blade Lifter vehicles to allow pinch points to be successfully negotiated.

The proposed access routes under consideration for the turbine components to the Site are as follows:

- Port of Ayr → A719 → A77 → A76 → Minor roads to site
- King George V Dock, Glasgow → Kings Inch Drive → M8 → M74/M6 → A75 → A76 → Minor roads to site

A route access study will be undertaken based on using Ayr or King George V as the port of delivery.

Potentially Significant Effects

Construction

The main potential sources of impact are likely to relate to the transportation of abnormal loads and the impact of construction traffic on residential areas and other amenities along the network route.

The construction phase of the proposed Development is likely to create the greatest environmental impact. This is due to the number of heavy goods vehicles (HGVs), light goods vehicles (LGVs) and abnormal load deliveries required to transport the materials onto site.

Operation

It is anticipated that any effects predicted to result during the operation of the proposed Development will be limited, and certainly lower than the effects expected during the construction phase.

During operation the proposed Development would generate a negligible number of vehicle movements. These would predominantly be for maintenance visits by technicians. Abnormal load vehicle access is unlikely but may be needed if a turbine component requires replacement.

Proposed Assessment Methodology and Approach

A traffic, transport and access assessment is to be undertaken as part of the EIA for the proposed Development. The assessment will be carried out in accordance with the relevant policy and guidance documents as detailed at the top of the factsheet.

The study area for the assessment will focus on the route to be used for access by construction vehicles and abnormal loads, and will include a section of the A76 which will depend on the final direction of travel to Site along this road.

A full assessment of the access route within the study area will be included within the EIA Transport Chapter, including identification of key pinch points along the route and assessment using swept path analysis.

Due to known, existing pinch points being found along the public road network, a Blade Lift Adapter vehicle will be required to transport blades through these pinch points. Further information will be provided within the EIA Report regarding the logistics and safety protections in relation to this method on the public highway.

It is anticipated that any effects predicted to result during the operation of the proposed Development will be limited, and certainly lower than the effects expected during the construction phase. Therefore, operational traffic is proposed to be scoped out of the access, traffic and transport assessment.

Desk Study

A desk based review of the impacts arising from the construction of the proposed Development will be undertaken, including the following;

- Collection and analysis of available road traffic accident data over the study area;
- The use of a blade lift adapter will be considered for transport of the turbine blades from the A76 to the Site. Any predicted impacts associated with this type of transport will be included in the assessment;
- Determination of a construction phase programme and quantification of construction phase trips based on the quantity of material required for the proposed Development and the duration of the construction phase;
- Determination of a traffic baseline, taking account of measured existing traffic flow and other developments that have been identified for inclusion within the cumulative assessment; and
- Quantification of material increases in traffic resulting from the construction phase of the proposed Development.

Field Surveys

A visual inspection of the study area will be completed to ensure a full understanding of the local area and to identify all sensitive receptors, especially with regard to abnormal loads.

24 hour automatic traffic counts (ATCs) would be undertaken on the A76 and at one further location (2 counts in total). The exact location of the counts will be determined once full details of the route for access are understood.

Assessment of Effects

It is anticipated that the collated traffic flow data will confirm existing traffic levels within the study area and will include LGVs and HGVs. These traffic flows will be combined with the forecast levels of proposed Development traffic to identify the likely significant effects within the study area in relation to the IEMA Guidelines.

In accordance with the IEMA Guidelines, the method used for assessing environmental effects of increased traffic will be based on a comparison in percentage terms between predicted traffic flows on potentially affected roads with and without the proposed Development traffic. The IEMA guidelines expresses two 'rules' which should be followed when determining the scale and extent of the assessment, these are:

- Rule 1: include highway links where traffic flows would increase by more than 30% (or the number of heavy goods vehicles would increase by more than 30%); and
- Rule 2: include any other specifically sensitive areas where traffic flows have increased by 10% or more.

Rules 1 and 2 will be used as a screening tool to determine if a full assessment on routes within the study area is required due to the level of increase in traffic flows. In the case of construction traffic, where it is anticipated that traffic

volumes do not increase by more than 30% (or 10% in sensitive locations) then a detailed assessment of the effects is not deemed necessary.

Construction

In the event that these thresholds are likely to be exceeded, consideration of the environmental effects of construction traffic would typically be undertaken in relation to the following transport effects:

- Severance;
- Driver delay;
- Pedestrian delay and amenity;
- Accidents and safety; and
- Hazardous loads.

Where relevant, consideration of noise effects of traffic would be included within the Noise chapter of the EIA Report.

In addition to this, the overall carrying capacity of the road in question will be considered in undertaking the assessment. A quantitative assessment of impact would be undertaken, based on the predicted rise in traffic flows against a measured baseline, taking into account the temporary nature of the works. The likely 'worst case' scenario will be described for the periods of peak traffic generation, with the daily numbers of vehicle movements predicted.

The assessment will identify the potential traffic and associated environmental effects on sensitive receptors and mitigation will be proposed where necessary. Traffic flows will increase on routes used for access to the Site and stretches of the local road network may need to be closed to facilitate the delivery of abnormal loads. The construction phasing and vehicle access would be managed to ensure that flows would be controlled during periods of more significant disruption, with mitigation likely to take the form of a Construction Traffic Management Plan (CTMP).

Cumulative Effects

The anticipated cumulative effects of the potential for overlapping construction programmes for the proposed Development in addition to other development proposals will be considered. The mechanism for mitigation of any cumulative effects is the implementation of a CTMP.

It should be noted that a cumulative assessment in relation to transport and traffic is reliant on the prospect of more than one windfarm being under construction at the same time as the proposed Development.

Mitigation

Mitigation measures will be proposed following the completion of the impact assessments, as informed by baseline assessments. The purpose of these measures is to remove, minimise or compensate any significant effects where required. These mitigation measures will be agreed with Dumfries and Galloway Council / East Ayrshire Council as appropriate. These measures will also be incorporated into the outline CTMP that will be submitted with the application.

Consultee Questions

- Do consultees agree with the proposed methodology and scope of the access, traffic and transport assessment?
- Are there any planned road works or highway improvement schemes that we need to take account of?
- Is the available Department for Transport Count Data on the A76 suitable for the assessment or should we plan to undertake traffic surveys?
- Please confirm any additional requirements that you consider should be included in this element of the EIA, that have not been covered in this fact sheet.

