

W/21/1370 Application for Battery Factory

CPRE Objections

CPRE Warwickshire objects to the application submitted on behalf of Coventry City Council and Coventry Airport for the development of a battery manufacturing facility. The main issues are summarised in the sections below.

Scale of proposed development

The Design and Access Statement (P2) headlines that “*the proposed Gigafactory ... will be the UK's largest single manufacturing plant*”. While the Economic and Social Benefits Report (‘Hatch Report’) makes a case for development of battery factories in the UK, it does not justify the huge scale of the proposed development at Coventry Airport.

The proposed manufacturing plant at Coventry Airport is designed to deliver 60GWh per annum of battery capacity (Planning Statement paragraph 3.3). This compares with a UK-wide forecast of demand of 50GWh p.a. in 2030 rising to 140GWh p.a. by 2040. The 2040 forecast is expected to be delivered by **seven** battery factories with an average of 20GWh p.a. each (Hatch Report paragraphs 4.22 and 4.93).

The proposed battery factory’s design point of 60GWh p.a. is assumed to be delivered by multiple production lines of 3-4 GWh [per annum] for each line (Hatch Report paragraph 4.83). This implies 15-20 parallel production lines serving different battery customers and locations. If 1GWh of batteries supplies 30,000 electric vehicles (derived from paragraph 4.9 of the Hatch Report), the 60GWh p.a. design point would supply 1,800,000 electric vehicles per annum. This is double the total number of cars built in the whole of the UK in 2020 and greater than the peak of UK production in the last 6 years¹. Even if electric vehicles grow in average battery capacity over time (which seems unlikely considering that many electric vehicles are currently in the premium car segment), the proposed factory size is excessive for foreseeable car production in the UK.

The Hatch Report claims (paragraph 4.50) that “*proximity to the end user of the battery is the most important issue in decisions about location.*” The end-users of high volumes of battery packs are expected to be high volume car manufacturing plants in locations such as Sunderland, Merseyside, Derbyshire, Birmingham, Solihull, Oxfordshire and Bedfordshire (Hatch Report paragraph 6.50). In Coventry and Warwickshire car-making is low volume. Being within 2-4 hours travel time of large scale vehicle manufacturing plants is far from unique to the Coventry Airport site (paragraph 5.3 and Table 5.4).

When considering large-scale car manufacturers, it is important to distinguish between different functions within an organisation. While research and development teams may need to interact with academia, they are **not** end-users of large-scale battery manufacturing plants. Global product development is increasingly done on the basis of designing the product once (design

¹ [UK Vehicle Manufacturing Data - SMMT monthly data](#)

globally) while manufacturing locally for individual markets (build locally). R&D locations are usually quite distinct from manufacturing locations. The Hatch Report's assertion (paragraph 5.1) that it is important to locate a factory close to research, development and teaching institutions is misleading. For example, BritishVolt has its 'Global HQ' in the West Midlands (*"near to research partners at Warwick Manufacturing Group"*²) but its first Gigaplant in Northumberland, *"situated close to an abundance of renewable energy"*. Its decision to site its factory far from its R&D shows there is no credibility in the assertions made in the Hatch report.

Figure 5.1 in the Hatch Report is misleading because it includes under its heading of 'automotive manufacturers':

- small scale local manufacturers (e.g. Aston Martin, LEVC, Lotus) which are not of a scale to justify development of a battery manufacturing factory designed for output of 60GWh p.a.;
- R&D locations (e.g. Cranfield, London);
- and a defunct manufacturing plant (Honda Swindon).

Again, in paragraph 7.15, the Hatch Report claims that proximity to JLR's headquarters is a major benefit; this is irrelevant for a battery manufacturing plant. These are not major drivers of the siting of a huge battery factory as it claims (paragraph 5.4).

The Hatch Report asserts that large scale is necessary (paragraph 4.73). Yet very few of the examples it gives (in Table 4.2) are anything like the scale proposed in the current application. The largest capacity operational plants are Tesla's, which integrate battery, motor and vehicle production (Hatch Report paragraph 4.74) - these are not comparable with the current proposal for a stand-alone battery manufacturing facility. The Britishvolt factory planned at Blyth is designed for an output capacity of 30GWh p.a. (Hatch Report paragraph 4.23), half the planned capacity of the proposed development at Coventry Airport, and the Nissan Sunderland battery plant is smaller still (up to 20GWh p.a. according to the Hatch Report paragraph 4.95). The claimed economies of scale are not linear - they diminish once a threshold has been reached. Seven UK facilities of capacity of about 20GWh p.a. by 2040 might be justified - the proposed facility of capacity of 60GWh p.a. is not justified.

The proposed manufacturing floor area represents an increase of 58% on the **total** supply in Warwick district (Hatch Report paragraph 6.52). Concentrating such a large increase in a single site in the Green Belt is not justified. The huge scale of the proposed facility is not justified.

The unjustified huge scale of the proposed development leads to related issues with:

- The analysis of alternative sites;
- Impact of road traffic
- Emissions
- Landscape and visual impact
- Impact on the Green Belt

² See section "Why the UK First" at [Britishvolt - Accelerating the transition to a zero-carbon future](#)

Alternative Sites

The proposed development is inappropriate development in the Green Belt. The Local Plan (Policy DS4 Spatial Strategy) requires that exceptional circumstances are required in order to justify such development and this must take account of availability of alternative suitable sites outside the Green Belt.

The Environmental Statement (paragraph 5.3.4, 'ES') repeats the assertion that the first criterion for locating a battery factory is proximity to the market for the finalised product. As the operator for the battery factory is not identified and its customers are unknown, suitable alternative sites could be anywhere. Even if we guess that the largest automotive manufacturing sites are target customers, the Hatch Report claims that travel times to these sites should be 2-4 hours. Nevertheless, the ES goes on to assert that none of the alternative sites is suitable because of "peripheral location to core markets" (ES paragraph 5.3.5). This assertion is unjustified. The applicant's Addendum to Consideration of Alternatives report outlines 16 of the many possible sites. Sites not in the Green Belt are wrongly dismissed on the basis that they are not close to core markets (e.g. Northampton Gateway with existing planning consent, Rail Central). This excuse is even used for West Midlands Interchange, which is very close to JLR's i54 engine plant and has planning consent.

The unjustified immense scale of the proposed battery factory is used to claim that more of the 16 alternative sites are unsuitable. Examples include:

- DIRFT III, where its largest building footprint is stated to be 1.6 million square feet;
- Magna Park, where its largest building footprint is stated to be 1.7 million square feet;
- Peddimore, where its largest building footprint is stated to be 1.3 million square feet and the maximum building height is stated to be 23.5m.

Many sites are suitable once unjustified size requirements are relaxed.

The unreasonable rejection of alternative sites continues by claiming that alternative sites have "*no nearby Grid Supply Point with sufficient capacity for power*" (ES paragraph 5.3.5). Once again, this assertion depends on the proposed size of development and its limited on-site generation from renewables. The Design and Access Statement (section 6.1) claims that '**at least 50%**' of required energy would be from on-site generation from renewable sources and that (section 3.2) connection to the National Grid would be at Berkswell. There are clearly reasonable solutions at alternative sites, for example by increasing on-site generation, reducing the demand for energy from the grid or connecting to more distant grid supply points. Availability of suitable grid connections is used as an excuse for rejecting alternative sites when it is not a show-stopper.

There is little evidence as to why this development must be of the proposed size. The justification for selecting Coventry Airport as the site is fundamentally flawed.

Road Traffic

The size of the proposed facility is a major factor driving the associated road traffic. The proposed annual production of batteries totalling 60GWh p.a determines both the import of raw materials and export of completed batteries. All of this is proposed to be transported by road.

Despite considerable detail elsewhere about the process of battery fabrication, the Transport Assessment ('TA') does not appear to calculate HGV movements based on the types and volumes of raw materials and the nature and volumes of the finished product. Batteries are heavy and bulky - this is part of the rationale for locating a battery factory near to car plants. It is essential that the nature of the product is taken fully into account when assessing road traffic impact.

The TA (paragraph 5.6.1) states: "*The methodology adopted for HGVs is based on a proportional comparison between TRICS HGV rates and the overall trip generation calculated.*" This superficial description of the methodology used to assess HGV movements appears to base the assessment on typical rates rather than the planned inputs and outputs for the proposed battery factory. The ES offers no clarification of the methodology when it states (paragraph 7.5.10) that "*the flows for this assessment have been extracted from the CASM model*". This is not an adequate justification for the "*UK's largest single manufacturing plant*" - it is not fully evidenced and justified.

When the full impact of HGV movements is assessed properly for the type and size of the proposed factory, it will be clear that the local roads would not be able to cope with the cumulative traffic. Already consented developments of Whitley South and Gateway South will undoubtedly make great demands on the local roads. The proposed battery factory would add considerably to this demand, with HGVs from one facility having to cross the routes of HGVs to other facilities. For example, HGVs from Goods-out of the proposed battery factory (Access 4 and 5 in Preliminary Access Proposals and Illustrative Masterplan) would have to cross the paths of Goods-in HGVs going to distribution sheds in Gateway South. Motorised transport of the large number of employees claimed at all the facilities would be added to this traffic. All this would create a congestion nightmare for residents of local villages.

The Hatch Report (paragraph 4.50) confirms that a critical factor is the cost of transporting cells and batteries because they are heavy and bulky. It goes on to assert (paragraph 7.13) that one of the key locational drivers is "*Good quality transport infrastructure (road, **rail**) to support the inbound supply of materials and equipment, supply chain inputs and the outbound delivery of cells and packs to customers.*" and that a key strength of the Coventry Airport site is "*a central position in the UK that gives good road and **rail** access to manufacturing operations elsewhere.*" Yet there is no proposal to use rail transport for the bulk transport of batteries from the battery factory to the projected end-user at a car factory and no local rail facility at the Coventry Airport site. The failure to address more sustainable forms of transport for the product is a major issue with the current proposal.

The Transport Assessment asserts (paragraph 5.3.5) that the proposed facility does not produce a high volume of product for a single buyer. This conflicts with the rationale for locating the facility at Coventry Airport, as described in the first section above. Such contradictions make the Environmental Impact Assessment unsound.

Emissions

Assessments of noise and air quality impacts are very dependent on the outcome of the analysis of road traffic. The superficial analysis of road traffic means that the noise and air quality assessments

cannot be relied upon. This also impacts the assessment of carbon emissions but the problems are much greater than just road traffic emissions.

The method used by the applicant to assess Climate Change impacts is described in ES Appendix 15.2. In its section 1.2, the applicant outlines the approach adopted for assessment of baseline conditions. Instead of using a 'do nothing' case as the baseline, it compares the proposed development with a 'typical development' producing the same outputs. The proposed approach only assesses the carbon emissions relative to another theoretical development - at the margin - rather than the real climate change impact. As described above, there is no similar manufacturing facility of such a size, or anything approaching it, in the UK. The fact that the adopted method is promoted by the European Bank for Reconstruction and **Development** underlines that it is designed to promote development. Such a 'business as usual' approach does not reflect the huge challenge of the Government's net-zero commitment or Warwick District's declaration of a Climate Emergency. A more reasonable assessment for investment during a Climate Emergency is offered by the Partnership for Carbon Accounting Financials³ or the UN Environment Programme Finance Initiative⁴.

The construction of large scale buildings such as that proposed use vast quantities of building materials such as steel and concrete. These materials have a very high carbon cost which becomes embedded in the new building. This carbon cost must be taken into account but the current application fails to do this (ES Appendix 15.2 paragraph 1.3.6). Emissions generated by HGV movements (when properly assessed) and staff journeys must also be included in the whole systems analysis of greenhouse gas emissions - again, the applicant's analysis omits these (ES Appendix 15.2 paragraphs 1.3.6 and 1.3.8). These are just some examples of the carbon cost that must be taken properly into account in a rigorous whole systems whole life analysis of the proposed development.

Following the recent IPCC report, the UN stresses⁵ the importance for governments, regulators, sectors, and companies to go beyond announcements and urgently adopt concrete and actionable carbon-reduction strategies to underpin the required investments. The applicants - Coventry City Council and Coventry Airport, part of the Rigby Group - as well as Warwick District Council must respond properly to this urgent imperative. Leadership on greenhouse gas emissions is urgently needed if Warwick District's Climate Emergency declaration has any real meaning.

Landscape and Visual Impact

The study area chosen for assessment of the landscape and visual impact under-estimates the impact of the proposed development. It is based on a building height of 26m (ES paragraph 11.3.6). Although the ES recognises that the proposed building 36m high would have a greater visual impact, it **assumes** that "*the taller elements will become recessive in the view and effects will reduce to negligible*" (ES paragraph 11.3.6). There is no basis for this assumption. The ES

³ [The Partnership for Carbon Accounting Financials \(PCAF\) launches first global standard to measure and report financed emissions | PCAF](#)

⁴ [United Nations Environment – Finance Initiative – Partnership between United Nations Environment and the global financial sector to promote sustainable finance \(unepfi.org\)](#)

⁵ [Net-Zero Asset Owner Alliance: Investors, companies and governments must act definitively after IPCC AR6 – United Nations Environment – Finance Initiative \(unepfi.org\)](#)

(paragraph 11.4.31) further assumes that visibility of the tallest buildings “*will be near total*”; this assumption is nonsense. The ES further fails to assess the impact of chimneys that could be up to 10m higher still (Parameters Plan). All of this means that the chosen Zone of Theoretical Visibility (ZTV) is far too small - the landscape and visual impact would be far more widespread and damaging.

The huge bulk of the proposed buildings, reaching up to 150 feet high to the top of the chimneys, would have a large and widespread visual impact. This would be magnified by the topography, having the proposed buildings on a plateau surrounded by undulating land. Plumes from the chimneys would further accentuate the intrusion into the countryside.

The buildings would be particularly prominent when viewed from higher landscape (see Plan 11.4) within the Green Belt beyond Warwick District. For example, the ES appears to ignore the impact on the area around Knightlow Hill (near Stretton on Dunsmore in the south-east of the chosen ZTV in Plan 11.6) on Dunsmore Plateau (see Plan 11.5) within Rugby Borough. The photograph below shows the view of the site from Public Rights of Way on Knightlow Hill, looking down on construction equipment in front of existing warehouse roofs. The proposed buildings would be much higher and more massive. High chimneys would add to the prominence when viewed across undulating countryside, especially if plumes of emissions are visible.



The A45 runs across Knightlow Hill but the ES (paragraph 11.4.54) ignores visual impact on the A45 because of “*lack of visibility*”. This is clearly wrong - there is a similar view of the site across open countryside alongside the A45, for example from the lay-by on Knightlow Hill. The proposed buildings would be especially prominent in winter when the deciduous trees have dropped their leaves. This is all within the chosen (artificially constrained) ZTV.

The ES acknowledges (paragraph 11.5.4) that buildings up to 35m high would introduce “a *feature that is not evident within the receiving landscape*”, changing the character of the site, but goes on to assert that such buildings “*will not be incongruous within the wider landscape*”. There is no justification for this assertion. It further accepts (paragraph 11.5.8) that introduction of high chimney stacks would introduce additional elements into views. Its assessment (paragraphs 11.7.2 and 11.7.4) that visual impact and changed landscape character would be beneficial is a gross distortion. So-called mitigation, such as a 8m high bund on the western edge (paragraph 11.5.2), would not hide huge buildings with high chimneys in the wider landscape.

The applicant's Landscape and Visual Impact assessment has little credibility. At least the Planning Statement (paragraph 6.39) acknowledges residual harm from visual impact of the proposed development. In reality, there would be a very significant visual impact and harm to the landscape.

Impact on the Green Belt

The applicant's Green Belt Review (ES Appendix 11.10, 'GB Review') confirms that the site is in the Green Belt. The applicant's Planning Statement (paragraphs 6.2 and 6.28) confirms that the proposal is inappropriate development in the Green Belt and that this is harmful to the Green Belt. Unfortunately, the applicant's GB Review presents a one-sided view of the impact of the proposed inappropriate development in the Green Belt. It does this by omitting inconvenient facts and selecting just one side of findings from earlier Green Belt studies.

The applicant's GB Review, specifically its Section 3 on Policy and Evidence Base, fails to mention the approved Local Plan which specifies (paragraph 1.34 and Policy DS4) that sites in the Green Belt should only be developed where **exceptional** circumstances can be justified. The exceptional circumstances take into account the availability of alternative suitable sites outside the green belt. As described above, the applicant's consideration of alternatives is distorted.

The applicant's GB Review highlights that Coventry Gateway may introduce large-scale development in the locality but fails to mention that Policy DS16 specifies that significant tracts of allocated land must be maintained as open space in the Green Belt (WDC Local Plan paragraph 2.68 and LP Map 8).

The applicant's GB Review presents some findings of the 2009 Joint Green Belt review but fails to mention the assessment of the open character of the existing site. In the context of the Local Plan and its Policy DS16, the Inspector's Report highlighted “*the openness of the Green Belt in this locality*” and the impact of the introduction of large scale employment related development and associated infrastructure on the character and appearance of the area. (IR paragraphs 496-497).

In the same way, the applicant's GB Review emphasises only some of the findings of the 2013 Green Belt and Green Field review. It again omits the positive assessments of the relevant

parcel of land - BAG2. For example, the applicant omits mention of the following assessment from 2013:

- Q1. Would development in this area affect the openness of the Green Belt? Yes – this is a very flat open landscape.
- Q.11 Would the loss of this Green Belt parcel result in a small settlement being absorbed into a large built-up area? Yes – some potential for Baginton village to be absorbed within a large new development.
- Q12 Would the loss of this Green Belt parcel reduce the open land contiguous to or with close proximity to the large built up area? Yes – the parcel is within close proximity to the south of Coventry.
- Q25 Would the loss of this Green Belt parcel reduce the character, identity or setting of a village or hamlet? Yes – some potential to impact on the character of the village – particularly at the eastern edges of Baginton village.

Once again, the applicant's GB Review presents a biased view of the 2015 Coventry and Warwickshire Joint Green Belt Study. It emphasises that this study was not complimentary of the openness of the site (site C9) even though the Inspector's Report, which was written after the 2015 study, recognised the openness of the locality (as quoted above). The Study gave the site the highest possible score on the Green Belt's purpose of preventing coalescence between neighbouring settlements but the applicant's report attempts to discount this because industrial estates and villages are not 'towns'; if this pedantic approach was accepted, no village in the Green Belt would be safe from urban intrusion by industrial estates. Similarly, the applicant's report tries to discount the maximum score for the urban regeneration purpose by claiming that "*the Site is urban land*". Any reasonable person who observed the large tracts of grassland at Coventry Airport would know that this assertion is unjustified.

Such a biased review does not meet the NPPF's requirement for Green Belt changes to be 'fully evidenced and justified' and therefore no weight should be given to the assessment in the GB Review. Its conclusion that "*Overall, the Site makes a limited to no contribution to the purposes of the Green Belt as set out within the NPPF*" (GB Review paragraph 4.3) is not valid. The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their **openness** and their **permanence**. (NPPF paragraph 137).

The applicant's Planning Statement (paragraph 6.29) accepts that the proposed development would harm the openness of the Green Belt through the introduction of large-scale built development to the site. It goes on to claim no harm (paragraph 6.34) to the four of the purposes of the Green Belt but its assessment is based on the GB Review, which should carry no weight. The Planning Statement accepts that there is harm to the purpose of safeguarding the countryside from encroachment but claims that this can be mitigated. Its claim that provision of 'green infrastructure' would mitigate such encroachment is misleading. Its assertion (paragraph 6.34) that harm to the Green Belt is 'localised' is also invalid (see the section on Landscape and Visual Impact above). Even if the harm was confined to the local area, this would not justify harm to the Green Belt.

The Coventry Airport site is open in nature and is an essential part of the Green Belt, which is of great value particularly in light of the developments recently permitted on the periphery of the

site. The Local Plan protects the site as Green Belt and links it to remaining areas of Green Belt land required by Policy DS16. The Local Plan requires exceptional circumstances in order to justify inappropriate development in the Green Belt. The NPPF requires very special circumstances for such development. For the reasons outlined above, exceptional or very special circumstances have not been established by the applicant.

Warwick District Council has already approved a nearby development (Whitley South) on the grounds that very special circumstances existed because JLR had an urgent need adjacent to their existing site (Planning Statement paragraph 6.24). JLR's occupation of Whitley South has not materialised despite the assertions of urgent need there. In the current application, there is no identified occupant for the proposed facility and no large-volume manufacturing in the vicinity. This makes any claim of exceptional circumstances even more dubious than the 'very special circumstances' used to justify Whitley South.

The Planning Statement accepts (paragraph 6.29) that "*The Scheme will harm the openness of the Green Belt through the introduction of large scale built development to the site.*" This conflicts with the NPPF which requires that redevelopment in the Green Belt must "not have a greater impact on the openness of the Green Belt than the existing development" (NPPF paragraph 149g).

The Planning Statement goes on to claim that "*The Scheme will not affect the permanence of the Green Belt; the grant of planning permission would not have the effect of removing the land from the Green Belt. It would remain so designated.*" This is a critical factor if it is considered there are exceptional circumstances that really justify planning permission (contrary to our judgement that the case for exceptional circumstances has not been made). The site **must remain in the Green Belt**. The reason is that, even if planning permission is granted, there is no guarantee that an operator will be found to make the very substantial investment to develop the site as described. There is a growing number of alternative sites, both in the UK and elsewhere in Europe. If the Coventry Airport site is granted permission for B2 development without continuing Green Belt protection, it could be used as a precedent for other B2 manufacturing (or B8 logistics) applications without the same exceptional circumstances. It is essential that the Coventry Airport site remains as part of the Green Belt.

Deviation from Approved Local Plan

In addition to the Green Belt and other issues, the site is not identified as a development area or as land safeguarded for potential future development in the approved Local Plan. The proposal is contrary to the approved Local Plan but no justification is proposed for this. The NPPF (paragraph 12) specifies that applications should not normally be granted if they depart from the development plan. The application fails to justify the proposed deviation from the approved plan.

Conclusion

The proposed development is contrary to the Development Plan. It is inappropriate development in the Green Belt and exceptional circumstances have not been established. The size of the proposed development is excessive. Alternative sites outside the Green Belt exist for multiple battery factories of more reasonable size.

The Environmental Impact Assessment is not sound, for example in its assessment of road traffic, emissions, landscape and visual impacts. The proposals would be very damaging to the environment generally and to countryside in the Green Belt in particular.

In case the judgement is reached that exceptional circumstances have been established, it is essential that the site remains within the Green Belt. This is necessary in order to continue some protection in case the proposed commercial development does not actually materialise as proposed.