KILMARNOCK SOUTH
AIR QUALITY STATEMENT
Rev. DRAFT

Land at:
Camsiscan Farm, Craigie,
Kilmarnock South

KA1 5JT

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1. Introduction

In Scotland, there is strong support for renewable energy generation which is inherently intermittent. This Development is required to smooth over peaks and troughs in electricity supply, being able to respond at short notice to requests from National Grid to generate during periods when renewable sources are not generating, or generating plants are unexpectedly offline. There is a need to balance the peaks and troughs associated with electricity supply and demand to manage the strain on distribution networks. This is particularly important with the decommissioning of older generating plants and also the inconsistency of on-demand renewable generation.

Battery Energy Storage Systems (BESS) have no direct source of emissions to the atmosphere during the operational phase. Possible impacts to the local air quality only have the potential to occur during the construction period of the project, in the event of equipment failure and during any maintenance visits.

2. Construction Phase

It is acknowledged that this development would rely upon HGV's and plant equipment during its construction. The construction period will last approximately fourteen months which includes the earthworks, construction, delivery of all equipment and installation.

Without mitigation, there is a risk that the construction phase of the development will lead to dust soiling and elevated concentrations of PM10 (Particulate Matter less than or equal to ten micrometer). These impacts may occur during earthworks and construction, as well as from track-out of dust onto onto the public highway, as vehicles leave the construction site.

The mitigation measures outlined below are proposed to ensure that adequate mitigation procedures are in place for emissions and dust during the construction phase:

- Wheel washing equipment will be available and used on-site, as required, to prevent the transfer of dirt and debris onto the public highway;

- Dust generating activities will be minimised during dry, windy conditions where possible;

- Where required, loads into and out of the site will be sheeted

- Where required, Soil stockpiles will be covered when left for extended periods;

- Implementation a dust monitoring scheme as required.

It is considered that potential effects on air quality will not be significant.

3. Operational Phase

The proposed development is unlikely to release pollutants or any hazardous, toxic or noxious substances to air or land during normal operation. Potential health impacts are therefore related primarily to construction and operational related impacts.

During the site's operational period, traffic levels will be negligible as much of the maintenance and control of the battery equipment is to be undertaken remotely and as such the effect of that traffic upon the adjacent highway network and surrounding areas would be negligible.

There will be seven diesel generators installed on the site for the operational period. The 250kVa stand-by generators will only operate in the unlikely event of a major equipment failure or national grid transmission power loss. The generators allow the operations team to remotely interact with the site equipment during a power loss, incident, or breakdown of equipment.

4. Conclusion

The development would result in an increased level of infrastructure, close to the Kilmarnock South electricity sub-station. The BESS technology being used in the development will allow for the continued use of renewable energy sources within the South Ayrshire and wider areas. Developments like these respond at short notice to requests from the National Grid to balance the the transmission network.

As BESS sites have zero emissions during normal operation, they make a significant contribution to the Scottish Governments drive for net zero whilst ensuring that the local environment is far less impacted than other types of generation and has a negligible impact to the air quality.