



1 INTRODUCTION

1.1 CONTEXT

- 1.1.1 This Environmental Statement (ES) has been prepared by Wardell Armstrong LLP (WA) in conjunction with Lichfields, RPS and Systra to accompany a planning application for a proposed development at the International Advanced Manufacturing Park (IAMP). The Proposed Development is located within the boundary of IAMP as identified in the IAMP Area Action Plan (AAP) 2017-2032 (adopted 2017); however, the majority of the site lies outside the area of land allocated for automotive and advanced manufacturing uses and on land designated as an Ecological and Landscape Mitigation Area ('ELMA') and Green Belt.
- 1.1.2 The Site is located north of the A1290 and west of the A19, with access from International Drive, in the northern part of Sunderland. This application seeks permission to develop 42.39 hectares (ha) of land located within the south-western part of the IAMP for a battery manufacturing facility, assembly and warehouse building for storage and distribution and AESC UK headquarter office building, together with infrastructure including ancillary MEP¹ plant rooms, gatehouse, substation and car parking provision, with associated drainage and landscaping.
- 1.1.3 The description of the development is the 'erection of a building to be used for the manufacture of batteries for electric vehicles, an assembly and warehousing building, an office building, a sub-station, gatehouse, ancillary compounds / structures and associated infrastructure provision, access, parking, drainage and landscaping.
- 1.1.4 The IAMP ONE application was submitted in January 2018 and planning consent was approved in May 2018. Three buildings have been constructed, with two being occupied by SNOP and Faltec, whilst the associated infrastructure has been delivered. The IAMP ONE Phase 2 application (ref. no. 20/00556/OU4) was submitted to Sunderland City Council (SCC) in March 2020 and planning consent was approved in June 2020. The purpose of that application was to include an additional plot of land within the IAMP ONE boundary. This application did not increase the amount of floorspace above that already approved through the 2018 IAMP ONE permission.
- 1.1.5 In October 2021, planning permission was granted for a gigafactory for the manufacture of batteries for electric vehicles (EV) on part of the IAMP ONE land (hereafter referred to as AESC Plant 2) (application ref. no. 21/01764/HE).

¹ Mechanical, electrical and plumbing (MEP).



Subsequently, amendments to the AESC Plant 2 scheme design were proposed that necessitated the submission of a Section 73 application. The Section 73 AESC Plant 2 planning application (ref. no. 23/01542/VA4) was submitted to SCC in June 2023 and planning consent was granted in September 2023.

- 1.1.6 Three full planning applications have been submitted with respect to the development of a gas governor house, high voltage (HV) substation compound and bulk store canopy, which are to provide supporting infrastructure and facilitate the battery plant development. The location of each of these developments lie within the redline boundary of the AESC Plant 2 development, as approved under planning reference 21/01764/HE4.
- 1.1.7 The development to which this ES relates, known as the AESC Plant 3 development and hereafter referred to as 'the proposed development', is the next phase in the development of the IAMP site. The purpose of this ES is to assess the likely significant environmental impacts that may occur as a result of the construction and operational phases of the AESC Plant 3, assembly and warehouse building, and AESC UK Office HQ. Whilst situated within the wider IAMP boundary, the redline boundary for the AESC Plant 3 site (hereafter referred to as 'the site') partly encroaches on green belt land.
- 1.1.8 Drawing200-P03-Existing Site Plan and Location Plan illustrates the location of the site in the context of the surrounding area. Figure 1.2 illustrates the different parcels of land within the overall IAMP site, and the relationship of this application area to these.
- 1.1.9 The new planning application is being submitted to SCC as the relevant planning authority.
- 1.1.10 For the purposes of sustainability, the ES has been provided to SCC in a format that can be uploaded to their website. The application and the full application will, therefore, be available to view online at the website address <http://www.sunderland.gov.uk/online-applications/> or during the opening hours of SCC, at the following address:
- Development Management
Sunderland City Council
City Hall
Plater way, Sunderland SR1 3AA.
- 1.1.11 Should you require a digital / electronic copy of this ES, please use the details for Wardell Armstrong (hkennedy@wardell-armstrong.com) or liaise with the planning



team at SCC for further assistance.

1.1.12 All consultation responses on this ES and the detailed planning application should be issued to SCC.

1.2 The Applicant

1.2.1 The applicant is AESC UK.

AESC UK and the Existing Battery Plant (AESC Plant 1)

1.2.2 AESC UK is a world leading battery technology company and manufacturer of lithium-ion batteries for the automotive industry. It already runs what was Europe's first EV battery plant (hereinafter referred to as 'AESC Plant 1'), which opened in Sunderland in 2012 to produce batteries for the Nissan LEAF, the company's best-selling all-electric model.

1.2.3 The business is headquartered in Japan, with manufacturing sites in the United States and here in Sunderland where over 470 workers are employed. The company has a track record of quality and safety having just produced its fifty million battery cell.

1.2.4 Since 2012, AESC has produced batteries for more than 1,000,000 electric vehicles across 59 countries. AESC Plant 1 was the first mass scale battery plant in Europe and since 2019 the company has invested significantly in securing its market leading position.

Second Battery Plant – the gigafactory under construction at IAMP (AESC Plant 2)

1.2.5 As the demand for EVs is forecast to grow significantly over the coming years supporting the transition towards a net zero carbon future, additional capacity for battery manufacturing is needed. To meet this increased future demand, AESC is investing £450 million to build AESC Plant 2 at IAMP. Plant 2 will build AESC's latest generation of battery, with 30% more energy capacity, offering improved range and efficiency.

1.2.6 Full planning permission was granted for Plant 2 in October 2021. Construction is underway and it will be operational soon. This gigafactory will have a capacity of 12 gigawatt hours ('GWh') and will be capable of producing batteries for ten times as many EVs per year than at present. This will play an important role in accelerating the transition to net zero carbon mobility.

Third Battery Plant – the gigafactory subject to this application at IAMP (AESC Plant 3)



- 1.2.7 AESC is now seeking to expand its operations with the development of a third battery plant (hereinafter referred to as 'AESC Plant 3') to meet demand with capacity to produce 12 GWh of batteries per year, with an associated assembly and warehousing building and a headquarter office for AESC UK which will operate as a shared facility with AESC Plant 2.
- 1.2.8 The Proposed Development will help ensure that AESC and Sunderland are at the forefront of innovations in battery technology and are playing a critical role in leading the de-carbonisation revolution through the promotion of clean energy and new energy EVs.
- 1.2.9 The gigafactories will support the continued localisation of the EV battery supply chain and will help make EVs more accessible to the UK and European consumers.
- 1.2.10 Demand for batteries is growing rapidly, the Faraday Institute predicts 100,000 jobs could be created in the UK's battery manufacturing sector by 2040, with Sunderland well placed to capture a large amount of that job creation thanks to AESC and their supply chain.
- 1.2.11 The key headlines for AESC Plant 3 are as follows:
- Capacity to produce 12 GWh of batteries per year.
 - Construction is expected to commence in 2024 and the proposed development will become operational in 2027.
 - Once operational, the site will employ up to 1,911 people, drawing on the significant skills and experience of the existing workforce.
 - It is aimed to be partly powered by renewable energy.
 - This will confirm Sunderland as the heart of automotive electrification activities in the UK, building on AESC UK's investments in the current battery plant.
 - It provides opportunities for the materials used in battery produced to be sourced from local suppliers, further enhancing the benefits for the North East and UK economies.
 - The factory would be situated on the International Advanced Manufacturing Park (IAMP), in Sunderland and adjacent to the AESC UK Plant 2 battery plant. The proposed assembly and warehousing building and the AESC Office HQ building will be shared between the two plants.
 - The wider IAMP site is located within the administrative areas of SCC and South Tyneside Council (STC), whilst the application site lies solely within Sunderland.

- Figure 1.1 Site Extents, shows the relationship between the site and the wider IAMP development areas.

1.2.12 During the construction and fit out of the proposed development, a temporary site compound(s) will be required that will include cabins to provide offices, welfare facilities and to house equipment. The welfare facilities will include toilets, showers and a canteen. Temporary parking will also be required for the staff. The location of the site compound and parking area(s) has not yet been established. Given the size of the site, they could be moved around the site as work progresses.

1.2.13 If planning permission is granted, it is anticipated that there will be planning conditions requiring the submission of a Construction Environmental Management Plan (CEMP) and Construction Traffic Management Plan (CTMP). It is proposed that details of the site compound and temporary parking is submitted for approval as part of these documents. The assessments provided within this Environmental Statement (ES) have taken into account that there will be site compounds and parking as part of the construction phase.

1.3 The Requirement for an Environmental Statement

1.3.1 The statutory requirement for an EIA derives from the 1985 European Council Directive (No85/337/EEC) amended in 1997 by Council Directive 97/11EC that requires the study of the effects of a development upon human beings, flora, fauna, soil, water, air climate the landscape, material assets, cultural heritage, and the interaction between these. The Town & Country Planning (EIA) Regulations 2017 (as amended) (hereafter referred to as the '2017 EIA Regs') translate the EIA Directive into the UK's planning legislation.

1.3.2 An EIA is needed for projects likely to have significant effects on the environment by virtue of their nature, size or location. Whether or not a development requires an EIA to be undertaken depends on the nature of the development. An EIA is compulsory for major types of development listed in Schedule 1 of the 2017 EIA Regs; Schedule 2 of the 2017 EIA Regs indicates types of other development for which an EIA is required when certain thresholds and criteria are met, indicating that the development is likely to have significant effects on the environment. Changes or extensions to either a Schedule 1 or a Schedule 2 development that may have significant adverse effects on the environment also fall within the scope of the 2017 EIA Regs. Under the terms of the 2017 EIA Regs, the Proposed Development, as an industrial estate development on a site >5 ha, constitutes a Schedule 2 development.

1.3.3 The formal requirements for the content of an accompanying ES are set out in Schedule 4 of the 2017 EIA Regs. Whilst every report should provide a full factual description of a project's effects, the emphasis of Schedule 4 is on the 'significant effects' to which the project is likely to give rise. Other effects of little or no significance in relation to planning considerations usually need only brief reference in the ES to demonstrate that their possible relevance has been considered. There is general guidance given on the definition of what constitutes a significant effect, but this is not exhaustive, and much is dependent on expert opinion, including the views of regulatory authorities, as well as local conditions at the site.

1.3.4 The 2017 EIA Regs (Schedule 4, para. 4) provide a checklist of environmental components that should form the basis of an impact assessment. This includes the following:

- Air
- Biodiversity (in particular, species and habitats protected under The Habitats Directive and The Birds Directive)
- Climate
- Cultural heritage (including architectural and archaeological heritage)
- Human health
- Land
- Landscape
- Material assets
- Population
- Soil
- Water and
- The interaction between any of the above.

1.3.5 This checklist provides the reference point for this ES.

1.3.6 The 2017 EIA Regs also require an EIA to assess the potential significant effects arising from the vulnerability of the development to major accidents and disasters, as relevant to that development (addressed in Chapter 14 of this ES).

1.4 Structure of the Environmental Statement

1.4.1 The structure of this ES is as below.

Part A

1.4.2 Chapter 1 (i.e. this chapter) provides an introduction to the project and background



to the application. Chapter 2 provides a description of the scope and methodology of the assessment. Chapter 3 provides a detailed description of the site, its surroundings and the Proposed Development. Chapter 4 describes the planning policy context and Chapter 5 details the consideration of alternatives.

Part B

1.4.3 Various Chapters of this ES comprise the environmental assessments of the proposed development changes. This includes a detailed examination of the impacts (positive and negative, permanent and temporary, direct and indirect) associated with the proposed development for the topics listed within Table 1.1, below. Detailed mitigation measures are formulated for negative impacts and the residual effects of the scheme are described if they occur. Chapters 20 provides a summary of the findings reported within Chapter 6 to 18.

Non-Technical Summary

1.4.4 The chapters of the ES have been summarised and are reported using non-technical language. This Non-Technical Summary (NTS) has been produced as a separate report so that it can be easily distributed to interested parties.

1.5 The Consultancy Team

1.5.1 The consultancy team advising on the delivery of the EIA for the AESC Plant 3 development is listed in Table 1.1, below. The lead author(s) name is shown together with their qualifications. Each named individual is deemed to be a ‘competent expert’, as required by the 2017 EIA Regulations.

Table 1.1: The EIA Consultancy Team		
Role	Company	Author
Environmental Statement		
Introduction	Wardell Armstrong	Helen Kennedy BSc(Hons) MPhil CMLI Glen Shah BSc (Hons) MSc Affiliate IEMA
Scope & Methodology	Wardell Armstrong	Helen Kennedy BSc(Hons) MPhil CMLI Glen Shah BSc (Hons) MSc Affiliate IEMA
Site and Project Description	Wardell Armstrong	Helen Kennedy BSc(Hons) MPhil CMLI Glen Shah BSc (Hons) MSc Affiliate IEMA
Planning Policy Context	Wardell Armstrong	Ben Parkins BA (Hons) MSc MRTPI
Community Consultation & Consideration of Alternatives	Wardell Armstrong	Helen Kennedy BSc(Hons) MPhil CMLI Glen Shah BSc (Hons) MSc Affiliate IEMA
Air Quality	Wardell Armstrong	Malcolm Walton BSc Dip MCI EH Paul Threlfall BSc (Hons) MSc
Noise	Wardell Armstrong	Simon Urquhart IoA Dip MIOA Richard Calvert BSc (Hons) MIOA
Landscape & Visual Impact Assessment	Wardell Armstrong	Lucy Green BSc (Hons) DipLA CMLI



Waste	Wardell Armstrong	Alison Kemp BSc (Hons) MSc MCIWM PIEMA
Water Resources	Systra	Tim Dawe MEng CEng MICE
Ground Conditions	RPS	Paul Jeffery BEng MSc CEng MICE Karen Dale MGeol FGS MIEnvSc
Ecology & Biodiversity	Wardell Armstrong	Tim Palmer BSc (Hons) MCIEM
Access & Transport & Water Resources	Systra	Shaun Edwards BEng (Hons) MCIHT
Vulnerability to Major Accidents & Disasters	Wardell Armstrong	Helen Kennedy BSc(Hons) MPhil CMLI Tobias Crook BSc (Hons) MSc
Climate Change	Wardell Armstrong	Simon Allen BSc Hons AEI
Archaeology & Cultural Heritage	Wardell Armstrong	David Jackson BA (Hons) Cat Peters BA (Hons) MLitt ACIfA
Soils & Agricultural Land	Wardell Armstrong	Bill Crooks PhD MSc (Hons) FACTS MISoilSci
Socio-economics	Lichfields	Ross Lillico BA (Hons) MIED MEDAS James Robertson BA (Hons) MIED
Cumulative Effects	Wardell Armstrong	Helen Kennedy BSc(Hons) MPhil CMLI Glen Shah BSc (Hons) MSc Affiliate IEMA
Summary & Conclusions	Wardell Armstrong	Helen Kennedy BSc(Hons) MPhil CMLI Glen Shah BSc (Hons) MSc Affiliate IEMA plus all the above technical authors
Non-Technical Summary	Wardell Armstrong	Helen Kennedy BSc(Hons) MPhil CMLI Glen Shah BSc (Hons) MSc Affiliate IEMA plus all the above technical authors
Appendices: Technical Reports		
Glint Assessment	Wardell Armstrong	Paul Evans BSc (Hons) SEnv MEI
Energy Statement	Wardell Armstrong	Paul Evans BSc (Hons) SEnv MEI
Sustainability Statement	Wardell Armstrong	Paul Evans BSc (Hons) SEnv MEI
Heritage Statement	Lichfields	Nick Bridgland MA FSA Scot IHBC MCIfA James Fryatt BA (Hons) PGCE MSc MRTPI