



Planning Statement

Bilsham: Land at Northwood Farm, Yapton Road Arundel BN18 0HR

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1.0 Introduction

- 1.1 Alder King Planning Consultants have been instructed by Conrad Energy Limited to submit a full planning application seeking permission for the development of flexible generators on greenfield land at Northwood Farm, Yapton Road, Arundel.

Preamble

- 1.2 The development proposals would provide support to the local grid network, thus increasing the viability of employment and residential related development both locally but also in the wider region. At a local level, the strategic residential allocations in nearby Yapton, (SD7), Ford (SD8) and Climping (SD10) and any future growth in the established Rudford Industrial Estate, will rely on 'flexible power' to help meet the surging demands for reliable power.
- 1.3 The Council's policy SD SP1 is an overarching policy that sets out a presumption in favour of sustainable development. It links to the objectives of the planning system to achieve sustainable development set out in the National Planning Policy Framework (the 'Framework'). Although the proposal relies on fossil fuel for energy generation, it can be considered sustainable as the overarching objectives set out in the Framework are broad. The economic objective would be satisfied, as the proposal would help to secure a sufficient and reliable source of electricity to support the local economy. The development proposals would also satisfy the social objective by providing secure employment and housing, that is not subject to power outages. In terms of the environmental objective set out in the Framework, the proposal would not cause harm to the natural, built or historic environment. Instead, it would make an effective use of a small parcel of land that is well screened along its western / north western boundary by a new bund and landscaping and the existing waste and recycling centre and Northwood Farm complex directly to the east / north east. Furthermore, the proposal would assist in the transition to low carbon electricity generation by providing backup at times when renewable energy generation is low. This has been tested at appeal where the Inspector allowed the development to proceed (APP/W3330/W/20/3251284 and APP/V3310/W/20/3263845) – see **Appendices 1 and 2**.

Useful Precedents

- 1.4 In addition to the above appeals, it is important to note that Conrad Energy have developed a number of flexible gas generator compounds on other greenfield sites around the country. The three applications listed below have direct similarities to the application site, albeit Billericay and Sundon are also located in the green belt which is an even higher test bar to development:
- Down Barn Farm (in operation) - Fareham Borough Council – Ref: P/18/0215/FP
 - Billericay (pre-construction) – Brentwood Borough Council – Ref: 18/01721/FUL
 - Lower Dunton (operational) – Thurrock Council – Ref: 18/01502/FUL
 - Sundon (pre-construction) – Central Bedfordshire Council – Ref: CB/18/04055/FULL
- 1.5 The application proposes lower carbon energy development in the form of a flexible gas fuelled power plant. The glossary to the National Planning Policy Framework defines low carbon technologies as "those that can help reduce emissions (compare to conventional use of fossil fuels)". Although the proposal is not for

a form of renewable energy production, Policy ECC DM1 is relevant in that it refers to proposals for both renewable **and** low carbon development (see further details in the policy section below).

2.0 Site and Surroundings

- 2.1 The application site measures approximately 1.34 hectares and is located on greenfield land, situated in the south west corner of the western most field closest to the TJ Waste and Recycling Centre (see **Figure 1** below)
- 2.2 The site is accessed from the existing gateway on Yapton Road. There is an existing trackway comprising concrete hardstanding, which runs parallel to the old air strip/runway and services the TJ Waste and Recycling centre and Northwood Farm. It then loops round and connects to the existing lorry storage yard/parking place (Sui Generis). The proposed flexible generation site will be accessed from this existing track just before it curves round to the concrete batching plant to the south (see planning history section).
- 2.3 A couple of hundred yards to the south of the site is the 'Ceasefire Café', which is associated with the 'Ford Airsoft Site'; a 10-metre indoor rifle range and 60-yard outdoor range (a 100m range) field target area and Airsoft.
- 2.4 The nearest residential receptors to the site are located over 250m away to the north and comprise two properties called 'Meadow Cottages'. The next nearest residential receptors are located on the opposite side of Yapton Road, circa 1000 metres to the northeast of the site. However, this measurement is as the crow flies and between the application site and the nearest residential properties are the TJ Waste and Recycling Centre and the Sentry Self Storage Yard.
- 2.5 According to the Environment Agency's flood risk mapping, the site is located within flood zone 1 (lowest risk of flooding).
- 2.6 In order to screen the small flexible generator compound from open countryside to the west, the western/north western boundary of the field will comprise a bund almost along its entire length. This, coupled with species rich landscape planting, will create a natural buffer between the field which will also 'house' the recently approved grain store and the rural interface beyond.



Figure 1: Site Location Plan showing application site in red and green arrow to approximate location of new grain store

Planning History

2.7 There is no planning history associated with the application site itself, but below are two relatively recent planning applications that are relevant to the merits of this planning application:

- Planning application **CM/29/21/AG** – An application for Prior Notification for a grainstore incorporating a conditioning floor was approved in June this year directly to the north east of the application site. The proposed building will be 42.7m long, 15m wide, 6m to the eaves and 8m to the ridge. The area earmarked for the new grain store is part of the wider Baird Farming Partnership property and will be used for grain drying. In terms of the officers commentary with respect to visual amenity, in particular 'design' on this application, they stated:
- *"the proposal is for a barn that is similar in size and proportions and appearance to other agricultural barns in the locality and on the farm. The building would be clad in cement fibre board which would match other nearby buildings. The design is of no architectural merit and is typical of a modern farm building. The materials/colour of the building help to blend the building in the landscape".*
- Furthermore, in terms of 'siting' the officer concluded:

“The site is adjacent to farm buildings in an area utilised by farm traffic. The building would be screened from direct view by hedging and other structures to the north and south and east. The site benefits from mature tree screening, and is overlooked to the West by the fields in the agricultural holding only. The building will not be prominent when viewed from the public highway as it will be relatively close to the existing building group. It would not be viewed as an isolated feature in the countryside. From a distance it would be readily assimilated into the appearance of existing buildings. No new internal roads are required as the existing road and access arrangements will be utilised”.

- These conclusions that have been drawn with regard to ‘visual amenity’ are applicable to the application proposals and site. As the proposed site is tucked close to the existing road and access that already serves Northwood Farm and the TJ Waste and Recycling centre, it would be assimilated into the existing landscape. Furthermore, it will now be located to the SW of the proposed grain store building which will screen the flexible generator compound from any views from the north. To the west a new bund with bolstered landscaping will screen any views from the open expanse of fields. Therefore, like the grain store, the flexible generator compound will not be viewed as an isolated feature in the countryside.
- Planning application **WSCC/037/19** – An application for a Proposed Inert Waste Recycling Facility, with new building, hardstanding, car parking, boundary treatment and re-aligned access to the agricultural unit. Includes variation to approved site landscaping and use of internal spaces within the existing Materials Recovery Facility was approved in July 2019. This is broadly relevant to these application proposals as it would involve extending development into land identified as being in open countryside. However, in light of existing built form in this location, the Council viewed this intrusion as being ‘relatively small’ and immediately adjacent to an existing waste site, on land which is already severed from the surrounding agricultural land. With regard to landscape and visual amenity, the Council advised that the ‘proposed materials recycling building has the potential for impact upon the surrounding landscape and the visual amenity of surrounding residents and visitors, however because of its siting amongst industrial buildings of a similar scale, and its distance from surrounding dwellings and public viewing points it was not considered it would have an unacceptable impact on the visual amenity of the surrounding area or the wider landscape’. Whilst it was recognised that the extension to the recycling centre has the potential to give rise to some negative impact upon the amenity of residents, the processing of the operations would be enclosed within the new building so as to secure a negligible increase in noise levels. The same principle can be extended to the flexible generators, which are all to be housed within specific container-like infrastructure.
- Planning application **CM/6/18PL** – A Change of use to develop a concrete batching plant, with associated infrastructure, site offices and parking was approved in July 2018. This proposal is to be sited on the former concrete runway, which runs in a southwest to northeast orientation. From the southwestern end, the runway curves around to the north, before returning to Yapton Road. The proposed concrete batching plant is to be located adjacent to the agricultural barn to the south and on land to the west of the existing lorry park (which separates the site from the Ford Air Rifle Range). It is important to note that in the officer assessment pursuant to CM/6/18PL, the case officer recognised the sustainability credentials of the chosen site location. The sound assessment submitted with the

application concluded that the proposed batching plant operation is not likely to be the dominant feature across receptor locations and as such, the EHO had no objection subject to the imposition of conditions relating to hours of operation. The same judgement can be applied to the application proposals, which are likely to be a lot less intrusive on amenity grounds than a concrete batching plant. It was noted that the maximum number of HGV movements per day could be 76 and the County highways team had no objection to the proposal in terms of vehicle movements, access, highway safety or car parking. Apart from the construction period, vehicle movements associated with the application site will be restricted to routine maintenance checks and therefore would not be as intensive as those operations associated with the concrete batching plant.

3.0 Use Class Classification of the Proposed Use

- 3.1 In order to classify the use of the proposed gas generators, reference has been made to ‘The Land Use Gazetteer’ (3rd edition, 2005), which serves as ‘the comprehensive guide to the land uses and their use classes’.
- 3.2 In assessing the proposal, we have identified three references that are the closest fit in terms of their use. These are:
- Gas turbine place – B2 use class;
 - Generating place – B2 use class; and
 - Generating station (electricity) place – B2 use class.
- 3.3 In addition to these, there are entries for Generating station (thermal energy) place, Generating station (hydroelectric) place, Generating station (electricity) place, and Energy, hydroelectric, generating place. All of which fall within the B2 use class. In short, a use which generates energy, by whatever source, is deemed to be a B2 general industrial use, where an industrial process is carried out.
- 3.4 In reference to the above, it is important to refer to the Appeal Decision (**Appendix 1**) allowed in July last year. In which, within paragraph 5, the Inspector makes clear that he agrees with the above use class judgement. Stating as part of that appeal that, *“evidence submitted demonstrates a range of very similar development types that are within the B use classes. These energy generating uses are so very similar to the appeal proposal that I consider it reasonable to accept that the appeal proposal is within the B use classes for the purposes of the Council’s employment policy”*.
- 3.5 In summary, it is considered that by the nature, character and operations of the “Sentry Self Storage” site (B8) and “TJ Waste and Recycling Centre” (also B2), located in close proximity to the application site, would not be affected by the proposed use.

4.0 Development Proposals

- 4.1 The flexible gas generators are proposed to prevent a 'lights out' scenario in the local area, whereby the demand for electricity exceeds available supply. The proposed development seeks to support the overall vitality and viability of the local economy by ensuring that a sufficient and reliable supply of electricity is available.
- 4.2 The planning application seeks full planning permission to site up to 4 standby gas generators and associated infrastructure for the provision of standby electricity. The generators operate on a short-term basis, taking gas from an existing gas main in close proximity to the site and using it to generate electricity. Which is then fed into the Local Distribution Grid during periods of high demand.
- 4.3 It is anticipated that the development will comprise of 4 containerised generators and ancillary infrastructure (e.g. transformer, DNO switch gear) as indicated on the submitted layout plan.
- 4.4 In summary, it is expected that the site will accommodate the following infrastructure:
- 4 x Generator engines each housed within a container similar to a shipping container; each engine will have its own external transformer and its own radiator fan beside the container;
 - CCTV columns;
 - 1 x substation;
 - 1 Switchgear Room;
 - Clean-waste – bounded by Oil Tanks;
 - 1 Amenity cabin and communications room;
 - 1 Gas Governor and Metering Kiosk;
 - 2.4m palisade fence around the perimeter of the site; and
 - 4m acoustic fence on northern boundary.
- 4.5 The colours of the above infrastructure are detailed in the accompanying application form – holly green – RAL ref: BS14-C-39. This colour is chosen as it is the most common for electrical enclosures in the country as it blends in well with surroundings and is visually unobtrusive.
- 4.6 The compound will house up to four 'genset' containers and their individual transformers along with the other GRP cabins listed above. The generators are encased in a container. On average, the plant will operate for around 4 hours per day up to a maximum of 3,000 hours per year.

Employment Generation

- 4.7 Conrad Energy employs around 120 full time members of staff across its company and buys services from numerous consultants and contractors. Conrad Energy has 46- operational sites, 15 sites in construction and 15 sites in mid to late stage development, totalling over 650MW of assets. The majority of Conrad's workforce, and the great majority of their future growth, are operations engineers employed to maintain and manage the projects.

- 4.8 Generally, employees are divided into 3 main areas across the business – ‘Development’ (working on new sites), ‘Construction’ (building out consented sites) and ‘Operations’. For the purposes of calculating the ‘2 full-time employed staff’, only operational staff are considered. Although, it should be noted that the success of projects, such as the application site, supports the sustainability of the company’s employment in various strands of the business:
- Development of new projects such as this supports a team of 15 full-time members of staff across all projects;
 - Conrad employs a range of back office staff like any business of their size to assist day to day running; and
 - Conrad conservatively estimates that around 6800 hours of external resource is required to construct a project like the application site, which is equivalent to a full-time job for one person over 3.2 years. Conrad adopts a multi-contract approach so contracts with a generator supplier, a gas connection contract (UIP), a grid connection contractor (ICP), the local utility (in this case SSE) and a balance of plant contractor for civils and electrical works. There are also commissioning engineers and a range of smaller contractors for smaller tasks. Some specialist contractors will inevitably not be local based but other contractors are, such as concrete suppliers.
- 4.9 The operations department is structured on a regional basis with a growing team managing assets across the south of England which would include the application site. These engineers are recruited regionally to ensure visits can be conducted efficiently and at short notice. All operational team members are home based.
- 4.10 The operational staff include a number of key roles but predominantly cover onsite maintenance, servicing and safety checks with routine visits usually at least every 2 days. The operations team currently manage 23 sites and is comprised of 31 members of staff, which is 1.4 members of staff per site ratio. Safe working is Conrad’s first priority so a range of maintenance and servicing work require a minimum of 2 staff to be present. In addition, specialist contractors are employed during operations to maintain the sites, this can range from oil removal/replenishment, grounds maintenance and controls system engineers.
- 4.11 As new sites become operational, the company is expanding the operational department by employing more staff.
- 4.12 Conrad Energy trades the electricity generated from its sites via its Asset Optimisation Desk (based in its head office in Abingdon). This supports 8 full time members of staff.
- 4.13 Therefore, overall Conrad believe that 2 full time jobs is a conservative estimate of the equivalent jobs created by the project.
- 4.14 Site construction, laying of underground services and preparation of the foundations and slabs for the generators would take approximately 3 months with a further 3 months required for the delivery and installation of the generators. These would arrive via lorry transport and be craned off into the appropriate location prior to connection to utilities.

- 4.15 Gas is anticipated to be taken from the Medium Pressure mains supply on Yapton Road, connecting to the proposed site via the public highway in the first instance and then along the existing access road that runs parallel to the old runway and services the TJ Waste and Recycling Centre.

Need for the Development

- 4.16 Electricity cannot be stored on the National Grid system so it is generated as it is needed. Supply and demand are then balanced on a second by second basis by the system operator. Risks of security of supply have been growing in recent years because older power stations have reached the end of their lives and the nature of electricity being supplied to the Grid has also changed. Moreover, electricity generated from renewable sources (now an important component of supply) is fast-changing. The generators can start and stop in a few tenths of a second compared to the tens of seconds for traditional power stations. This is '*stacking pressure on regional distribution networks*' (report of the House of Commons Energy and Climate Change Committee on '*Low Carbon Network Infrastructure*', June 2016). Alternative forms of generation and the different character of supply therefore underpin this application. It is important to reference an article published in The Guardian on 20 August 2019 titled '*National Grid blames lightning strike for blackout*'. The strike was one of many to hit the Grid on the same day as 9 August 2019 blackouts but National Grid claims the bolt hit a transmission circuit north of London and managed to bring down two electricity generators more than 100 miles apart in an 'extremely rare and unexpected event'. A report by National Grid concluded that it was unable to cover the twin outages at a large gas turbine power plant in Bedfordshire and an offshore windfarm off the east coast of England because it did not have enough backup¹.
- 4.17 Capacity Mechanism is a service administered and paid for by the National Grid that enables short term predicted shortfalls in electricity supply to be met e.g. as a result of sudden cold weather. This is done through an agreement between the DECC advised by National Grid and the supplier.
- 4.18 Power plants participating in the STOR and CM mechanisms are known as standby generator plants. They help maintain a power supply during peak periods and specific time periods which are to be agreed. The National Grid experiences a large fluctuation in electricity demand throughout the day and the year. Many coal-fired and nuclear power stations have already been decommissioned and renewable electricity generation is increasing (the UK now generates over 33% of its electricity from renewables). The rise in renewable energy is widely supported in government policy and explained in more detail below. However, the rise of renewables leads to a less reliable supply, since renewables depend on natural conditions, for example, less energy generated through solar power in winter months than in summer months. Lack of power supply may also be caused by factors such as serious weather conditions or unplanned shutdowns of existing power plants.
- 4.19 The National Grid experiences a large fluctuation of demand throughout the day and throughout different times of the year. During periods of high demand, the Grid will either reduce the demand, or increase supply. Where unanticipated demand exceeds supply, it can call on a number of short term supplies, including pump storage and capacity mechanism generation plants, but where a supply imbalance is

¹ <https://www.theguardian.com/business/2019/aug/20/national-grid-blames-lightning-strike-for-blackout-ofgem>

identified in advance, the distribution network can be supplemented by capacity mechanism generation. Furthermore, unlike Battery Storage Facilities which need to recharge after short periods, mains connected gas engines can continue to run as needed in rare events of prolonged system instability or outages, ensuring a safe and continuous supply.

- 4.20 When called upon, capacity generators can produce electricity very quickly, reaching maximum output within a few minutes. The providers of capacity mechanism generation quickly begin to generate power and rebalance the system, providing a regular buffer within the electricity supply to ensure that demand can be met and reduce the likelihood of power cuts.
- 4.21 The nature of capacity mechanism plants is that operators are required to guarantee that their plant will be available at specific times and days of the week, known as ‘availability windows’. This means that the engines will not be running continuously. The availability windows vary by season and year-on-year and are not known more than a year or so in advance.
- 4.22 The distribution of power around the National and Distribution Grids is a constant balance between fluctuating demand and supply, and major fluctuations can cause problems with the constant and stable supply of electricity over the grid network. A way to help stabilise the movement of power on the Grid is to introduce alternative and flexible generation particularly through the introduction of gas generator schemes like that proposed.
- 4.23 It is acknowledged that more flexibility is required in the electricity distribution system for the following reasons:
- The increased reliance on renewable energy and variable power sources, notably wind, which means that a larger portion of the overall capacity of the network is not certain. When the renewable energy is not available, this needs to be covered by an alternative form of supply. There is a critical need to ensuring continuity of electricity supply;
 - There is a critical need arising from the above to ‘reinforce’ the national Grid both physically and in terms of the management of the electricity it transfers;
 - The proposed increase in size of the next generation of nuclear power plants from 1.2 GW to 1.8GW each has a similar demand increase. In the event of one of these new generating stations coming off line, a larger amount of power is lost that must be covered by an alternative form of supply; and
 - There is also a large interim demand to be covered as many of the existing coal and nuclear power plants are due to come off line in the next decade before the full benefits of the renewables have time to be developed. Government figures included in the Energy White Paper – ‘*Meeting the Energy Challenge*’ stated that a total of 22.5GW of generating capacity was to have gone by 2020. By 2025 there will be further coal plant closures and just one of our existing nuclear power stations will still be working. This represents almost 50% of existing capacity.
- 4.24 The National Grid (and Central Government) have been working hard to develop (and encourage) a number of alternative generation sources around the country to assist with the stabilisation of supply across the grid. Therefore, the proposed development could provide support generation thereby meeting the need and supporting the National Grid (our emphasis).

Site Selection

- 4.25 As explained above, the National Grid is seeking a new service to maintain grid stability, which is required because of the retirement of traditional larger power stations and the introduction of solar generation, wind generation and interconnectors with other countries. Gas generators can assist with the challenge of resolving many issues but to do so efficiently, they need to be located near to the source of the problem.
- 4.26 When searching for suitable sites, Conrad Energy have a strict criteria checklist that they need to satisfy before a site can be said to have good prospects for grid and gas connections. Therefore, sites like the application site are sieved on the basis of the following criteria:
- Their proximity to a medium or intermediate gas main for connection (maximum distance before a site is deemed unsuitable is 1km). Standby plants need to be located in areas close to existing sources of fuel and electrical grid connection points (as per bullet point 2 below). In this case the proposed development is in close proximity to the nearby grid substation and available gas connection on Yapton Road;
 - Their proximity to a sufficient 11,000Kv electrical grid connection point for connection (maximum distance usually 2km) where sufficient capacity is available on the network without significant reinforcement costs. This is a difficult task as the Local and National Grids are heavily constrained and in need of significant upgrade works due to the large amount of distributed generation connecting in to it over the last few years, for example with the roll out of significant amounts of solar PV, which typically generates during times of low demand. The gas generator technology helps solve this problem by providing generation to the networks when demand is high and PV generation is low (reinforcing the 'intermittent' nature of renewables);
 - With both the above the connections need to be practically and physically feasible and this also includes the need for a willing landowner(s);
 - Whether there is sufficient space for the equipment and for safe and practical separation within the site for maintenance access. The site would benefit from the access already in place which services the existing airfield development but also the TJ Waste and Recycling centre;
 - Good existing access arrangements (again, see bullet 4 above); and
 - Suitable separation distances from any air quality or Noise Sensitive Receptors (NSRs).
- 4.27 As an aside to the above pre-requisites, within areas like where the application site is situated, it is not possible to provide an 'as the crow flies' cable/gas connection route due to the proximity of existing buildings and other elements of the built environment preventing the most 'straightforward' connection.
- 4.28 Also, when siting Grid support infrastructure like the proposed development near to built-up areas, it is not a 'beauty parade' between sites and delivering one facility does not rule out delivering another. Put another way, the facility proposed is not simply meeting a 'one off' need and the planning issue is therefore not simply about choosing the best site but recognising the pressing need and deciding whether the site chosen is acceptable in planning terms.

5.0 Planning Policy Context

- 5.1 Section 38(6) of the Planning and Compulsory Purchase Act 2004 states that if regard is to be had to the development plan for the purpose of any determination to be made under the Planning Acts the determination must be made in accordance with the plan unless material considerations indicate otherwise.
- 5.2 The site is located within the jurisdiction of Arun District Council where the Development Plan comprises:
- The West Sussex Waste Local Plan 2014;
 - The Arun Local Plan 2011-2031 (adopted July 2018) and
 - The 'Made' Neighbourhood Plans.
- 5.3 The Arun Local Plan is the main development plan document above in the determination of planning applications. It relates to the whole District and provides a strategy for delivering growth up to 2031.
- 5.4 According to the Arun Local Plan Proposals Map 3, the site comprises greenfield (undeveloped) land outside of the Council's Built-up Area Boundary for Yapton/Ford (the Council's countryside policy C SP1 applies). No other environmental or site-specific policy designations are apparent.
- 5.5 There are no specific policies, which deal with the nature of the development proposals, but it is clear that such infrastructure is required to pave the transition to an eventual zero carbon industry. Policy ECC DM1 (Renewable Energy) seeks to encourage environmental technologies including low carbon/renewable energy. For the reasons set out below and the application and appeal precedents already mentioned above, the development proposals will, again, help to facilitate the transition to a low carbon economy and compensate for the variability of renewable generation without building additional generation capacity.
- 5.6 In terms of employment and enterprise, Arun's Local Plan strategic objective is to:
- "Strengthen Arun's economic base and provide local job opportunities by increasing, diversifying and improving the quality of employment within the District through the provision of appropriate employment sites, quality affordable accommodation and the development of business support and partnerships".*
- 5.7 Paragraphs 4.8-4.16 above explain how the development proposals indirectly contribute to employment generation and this was also endorsed by the Inspector as part of the appeal decision enclosed at Appendix 1. In the context of the policy review below, whilst specific employment policies are not referenced, it is important to note that the proposed development is compatible with nearby employment uses and will indirectly help to facilitate and support investment and regeneration in the area.

Arun District Council Local Plan 2011-2031

- 5.8 Local Plan Policy SD SP1 concerns sustainable developments, it outlines how development proposals will be considered provided they contribute to the social, economic and environmental conditions of the National Park through to the coast and throughout its settlements.

- 5.9 Paragraph 6.1.3 exhibits the importance of Arun's natural environment, having a number of environmental assets that include coast and natural features. In Chapter 6 generally, the Council express how they *"form a vital attraction and draw business and visitors to the area, making a substantial contribution to the economy and the overall wellbeing of its residents"*.
- 5.10 Policy SD SP1a outlines the spatial strategy for Arun District in the run up to 2031, alongside other factors, to *"promote and enable development which supports the main coastal towns of Bognor Regis and Littlehampton role as the main service and employment centres"*.
- 5.11 Paragraph 6.2.4 of the Local Plan's Strategic Approach highlights how the countryside area will be recognised and maintained to reflect its character and role as the coastal plain, with green wedges separating urban areas. In doing so, high quality agricultural land and environmental assets will also be protected.
- 5.12 Policy C SP1 refers to the countryside, it relays how the land outside the Built-Up Area Boundaries will be defined as countryside and will be recognised for its intrinsic character and beauty. Detailing that *"development will be permitted in the countryside where it is:*
- a. for the operational needs of agriculture, horticulture, forestry, the extraction of minerals or the management of waste as part of a waste site allocation within the West Sussex Waste Local Plan; or
 - b. for quiet, informal recreation; or
 - c. for green infrastructure; or
 - d. for the diversification of the rural economy; or
 - e. for road and/or cycle schemes; or
 - f. in accordance with other policies in the Plan which refer to a specific use or type of development".
- 5.13 Policy LAN DM1 regards protection of landscape character, it communicates that development within the setting of the South Downs National Park must have special regard to the conservation and identity of that setting, including views into and out of the Park. The policy confirms that development will not be permitted where there would be harmful effects on these considerations.
- 5.14 Policy ECC SP1 considers climate change adaption and outlines how the Council will support development which is *"located and appropriately designed to adapt to impacts arising from climate change"*.
- 5.15 Policy ECC SP2 is in respect to energy and climate change mitigation, it indicates that all new residential and commercial development (including conversions, extensions and changes of use) will be expected to be energy efficient and to demonstrate how they will:
- a. Achieve energy efficiency measures that reflect the current standards applicable at the time of submission;

- b. Use design and layout to promote energy efficiency; and
 - c. Incorporate decentralised, renewable and low carbon energy supply systems, for example small scale renewable energy systems such as solar panels”.
- 5.16 Adding that, *“all major developments must produce 10% of the total predicted energy requirements from renewable or low carbon energy generation on site, unless it can be demonstrated that this is unviable”*.
- 5.17 Policy ECC DM1 concerns renewable energy and requires schemes to *“contribute to the social, economic and environmental development and overall regeneration of the District”*. Averring that within areas of protected landscapes, areas or buildings, development should generally be small scale or community based.
- 5.18 Furthermore, in its supporting text, the Local Plan states that the Council will support proposals for appropriately located renewable energy development, and their ancillary development provided they meet criteria including:
- “a. The proposal is located and designed to minimise adverse impacts to landscape, habitats, the historic environment and residential amenity including visual, noise and odour impacts; ...*
- d. All proposals will need to demonstrate a suitable connection to the electricity distribution network, or appropriate energy storage facility, and provide evidence to demonstrate that the connection will not result in unacceptable impacts upon the landscape, natural and historic environment or visual and residential amenity”*.
- 5.19 Policy ENV SP1 is associated to the natural environment, it declares that the Council will *“encourage and promote the preservation, restoration and enhancement of biodiversity and the natural environment through the development process and particularly through policies for the protection of both designated and non-designated sites. Where possible it shall also promote the creation of new areas for habitats and species”*.
- 5.20 Chapter 7 refers to settlement structure, green infrastructure and landscape. Vouching that *“it is essential that new development should help sustain, integrate and create landscapes with a strong sense of place and local identity”* (Paragraph 7.1.4) and affirms that the Council *“seeks to protect the natural environment by strictly controlling development in the countryside”*.
- 5.21 Policy EMP DM1 relates to “Employment Land: Development Management”. With regard to economic growth outside the built-up area boundary, planning permission will be granted on sites outside the built-up area, provided that the proposal demonstrates:
- a. That it is an appropriate sized extension of an existing employment site, or no acceptable alternative can be identified within existing permitted or allocated sites, or within or through redevelopment of existing commercial premises;
 - b. That it would not intensify uses at the site to the detriment of existing public access routes and highways;

- c. A high standard of design, layout and landscaping appropriate to the context;
- d. That it is capable of being well served by public transport or otherwise is readily accessible by means other than by private car to a significant residential workforce if employment intensive uses are proposed;
- e. Access arrangements and parking facilities will be provided in accordance with the Council's adopted standards;
- f. A sympathetic relationship to the surrounding areas that shows consideration of the landscape, habitat, built and historic environment contexts, the opportunities to deliver on-site habitats and protect key species.
- g. A satisfactory relationship with neighbouring uses in order that the amenities of nearby residents, in particular, are protected; and
- h. Where appropriate, crime prevention measures are incorporated.

National Planning Policy Framework

- 5.22 The Framework does not specifically include guidance on the type of energy generation proposed within this application but does include policy on renewable and low carbon energy developments. Although the proposals may not fall within a narrow definition of renewable or low carbon energy, it is considered that some of the general principles can be applied.
- 5.23 Paragraph 155(c) requires local planning authorities to identify opportunities 'for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers'. Furthermore, paragraph 158(a) states that local planning authorities should not require applicants for energy development to demonstrate the overall need for renewable or low carbon energy and approve the application if its impacts are (or can be made) acceptable.

Overarching National Policy Statement for Energy (EN-1)

- 5.24 This document needs to be read in the round but within it, paragraph 2.2.20 states that it is critical that the UK continues to secure reliable supplies of electricity as we make the transition to a low carbon economy. To manage the risks to achieving security of supply we need:
- Sufficient electricity capacity to meet demand at all times. Electricity cannot be stored so demand for it must be simultaneously and continuously met by its supply. This requires a safety margin of spare capacity to accommodate unforeseen fluctuations in supply or demand; and
 - A diverse mix of technologies and fuels, so that we do not rely on any one technology or fuel. Diversity can be achieved through the use of different technologies and multiple supply routes.
- 5.25 Furthermore, at paragraph 3.3.12 it states that there are a number of other technologies which can be used to compensate for the variability of renewable generation, such as electricity storage, interconnection and demand-side response, without building additional generation capacity.

National Policy Statements for Fossil Fuel Electricity Generating Infrastructure (EN-2)

- 5.26 This document should be read in conjunction with EN-1 and states at paragraph 3.6.8 that it is clear that there must be some fossil fuel generating capacity to provide back-up for when generation from intermittent renewable generating capacity is low and to help with the transition to low carbon electricity generation.
- 5.27 There are a number of research, academic reports and political statements that set the scene for the consideration of Grid Support infrastructure. It is not proposed to rehearse these here but further background commentary can be provided as may be necessary. However, of interest may be the November 2015 speech by The Rt Hon Amber Rudd MP to the ICE, The Carbon Trust (Feb 2016) report in relation to energy 'storage' and the report of The House of Commons Energy and Climate Change Committee on 'Low Carbon Network Infrastructure' (June 2016).

Electricity Market Reform (EMR) (Department of Energy and Climate Change, 2012)

- 5.28 There is a national need to ensure future energy security given years of underinvestment and the transition to a low carbon economy. On 23 June 2014, the government updated its policy on maintaining UK Energy Security. The Government's policy on Electricity Market Reform (EMR) was first published as a White Paper in July 2011 and was designed to deliver low carbon energy and reliable supplies that the UK needs, whilst maintaining costs to consumers. It set out to transform the UK electricity sector to one in which low-carbon generation can compete with conventional, fossil fuel generation – ensuring we build cleaner, more sustainable energy mix.
- 5.29 The EMR introduced the Capacity Market (CM) mechanism in 2014 which is to provide a regular retainer payment to reliable forms of capacity, in return for such capacity being available when the supply is tight. In short, the overall aim of the CM is to enhance the security of electricity supply by ensuring the sufficient reliable capacity is in place to meet demand.
- 5.30 Given this supportive national policy context, and the role that STOR (Short Term Operating Reserve) and Peak Power facilities perform in enhancing the security of electricity supply to the local and national network it is considered that there is a strong need for this form of development on policy grounds.

Other Material Considerations

- 5.31 The electricity distribution network in the South West is often at capacity, resulting in the need for developers to fund expensive, and sometimes cost prohibitive upgrades to the network to accommodate new employment and residential development. The proposed development will contribute to providing increased capacity and flexibility within the Grid network, thus increasing the viability of employment and residential related development both locally and in the wider region.

6.0 Planning Justification

Principle of Development

National Policy Context

- 6.1 The Overarching National Policy Statement (NPS) for Energy (EN-1, Department of Energy and Climate Change, 2011) sets out national policy for energy infrastructure. Para 1.2.1 states that the NPS, 'is likely to be a material consideration in decision making on applications that fall under the Town and Country Planning Act 1990 (as amended)'. EN-1 supports the transition to a lower carbon economy (para 2.2.6). It also mentions the need to improve energy security (para 2.2.6) and the importance of secure and reliable supplies of electricity from a diverse mix of technologies or fuels (para 2.2.20). The NPS supports the move to renewables, but para 3.6.8 states:

'It is clear that there must be some fossil fuel generating capacity to provide back-up for when generation from intermittent renewable generating capacity is low and to help with the transition to low carbon electricity generation'.

- 6.2 Para 3.8.1 of the NPS EN-1 states that the UK is 'highly dependent on natural gas' and 'whilst the reliance on fossil fuels will fall, the transition will take some time and gas will continue to play an important part in the UK's fuel mix for many years to come'. Gas is the cleanest and most reliable fossil fuel. Para 3.8.19 refers to its importance in the power generation sector, 'as a reliable source of flexible power generating capacity, to back-up intermittent renewables, so underpinning the security of supply and price stability in the electricity market'.

- 6.3 Government policy NPS EN-2 whilst strictly related to fossil fuel electricity generating infrastructure with a capacity of over 50MW, it does set out the UK Government's aims with regards to securing a diverse mix of technologies and fuels in order to increase energy security and resilience, and so sets out the Government's priorities relating to energy strategy.

- 6.4 The Government's Electricity Market Reform Policy Overview (2012) sets out the objectives for the reform of the electricity sector, including ensuring a secure electricity supply (including having sufficient reliable capacity to minimise the risk of supply shortages) and sufficient investment in low carbon technologies which will in turn maximise benefits and minimise costs.

- 6.5 Paragraph 152 of the National Planning Policy Framework states:

"The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience, encourage the reuse of existing resources, including the conversion of existing buildings and support renewable and low carbon energy and infrastructure'.

- 6.6 It is clear that overall National Planning policy sets out that the direction of travel is towards renewable energy production, however policy also acknowledges the need for some fossil fuel generation to help ensure energy security of supply. It is not considered that there is any national policy on planning or energy that would warrant refusal of the development on principle, should site specific issues be resolved.

Local Policy Context

- 6.7 There are no policies within the adopted Local Plan which specifically support or prohibit standby energy generation plants and although there are no specific planning policies relating to this type of essential infrastructure, policy does not restrict it and such development has direct support from central government and those advising them on critically important and nationally essential grid support infrastructure. Notwithstanding top down support, the proposed site lies entirely outside of the defined boundary of the urban area. That said, 'Countryside' Policy C SP1 will permit development in the countryside where it is in accordance with other policies in the plan which refer to a specific use or type of development. In this case the development proposals seek to support the Council's objectives that energy generated in the district is generated from renewable and low carbon sources. Furthermore, bridging the gap with support infrastructure like the development proposals will help to facilitate the transition to a low carbon economy. It is therefore considered that the development proposals satisfy the general thrust of policies ECC SP1, ECC SP2 and ECC DM1.

Need for Flexible and Local Generation

- 6.8 In addition to the local benefits, the proposed scheme will further enable the continued growth of variable renewables in the south west, help create the capacity required to transition from diesel and petrol cars to electric vehicles ('EVs') and help facilitate the decarbonisation of the heat sector.
- 6.9 Scottish and Southern Electric are increasingly looking at alternative options to traditional network reinforcement and since 2018 have been seeking to procure flexibility services, including local power generation from reserve plants like the above proposals from Conrad Energy. Furthermore, flexible generation which is connected to the distribution network and can quickly ramp up and down in line with the network's electricity demand profile, can help alleviate network constraints and create additional capacity on the system. This in turn reduces pressure on the network during times of peak demand and reduces or defers the need to reinforce the network. Conrad Energy already has several contracts in other areas of the south west for such services.

Reducing carbon emissions and facilitating further growth of wind and solar generation

- 6.10 The proposed standby gas generators would be both local and flexible. Local generation would reduce energy losses by avoiding importing power from the transmission network. Local generation also reduces the dependency on transmission connection generation which is still often from coal, particularly during winter peak periods of unexpected volatility.
- 6.11 Without flexible dispatchable (used on demand) generation, SSE cannot continue to grow renewables and still safeguard security of supply. This will apply locally, regionally and nationally and is supported by an abundance of market research which forecasts significant growth of plant like that of Conrad Energy's between now and 2030. Furthermore, the proposed standby gas generator plant should be regarded as an important and essential part of the immediate area where there are several strategic residential allocations, a large Industrial Estate and Her Majesty's Prison. It will provide strength and resilience to the local electricity supply network keeping business operation and local homes lit, heated and powered during periods of supply instability. This is an economic benefit and economic attraction for business investment into the local area.

Design and Appearance

- 6.12 The development will be 'industrial' in both character and appearance but also clean and low key both in terms of appearance and activity. Like the large grain barn which is to be constructed a stone's throw away from the application site, the design of the flexible gas generators is of no architectural merit, however the chosen colours (predominantly green) of the 'kit' help blend the building in the landscape. The chosen location to site the proposals is driven by the pre-requisites listed in the site selection section above, however, in this case the proposed siting is tucked away in the south west corner of the open field which will be screened by a new bund and associated landscaping along its western boundary. This will screen views of the development when looking east from the open countryside, albeit the Northwood Farm complex and the TJ Waste and Recycling centre are dominant features in the background. Any views of the site looking west from Yapton Road will not be possible due to the various visual detractors in between. Furthermore, the proposed site will not be viewed as an isolated feature in the countryside as it is relatively close to the existing building group and former airfield directly to the south. In our view, careful siting and appropriate landscaping will mean that the much needed infrastructure is assimilated into the appearance of existing buildings, where no new internal road is required as the existing road and access arrangements will be utilised.

Air Quality

- 6.13 An air quality assessment has been undertaken by Redmore Environmental which is submitted as part of this planning application. This has modelled the background air quality of the area and modelled the predicted impacts on human and ecological receptors.
- 6.14 Dispersion modelling was undertaken in order to predict pollutant concentrations at sensitive locations as a result of emissions from the plant. Impacts at sensitive receptors were quantified and the results compared with the relevant EQSs and significance criteria.
- 6.15 Overall it has concluded that no significant air quality effects on human health or ecological receptors are likely to occur and therefore the proposals accord with Policy QE DM3 of the Local Plan.
- 6.16 Furthermore, the submitted air quality assessment confirms that there should be no impact on sensitive receptors that would exceed the threshold defined as negligible in guidance produced by the Institute of Air Quality Management (IAQM) and Environment Protection UK on Land-Use Planning and Development Control: Planning for Air Quality. While this is non-statutory guidance we understand it is generally accepted by planning authorities for consideration of air quality assessments.
- 6.17 The applicants Air Quality Assessment has confirmed that there is no risk of exceeding the Air Quality Assessment Levels (AQALs) for nitrogen dioxide or particulate matter. The long-term and short-term magnitude of change for all pollutants can be described as 'negligible' at all areas of relevant exposure. Therefore, overall the effect of the gas generator facility on local air quality will be 'not significant'.
- 6.18 Impacts at relevant ecological sites were also predicted to be not significant at all identified designations. Based on the assessment results, air quality issues are not considered a constraint to planning consent for the proposal.

- 6.19 With regard to any perceived impacts on workers visiting the surrounding employment site, since there is no predicted breach of any air quality standard, the exposure of workers to the negligible increased in pollution is immaterial.

Noise

- 6.20 Details of noise emissions from the generators has been submitted as part of this planning application. The assessment identified that the proposed development will give rise to rating noise levels that are typically at or below the measured background sound level in the area, at the closest residential receptors during the daytime, thus giving rise to a low impact, taking account of the proposed mitigation measures set out in the accompanying report. In addition to the bund and landscaping this will include an acoustic fence along the western / north western boundary and eastern side of the development. Any night-time operation will solely be under an emergency basis as called upon by National Grid under Stress System Events where there is less generation available to meet national electricity demand on the transmission network.
- 6.21 Given that the generators will be housed in containers, the likely level of noise emissions, the context of the site and surrounding land uses it is not considered that the development will have an unacceptable noise impact and therefore accords with policy QE DM1. Regardless it is important to point out that the generators are designed to cover potential energy shortages, supplying electricity to the Local and National Grid when necessary. As such they have a short-term operational nature, and they are more likely to operate during peak load hours only, when the demand for electricity is higher, but they have potential to operate at any time. Furthermore, it has to be noted that the noise assessment is based on a worst case scenario of all 4 gas generators operating at the same time and that quieter generators set units may ultimately be selected.
- 6.22 Lastly, the generators are located a considerable distance from any noise sensitive receptors (notably residential dwellings) and the noise associated with the existing Northwood Farm and the TJ Waste and Recycling Centre are closer in any case.

Flood Risk

- 6.23 The site is in flood zone 1 at low risk of flooding and is in an area at low risk of surface water flooding. Notwithstanding the existing vegetated boundary to the west, the perimeter to be planted will be prepared with appropriate soil to encourage vegetation to flourish and this represents the most sustainable drainage solution for the site.
- 6.24 During its operation, the plant would be remotely operated and any occasional maintenance visits to the site would be planned.
- 6.25 The proposed gas generator infrastructure and associated “kit” will be housed on a permeable gravel surface. This represents the most sustainable drainage solution for the site and will manage the rainfall on the site by natural soakaway means. The nature of the development is appropriate and would not increase flooding elsewhere therefore conforming to Policy W DM2 and DM3. Surfacing will be permeable gravel. Details of a drainage strategy we would hope to agree to via condition.

Traffic and Construction Management

- 6.26 Access to the site is from the existing road that runs parallel to the former runway and leads to Yapton Road. The existing access road will mainly be used during the construction period and thereafter for infrequent maintenance vehicles.
- 6.27 During the short-lived construction period, the gas generators will arrive in 4 containers, each on an HGV and 5 lorries transporting the remaining GRP units and oil tanks. A crane will also be required to lift the containers from the HGVs and into position on the site. The remaining requirements for construction deliveries and plant will be very limited.
- 6.28 The gas generators when they are operational are pretty inconspicuous in transport terms. However, in terms of maintenance the gas generator plant will generate 2 full time jobs (although they will not be permanently based at the site) and will require only routine 'check visits' to the site by the technicians, which will not require a vehicle larger than a light van. Paragraphs 4.8 onwards above provide more information on the job creation that is associated with the development proposals.

Ecology

- 6.29 An ecology assessment supports the planning application which concluded that the most suitable area for protected species was a strip of poor semi improved grassland to the west of the site boundary, however, this area is isolated with arable land on all sides thus restricting the movement of any animals into and out of the site. Furthermore, as there are no trees within the site boundary and it is made up of bare ground, there is no suitable habitat for nesting birds. Trees planted within the strip of poor semi-improved grassland are not suitable to support roosting bats or nesting birds and no evidence was found during the ecological surveys.
- 6.30 There is a field drain present to the west of the site within the poor semi improved grassland and as such not evidence of water vole was found during the survey and the ditch was found to be isolated, thus restricting the movement of animals into and out of the site. Overall the site was assessed as providing low suitability to support protected species.

7.0 Conclusion

- 7.1 With reference to the National and Local Planning Policy context set out above, the proposal is considered to be appropriate to the site, subject to detailed assessment of all policy considerations.
- 7.2 The development would operate through a series of flexible gas fuelled generators to create standby electricity for the Local and National Grid. Each generator will be housed in a container as indicated on the enclosed plan (up to 4).
- 7.3 As the generators will be powered by an existing gas main near to the site there will be no requirement to transfer fuel to and from the site. Any ongoing maintenance would be minimal and there are no construction or subsidiary traffic issues.
- 7.4 The proposed development has been carefully located in order to make sure it's siting is inconspicuous within the countryside location. That said, there is nearby built form which ideally screens the proposed development and already sets the visual baseline for the immediate vicinity, constituting prominent structures within the rural landscape. Furthermore, the flexible generators are located away from residential and other sensitive receptors and the accompanying air quality and noise information demonstrate that the proposed development would not have any significant effects on these. The proposal offers the opportunity to make efficient use of land by utilising the corner of a field in accordance with paragraph 124 of the Framework.
- 7.5 In particular, the conclusions of the Air Quality Assessment and other technical assessments have demonstrated that there would be no detrimental impact on pre-existing levels of air quality or noise. The health, wellbeing, residential and environmental amenity of any nearby receptors would not be detrimentally harmed and can be managed as part of appropriate worded planning conditions.
- 7.6 The proposed energy generation has been designed to help ensure continuity of electricity supply within the local distribution network and this network is essential for supplying home and businesses with electricity. Whilst greenfield, the application site is deemed a suitable location for this type of development and it would have negligible environmental impacts.
- 7.7 Whilst policies in Arun District Council Local Plan promote renewable and low carbon energy, they do not themselves provide an in-principle reason to refuse proposals for conventional energy generating development. Nor does the National Planning Policy Framework, which, at paragraph 152, promotes renewable and low carbon energy development, but does not specifically restrict fossil-fuel powered energy plants.
- 7.8 As confirmed in the recent appeal undertaken by Conrad, the Inspector considered that the proposed type of development is indeed sustainable development. In his assessment he confirmed that flexible generators link to the objectives of the planning system to achieve sustainable development set out in the Framework. The economic objective would be satisfied as the proposal would help to secure a sufficient and reliable source of electricity to support the local economy, which would also satisfy the social objective by providing secure employment and housing that is not subject to power outages. In terms of the environmental objective set out in the Framework, the proposal would not cause harm to the natural, built or historic environment but would make an effective use of the very corner of a green field site. Furthermore, the

proposal would assist in the transition to low carbon electricity generation by providing backup at times when renewable energy generation is low.

- 7.9 Overall the scheme provides a number of benefits, particularly ensuring local electricity supply. The application proposals are in accordance with the relevant local plan policies and are supported by government policy guidance and as such planning permission should be granted.

Appendix 1: Appeal Decision APP/W3330/W/20/3251284

Appendix 2: Appeal Decision APP/V3310/W/20/3263845