30.6.25

Email to – Planning Office
South Norfolk & Broadland Council
email to – planning@southnorfolkandbroadland.gov.uk

Dear Sir,

re: Planning Application ref: 2025/1689
Proposal – Installation of a Battery Energy Storage System aka BESS

In reference to the above Aslacton Parish Council object to this proposed based on the following:-

1 Size - This site is a 55 acre site not as portrayed in the Information pamphlet. It is 20 times the size as portrayed which negates various claims within the pamphlet due to the proposed size.

2 Access is off a single track country lane. The impact on the environment during the construction process will damage verges, ditches and highway which will affect the eco balance in that area and highway safety.

This single track country lane is currently a high risk lane for cyclists, walkers and horses due to local vehicle traffic due to it's width and bends.

The fact FIELD state they will use Flowerpot Lane for oversized loads and heavy construction plant will cause chaos at the time it meets the A140 Traffic lights.

3 Flora and Fauna - The site will be concreted over. 55 acres. Not only from within the local communities, but people come from far and wide to enjoy ambling though our countryside and delight in the visual pleasure of green fields as far as the eye can see.The scale, height and bulk of this proposal will destroy the nature of the site and visually impact the surrounding area.
The screening proposed by the developer will take many years to mature, and in no way compensates for the visual delight it will destroy with its containers. It will result in unacceptable harm to the openness of the landscape, character ad visual amenity of the surrounding area, This BESS proposal certainly conflicts with South Norfolk and Broadland Councils promoted projects namely – Community Grants, Pride in Place, Heritage projects, Delivering affordable housing, Green Grants and many more so there has no place in South Norfolk and Broadland.

4 Light Pollution - This site will cause Light Pollution in an area where non exists.

Light pollution in the countryside, caused by excessive artificial light, can disrupt natural ecosystems, impair stargazing, and negatively impact wildlife and human health, blurring the distinction between urban and rural areas. To expand further:-

· **What it is:**

Light pollution, or "obtrusive light," refers to the unwanted or excessive artificial light that can disrupt the natural environment and interfere with the enjoyment of the night sky.

· **Sources:**
Common sources of light pollution in the countryside include road lighting, security lighting, and poorly designed or excessive lighting in villages and towns.

· **Impact on wildlife:**

· **The Wildlife & Countryside Act 1981**
This is the primary mechanism for wildlife protection in Britain. This legislation covers four areas: Wildlife protection, including protection of wild birds, their eggs and nests, protection of other animal and protection of plants. All authorities are required to abide by this Act.
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· **Nocturnal animals:** Artificial light can disrupt the natural behaviours of nocturnal animals, such as migration patterns, foraging, and breeding.

· **Migratory birds:** Light can confuse and disorient migrating birds, potentially leading to collisions and fatalities.

· **Insects:** Light can disrupt insect behaviour, affecting pollination and other ecological processes.

· **Impact on humans:**

· **Sleep and health:** Exposure to artificial light at night can negatively affect human sleep patterns and potentially contribute to health problems.

· **Reduced enjoyment of the night sky:** Light pollution obscures the view of stars and other celestial objects, diminishing the natural beauty and wonder of the night sky.

· **Blurring the countryside character:**
Excessive lighting can blur the distinction between urban and rural areas, reducing the sense of remoteness and natural beauty in the countryside.

5 Noise Pollution – The Information pamphlet states this will be at a minimum. The Applicant is referring to a completely different small site. Dependent upon the design of the BESS site, this could give rise to over a 1000 units on which could be 12 fans per unit. The greater scale equals higher noise levels. In time the fans bearings will wear which in turn will create higher noise levels.
This installation will emit a constant hum, noise pollution at an unacceptable level. Moreover, the equipment will be working at maximum noise level overnight.

We respectfully suggest that the South Norfolk and Broadland Council produce their own and meaningful Noise Impact Assessment that can withstand professional scrutiny, as soon as possible.

This would in turn become a statutory nuisance under the Environmental Protection Act 1990.

Linked to this would be Noise arising from the construction works from traffic, plant or machinery used in the construction of this proposed BESS site.

6 Fire – Grave concerns are expressed based on the following facts:-
Lithium-ion battery fires, often caused by "thermal runaway," are a serious concern due to their rapid spread and difficulty in extinguishing, releasing flammable and toxic gases. Factors like overcharging, physical damage, and overheating can trigger these fires.

A good example of how uncontrollable Lithium-ion batteries are is the car fire at Luton Airport that spread rapidly through all the parked cars and due to it's intense heat the multi storey car park buckled and collapsed.

To expand further on possible causes of fire:_

- **Thermal Runaway:**

A chain reaction where a battery cell overheats, leading to rapid temperature and heat increase, and potentially ignition and explosion.

- **Overcharging:**
  Charging a battery beyond its capacity can cause excessive heat buildup, leading to thermal runaway.

- **Physical Damage:**
  Crushing, piercing, or other physical damage to the battery can cause internal short circuits and lead to thermal runaway.

- **Overheating:**
  Exposure to high temperatures can destabilize the chemical structure of the battery, potentially leading to thermal runaway.

- **Manufacturing Defects:**
  Internal defects in the battery's construction or materials can increase the risk of failure and fire.

- **Improper Storage:**
  Storing batteries in hot or unventilated environments, or near flammable materials, can increase the risk of fire.

The Information pamphlet states the Lithium-ion batteries will be kept cool by fans. What if these fans fail or work so excessively the fans themselves overheat causing the inside temperature to rise or the fans catch on fire. This view is based on the following :_

The impact of Global warming is causing the UK's climate to become warmer, with all of the UK's ten warmest years on record occurring since 2002, and heatwaves are becoming more frequent and intense. The UK has already warmed by 1°C since the 1950s, with the most recent decade (2012-2021) being 1.0°C warmer than the 1961-1990 average.

Heatwaves have increased, like the one in summer 2018, are now 30 times more likely due to climate change, and by 2050, such heatwaves are expected to occur every other year. Summers are projected to become hotter and drier. Winters are projected to become warmer and wetter on average, although cold or dry winters will still occur sometimes.

Linked to the UK's weather warming can give rise to More frequent and intense heatwaves can lead to increased wildfires, as seen in the 2018 heatwave.

The local Fire Station in Long Stratton has one tender. We have concerns as to it's effectiveness due to the nature of Lithium-ion battery fire. Lithium battery fires require specialized extinguishing methods, as traditional methods like water or foam are often ineffective and can even worsen the situation.

7 Air Pollution & Public Health - Lithium battery fires cause significant air pollution spikes, exceeding World Health Organisation guidelines for particulate matter (PM2.5) and posing health risks to local communities

When these batteries catch fire, they release a range of harmful chemicals, including toxic gases and heavy metals, into the atmosphere. These emissions can have long-term health implications for nearby residents, contributing to respiratory issues and other health problems.

8 Flooding – This BESS site proposed location in on a slope. The fact that 55 acres will be leveled and Concreted which will cause high levels of surface water, (which would normally be absorbed into the ground) to run off down Wash Lane, Forncett and cause serious flooding in this area and properties in this vicinity.

Having researched the Environment Agency Flood risk management plans for England to cover the period from 2021 – 2027. The flood risk in this area of NR15 states the highest risk of flooding in this location is from surface water. Currently the yearly chance of flooding is Medium. However it has been identified by the Environment Agency that in the years 2040 to 2060 the year chance of flooding will rise to High. These facts are based on the proposed site remaining agricultural and the land absorbing excess surface water.

9 Visual Impact – It is noted the development is proposed to be the colour grey. This colour will have a direct impact upon visual views across the land. We require, if granted, the site and equipment colour be green to blend in with the surrounding environment.

10 DSEAR stands for the Dangerous Substances and Explosive Atmospheres Regulations 2002.

Dangerous substances can put peoples' safety at risk from fire, explosion and corrosion of metal. DSEAR puts duties on employers and the self-employed to protect people from these risks to their safety in the workplace, and to members of the public who may be put at risk by work activity.

What are dangerous substances?

Dangerous substances are any substances used or present at work that could, if not properly controlled, cause harm to people as a result of a fire or explosion or corrosion of metal. They can be found in nearly all workplaces and include such things as solvents, paints, varnishes, flammable gases, such as liquid petroleum gas (LPG), dusts from machining and sanding operations, dusts from foodstuffs, pressurised gases and substances corrosive to metal.

Safe Working Practices:

DSEAR Regulation 3 also requires that work activities, including operation, use, and maintenance of systems, as well as work near systems, be carried out in a way that minimizes danger.

· **Explosive Atmospheres:**

DSEAR defines an explosive atmosphere as a mixture of dangerous substances with air that, after ignition, can spread combustion. Employers need to identify and manage potential explosive atmospheres in their workplaces.

· **Distinction from COSHH:**

While DSEAR addresses risks from fires and explosions, the Control of Substances Hazardous to Health Regulations (COSHH) focuses on the health risks associated with exposure to hazardous substances. Both regulations may apply to the same processes or activities

Battery energy storage systems
23 Commons Library Research Briefing, 23 June 2025

The underlying causes of lithium-ion battery damage are stress or misuse. Examples of stress or misuse, which can result in thermal runaway and fire, include:
• Mechanical stress: Defects can be caused during manufacture or external damage (for example, damage caused by natural disasters).
• Thermal stress: If a battery is overheated (for example, due to an

external fire), this can lead to fire.
• Electrical failure: A battery could be overcharged due to a fault in the battery management system (the electronic system that monitors and controls charging and discharging of the battery). This can result in too much energy being put into the battery.

Possible consequences of battery fires
Battery fires are difficult to extinguish because batteries contain a lot of fuel to sustain a fire. During thermal runaway, gases are produced which can further fuel the fire and/or lead to an explosion.
The gases produced are toxic, which can pose a risk to site workers and emergency responders if inhaled. There are also concerns that toxic metals and chemicals can leach into the water used to fight the fire which could then end up in water systems, namely the River Tas then ultimately the Broads. This would be a direct contravention of the current Neutral Neutrality Directive from Natural England.

Several Battery Energy Storage System (BESS) installations in the UK have been refused planning permission due to various concerns, primarily related to fire safety, environmental impact, and inadequate planning. While BESS facilities are seen as crucial for supporting renewable energy and grid stability, some local authorities have raised objections based on specific site conditions and potential risks.
Reasons for Refusals:

- **Fire Safety:**
- Concerns about the potential for fires within the battery storage units and the difficulty of containing and extinguishing such fires are a major factor in refusals.
- **Environmental Impact:**
  Issues like the potential for water contamination from battery leaks, noise pollution, and visual impact on the landscape have led to refusals, particularly for projects in green belt or rural areas.
- **Inadequate Planning:**
  Some proposals have been rejected due to insufficient planning regarding site access, evacuation plans, and the overall layout of the facility.
- **Location:**

The suitability of the chosen location for a BESS facility has been questioned, with some proposals being deemed unsuitable due to their proximity to residential areas or other sensitive locations.

- **Lack of Justification:**

In some instances, the need for the BESS project was not adequately justified in relation to the specific site and its potential impact.

Examples of Refused BESS Installations:

- **East Devon:** A BESS facility near Axminster was rejected due to fire risk and pollution concerns.

· **York:** Plans for a BESS on green belt land in York were refused due to fire safety concerns related to site layout and access.
· **Cleve Hill Solar Park:** An application to install a BESS at the Cleve Hill Solar Park was refused due to a lack of water storage, access issues, and an inadequate evacuation plan.
· **Stoneworthy Energy Storage Project (Devon):** RES was denied planning approval for their 49.9MW BESS project.
· **Ravensbrook Farm (Wiltshire):** An application for a 50MW BESS was refused.

Overall:
While BESS technology is seen as vital for the UK's energy transition, local authorities are taking a cautious approach, prioritizing safety and environmental concerns when reviewing planning applications

Risk of Spontaneous Combustion

The ever-present threat of spontaneous combustion from lithium-ion batteries has been well evidenced and documented. Indeed, there was a fire in 2020, in a significantly smaller 20MW battery storage plant in Liverpool. Fire crews were alerted at 01:00 and it took 59 hours to extinguish the blaze. Within the “Significant Incident Report incident no 018965, the following conclusions were made:-

· The Liverpool site was remotely managed in Denmark.,”leading to significant delays in investigating switch off and electrical safety measures”

· Although an automatic fire alarm system was present and actuated due to the ignition of flammable gases inside the BESS unit, it did not prevent the fire or the “significant Blast event” (explosion).

· The result was a Vapour Cloud Explosion, which, when mixed with air and ignited creates a major explosion. Fortunately, in this incident, the explosion occurred prior to the arrival of responding fire crews.

· Once water was applied, the resulting run-off contained Hydrofluoric Acid – a highly toxic substance which can dissolve concrete and whose fumes can be fatal to life.

· Toxic vapours released led to “stay at home orders” being imposed on local residents.

More recently the fire at the Battery Energy Storage Site in Thurrock, Essex in February this year. The fire, which lasted three days and took over 200 firefighters

to put out, highlighted the potential risks associated with large-scale battery storage facilities and the need for stringent safety measures during the construction and operation of such sites.

The explosion potential and the lack of engineering standards to prevent thermal runaway may put control of battery fires beyond the knowledge, experience and capabilities of local Fire & Rescue Services. Such fires as these can not be extinguished with water, nor fire blankets. Water is used to flood the surrounding area in an attempt to limit the spread of the fire. However, the water source referred to in the planning application appears way inadequate to deliver the volume of water that would be required should two batteries catch on fire.

Logic would indicate that if one battery is on fire due to the intensity of its heat neighbouring batteries would also catch on fire.

South Norfolk and Broadland Council are under a duty under the Environmental Protection Act 1990 which replaced the Control of Pollution Act 1974 to enforce its provisions.

The Office for Environmental Protection (OEP) established by the Environmental Act 2021 holds public bodies accountable for environmental law compliance.

This proposal, if approved by the South Norfolk and Broadland Council, could result in serious consequences not just for the residents in the immediate vicinity, but in a much wider area. This constitutes a huge challenge for South Norfolk and Broadland Council and affected Parish Councils to protect members of its community not to be exposed to such risks.

Installations such as these should be built well away from populated areas where such risks could be contained. The proposed site location is entirely inappropriate. FIELD's (the applicant) much smaller 20MW and 40MW FIELD BESS sites have been located in industrial and sewerage areas minimising the negative affect BESS sites will have on your constituents.
Depending on the prevailing winds a fire in the BESS site would release toxic vapour, and water from the efforts to contain the fire would be contaminated. Both could cause serious health issues over this wide fall-out area. Again, this would be an ever-present risk to the population within this fall out area should such a development be allowed in an area such as ours. To be forced to live with such a sword of Damocles constantly hanging over your constituents heads is unacceptable.

The mere fact of such an application being made has already caused mental stress and anxiety to residents in Long Stratton and in the villages of Aslacton, Great Moulton, Forncett, Wacton, Tasburgh, Tivetshall, Tibenham and Gissing.

South Norfolk and Broadland Council should also carefully consider the impact on the proposed 1800+ houses and business premises planned construction following the completion of the Long Stratton By-pass.

Would families and businesses buy properties ? The possible detrimental economic effect on Long Stratton would be immense. People move to Long Stratton because of good links with Norwich and Diss while also being quite rural. If all the surrounding land becomes solar farms and BESS sites, it will not be an attractive place to live.

11 Liability

A meeting of Lloyds underwriters was held in the City of London on the subject of "Lithium-ion Battery Failures" on 15 November 2023.
The presentation was given by, Brad Davis, Professional Engineer and Assistant Technical Director, Envista Forensics and his colleague Callum Aitken, Project Engineer, Envista Forensics.
At this meeting it was definitively stated that homes and businesses in the vicinity of a BESS installation, especially a 400MW installation could result, at best, in much higher premiums required by Insurance providers, and even the refusal of leading Insurers to provide any cover whatsoever. This would have serious detriment to the neighbourhood with difficulties encountered for the sale and purchase of properties within our area.

There is no control over what level of public liability and consequential loss insurance is taken by the developers/operators of the site, or if any terms imposed upon it are adhered to. We would like the operators to have imposed a voluntary monitor-able obligation to insure against 3rd party damage caused by noise, fire and contamination, and any uninsurable risk or increased premium the communities will suffer in the unlikely event this development should ever be granted planning permission.

Conclusion

We trust we have demonstrated that this application is totally unsuitable to our area:-

1. The real risk of fire and its consequences.
2. The noise level being beyond the levels regarded as acceptable.
3. Its sheer size 400 MW site
4. The damage to our local environment.
5. The fact this is not even a "green energy" initiative, but a purely commercial enterprise, which should be located in a very remote area where any problems arising will not put at risk the local population, businesses or transport hubs.

6. Inadequacies within the actual application itself, highlighting the speculative nature of this application, to the detriment, cost and potential risk to the physical and mental health to our local community.
7. By the fact that if this BESS site is approved, others will be created and South Norfolk and Broadland Council could not then argue against these as having set themselves a planning precedent.
8 Critics worry Britain's food security could be affected due to the huge amount of agricultural land being converted into solar farms and supporting BESS sites.

<u>So let's get back to basics.</u>

FIELD at the Public Consultation Meeting on the 26th of June 2025, which they closed to the public held a earlier meeting with local Parish Councillors. They confirmed when asked by Parish Councillors:-

1) that they currently did not have the financial resources to carry out such a project at this time.
2) that they do not have any contracts/agreements with local solar companies or the government as to the storing and releasing of electricity therefore we consider their application to be hypothetical.
3) FIELD admitted Lithium batteries are unstable by their nature but they have steps to deal with this. They confirmed they will be using Batteries manufactured in China. It has been identified through the development of batteries in cars, buses and other vehicles that Korea manufacturing of Lithium batteries is far superior to China. A cynical view could be that as FIELD have no financial resources they are looking to keep costs down possibly to the detriment of quality and public safety.

BESS sites are only required to support the National Grid electricity when it becomes overloaded with excess generated electricity from wind and solar farms. BESS sites store the excess and then feed (when needed) the excess electricity back into the Grid. FIELD the applicants would be paid to 1) store the electricity and 2) release the electricity.

This proposal is NOT green energy. It just buys from and re-sells electricity to the National Grid. There are no special circumstances to allow this development causing the destruction of a vast swathe of agricultural land linked to the above concerns.

This proposal is NOT a renewable energy project AND for reasons previously stated is entirely inappropriate.
No evidence appears to be given of the proposers' claim that this development "would provide enhanced energy resilience in the National Grid". Is such resilience required? And if it is, why could it not be provided for on brownfield sites, safely

located in a remote area away from the people who reside and will reside around this proposed site rather than on agricultural land and causing a negative effect on residential and business communities?

This proposal does not meet local needs, has no benefits to the local community, brings no local employment and cannot be justified. And just to be clear, even if it did provide benefits to the local community, like free electricity was on offer, Aslacton Village would not want it nor would their surrounding villages.

At this time we consider South Norfolk and Broadland Council cannot approve this application on the basis that planning permission have not been granted for the following:-

Tasway Energy Park estimated to be 25,000 acres would be one of the biggest solar farms in South Norfolk,

Second only to East Pye Solar an estimated 5,000-acre scheme.

Norfolk could become the biggest solar energy producer in the country if the numerous schemes go ahead.

Objection

We therefore advise South Norfolk and Broadland Council planners that Aslacton Parish Council on behalf of itself and residents vehemently object to this application based on all of the above grounds.

To APPROVE this application would be a dereliction of South Norfolk and Broadland Council's responsibility and duty of care to your South Norfolk constituents as this application represents a real and ever-present threat to their safety never mind the destruction of a vast expanse of agricultural land and conflict with the South Norfolk Local Plan.

Andy Tempest

Chair on behalf of Aslacton Parish Council.