Norwell Solar Farm Steering Group

Application by Elements Green Trent Limited for an Order Granting Development Consent for the Great North Road Solar and Biodiversity Park – project ref. EN010162

Unique Number – [redacted] (Our ref: NSG/9)

Deadline 4. Response to the Examining Authority's Second Written Questions (ExQ2)

EXQ2. Climate change and sustainability 5.2.1

1 The Group would not support a requirement to secure a specified whole life assessment. Firstly, it is not clear how such measurement would take place. It would certainly be a statistical mountain to climb. Secondly, even if it was possible to calculate the full lifecycle total, that final total would only be known at the end of the 2 year decommissioning period. What meaningful action could be taken after the end of the project?

2 That is not to say that DCO requirements are redundant in this subject area. The Group has previously cited paragraph 5.3.9 of the Overarching National Policy Statement for Energy (EN-1):

> "*The Secretary of State should be content that the applicant has taken all reasonable steps to reduce the GHG emissions of the construction and decommissioning stage of the development.*"

3 The Applicant has asserted that their calculations and predictions are worst case scenarios. A significant part of all the infrastructure is shown as being imported from China with sea distances around the 18,000km mark. Removing the reliance on China and sourcing from much nearer countries would be a reasonable step to reduce GHG emissions. The Applicant has stated their hope to source steel from UK electric arc furnaces. Below is a draft wording for a potential requirement:

The skills, supply chain and unemployment plan shall include the undertaking that all steel required for the panel supports, palisade, paladin and deer fencing shall be sourced from:
a) any company producing that steel in a UK based steel furnace, or if none are able to do so at the requisite time:

b) any steel producer, producing steel in furnaces in any member state of the European Union, or if none are able to do so at the

requisite time:

c) any steel producer producing steel in Canada or the United States of America.

4 A similar requirement could be worded to cover the import of aluminium. Chinese aluminium has one of the highest emission factors for GHG emissions for this metal.

5 Any requirement to source the batteries and panels from anywhere but China may place an insurmountable burden on the Applicant, given the dominance of Chinese companies in these industries. Therefore it would not be practicable to include these.

6 However there are opportunities to limit the associated emissions for these two items of infrastructure. The Applicant states that the 10% replacement rate for the panels is a worst case scenario, in order to be "Rochdale compliant". Therefore the following draft requirement should not be a burden for the Applicant but would limit the GHG construction emissions:

Following the commissioning of the development, the Wp capacity of any replacement panels to be installed shall not exceed a combined total of 112MWp for a period of 40 years. Details of all replacement panels to be installed are to be passed to, and agreed to by the Local Planning Authority, prior to installation.

7 A similar limit should be a requirement for the batteries, limiting replacement batteries storage capacity to 1,320MWh over the forty years.

8 Though this Group argue these are unrealistically low, the Applicant is adamant that the 10% rate for panels and 150% rate for batteries are their worst case. Therefore, there can be no argument. There is not enough design detail yet regarding inverters. Once more has been published it may be possible to identify a similar limit for these infrastructure items. These reasonable steps will guarantee a ceiling on the construction emissions. It is accepted that such requirements as above may be unprecedented. However, the examinations of NSIPs such as this are evolving with regard to emissions. Limiting emissions where possible is a natural next step.

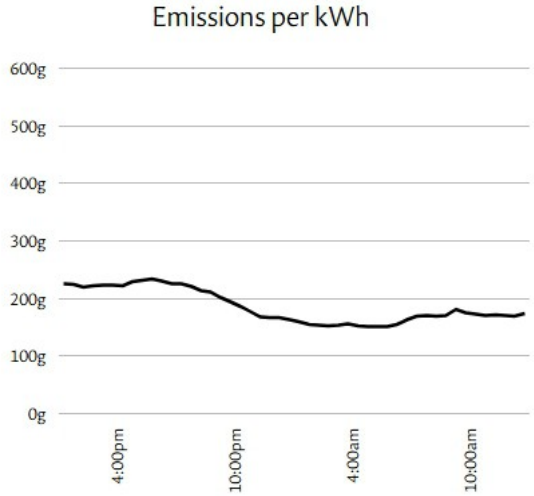
9 The Examining Authority questions what degree of certainty can be attached to the predictions for net benefit/disbenefit in associated

carbon emissions. The Group have accepted that accurate predictions become more difficult the further in the future one looks. There is however empirical evidence that the use of two factors by the Applicant is totally unrealistic and should be discounted.

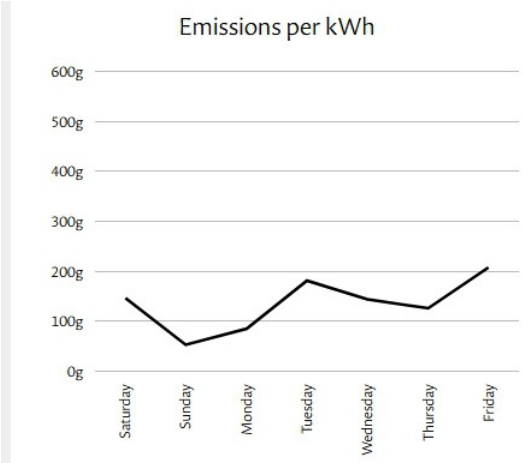
10 To calculate the emissions savings resulting from the BESS discharge to grid, the factor of 365gCO_2/kwh is still adopted for all 40 years in the latest Technical Appendix A15.1 REP3-063 (page 53, Table A15.1.21). On page 50 in Table A15.1.20, a factor 207gCO_2/kwh is used to calculate solar PV carbon savings direct to grid, again for every one of the 40 years.

11 The Group would argue that there is virtual certainty that these calculated predictions should be dismissed and no reliance placed upon them.

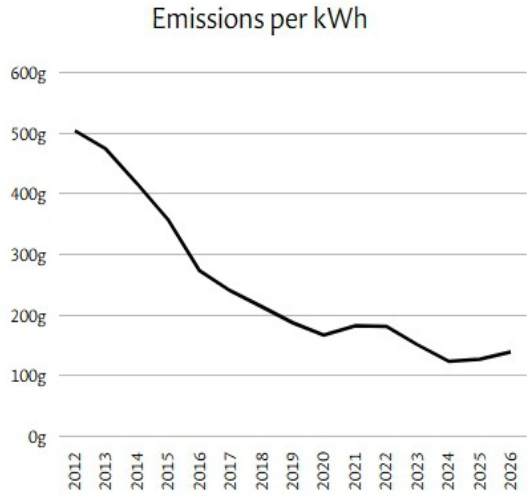
12 To illustrate this, below is the latest data from the National Grid showing the reduction in grid carbon emissions:



Last 24 hours



Last 7 Days



Last 14 years

(source iamkate.com accessed 07/03/26)

13 The above data must provide a degree of certainty that the Applicant's factors in the 2 aforementioned tables have no place in attempting to calculate the likely effects of the development. Certainly the use of 365gCO_2/kwh for 40 years cannot be justified.