

## Summary of Consultation Comments and Responses - Coupar Angus Battery Storage Project, Pleasance Road

COMMENT	RESPONSE
<b>GENERAL ISSUES</b>	
Are there any direct benefits to Coupar Angus?	The Development will export and import electricity from the grid network via the existing Coupar Angus substation, thereby providing important local level grid stabilisation and frequency management. During periods of excess supply on the network the batteries would import electricity and store this for use in the future where periods of peak demand may put undue stress on the network, when it would be released. In doing so the Development would also facilitate the integration of intermittent renewable energy generation on the wider network thereby facilitating a shift to a low carbon energy mix, in accordance with national policies.
How much will the Development cost?	The commercial aspects of the project are confidential and provision of the technology would be subject to competitive tendering.
Could questions and answers be posted in a public place with an option to continue discussion?	The comments raised during the pre-application consultation have been addressed in this document and will also be included in the Pre- Application Consultation (PAC) report. This document has responded by directly answering specific questions or cross referring to relevant documents that will support the planning application that will contain the relevant information. Should the public have further comments these can be raised during the consultation the Council will manage when the planning application is submitted.
Request that another event be undertaken with representatives from Coronation Power.	The Applicant has considered the points raised at the pre-application consultation event and provided a response to these. Where possible, alterations will be made to the design to further minimise potential effects. It should however be noted that the design presented at the public consultation event was a well evolved design that had previously sought to minimise potential impacts by limiting the vertical extent and footprint of the Development, designed appropriate screening and landscaping measures and ensured that the Development had no significant environmental impacts, specifically in respect of visual impact, noise, flood risk, ecology or access.
<b>ACCESS ISSUES</b>	
Suitability of Precinct Street to handle additional traffic during construction	The local authority highways department will be consulted on any planning application and will provide any comment at that time. There are no concerns over the suitability of Precinct Street, it is noted that the route was used previously for the construction of the substation, which involved the transportation of larger components. The proposed route is therefore considered suitable and it is anticipated that any outstanding concerns the Council may have could be adequately addressed through provision of a Construction Traffic Management Plan, which it is assumed would be secured in the form of a planning condition attached to any planning consent which may be granted.

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Traffic Management during construction	Traffic impacts are considered to be limited to the construction phase of the Development only. Once operational the site would be unmanned and operated autonomously and remotely, requiring seldom maintenance inspections, typically on a monthly basis. Effects would therefore be for a short duration, typically circa 6 months, although within that the impacts would be greatest during a number of peak weeks when the bulk of materials would be delivered.
Disruption to residents during construction	As above, any concerns could be adequately addressed through provision of a Construction Traffic Management Plan, which it is assumed would be secured in the form of a planning condition attached to any planning consent which may be granted.
Possibility of another alternative access road to be built?	Access for the Development has been subject to a number of considerations. Due to safety concerns it was not considered appropriate to construct a new access directly off the A94. It was felt that a similar route to that used for the substation would be most appropriate. A new junction off Pleasance Road is proposed to ensure that adequate visibility splays are achieved.
Security measures to prevent trespassing	A perimeter fence would enclose all permanent elements of the Development. This would be a 2 m high palisade fence, the colour of which would be agreed with the Council through appropriately worded planning conditions attached to any consent. Approximately four poles would be mounted with directional static CCTV cameras and security lighting. These have been located at each corner of the fenced compound. It would be ensured that the cameras and lighting are inward facing and do not result in amenity issues through light pollution. The indicative security column would be approximately 6.0 m in height and 0.1 m in width. Given that the site is unmanned and remotely operated there would only be a requirement for lighting to be triggered in very occasional circumstances. Elevation drawings of these elements will be submitted with the planning application. It is considered that the proposed security measures would be adequate to prevent trespassing onto the site.
Will the road be suitable for 24 hr access for emergency services?	The access road proposed will provide 24-hour access to the site for both maintenance vehicles but also emergency services. The proposed road will form part of the Development for the period of time that the Development is operational.

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<b>SITE SELECTION ISSUES</b>	
<p>Why was the Site in Coupar Angus selected?</p>	<p>The Development has been strategically sited adjacent to the Coupar Angus substation which borders the west of the Site at points. Most importantly the substation is capable of accommodating the transfer of electricity to and from the Development at an acceptable cost which would provide valuable support to the grid, protecting local customers at times when high demand places stress on the local and wider electricity network. As a result of the close proximity to the substation, underground cables would avoid any major infrastructure, minimising connection costs and transmission losses. The reduction in the length of underground cables required to achieve a grid connection would also significantly minimise disruption to the local community during construction.</p> <p>The Applicant has considered a range of potential development sites across Scotland, targeting developments on land in close proximity to grid supply points with adequate import and export capacities that could accommodate battery storage developments. A site search exercise was undertaken for potential development sites adjacent to 147 substations in Scotland. A range of designations (e.g. landscape designations, heritage assets etc.) and environmental constraints (e.g. separation from residential properties, watercourses etc.), were applied to the search to filter those with potential for development. This resulted in a total of 46 potential development sites across Scotland.</p> <p>Within Perth and Kinross a total of 7 substation locations were reviewed for potential. However, potential developable sites were only identified at Coupar Angus and one other location; other constraints meant that development sites were not identified in close proximity to the other substations in Perth and Kinross. Landowners were then contacted to determine if they would be interested in having the developments on their land, and when an interested landowner was confirmed, then preliminary grid connection enquiries were submitted. Coupar Angus is one of the few places where there is capacity to connect to the grid and a formal grid connection offer was submitted. Once the connection offer was received this confirmed that the project could be viably connected to the network. The other potential site was discounted because it was found to be unsuitable.</p> <p>Following this site identification and selection exercise the developer has been able to progress three development sites in Scotland (the site in question at Coupar Angus, one in Angus and one in Aberdeenshire) where there was:</p> <ul style="list-style-type: none"> <li>• an affordable and import/export grid connection;</li> <li>• an interested land owner; and</li> <li>• land outwith key designations.</li> </ul>
<p>Why is the Site on prime agricultural land?</p>	<p>As detailed previously the Site was chosen for its proximity to the existing substation and interest from the landowner. Following a review of the Land Capability for Agriculture (LCA) classification,</p>

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	<p>the Site is located within Class 2 land which is considered highly productive and capable of producing a wide range of crops. This classification covers many parts around Coupar Angus and more widely in Perth and Kinross. Peat and carbon rich soils are not present on the Site.</p> <p>The design evolution of the layout has minimised the land take required for the Development, and no farm unit would be rendered unviable. Measures to manage, protect and reinstate soils would be incorporated into the Development such that the impact on prime agricultural land is considered to be acceptable when balanced against the benefits of the Development.</p>
<p>Could the Development be relocated to zoned industrial land (adjacent to the chicken factory)</p>	<p>As detailed previously the proximity to the substation was a key consideration in the selection of the site for the Development. Should the Development be moved to the chicken factory as suggested this would involve a longer grid connection, which may affect the viability of the Development. Furthermore, the Development would be substantially closer to a larger number of residential receptors and therefore more likely to give rise to more extensive amenity impacts than the current location.</p>
<p>Has proximity to the main gas pipeline been taken into account? (i.e. in the event of explosion)</p>	<p>Yes. A Unity Report was commissioned as part of the site design. All known services were plotted and their locations used to inform the design of the Development. Requisite stand-off distances have been applied to known services in the design of the Development.</p>
<p>Does Coronation Power have plans to expand in the future?</p>	<p>The Development has been scaled to the grid connection which is available at this time. Any future plans, should they come forward, would be subject to a demand for the Development from the grid and in any case would be subject to a separate planning application.</p>
<b>NOISE ISSUES</b>	
<p>Concerns about noise levels at nearby houses (during both construction and operation)</p>	<p>Noise impacts will be adequately assessed as part of the planning application, which will be accompanied by a noise impact assessment report.</p> <p>The noise assessment involved a background survey which accounted for the noise created by the substation. The noise impact from the Development has been modelled and assessed in accordance with appropriate guidelines (BS4142:2014).</p>
<p>Will noise be greater than the existing substation?</p>	<p>It has been found that the level of impact is anticipated to be below the level of Adverse at all noise-sensitive receptors, with rating levels lower than background sound levels during the day and no more than 5dB above background levels during the night. The Development is therefore acceptable in terms of noise impact.</p>
<b>LANDSCAPE AND VISUAL ISSUES</b>	
<p>Cumulative impacts with existing substation</p>	<p>The location of the Development is critical with the need to be as close to the substation as possible, as detailed previously. This also</p>

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	<p>provides a context to the development, i.e. the introduction of further electrical equipment adjacent to the substation which also has a number of large overhead electricity transmission lines in the vicinity.</p> <p>Consideration has been given to screening of the Development and minimising the footprint as far as possible. Given the small scale of the development, and its limited vertical extent, it is considered that the visual impacts are acceptable. The application when submitted will include a number of photomontages illustrating the Development and the screening which is proposed.</p> <p>Should the Council have further concerns regarding the appearance of the Development they have the ability to secure the details of the final finish of fencing and containers by planning condition.</p>
<p>Concerns about the size of the Development</p>	<p>The scale of the Development has been informed by the available grid connection import and export capacity, and as such is required to be of the size proposed. The layout proposed has had due regard to environmental and technical constraints including areas of potential flood risk, separation from residential properties and separation from existing services including buried and above ground gas and electrical infrastructure. The size of the compound has been minimised as far as possible, and planting has been introduced to soften the appearance of the Development, to minimise any visual effects yet deliver the required grid balancing services at the scale that is required.</p>
<p>Concerns about the Site being located on a hill</p>	<p>When reviewing ordnance survey terrain data the main compound is not located directly on a hill. The elevation on Pleasance Road, near to where access would be taken, is approximately 54m. This rises very slightly to approximately 56 m in the centre of the field towards the Development before dropping down to circa 52 m at the lowest point of the Site. As such the site and surroundings are relatively flat, with some minor undulations, with the site being a similar elevation or slightly lower than Pleasance Road and as such the Development would not be located on a hill as suggested.</p>
<p>Proximity and visual impact from local houses and the main road</p>	<p>The Development would be located behind/ to the side of the substation when viewed from the A90 so the visual impact would be limited to transient users of the road and would very much be in the context of the substation and the overhead electricity transmission lines. Existing vegetation alongside the road would further create an intermittent view of the Development as the receptor passes through the landscape. A similar statement would be true of users of Pleasance Road and other minor roads in the vicinity.</p> <p>The closest residential properties are those located near the site access point, which are located approximately 300 m from the main compound. This includes a cluster of approximately 5 properties, other receptors would be in excess of 500 m. Many of</p>

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	<p>the properties may have glimpsed views of the Site and the existing substation but views are restricted by existing vegetation, certainly for lower level views. Furthermore landscaping proposals would soften the appearance of the Development and this combined with existing vegetation screening and the low vertical extent of the infrastructure, and the separation distances involved, no significant visual impact is anticipated.</p> <p>Visualisations will be provided with the planning application presenting the Development from Pleasance Road to the northeast of the site, which will also be representative of residential properties.</p>
<p>Concerns about floodlighting and light pollution.</p>	<p>Lighting is proposed for security purposes only. This will be motion activated and given the site would be remotely operated the lighting would be very seldom used. The lighting would be on columns in the corners of the compound and would face into the site such that any light pollution would be minimised and for short duration.</p>
<p>Decommissioning process (restitution clause?)</p>	<p>It would be the Council's decision to secure a decommissioning bond or plan through planning condition if they felt this was required.</p>
<p>Visual intrusion in an otherwise agricultural environment</p>	<p>See above response to impact on local roads and houses.</p>
<b>ENVIRONMENTAL ISSUES</b>	
<p>Concerns about impact to local wildlife</p>	<p>A preliminary ecological appraisal has been undertaken and will be submitted with the planning application. This has assessed the habitats present on site and considered the potential impact of the Development on protected species. This report concluded that no sensitive habitats, protected species or invasive species were recorded during the survey. Recommendations have been provided in respect of breeding birds and reptiles and amphibians, which will minimise the risk of non-compliant or illegal activities on sensitive ecological features. It is anticipated that these recommendations would be secured by an appropriately worded planning condition attached to any planning consent which may get granted.</p>

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<b>FLOOD RISK ISSUES</b>	
Development is located in Flood Zone 2 – Any measures in place to protect from flooding?	<p>A flood risk assessment has been undertaken and will be submitted with the planning application.</p> <p>The risk of flooding at the Site from all sources is assessed as Negligible, with the exception of fluvial flooding which is considered to be low.</p> <p>There is no electrical infrastructure in the west of the Site, which is the only part of the site classed as Medium Likelihood of flooding (Moderate to High Risk). Modelled outputs from the Coupar Angus Flood Protection Scheme Stage 2 Report show that the Development is outwith the 1:200 year flood extent plus a 20 % allowance for climate change. A 600 mm freeboard allowance has been added to the maximum flood depth at the site and all aboveground electrical infrastructure is above the freeboard level. The Development should be classed as ‘essential infrastructure’ under SEPA’s Flood Risk and Land Use Vulnerability Guidance as it has to be located near the existing substation for operational reasons, which itself is located close to Coupar Burn. It is therefore acceptable as an exception to the risk framework outlined in Scottish Planning Policy.</p>
<b>SAFETY ISSUES</b>	
Access for emergency services	The access road proposed will provide 24-hour access to the site for both maintenance vehicles but also emergency services. The road proposed will form part of the Development for the period of time that the Development is operational.
24-hour security	<p>Construction of the Development would be undertaken in accordance with best practice and relevant Health and Safety legislation, utilising appropriately qualified contractors. Security arrangements will be in place during construction.</p> <p>Once operational a perimeter fence would enclose all permanent elements of the Development. This would be a 2 m high palisade fence, the colour of which would be agreed with the Council through an appropriately worded planning conditions attached to any consent.</p> <p>Approximately four poles would be mounted with directional static CCTV cameras and security lighting. These have been located at each corner of the fenced compound. It would be ensured that the cameras and lighting are inward facing and do not result in amenity issues through light pollution. The indicative security column would be approximately 6.0 m in height and 0.1 m in width. Given that the site is unmanned and remotely operated there would only be a requirement for lighting to be triggered in very occasional circumstances.</p> <p>Elevation drawings of these elements will be submitted with the planning application.</p> <p>It is considered that the proposed security measures would be adequate to prevent trespassing onto the site.</p>

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Fire suppression (hydrant on site for fire services?)	Concerns have been raised over the safety of the Development, particularly given that it is remotely operated. Lithium-ion battery facilities are equipped with high level monitoring, automatic alarms and fire suppression systems. Below is a summary of the typical safety system that could be installed, depending on the final technology provider.
Safety of residents and passing traffic in the event of an explosion	In terms of container level safety the main features include: <ul style="list-style-type: none"> <li>• Control software to monitor key components in the system and ensure operation within safe parameters, with access to voltage, current, temperature, and multiple types of fault detection.</li> <li>• If operation is outside normal conditions of voltage, current, temperature the above system to gradually fold back power or under severe conditions (e.g. ground fault) immediately cease operation to prevent hazard.</li> <li>• Video surveillance security system could be available to provide remote video of conditions inside and/or outside the containers.</li> <li>• Containers are designed to operate or fail safely under extreme environmental conditions.</li> </ul>
Explosion control measures	There are also integrated on-board fire detection and suppression systems which will activate upon detection of smoke or heat. The system has a centrally located internal strobe light/horn to provide indication of smoke and fire detection for personnel inside the container, and three external strobe lights for personnel outside the container. The system uses a gaseous, clean, firefighting agent to suppress fire.
Control measures for any leakages?	Given the above systems, any potential safety risks have been adequately mitigated by the Development.
<b>BATTERY TECHNOLOGY QUESTIONS</b>	
Type of battery technology?	Lithium ion technology is the most likely at this stage
Total storage capacity (MWh)	This is yet to be determined. The site can be designed to either be of higher output for a shorter duration or a lower output for a longer duration. Planning permission will be sought for the infrastructure detailed within the application and shown on the site layout plan. This would be the maximum infrastructure, with the maximum dimensions, that would be constructed.
Maximum discharge power (MW). Charge and discharge rates.	
Modularity of installation?	Planning permission will be sought for the infrastructure detailed within the application and shown on the site layout plan. This would be the maximum infrastructure, with the maximum dimensions, that would be constructed. The exact configuration of the batteries is not known at this stage.
Modular cost separated from construction, operation and management costs.	This information is commercially sensitive and cannot be provided

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How much time would it take to charge batteries from empty?	This would depend on the nature and properties of the battery to be installed, which has not been confirmed at this stage.
Lifespan of batteries? How often would they need to be replaced. In terms of number of charge/discharge cycles and anticipated years to replacement.	
Operating voltage of batteries (series/parallel/single ?)	