



An
Bord
Pleanála

Inspector's Report ABP-305625-19

Development	10 year planning permission for the construction of a Battery Energy Storage System (BESS).
Location	Industrial Development Agency (IDA) Business and Technology Park, Purcellsinch, Dublin Road.
Planning Authority	Kilkenny County Council
Planning Authority Reg. Ref.	19/515
Applicant(s)	Greener Ideas Limited.
Type of Application	Permission.
Planning Authority Decision	Grant Permission with Conditions
Type of Appeal	Third Party V. Grant.
Appellant(s)	Eoin Brett.
Observer(s)	None.
Date of Site Inspection	7 th May 2020.
Inspector	Susan McHugh

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1.0 Site Location and Description

- 1.1. The appeal site is located in the Industrial Development Agency (IDA) Business and Technology Park, Purcellsinch Business Park, approximately 3km to the east of Kilkenny City centre.
- 1.2. The site is bounded to the north by units within the Business and Technology Park, to the east by agricultural fields, to the south by Sion Road and to the west by the Purcellsinch Wastewater Treatment Plant.
- 1.3. The River Nore is located approx. 200m to the south. The River Poccocke which is located approx. 95m to the west and is a tributary to the River Nore.
- 1.4. The Business Park is served by an internal access road which runs to the north of the appeal site and from which it is proposed to provide access.
- 1.5. The site largely consists of two fields currently used for grazing. The gradient drops in a south-westerly direction from 48AOD in the northeast corner to 42AOD along its southern boundary adjoining the River Nore.
- 1.6. Boundaries are demarcated by scrub to the north, hedgerows and trees to the south and mature trees to the west while the eastern site boundary remains undefined.
- 1.7. The closest residential property is located opposite the appeal site to the south of Sion Road. Inch Sawmills and residential property are located approx. 150m to the south and is home to the appellant in the current appeal.
- 1.8. The site has a stated area of 1.65 hectares.

2.0 Proposed Development

- 2.1. Permission is sought for a 65MW Battery Energy Storage System (BESS) with associated balance of plant, equipment and buildings.
- 2.2. The applicant Greener Ideas Limited (GIL) is a joint venture company between Bord Gais Energy and Mountside Properties Limited. The applicant states that these facilities are being sought in the electricity market under EirGrid's DS3 Programme that is designed to deliver a secure and sustainable electricity system.

- 2.3. The proposed development will operate by charging batteries using energy supplied from the national electricity grid via underground cables. When required this stored energy can be released to provide grid system services such as stabilising the frequency of the electricity network or provide energy during periods of electricity shortages.
- 2.4. The plant layout will consist of up to 10 battery storage modules (up to 14.6m in length, 2.8m in height and 2.4m in width) and ancillary equipment including up to: 14 no. transformers, 28 no. inverters, 14 no. ring main units.
- 2.5. The modules will consist of steel modular units assembled in rows over a permeable granular compound surface. The modules will be similar in appearance to standard shipping containers and will be placed on concrete plinth foundations approx. 250mm above the general site level.
- 2.6. The precise BESS arrangement, consisting of the battery storage modules, transformers, inverters and ring main units, to be used at the site are to be finalised prior to construction and will be dependent on commercial and technical issues at the time of procurement. It is stated that the total structure height and boundaries will not exceed that indicated in the accompanying planning drawings.
- 2.7. The module units will house the batteries, fire suppression equipment and associated electrical components. The cable routing between modular units will be above ground or in cable ducts.
- 2.8. The BESS will require an underground cable grid connection to the 110kV Kilkenny Substation which is located approx. 3km to the north-east of the BESS. The underground cable will exit the BESS site to the north and will be routed through the IDA Business and Technology Park and along an unnamed road and the R712 regional road where it will divert into the Kilkenny 110kV substation. The grid connection does not form part of the planning application but is considered in both the EIA Screening Assessment and Screening for Appropriate Assessment.
- 2.9. In the southern section of the site, there will be electrical equipment building (8.25m in height with a footprint of 148m²). The building will house monitoring and control equipment for the BESS along with switchgear for the facility. In addition, the building will contain a storage area, small meeting room, and WC. Potable water will

be sourced from Irish Water's public mains supply, but the remainder of the facility, there is no process water requirements.

- 2.10. A 38kV electrical substation and ESB substation building (6.2m in height with a footprint of 74m²) is located to the east of the electrical equipment building.
- 2.11. A new access road (approx. 75m in length and 6m in width) will be constructed in north south orientation from the existing road network in the IDA business and technology park to the proposed development site. The new access road includes a right of way/way leave on lands owned by the Industrial Development Agency (IDA).
- 2.12. A new asphalt internal circulation road approx. 370m in length and 4m in width will be developed within the modular BESS facility.
- 2.13. There will be 6 no. car parking spaces provided in the southern section of the facility, 2 no. spaces will accommodate operational traffic to the ESBN substation compound and 4 no. will be adjacent to the electrical equipment building.
- 2.14. A storm water underground attenuation tank is proposed within the southern part of the site, with a capacity of 260m³.
- 2.15. In relation to foul wastewater drainage it is proposed to collect domestic waste in an underground foul storage tank with a capacity of 7.2m³.
- 2.16. Security fencing to the site will comprise 3m high paladin security fencing including anti-climb with 'V' provide topping and Concertina Razor Wire with incorporated tension wires. A screening wall up to 3m height is also proposed along the southern side of the modular BESS facility.
- 2.17. Landscaping will comprise native tree and scrub planting along the boundaries of the site. A berm wall up to 2m in height with is also proposed along the southern side of the security fencing along the southern perimeter of the site.
- 2.18. A 10 year planning permission is sought for the BESS plant which is expected to be operational for a period of 25 years.
- 2.19. The application is accompanied by a Planning and Environmental Considerations Report (PECR). This report deals with each of the sections normally contained in an EIS. The report can be summarised as follows:

- *Construction Phase* – A Construction and Environmental Management Plan (CEMP) will be developed and implemented and will include proposals for soil stripping, storage, reinstatement and disposal and silt control measures. It is expected that the site will be elevated to between 43.5m to 44.5m AOD.
- Concrete pouring and filling will be fully controlled to ensure that cement bound materials do not present any pollution risk. All concrete pouring and filling will be supervised and monitored.
- The BESS does not require an Industrial Emissions Licence from the Environmental Protection Agency, as it is not a type of project governed under the Industrial Emissions Directive.
- *Flooding* – The topography of the modular BESS site averages from approx. 42m to 48m AOD with a significant downward slope from the north east corner towards the south west corner. It is proposed that the ‘as built’ modular BESS will have a finished ground level of approx. 44.5m AOD. Based on CFRAM Flood Risk Mapping, the site is located in Flood Zone C and not considered to be at risk of flooding from the Pockocke River and River Nore.
- *Traffic* – A Construction Traffic Management Plan (CTMP) will be implemented to minimise the impact on the IDA business park and on Veolia located to the north of the site. No mitigation measures are envisaged for the operation phase.
- *Fire Safety* – Following the completion of the detailed design of the BESS, a Fire Safety Risk Assessment (FRSA) will be carried out. Mitigation measures to control potential fire include control systems and suitable detection systems.
- *Policy* - The proposed BESS is supported and planned for at national, regional and county level and would not conflict with any of the objectives or policies detailed in the report.
- *Noise* – Plant will be designed to ensure that during normal operation noise contribution to the nearest noise sensitive location will comply with the noise criteria in the EPA Guidance Note for Noise.

- *Ecology* – Field surveys were undertaken by Mott MacDonald on 21st July 2017 and 29th May 2019. This included a bat and bird survey which identified the Kingfisher, and otter holt in the Pococke River approximately 200m to the north east. A report for Stage One Screening for Appropriate Assessment of the proposed BESS determined that the construction and operation of the BESS will not have effects, either alone or in-combination with other projects on the Natura 2000 network.
- *Soils Geology and Hydrogeology* – A previous site investigation in March 2011 found no evidence of contaminated soils. Mitigation measures proposed to protect against the possibility of spillages and/or leaks associated with the storage of resins and other hydrocarbons/chemicals are low as there are no significant quantities stored on site.
- *Landscape and Visual Impact* – Overall significance of landscape and visual impact is deemed to be slight.
- *Archaeology and Cultural Heritage* – There are no archaeological monuments within the site. The nearest recorded monument is a lime kiln (RMP KK19:104) located 100 metres to the east of the site.

2.20. The Planning and Environmental Considerations Report (PECR), also includes the following appendices;

- Letter of consent from the IDA to provide a wayleave to access site,
- Environmental Impact Assessment screening report,
- Environmental Monitoring Plan,
- Photomontages and Landscape Mitigation Plan,
- Site investigation report,
- Boundary treatments and sightlines at neighbouring properties,
- Appropriate Assessment screening report.

3.0 Planning Authority Decision

3.1. Decision

The planning authority decided to **grant** planning permission subject to 15 no. conditions. Conditions of relevance to the appeal are as follows;

- Condition 1. Compliance with plans and particulars.
- Condition 2. Section 48 Development Contributions.
- Condition 3. Waste Management Plan.
- Condition 4 & 5. Construction and Operational Environmental Management.
- Condition 6. Environmental Measures and Monitoring to incorporate recommendations contained in the (PECR) and associated documentation.
- Condition 7. Water supply arrangements.
- Condition 8. CFO requirements.
- Condition 9. Vehicular entrance and sightline requirements.
- Condition 10. Archaeological requirements.
- Condition 11. Hours of construction.
- Condition 12. Undergrounding of service cables.
- Condition 13. Surface water requirements.
- Condition 14. Landscaping requirements.
- Condition 15. Environmental Management detailed requirements.

3.2. Planning Authority Reports

3.2.1. Planning Report (dated 13/09/2019)

3.2.2. Basis for the planning authority decision. It includes;

- EIAR is not mandatory.
- AA notes surface water run-off will discharge to the surface water collection system in the IDA Business Park which in turn discharges to the Poccocke River thereby giving a hydrological connection to the SAC.

- Requirements of the Seveso III Directive are not applicable.
- *Noise* – Predicted noise levels at all noise receptors are not exceeding EPA noise limits.
- *Visual Impact* – Migratory planting and fencing proposed will result in this plant being screened significantly from its surroundings.
- *Health and Safety* – Assessments from an environmental and fire safety perspective raise no major issues.
- *Traffic* – The main traffic will be associated with the construction element of the plant and is not deemed to have an adverse impact on the local road network.
- *Flooding* – Site is not subject to flooding.
- *Archaeology* – There are no recorded monuments on site but relevant condition to be attached.
- *Impact on Ecology* – Perceived that this development will not negatively impact on the nearest Kingfisher nest site. Notes that bats do not appear to have been addressed but that they have in the previous application. No linear habitat linking the bat roost to the site, and noise and lighting are not an issue.
- *Final Design of the BESS* – Has not been submitted. Total structure height and boundaries will not exceed that indicated within the application, thus any impact on the number of modular units, transformers, inverters or ring main units will have a lesser impact than presented in submitted reports.
- SAC - PA satisfied with the findings of the AA screening, EIA screening, the Environmental Management Plan and all submitted reports, and that the proposed development will not impact negatively on the ecology in this area nor the SAC and its protected species.

3.2.3. Other Technical Reports

Roads: Report dated 4/09/2019 recommends no objection.

Area Engineer: Report dated 12/09/2019 recommends no objection.

CFO: Report dated 14/08/2019 no objections subject to requirements.

3.3. Prescribed Bodies

Irish Water: Report dated 8/08/2019 recommends no objection.

3.4. Third Party Observations

Two third party objections were lodged with the planning authority from the following parties;

- John Brett, Sion Road, Kilkenny.
- Eoin Brett, Sion Road, Kilkenny.

These have been forwarded to the board and are on file for its information. The issues raised are comparable to those raised in the third party appeal and summarised in section 6 below.

4.0 Planning History

4.1. Appeal Site

P.A.Reg.Ref.17/818 ABP Ref. 301797-18: Permission **granted** 14/03/2019 for the construction of a 100MW Battery Energy Storage System (BESS) with associated balance of plant, equipment and buildings including; a BESS building of 8m height, 82m length and 44m width (comprising on the ground floor a battery rack room, meeting room, Contractor/Storeroom, wet room, UPS room, switch gear room, WC, Transformer rooms, Inverter rooms; and on a mezzanine floor a HVAC/Store room); 2 no. 905m³ firewater storage tanks; an underground 830m³ surface water attenuation tank; an underground 1,030m³ firewater retention tank; a 110KV electrical substation and control building of 5.2m height; an access and circulation road with new junction onto an existing IDA private road; footpath, 8 no. car parking spaces; landscaped berm wall up to 2.0m height and native tree and scrub planting, 3m paladin security fence; and all other associated site development works including

surface water and foul drainage required to facilitate the developments, by Greener Ideas Ltd.

A Planning and Environmental Considerations Report, and EIA Screening Report were submitted in support of this application. (See file attached).

P.A.Reg.Ref.12/472 ABP Ref.PL.10.242247: Permission **granted** 13/12/2013 for revised layout to the permitted 100 MW open cycle Gas Turbine power station design modifications to the development granted previously under Reg. ref. No. 07/2164 and PL.10.230211 with associated balance of plant, equipment and buildings including: an open cycle gas turbine with 26m exhaust stack and 15m air vent stack, air inlet filter; heat exchanger, power control module, generator and generator transformer; 110kv electricity substation and control building; LV electricity substation; emergency diesel generator; cooling tower; gas compressor building; above ground gas installation compound; 3 no. subterranean process water and rain/storm water tanks; administration/workshop/stores/control building and 7 no. car parking spaces; 1,610m³ bunded light fuel oil storage tank; 5,500m³ raw water storage tank; water treatment building; 1,300m³ demineralised water storage tank; the construction of a 71.5 linear metre site access road and new junction onto the IDA business and technology Park access road to the north of the site; refurbishment of an existing pumphouse and river abstraction chamber; and all other ancillary buildings and associated site development works below and above ground to facilitate the development subject to 18 conditions.

An EIS and NIS were submitted in support of this application.

P.A. Reg.Ref.07/2164 ABP Ref.10.230211: Permission **granted** 06/02/2009 for a 100 MW open cycle Gas Turbine Plant. with gas turbine hall 8.75 metres high, maintenance bay, exhaust stack 20 metres high, air vent 20 metres high, air cooler, water cooler, power control module, main transformer, auxiliary transformer, bunded fuel oil tank 900 m³, raw water tank 600 m³, water treatment module, treated water tank 600 m³, firewater module, tanker unloading area, office/workshop, access road, and associated site development works subject to 13 conditions.

4.2. *SID Pre – Application*

ABP-301392-18 Pre-application consultation request in respect of laying of a 110kV underground electricity cable required to facilitate the connection of either a permitted Battery Energy Storage System or a permitted Open Cycle Gas Turbine and connection to the national transmission grid at the existing 110kV substation at Scart, Co. Kilkenny. The 110kV substation is located approx. 3km from the appeal site. Determined 12/07/2019 not to be Strategic Infrastructure (SID).

5.0 **Policy Context**

5.1. **European Policy**

EU Directive 2009/28/EC – Energy from Renewable Resources sets a target of 20% of EU energy consumption from renewable sources and a 20% cut in greenhouse gas emissions by 2020. As part of this Directive, Ireland’s legally binding target is 16% energy consumption from renewable sources by 2020. Ireland has set a non-legally binding target of 40% of renewable energy share for electricity by 2020 (from a 2012 position of 19.6%).

5.2. **Irish Energy Policy**

5.2.1. **National Planning Framework (NPF), Government of Ireland, 2018**

The National Planning Framework (NPF), is the overarching national planning policy document. The transition to a low carbon and climate resilient society is one of ten National Strategic Outcomes (NSO’s) for the NPF. The framework notes that in the energy sector, transitioning to a low carbon economy from renewable sources of energy is an integral part of Ireland’s climate change strategy. National Policy

Objective no. 55 is “to promote renewable energy use and generation at appropriate locations within the built and natural environment”. It is also an action of the NPF under NSO no. 8 to “reinforce the distribution and transmission network to facilitate planned growth and distribution of a more renewables focused source of energy across the major demand centres”.

5.2.2. **Ireland's Transition to a low carbon Energy Future 2015-2030**

The white paper on energy policy (Department of Communications, Energy and Natural Resources – Dec 2015) provides an energy policy update for Ireland. It sets out a vision to reduce greenhouse gas emissions by between 80% and 95% by 2050, compared to 1990 levels, falling to zero or below by 2100.

5.2.3. **Climate Action Plan 2019**

The Climate Action Plan 2019, published on June 17th, 2019 by the Department of Communications, Climate Action and Environment, set out a 'roadmap' with actions to achieve a net zero carbon energy system by 2050, and in the process, create a resilient, vibrant and sustainable country.

The Climate Action Plan states that increased levels of renewable generation will require very substantial new infrastructure, including energy storage such as the proposed development.

Action 18: Ensure that ESB Networks and EirGrid plan network and deliver on connecting renewable energy sources to meet the 2030 70% RES-E target; and

Action 19: Facilitate additional hybrid connections (e.g. solar/wind/batteries) operating in the electricity market to increase RES-E penetration.

5.2.4. **Strategy for Renewable Energy, 2012 – 2020**

This Strategy reiterates the Government's position that 'the development and deployment of Ireland's abundant indigenous renewable energy resources, both onshore and offshore, clearly stands on its own merits in terms of the contribution to the economy, to the growth and jobs agenda, to environmental sustainability and to diversity of energy supply'.

5.2.5. **National Renewable Energy Action Plan (NREAP)**

The NREAP was submitted to the European Commission in 2010. It sets out Ireland's approach to achieving legally binding targets, with a target of 40% of electricity consumption to be from renewable sources by 2020. A fourth progress report on the NREAP was submitted to the European commission in February 2018

which detailed an installed capacity of wind power and solar power in electricity generation of 2,827MW and 5.93 MW respectively (Table 1.b).

5.2.6. Regional Spatial and Economic Strategy 2040

The Southern Regional Assembly has prepared a Regional Spatial and Economic Strategy 2040 which supports the implementation of the Government's Climate Action Plan 2019. The RSES has identified three priority areas for action to address climate change and to bring about a transition to a low carbon economy and society, which include decarbonisation, resource efficiency and climate resilience.

5.2.7. Regional Planning Guidelines

The South-East Regional Planning Guidelines 2010-2022, state at section 2.3.3- "The Electricity Grid Network is a vital infrastructure network for the region. Eirgrid have produced a Strategic Plan, GRID 25, which sets out the future requirements of the electricity network up to 2025. The Regional Authority supports the development and expansion of the GRID network and future connections to renewable sources of energy". Chapter 6 supports security of energy supply, renewable energy targets, upgrade of the national grid. Objective PPO 6.5 states- "The Regional Authority supports the sustainable development and expansion of the GRID network and future connections to renewable sources of energy subject to appropriate assessment of all necessary environmental considerations".

5.2.8. The Planning System and Flood Risk Management Guidelines 2009

National guidance on flood risk management is contained within the Department's document 'The Planning System and Flood Risk Management'. In essence the guidelines seek to avoid development in areas at risk of flooding, substitute less vulnerable land uses and if avoidance and substitution are not possible, mitigate and manage risks. Less vulnerable development is considered to include commercial development.

Exceptions to the restrictions on development due to potential flood risks are provided through the use of a justification test. In this regard the Guidelines

recognise that some existing urban centres may have been targeted for growth, and also recommend a precautionary approach.

The Guidelines are issued under Section 28 of the Planning and Development Act 2000 as amended and the Board is required to have regard to them.

5.3. Development Plan

5.3.1. The **Kilkenny City and Environs Plan 2014-2020** is the operative plan.

5.3.2. The site is located on lands zoned '**Industrial/Technology Park**'. The objective is *"to provide for industry and information technology-related industrial and office development and ancillary services. The purpose is to encourage mainly services type employment on a campus environment"*.

Permitted Uses include industrial premises and office based industry, car parks, crèches, local convenience shop, Automated teller machines, open spaces, warehouses, third level education and research and uses open for consideration include recreational use/buildings, public service installations and conference facilities, restaurant and waste transfer stations.

5.3.3. **Section 3.4.5.14** refers to Transitional Areas and it is indicated that *"while the zoning objectives indicate the different uses permitted in each zone, it is important to avoid abrupt transitions in scale and use at the boundary of adjoining land use zones. In these areas, it is necessary that developments are designed in a manner which would not be detrimental to the amenities of the more environmentally sensitive zone. For instance, in zones abutting residential areas particular attention must be paid to the uses, scale, density and appearance of development proposals and to landscaping and screening proposals in order to protect the amenities of these residential areas"*.

5.3.4. **Chapter 11** refers to development management standards.

5.4. Natural Heritage Designations

The following designated European sites are located within 15km of the appeal site.

Location	Designation	Site Code	Distance
River Barrow and River Nore	SAC	002162	230m S
River Nore	SPA	004233	230m S

5.5. EIA Screening

- 5.5.1. The proposed development is not of any type included in Schedule 5 of the Planning and Development Regulations 2001 (as amended) and it does not meet any of the criteria set out in schedule 7 of the Regulations for determining whether a sub-threshold development would be likely to have significant effects on the environment, with regard to the characteristics of the proposed development, its location and the characteristics of potential impacts. Therefore, having regard to the nature and scale of the proposed development, its location within Business Park, and the separation distance to any sensitive location, there is no real likelihood of significant effects on the environment arising from the development. The need for environmental impact assessment can, therefore, be excluded at preliminary examination and a screening determination is not required.

6.0 The Appeal

6.1. Grounds of Appeal

The third party appeal was submitted by Eoin Brett, Inch Sawmills, Sion Road, Kilkenny. The grounds of the appeal can be summarised as follows;

- Resides approx. 150m south of the appeal site.
- Appeal site is within the River Nore valley, Pooke River is 90m west of the plant's site boundary which is within the River Nore SAC and SPA 140m south of the development.
- The use of lithium batteries on this scale is a relatively new concept and has yet to be fully proven. Concern in relation to proximity to SAC and SPA and dwelling.

Health Hazards

- The proposed development poses health and safety concerns in the event of a fire.
- The current proposal is quite different to the previous permitted development.
- Incomplete screening for appropriate assessment in assessing risk of an accident and fire.
- Mitigation measures refer to a FSRA which was not submitted as part of the application, and therefore no risk assessment of impact of a fire on the appellant's property, the SAC/SPA, and walkers along the Trail Kilkenny path which runs adjacent to the Development.
- Concern that on-site firewater tanks that were part of the previous application have been omitted and that the site will be monitored remotely. The issue of omitting the firewater tanks is not addressed by the planner or Kilkenny Fire and Rescue Service. A precautionary approach of the Habitats Directive should apply and the development should be refused in light of the unknown impacts to Natura sites.

Validity of Application

- A final design of the BESS has not been submitted, and therefore the Board are unable to undertake a proper assessment of the application. Given the permutations of different plant layouts and industrial components disagree with the P.A. that the AA and other assessments by the developer are definitive. A precautionary approach of the Habitats Directive should apply and the development should be refused in light of the unknown impacts to Natura sites.

Incomplete and deficient AA Screening Report

- Absence of a final design of the BESS and consequent detailed design an assessment of the fire hazards has not been completed. The proposal is premature pending the completion of a fire safety risk assessment (FSRA).
- Unclear how noise modelling could have been undertaken if the final design of the BESS has not been decided.

- *Mitigation Measures* - Disputes reference in EMP that ‘*specific mitigation measures against operational pollution are not considered necessary*’ given that the plant will store a significant quantity of lithium ion, a chemical that’s toxic to humans and wildlife, and contravenes the precautionary principle of the Habitats Directive considering the plant is hydrologically connected to the River Poccocke SAC and River Nore SPA. Batteries are known to leak so lithium ion could be washed into the sites stormwater drains and discharged into the River Poccocke via the IDA Storm water system. Similarly, in the event of fire where firewater mixed with lithium – ion would be washed into the River Poccocke via the drain system. Notes condition attached which only allows for clean stormwater to be discharged, and that other conditions are not strict enough to guarantee the SPA and SAC are not adversely impacted.
- *Specific Mitigation Measures* – are cited in the AA Screening report, therefore the findings of the AA Screening report are dependent on mitigation measures. Refers to the Court of Justice of the European Ruling (People Over Wind and Sweetman Vs Coillte Teoranta) which found that measures intended to avoid or reduce the potential harmful effects should not be taken into account when screening for likely significant effects.
- *Grid Connection* – No proper planning proposal has been made for the electricity cable that will connect the plant to the grid, which is fundamental to the operation of the plant. Assert that the Screening report’s assessment of the accumulative effects is deficient as details of the cables route are not comprehensive. Contend that the remedy is for the current application to be withdrawn and a single planning application for both plant and cable be submitted instead. This issue is not addressed in the planners report.
- *Risk of Pollution to SPA and SAC* – Applicant identifies in the PECR and AA screening report that the European Sites are within the plant’s zone of influence for noise, air and water quality impacts. Applicant identifies a hydrological connection and risk of pollution from plant to the European sites on pg. 17 of the EIA Screening report. Contends that the AA screening report and related PECR are incomplete, that significant impact to these sites cannot

be ruled out, and with respect to the clauses around the Habitats Directive the application should be rejected by the Board.

- *Groundwater Contamination* - Notes groundwater contamination underlying the site from a historic heavy-oil spill 100 yards from east of the site, and that it is highly likely that the sites soils are contaminated with the same heavy oil. Concern that in a rain event contaminated runoff could flow into the Nore or Pocock due to the topography of the site and river valley.
- *Noise* – Appellant already experiences serious noise issues from Purcellsinch Waste Water Treatment plant, and further noise will be produced during the BESS's construction and operation. Notes that there was no decibel noise limit in the conditions attached and therefore protection of the European sites cannot be ensured as the conditions are not strict enough.
- *Ecology* – Notes otter activity in the river less than 150m from the plant, and proximity of a Kingfisher nesting site approx. 200m from the site boundary. Not satisfied therefore, that the project will not impact on the Kingfisher. Also notes a bat roost inside buildings 150m south of the proposed plant. This was omitted from the scope of the July 2017 Mott McDonald survey, therefore the implications for the roost were not assessed in the AA Screening Report.

6.2. Applicant Response

No further response.

6.3. Planning Authority Response

The planning authority in their response has no further comments.

6.4. Observations

- 6.4.1. Having regard to the proposed development being located in close proximity to a Recorded Monument Lime Kiln Reference KK019-104, to the River Barrow and River Nore Special Area of Conservation and River Nore Special Protection Area, the application was referred by the Board to a number of prescribed bodies.

6.4.2. These included An Taisce, Department of Culture, Heritage and the Gaeltacht, The Heritage Council, An Chomhairle Ealaíon, and Fáilte Ireland. No reports were received.

7.0 **Assessment**

The main issues in the appeal are those raised in the grounds of appeal and I am satisfied that no other substantive issues arise. Appropriate Assessment also needs to be considered. The issues are addressed under the following headings;

- Principle of Development
- Design Scale and Layout
- Landscape and Visual Impact
- Drainage and Flood Risk
- Noise Impacts
- Fire/Health and Safety
- Ecology
- Other Matters
- Appropriate Assessment

7.1. **Introduction**

7.1.1. I draw the Boards attention to the most recent planning history under P.A.Reg.Ref.17/818 ABP Ref. 301797-18 granted 14th March 2019 for a Battery Energy Storage System (BESS).

7.1.2. The applicant states that since submitting and receiving planning permission for the previously permitted BESS Building Layout, Greener Ideas Ltd. GIL have received greater definition on the D3 system services that EirGrid will be tendering. ESBN have also provided further information on the capability of the local grid network. This refined information has guided consultations with GIL's supply chain partners from which a modular BESS design has emerged as the most suitable configuration for the site. This is subject to securing the necessary planning consent and alignment with the delivery programme for the impending DS3 commitment.

- 7.1.3. In comparison to the previously permitted BESS development permitted by the Board, the output of the modular BESS has been reduced from 100MW to up to 65MW, supported by up to 10 no. modular units. Due to the optimised modular design of the BESS, the proposal reduces the development footprint. As such the modular solution will have a relatively shorter construction period.
- 7.1.4. I have based my planning assessment on the information on file, which I consider sufficient to carry out an assessment, particularly in the context of the current proposal which is for a significantly smaller development than that previously permitted on the site. I would however, draw the Boards attention to the fact that the current proposal does not provide details of the dimensioned floor plans, elevations or section drawings or details of finishes and materials of the proposed battery storage building.
- 7.1.5. Proposals in relation to a fire suppression system, although subject to a different legislative code and not within the remit of planning, are also not indicated. This is particularly relevant in the context of the third party appeal and appropriate assessment issues which are discussed in section 7.7 and 7.10 of this report below.
- 7.1.6. The Board may consider that insufficient information has been submitted with the application to allow a full assessment of the proposal and request details of the proposed battery storage building and fire suppression system be submitted by way of further information and circulated to the appellant for comment. This may be appropriate in this instance in the interest of fair procedure.

7.2. Principle of Development

- 7.2.1. There are no national guidelines in relation to battery storage facilities such as the one proposed.
- 7.2.2. Under the terms of the Paris Agreement, Ireland has undertaken to reduce greenhouse gas emissions by 20% – as measured between 1990 levels and 2030 levels. “A Roadmap for Moving to a Competitive Low Carbon Economy in 2050” – is a European Commission document highlighting the need for urgent and significant investment in renewable energy, low carbon technology and grid infrastructure. The White Paper on “Ireland’s Transition to a Low Carbon Energy Future (2015-2030)” sets out a framework to achieve the statutory targets set out by the EU. The target of

16% of energy consumption from renewable sources by 2020, is included. There are energy-efficiency targets also. Para 161 states- “Electricity storage is expected to play an important role in facilitating the development of intermittent renewable energy technologies like wind, solar PV and ocean energy. The EU’s Energy Roadmap 2050 confirms that storage technologies remain critical and that future integration of RES-E will depend on increased storage capacity. Electricity storage can be deployed in a number of circumstances in Ireland including at grid-scale and at consumer level”. The Eirgrid strategy document Grid 25 (published in 2008), indicates plans for upgrading the transmission grid up to 2025. Battery storage is considered an important element in helping to develop the grid. The National Planning Framework – Project Ireland 2040, indicates, under the heading ‘Green Energy’, that it is an Objective to- “Reinforce the distribution and transmission network to facilitate planned growth and distribution of a more renewables focused source of energy across the major demand centres”.

- 7.2.3. The applicants have set out the rationale for the need for the proposed development and refer to Ireland’s target under the EU Renewable Energy Directive (2009/28/EC) which is for 16% of the country’s total energy consumption to come from renewable energy sources by 2020. The provision of the BESS will help integrate the increased connection of renewable energy generation, in particular wind energy, into the electricity grid by providing response capabilities to support the network. The control system within the facility monitors the grid frequency and reacts automatically when the frequency deviates from the desired limits. The available support will mean that Ireland can continue to invest in renewable sources of power as the infrastructure is already here to support the frequency grid. I am satisfied that the proposed development is in accordance with national policy in relation to renewable energy.
- 7.2.4. The Kilkenny City and Environs Plan 2014-2020 indicates that the site is located on lands zoned ‘Industrial/Technology Park’. The objective of this zoning is *‘to provide for industry and information technology-related industrial and office development and ancillary services. The purpose is to encourage mainly services type employment on a campus environment’*.
- 7.2.5. The Land Use Zoning Matrix lists no use which would approximate to the proposed energy-type use, and so the development must be assessed on its merits.

- 7.2.6. The development could be seen as an industrial type process, and so compliant with the zoning. This view is also consistent with the recent history of planning permissions which have been granted by the Board under PL.10.242247 in December 2013, and under ABP-301797-18 in March 2019, for energy type facilities at this location.
- 7.2.7. I am satisfied, therefore, that the proposed development is consistent with European and National energy policy and is in accordance with the policies and objectives of the Kilkenny City and Environs Plan. The proposed development, therefore, is acceptable in principle.

7.3. Design Scale and Layout

- 7.3.1. The proposed development is on a site L-shaped in configuration with access from the internal IDA road to the north via an existing right of way.
- 7.3.2. The plant layout will consist of up to 10 battery storage modules (up to 14.6m in length, 2.8m in height and 2.4m in width) and ancillary equipment including up to: 14 no. transformers, 28 no. inverters, 14 no. ring main units.
- 7.3.3. The modules will consist of steel modular units assembled in rows over a permeable granular compound surface. The modules will be similar in appearance to standard shipping containers and will be placed on concrete plinth foundations approx. 250mm above the general site level.
- 7.3.4. The applicant has indicated that the precise BESS arrangement, consisting of the battery storage modules, transformers, inverters and ring main units, to be used at the site are to be finalised prior to construction and will be dependent on commercial and technical issues at the time of procurement. It is stated that the total structure height and boundaries will not exceed that indicated in the accompanying planning drawings.
- 7.3.5. The appellant has raised concern in relation to the absence of a finalised design for the proposed BESS.
- 7.3.6. In this regard I would note that the main components of the BESS are located toward the northern section of the main part of the site and close to the western boundary. Drawing no. 262872-MMD-C-DR-01-XX-1003 indicates a rectangular shaped area

which I have measured to be approx. 75m in length and 40m in width and approx. overall area of 3,000m². Plans submitted indicate the dimensions of the battery storage modules and ancillary equipment to be housed.

- 7.3.7. By comparison the permitted BESS building under ABP-301797-18 is 82m in length, 44m in width, and stated floor area of 3,768m², and an overall height of 8m. I am satisfied therefore, that the current proposal consisting of battery storage modules, transformers, inverters and ring main units would have an overall reduced footprint from that previously permitted.
- 7.3.8. Other structures on the site include an electrical equipment building with a stated area of 148m² (indicated on application form as 258 m²) and height of 8.25m. The ESB 38kV substation building has a stated area of 74m² (indicated on the application form as 67m²) and height of 6.2m. Both are located to the south of the BESS building.
- 7.3.9. A stormwater underground attenuation tank is located to the south east of the BESS, with a septic tank located to the south west.
- 7.3.10. There is provision for 6 no. car parking spaces which are located on the eastern side of the electrical equipment building and western side of the substation building. The site of the plant is then proposed to be bounded by a boundary fence and security gates.
- 7.3.11. I am satisfied that in the context of the land use zoning objective for the site, its location within an established Business and Technology Park, the planning history on the site, the reduced scale and footprint compared to that already permitted development on site, that it would be reasonable to recommend a grant of planning permission.
- 7.3.12. I have considered the proposal as suggested by the applicant to attach a condition requiring details and finishes to be submitted to the PA for agreement and subject to a requirement that the height not exceed the height of the permitted BESS building. However, in my opinion this is unnecessary in the context of the current proposed development.

7.3.13. In conclusion the general design, scale and layout the proposed development is acceptable in principle, particularly in the context of the already permitted development.

7.4. Landscape and Visual Impact

- 7.4.1. Chapter 7 of the Planning and Environmental Considerations Report refers to Landscape and Visual Impact. The application was accompanied by Photomontages and Landscape Mitigation Plan included in Appendix D of the PECR, along with details of boundary treatments and sightlines at neighbouring properties included in Appendix F.
- 7.4.2. The site is located within an established IDA Business and Technology Park and is zoned 'Industrial/Technology Park'. There are no specific objectives in the Kilkenny City and Environs Plan to preserve views across the site from Sion Road which forms the southern boundary of the site.
- 7.4.3. The site will be enclosed by a 3m high paladin fence, and additional native hedge and tree planting. A reinforced concrete retaining wall will be constructed along the southern perimeter, which will be screened from Sion Road by constructing a bank and low stone retaining wall on the road side.
- 7.4.4. The Landscape and Visual Impact Assessment (LVIA) considered the development in relation to sensitivity of the receiving landscape and magnitude of impact in or proximate to the site from a number of viewpoints outlined in figure 11 of the report. In relation to visual impact, I would concur with the overall conclusions reached that although the proposed modular BESS would be visible from Sion Road immediately adjacent to the south west of the site but that this viewpoint would not be unduly incongruous or overbearing. I would also note that the residential property immediately south of Sion Road is well screened by mature hedgerow.
- 7.4.5. I note also the Landscape Mitigation Plan Appendix D & boundary treatments indicated in Appendix F along with condition 14 of the Notification of decision to grant permission related to landscaping requirements.
- 7.4.6. I consider that the proposed development by virtue of its setback from the public road and its location adjacent to the existing Wastewater Treatment Plant, and within an established industrial/technology park together with proposed planting, would not

result in a visual intrusion in the landscape and would not detract from the character or visual amenities of the area.

- 7.4.7. I am satisfied, therefore, that the proposed development will not detract from the visual amenities of the area.

7.5. Drainage and Flood Risk

- 7.5.1. Section 2.4.3 of Chapter 2 of the Planning and Environmental Considerations Report refers to water supply and stormwater drainage.
- 7.5.2. Water supply is from the public mains water supply, and water demand within the site will be low as the BESS compound will be typically unmanned. In this regard I note Irish Water had no objection.
- 7.5.3. Storm water is to be attenuated on site and then discharged to the surface water collection system in the IDA Business and Technology Park which discharges to the Pocke River. A volume of 260m³ has been estimated. In this regard I note the Area Engineer of the PA had no objection.
- 7.5.4. Foul drainage generated on the site will be discharged to a treatment plant on the site which will be discharged to a tank with a capacity of 7.2m³ for subsequent collection and disposal off site by a licenced contractor once every 6 months. The system provides for an alarm to prevent the tank overflowing. I have no objection to the proposals submitted.
- 7.5.5. In relation to surface water the appellants raise concern in relation to the potential for contaminated run-off from the site flowing into the Nore River to the south and its tributary the Pocke River to the west, which are part of the River Barrow and River Nore SAC site code 002162 and River Nore SPA site code 004233. The appellants also refer to a previous oil spill to the east of the site and suggest that groundwater and site soils are contaminated.
- 7.5.6. Chapter 6 of the Planning and Environmental Considerations Report refers to potential impacts on soils, geology and hydrogeology and assesses the current conditions on the site and vulnerability of groundwater and also the impact on groundwater wells in the area.

- 7.5.7. The proposals submitted provide for the collection of waste water from all surfaces and discharge to the existing IDA system. The surface water will be attenuated and water flows will be regulated from the site. In addition, silt traps and oil interceptors are proposed to remove materials and hydrocarbons prior to entering the surface water collector system.
- 7.5.8. The report notes that that a commitment for a well monitoring programme was included in the previous planning application for the BESS building project. The report also notes that the proposed modular BESS has a reduced footprint and eliminates the need for any significant excavation works compared to the previously permitted planning application.
- 7.5.9. The report states that resin based transformers will be used instead of oil based transformers adjacent to the battery modules, and consequently consider that there is a very low risk of any operational phase spillage or leakage that might encounter groundwater and prevent a risk to neighbouring wells. I have no objections to the proposals and details submitted.

7.6. Noise Impacts

- 7.6.1. Chapter 4 of the Planning and Environmental Considerations Report refers to noise. The report identifies predicted and anticipated sources of noise during the construction and operational phases and predicts noise generation with reference to sensitive receptors. The report also indicates mitigation measures to ameliorate noise including the use of silencers on plant and screening e.g. noise barriers will be used as appropriate.
- 7.6.2. There is no Irish guidance on the control of noise from energy storage facilities. The main impacts arising during the operational phase would be from plant and equipment which include;
- 1.5 no. 2MVA transformers per module unit, located adjacent to each module, with overall sound power of 82dB(A) and
 - 2 no. condenser/heat pump units (HVAC) located within each modular unit (20 no. in total) and vented louvres at a height of 1m above ground level, with overall sound power of 76dB.

- 7.6.3. The plant and equipment would operate intermittently as required, during day, evening and night time periods.
- 7.6.4. The issue of noise impact and assessment has been raised by the appellants. The appellants home is located approximately 150m south of the proposed development, and assert that they already experience serious noise issues from Purcellsinch Waste Water Treatment Plant. The appellant also queries how noise modelling would have been undertaken if the final design of the BESS has not been decided.
- 7.6.5. I noted on the day of my site inspection mid-afternoon that there was very little background noise from the existing Purcellsinch Waste Water Treatment Plant WWTP located a similar distance from the appellants property.
- 7.6.6. The noise impact assessment carried out included noise monitoring at a number of noise sensitive locations, with location Locn. No.2 next to the appellants parents property along Sion Road, but not from the appellants property located further south. This indicated that the predicted noise level is substantially below the existing background noise levels. Based on the modelling the levels of noise will not exceed EPA noise limits and I would have no objections to the details as submitted.
- 7.6.7. I am mindful that the subject site and the area in its immediate vicinity is zoned for industrial uses, and in land use planning terms the nature of the use proposed is most appropriately located on lands zoned for industrial purposes. The area is the vicinity of the site, while accommodating sporadic residential units, is not densely developed with housing units and in this regard the impact on residential amenity would not in my opinion have the potential to be adverse in this regard. I am also mindful that the appellants own property includes a Sawmill business which in itself generates noise.
- 7.6.8. Having regard to the low level of noise that will be generated, the separation distance to the adjoining residential properties and other noise sources such as the existing Purcellsinch Waste Water Treatment Plant, and a haulier and saw mill business, I consider that impacts arising will be negligible and insignificant.
- 7.6.9. Condition 5 of the Notification of decision to grant permission related to noise, along with air emissions and odours. The appellant notes that there was no decibel noise limit in the conditions attached.

7.6.10. I would concur with the appellant in this respect and consider that if the Board are minded to grant permission it would be appropriate to attach a condition relating to operational noise.

7.7. Fire/Health and Safety

7.7.1. Section 2.7 of Chapter 2 of the Planning and Environmental Considerations Report refers to Health and Safety Considerations.

7.7.2. The grounds of appeal include concerns in relation to the issue of fire risk noting that the current proposal differs to the previously permitted development, in that on-site firewater tanks have been omitted. I can confirm from drawings submitted with the current application that this is the case.

7.7.3. I note that Section 2.7.2 of the PECR submitted with the application indicates that fire suppression systems for the modular BESS will be provided in each individual unit.

7.7.4. It is also indicated that following completion of the detailed design of the BESS, a FSRA of the BESS site and its operations will be prepared and completed prior to operation. It is intended that the FSRA will review the proposed fire suppression measures and controls that are incorporated into the design of each individual module which will minimise the likelihood of fire and mitigate the risk of fire spreading.

7.7.5. I would note that the previously permitted development for a 100MW BESS under ABP Ref. 301797-18 relied on a water based fire suppression system comprising two fire water tanks with a capacity of 905m³. This fire suppression system was assessed and determined to be acceptable from a fire safety perspective.

7.7.6. While it is unclear what fire suppression system will be installed under the current proposal it is nonetheless for a smaller 65MW BESS facility.

7.7.7. I would also note that an alternative fire suppression system such as inert-gas based system for modular BESS has previously been permitted by the Board under ABP-303718-19. I would also note that further information in respect of a water based fire suppression system for a BESS was previously sought by the Board under ABP-302055-18.

- 7.7.8. I am satisfied therefore, that subject to modern technology and a modern gaseous system which is in accordance with fire safety regulations, that this is not an issue warranting refusal in this instance.
- 7.7.9. The appellant has also raised concern in relation to the absence of a Fire Safety Risk Assessment (FSRA).
- 7.7.10. Fire safety and compliance with building regulations is governed separately under the Building Control Regulations. This being said, I note the planning application was assessed by Irish Water and the Fire Authority, and both indicate no objection to the proposed development subject to requirements. No report was received from the Environment Section of the planning authority.
- 7.7.11. Conditions no. 7 and 8 of the Notification of decision to grant permission related to the water supply arrangements and the requirements of the Chief Fire Officer.
- 7.7.12. The proposed development will not result in emissions to air and I am satisfied that subject to design in accordance with fire safety regulations, that emissions to air is not an issue warranting refusal in this instance.
- 7.7.13. Based on the information before me, I am satisfied that Battery storage compounds do not pose risks greater than other renewable energy project and that it is not a planning issue per se. given that it is governed by Building Control Regulations.

7.8. Ecology

- 7.8.1. Chapter 5 of the Planning and Environmental Considerations Report refers to Ecology and an Appropriate Assessment Screening Report is included as Appendix G.
- 7.8.2. The site is not within a designated Natura site.
- 7.8.3. The ecological field assessment was carried out on 12th July 2017 and 29th May 2019. Habitats are identified in figure 10. Mammal, bat, birds, invertebrates, herpetofauna and reptile surveys were also carried out. No protected plant species were identified on the site or any protected animal species.
- 7.8.4. The appellant notes that there is otter activity in the river less than 150m from the plant, and proximity of a Kingfisher nesting site approx. 200m from the site boundary and raises concern in relation to the impact on both from the proposed development.

The appellant also notes the presence of a bat roost inside buildings 150m south of the proposed plant, which was omitted from the scope of the July 2017 Mott McDonald survey.

- 7.8.5. There is no substantial evidence or agreement, however, however, to indicate that the construction of the proposed development will impact in relation to matters of nature conservation interest.

7.9. **Other Matters Arising**

Validity of Application

- 7.9.1. The matters raised relate to the absence of a original design for the BESS.
- 7.9.2. By reference to section 2.0 above, I am satisfied that sufficient information has been provided for the purposes of a planning application.
- 7.9.3. I am satisfied, therefore, that the appeal before the Board is valid and the third party's right to participate is given full effect.

Grid Connection

- 7.9.4. The Planning and Environmental Considerations Report submitted with the application is clear that the grid connection does not form part of the current proposal.
- 7.9.5. However, it is also clear to me that the current proposal is entirely dependent on this grid connection. The nature of the proposal operates by charging batteries using energy supplied from the national electricity grid via underground cables, and when required this stored energy can be released to provide grid system services such as stabilising the frequency of the electricity network to provide energy during periods of electricity shortages.
- 7.9.6. I have had regard to the grid connection pre-application to the Board under ABP-301392-18 and the AA carried out as part of the current application and am satisfied that it is integral to the BESS. On the basis that the BESS does not require an EIAR, I am satisfied that the O'Grianna judgement does not apply.

Remote Monitoring

- 7.9.7. During operation the modular BESS will be generally unmanned but will have intermittent visits by security. The plant will be monitored and controlled remotely by

a Plant Manager through a Battery Power Plant Management System. I consider this to be acceptable.

Decommissioning

7.9.8. Section 2.8 of Chapter 2 of the Planning and environmental Considerations Report refers to Decommissioning.

7.9.9. I note that the BESS plant is expected to be operational for at least 25 years, after which all above-ground plant and buildings should be removed from the site. I note that the planning authority did not require a bond for decommissioning, and neither has it been the practice of the Board to require such.

Archaeology

7.9.10. Chapter 8 of the Planning and Environmental Considerations Report refers to Archaeology and Cultural Heritage.

7.9.11. There are no archaeological recorded monuments within the site. The nearest recorded monument is a limekiln (RMP KK19:104) located 100 metres to the east of the site.

7.9.12. The Board will note that no report was received from the Department of Culture, Heritage and the Gaeltacht, but that condition 8 of the previously permitted BESS building under (ABP-301797-18) set out requirements in relation to the preservation, recording and protection of archaeological materials or features which may exist within the site.

7.9.13. The PECR notes that given the modular design of the proposed BESS, the site preparation groundworks required during construction will be minimal. Nonetheless I recommend that a condition requiring monitoring of removal of material during groundworks should be included in any grant of planning permission.

7.10. Appropriate Assessment - Screening

Introduction

7.10.1. The Habitats Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) requires that any plan or project not directly connected with or necessary to the management of a

European site but likely to have a significant effect thereon, either individually or in combination with other plans or projects shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site. In this regard I note that the subject proposal is not directly connected with or necessary to the management of a European site.

7.10.2. The application was accompanied by a Stage 1 Appropriate Assessment Screening Report included as Appendix G to the Planning and Environmental Considerations Report. The report describes the statutory context, the project, the site, European sites in the area and potential impacts. The report concludes that there is no potential for significant effects on the integrity of European sites from the proposed works, either alone or in-combination with other plans and or projects.

7.10.3. The planning authority also undertook a screening for AA and concluded that significant impacts on the Natura 2000 network could be excluded.

7.10.4. The grounds of appeal under the current application refer to the following relevant AA issues:

- *Risk of Pollution to SPA/SAC* - given the scale and proximity of development to SPA/SAC.
- *Precautionary Approach* - of the Habitats Directive should apply in light of unknown impacts to Natura sites.
- *Incomplete Screening for AA* - in assessment of risk of an accident and fire, significant impact of these sites cannot be ruled out.
- *Mitigation Measures* - reference to a FSRA which was not submitted as part of the application, therefore, no risk assessment of impact of a fire on the SAC/SPA.
- Given the permutations of different plant layouts and industrial components disagree with the PA that the AA and other assessments by the developer are definitive.
- *Mitigation Measures* – Disputes reference in EMP that ‘specific mitigation measures against operational pollution are not considered necessary’

considering the plant is hydrologically connected to the River Poccocke SAC and River Nore SPA. Conditions attached are not strict enough to guarantee the SPA and SAC are not adversely impacted.

- *Specific Mitigation Measures* - are cited in the AA Screening report, therefore the findings of the AA Screening report are dependent on mitigation measures.
- *Grid Connection* – Assert that the Screening report’s assessment of cumulative effects is deficient as details of the cables route are not comprehensive.
- *Noise* – No decibel noise limit in the conditions attached and therefore protection of the European sites cannot be ensured as the conditions are not strict enough.
- *Bats* – Implications for the bat roost inside buildings 150m south of the proposed plant were not assessed in the AA Screening Report.

7.10.5. I am satisfied that the information available on file is adequate to carry out a screening assessment. I follow the staged approach to screening for appropriate assessment as recommended in both EU Guidance and by the Department of Environment, Heritage and Local Government:-

1. Description of the plan or project and local site or plan area characteristics.
2. Identification of relevant Natura 2000 sites and compilation of information on their qualifying interests and conservation objectives.
3. Assessment of likely significant effects-direct, indirect and cumulative, undertaken on the basis of available information.
4. Screening statement with conclusions.

Step 1 - Project Description and Site Characteristics

7.10.6. The proposed development is as described in section 2.0 above and in the application submissions. The key elements for the purposes of AA screening during the construction and operational phase are as follows:

Construction Phase

- *Access Road* - New asphalt access road (approx. 75m in length and 6m in width) will be constructed in a north south orientation from the existing road network in the IDA Business and Technology Park to the proposed development site.
- *Internal Circulation Road* - New asphalt internal circulation road (approx. 370m in length and 4m in width) will be developed within the modular BESS facility, and 6 no. car parking spaces will be provided in the southern section of the facility.
- *Duration* - Enabling works will commence prior to construction of the facility, with construction and commissioning activities lasting for approx. 6-8 months.
- Total number of construction staff on-site will vary during the construction phase of the works and are expected to peak at approx. 20 persons. Site development and building works during the construction phase of development will be carried out only between normal working hours.
- Given the modular design of the BESS, modules will be primarily installed as opposed to constructed on site which will reduce civil or ground preparatory works required. This construction methodology reduces the structural footprint of the BESS and limits potential effects to the receiving environment.
- *Construction Practice* - An Environmental Monitoring Plan (EMP) will be prepared and finalised in consultation with KCC. As part of the EMP, the appointed Contractor will be required to develop a detailed Construction Environmental Management Plan (CEMP) which outlines the construction management measures which will be implemented throughout the entirety of the construction phase. This will include a method statement for soil stripping.
- *Ground Investigation (GI)* - Carried out in 2011 determined the underlying soils are suitable for the foundations associated with the modular BESS. Concrete pouring and filling will be supervised and monitored, and heavy goods vehicles mixers and concrete pumps will be washed out in a designated impermeable area to prevent pollution.

- *Construction Traffic Management Plan (CTMP)* - will be prepared in consultation with KCC in advance of the construction phase of development. The CTMP will also provide for the requirements that the entrances and roads are kept clean and clear of obstructions, and prevent the spillage of clay, rubble or other debris on the entrance and other roads throughout the contract period.

Operational Phase

- *Surface Water Drainage* – Surface water run-off will discharge to the IDA surface water system which is fitted with petrol and forecourt interceptors in line with SUDS practices. New surface water pumps, bypass oil separators and down gullies will be included in the design of the plant.
- *Foul Drainage* – Effluent generated on site will be stored on site and removed by an appropriately permitted contractor for disposal.
- *Noise* - Permanent increase in noise levels from existing background levels but will be in keeping with EPA Limits.
- *Lighting* – Increase in artificial lighting within the immediate area. Lighting Plan will be designed to avoid light spill or glare on the surrounding environment.
- *Fire Protection* – Battery modules will contain stand-alone fire suppression systems. Delivery of the battery modules will include supporting documentation certifying that the fire system manufacturer was involved in the design, relevant certificates, and proofs that the system has been designed in accordance with established best practice and relevant standards. A FRSA will be prepared following completion of the detailed design.

7.10.7. The key characteristics of the development site for the purposes of AA screening are as follows:

- Undeveloped plot within an established business park.
- Currently used for cattle grazing.
- Comprises dry neutral grassland and scrub habitat bordered by hedgerows and treelines. Ecological field surveys of the study area were undertaken by

Mott Mac Donald ecologists on 12th July 2017 and 29th May 2019. There are no habitats of note/relevance identified in the Habitat and Flora Survey.

- Straight line distance from the BESS site to the SAC is approx. 100m to the west and to the SPA is approx. 140m to the south west. There is no hydrological connection between the appeal site and the SAC/SPA.

Step 2 - Identification of relevant Natura 2000 sites Qualifying Interests and Conservation Objectives

7.10.8. By reference to available reports including the PECR, AA screening and field surveys, I am satisfied that the relevant European sites, Qualifying Interests and Conservation Objectives are as follows;

Site Code, Site Name and Designation	Approx. distance from the site	Conservation Objectives; Qualifying Habitats and Species
River Barrow and River Nore SAC (002162)	230m South + 140m to the west (River Pocke)	<p>The generic conservation objective is to maintain or restore the favourable conservation status of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.</p> <p>Estuaries</p> <p>Mudflats and sandflats not covered by seawater at low tide</p> <p>Reefs</p> <p>Salicornia and other annuals colonising mud and sand</p> <p>Atlantic salt meadows</p> <p>Mediterranean salt meadows</p> <p>Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation</p> <p>European dry heaths</p> <p>Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels</p> <p>Petrifying springs with tufa formation</p> <p>Old sessile oak woods with Ilex and Blechnum in the British Isles</p> <p>Alluvial forests with Alnus glutinosa and Fraxinus excelsior</p>

		Desmoulin's Whorl Snail Freshwater Pearl Mussel White-clawed Crayfish Sea Lamprey Brook Lamprey River Lamprey Twaite Shad Salmon Otter Killarney Fern Nore Pearl Mussel
River Nore SPA (004233)	230m South + 140m to the west (River Poccocke)	The generic conservation objective is to maintain or restore the favourable conservation status of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected. Kingfisher

Step 3 - Assessment of Likely Significant effects-direct, indirect and cumulative

7.10.9. In considering the likely zone of impact of the project, I have had regard to the potential for likely significant effects on European sites in the context of the qualifying interests and conservation objectives of sites using the source-pathway-receptor model.

The appeal site is not located within a European site. The main channel of the River Nore is located approx. 230m to the south of the appeal site. The River Poccocke which is also in the River Barrow and River Nore SAC, is a tributary of the River Nore, and is located 140m to the west of the appeal site.

There are no watercourses either within or bounding the appeal site. The appeal site is not in hydrological connectivity with these European sites. It is also physically separated from the sites by intervening development; the waste water treatment plant to the west and the Sion Road, fields and other housing and commercial developments to the south. There is an indirect connection via the IDA surface water system that discharges to the River Poccocke which in turn discharges to the

River Nore. In relation to the River Barrow and River Nore SAC the species of qualifying interest identified is the Otter, and for the River Nore SPA the species of qualifying interest identified is the Kingfisher.

The principal sources of any likely significant effects on the European sites, therefore, are as follows:

Construction Phase

- The construction phase of the proposed development would comprise site levelling, the construction of an internal access road, the installation of the grid energy storage facility and related structures. There would be moderate site clearance and excavation works.
- Adherence to best practice methodologies during the construction phase would control the release of sediments to surface water and prevent surface and ground water pollution as a result of accidental spillages and leaks.
- Species of qualifying interest within the SAC and SPA include Otters and Kingfishers which could be impacted by the potential impact of noise. However, having regard to the nature of the modular unit assembly and the separation distance to the nearest European sites it is unlikely that a short term increase in noise levels within the general vicinity of the site boundary would be significant.

Operational Phase

- With regard to impact on water quality, water discharge on the working area of the site during the operational phase is to an existing surface water drainage system with attenuation measures integrated into the discharge from the site.
- The surface water management strategy approved by the Board in previous applications ABP Ref.PL10.230211, ABP Ref. PL10.242247 and ABP Ref.301797, relied on surface water being discharged to the existing surface water collection system in the IDA Business and Technology Park which discharges to the Pockocke River. There was no report received from the National Parks and Wildlife Service on the current proposal, but the same drainage requirements have been adopted for the current proposed modular BESS facility.
- Species of qualifying interest within the SAC and SPA which could be impacted by noise arising from the development include Otters and Kingfishers. Given the

separation distances from the site, and the actual identified levels of noise likely to be generated, impact on both species is unlikely.

- There is no potential for cumulative impacts in-combination with other plans and projects in the surrounding area, having regard to the contained nature of the works.

The previous application for a larger BESS facility on the appeal site under ABP-301797-18 was accompanied by a Stage 1 Appropriate Screening Report dated December 2017. It was screened for AA by the PA, and by the inspector on appeal to the Board. The Board accepted the report of the inspector in relation to AA screening, and conclusions reached, that significant impacts on the Natura 2000 network could be excluded.

As noted in section 7.7 of this report the previous water based fire suppression system permitted under PA Reg.Ref.17/818 ABP Ref.301797-18 was for a larger BESS facility and represented a worst case scenario. The previous AA screening assessed potential risks of an accident and fire and was determined not to cause an impact on the SAC or SPA.

Step 4 - Screening Statement and Conclusions

- 7.10.10. It is reasonable to conclude, on the basis of the information provided with the application and appeal, including the Appropriate Assessment Screening Report, and in light of the assessment carried out above, I am satisfied that the proposed development individually, or in combination with other plans or projects would not adversely affect the integrity of European sites No. 002162, or 004233 in view of the site's Conservation Objectives, and a stage 2 Appropriate Assessment is not, therefore, required.

8.0 Recommendation

I recommend that permission be **granted** for the following reasons and considerations.

9.0 Reasons and Considerations

Having regard to;

- a) the provisions of the current Kilkenny City and Environs Development Plan 2014-2020, and the zoning of the site as “Industrial/Technology Park”;
- b) EU and National Policy in relation to energy, in particular the development of increased use of renewable energy at national level;
- c) the requirement in EU and National policy to develop technologies for greater and improved efficiency in the production, storage and consumption of energy;
- d) the nature and pattern of uses in the vicinity;
- e) the nature, scale and design of the proposed development, and
- f) the availability of infrastructure in the area,

it is considered that, subject to compliance with the conditions set out below, the proposed development would not seriously injure the residential or visual amenities of the area or of property in the vicinity and would be acceptable in terms of traffic and pedestrian safety. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

10.0 Conditions

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.

Reason: In the interests of clarity.

2. All environmental measures set out in the Planning and Environmental Considerations Report and associated documentation submitted by the applicant shall be implemented in full, except as may otherwise be required in order to comply with the following conditions.

Reason: In the interest of protection of the environment.

3. Details of the materials, colours and textures of all the external finishes to the proposed BESS shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development.

Reason: In the interest of visual amenity.

4. The internal road network serving the proposed development including turning bays, junctions, parking areas, footpaths and kerbs shall comply with the detailed standards of the planning authority for such road works.

Reason: In the interests of amenity and of traffic and pedestrian safety.

5. Prior to commencement of development, the developer shall submit to, and agree in writing with, the planning authority, a proposal for an environmental management system in respect of the proposed development, incorporating provisions for the water, noise, and air monitoring measures required under the conditions of this permission generally, and for the following: -
 - (a) monitoring of ground and surface water quality,
 - (b) monitoring of noise levels,
 - (c) a complaints management procedure,

- (d) details of the site manager, contact numbers (including out of hours) and public information signs at the entrance to the facility,
- (e) a method statement for the ongoing monitoring of groundwater wells, and
- (f) associated procedures for reporting to the planning authority.

Reason: In the interests of orderly development and of the amenities of the area.

6. Removal of hedgerows shall only be carried out outside the designated bird nesting season between the 1st day of September and the 28th day of February. All non-native species referred to in the landscape master plan shall be replaced by native species. Suitable mammal passes shall be provided along all perimeter fencing.

Reason: In the interests of amenity, public safety, and biodiversity.

7. All service cables associated with the proposed development (such as electrical and telecommunications) shall be located underground. Ducting shall be provided by the developer to facilitate the provision of broadband infrastructure within the proposed development.

Reason: In the interests of visual and residential amenity.

8. The developer shall facilitate the archaeological appraisal of the site and shall provide for the preservation, recording and protection of archaeological materials or features which may exist within the site. In this regard, the developer shall:
- (a) notify the planning authority in writing at least four weeks prior to the commencement of any site operation (including hydrological and geotechnical investigations) relating to the proposed development, and

(b) employ a suitably-qualified archaeologist prior to the commencement of development. The archaeologist shall assess the site and monitor all site development works.

The assessment shall address the following issues:

- (i) the nature and location of archaeological material on the site, and
- (ii) the impact of the proposed development on such archaeological material.

A report, containing the results of the assessment, shall be submitted to the planning authority and, arising from this assessment, the developer shall agree in writing with the planning authority details regarding any further archaeological requirements (including, if necessary, archaeological excavation) prior to commencement of construction works.

In default of agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination.

Reason: In order to conserve the archaeological heritage of the area and to secure the preservation (in-situ or by record) and protection of any archaeological remains that may exist within the site.

9. Water supply and drainage arrangements, including the attenuation and disposal of surface water, shall comply with the requirements of the planning authority for such works and services.

Reason: In the interest of public health.

10. Site development and building works shall be carried out only between the hours of 0700 and 1900 from Mondays to Fridays inclusive, between 0800 and 1400 hours on Saturdays and not at all on Sundays and public

holidays. Deviation from these times will only be allowed in exceptional circumstances where prior written approval has been received from the planning authority.

Reason: In order to safeguard the residential amenities of property in the vicinity.

11. Construction waste shall be managed in accordance with a construction waste management plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This plan shall be prepared in accordance with the “Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects”, published by the Department of the Environment, Heritage and Local Government in July 2006. The plan shall include details of waste to be generated during site clearance and construction phases, and details of the methods and locations to be employed for the prevention, minimisation, recovery and disposal of this material in accordance with the provision of the Waste Management Plan for the Region in which the site is situated.

Reason: In the interest of sustainable waste management.

12. The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000, as amended. The contribution shall be paid prior to commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable

indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to An Bord Pleanála to determine the proper application of the terms of the Scheme.

Reason: It is a requirement of the Planning and Development Act 2000, as amended, that a condition requiring a contribution in accordance with the Development Contribution Scheme made under section 48 of the Act be applied to the permission.

Susan McHugh
Senior Planning Inspector

3rd September 2020