CHAPTER 3.0 SCHEME DESCRIPTION

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3.1 Introduction

3.1.1 This Chapter of the EIAR describes the amendments to the LSEP scheme as now proposed and compares them against the scheme approved under the existing s.36 variation consent and DPP. It then describes the proposed amendments in detail along with the additional considerations of the Proposal.

3.1.2 The LSEP development, as consented, comprises a conventional, twin line, moving grate combustion plant, for the recovery of energy from residual waste. As identified in previous chapters of the EIAR, the Proposal does not involve any amendments to the design, layout, technology or location of the LSEP, which is currently under construction via the existing s.36 variation consent / DPP. Accordingly, detailed descriptions of plant processes, technology use, construction methods etc. are not discussed in the subsequent sections.

3.2 Proposed Amendments

3.2.1 The proposed amendments to the consented LSEP scheme are set out below.

Waste Fuel Throughput

3.2.2 The consented LSEP facility is based on an anticipated waste fuel throughput of circa 600,000 tonnes per annum (tpa). It is proposed to increase this by 128,000 tpa, to circa 728,000 tpa overall.

3.2.3 The 'need' for the additional waste fuel throughput proposed for the facility is set out in detail within Section 5.0 of the Supporting Statement, submitted in support of the Variation Application (Document 9).

HGV Movements

3.2.4 In order to facilitate the proposed increase in waste fuel throughput, it is also proposed to increase the HGV movements to / from the LSEP site from 131 HGV

arrivals (262 round trips) per day; to up to 217 HGV arrivals (434 round trips) per day. This will necessitate a variation to condition 9 of the DPP.

3.2.5 The increase in HGV movements will allow greater flexibility for fuel deliveries and the type of vehicle used to deliver the waste. The HGV movement profile for the LSEP scheme, as proposed to be amended, will be more complex than that envisaged in the Transport Assessment (TA) of the original LSEP application in 2010 / 2011. HGV payloads will vary depending on the material being carried and the vehicle type. This includes planning for direct deliveries from local sources, for example in Cheshire, in refuse collection vehicles (RCVs). RCVs are smaller than conventional bulk transfer HGVs and carry around one third the quantity of waste. Thus, where RCVs might be used for waste deliveries, the total number of vehicle delivery movements will increase.

Delivery Hours

3.2.6 To allow a greater degree of flexibility in the delivery of waste fuel to the LSEP facility, it is proposed to extend the HGV delivery hours, beyond those currently set within condition 8 of the DPP. The condition currently restricts the delivery of waste to 07:00 - 19:00 on weekdays and 07:00 and 13:00 on Saturdays. It prevents HGVs entering or leaving the LSEP site outside these times or at any time on Sundays or Bank / Public Holidays. The Proposal seeks to change the weekday delivery hours to 07:00 – 23:00. There would be no change to delivery hours on other days. This extension of delivery hours, and ability to spread imports and exports over increased daily hours, will reduce the impact on the peak traffic periods.

3.2.7 HGV deliveries and exports will take place every Monday – Saturday (except Bank Holidays, Christmas Day Boxing Day, New Year's Day and 28 days shutdown when there is no bunker capacity). This equates to 224 operational days per year.

3.3 Additional Considerations of the Proposal

3.3.1 As the Proposal will not necessitate any physical changes to the LSEP facility, this scheme description does not cover details of the consented plant processes / technology. However, aspects of the LSEP scheme which the Proposal may affect (that have not been discussed previously) are addressed below.

Generating Capacity

3.3.2 The increase in tonnage throughput will increase the actual electricity generating capacity of the plant, albeit that it will remain within the 90MW maximum limit approved under the s.36 variation consent granted in July 2019. The increased waste fuel throughput would take the gross generating capacity of the facility from 67.3MW gross (58.5MW net) to 76.9MW gross (69.9MW net).

Waste Sources and Quantities

3.3.3 The original s.36 application in 2010 / 2011 was based around two fuel delivery scenarios. These are summarised as follows:

- Scenario 1: All 600,000 tpa waste fuel imports, plus all consumables / ash imports / exports etc. will be via HGV by road; and
- Scenario 2: 400,000 tpa of fuel would be imported via rail and all other imports / exports would be via HGV by road.

3.3.4 The first scenario was referred to in the TA of the original s.36 application as the 'worst case scenario'. In this case all waste fuel imports (600,000 tpa) and all other imports / exports were transported by HGVs via road.

3.3.5 The second scenario was referred to in the TA of the original s.36 application as the 'most likely scenario'. In this case 400,000 tpa of fuel would be imported via rail and 200,000 tpa by road. In addition, 120,000 tpa of bottom ash and other exports were also exported via road.

3.3.6 At this point in time, with LSEP not programmed to be operational until the end of 2023, fuel contracts are not finalised. However, LSEP Ltd. is actively working on the fuel procurement strategy. This includes keeping the availability of rail borne waste under review. This represents an obligation under condition 11 of the DPP, which requires the operator company to seek opportunities to use non-road based transport for waste delivery, where commercially feasible and considered more sustainable.

3.3.7 In accordance with this condition, a study has been undertaken and has been reported on in an 'Alternative Transport Modes Scoping Study Report' (June 2021). This report can be viewed in full at Appendix D to the Supporting Statement for the Variation Application (Document 9). The study looked at the viability of alternative modes of transport for waste imports to the LSEP. In summary, the potential for waste being delivered by rail remains economically unviable at the present time, and as such, the opening years of the LSEP are unlikely to utilise rail for deliveries.

3.3.8 Accordingly, Scenario 2 is not considered relevant to the LSEP scheme at present and as such, rail has not been re-assessed in the TA for the EIAR. The TA focuses on assessing the likely significant effects of Scenario 1.

3.3.9 As per the requirements of condition 11, opportunities for non-road modes of transport for delivery of fuel to and from the LSEP site will be kept under review for the scheme.

Access

3.3.10 Vehicular access arrangements to the LSEP site for the additional HGV movements will be the same as those arrangements currently consented, i.e. via the A530 Griffiths Road. This provides a route towards the M6 South via the A54 at Junction 18 and to the M6 North and the M56/M60 via the A556 at Junction 19.

3.3.11 There will be no change in the routing of HGV traffic to / from the LSEP facility. For further details, see Chapter 4.0 of the EIAR Main Report.

Odour and Dust

3.3.12 There is the potential for fugitive emissions of dust and odour to be released from the LSEP site during the operational phase, particularly during the delivery, unloading and storing of materials. The impact of fugitive odour emissions has been assessed within Chapter 5.0 of the EIAR Main Report.

Fire

3.3.13 Whist considered extremely unlikely; it is possible that residual waste loads being received at the facility may comprise elements of smouldering material. Measures and procedures described as part of the original s.36 application to deal with such events would be applied equally to the additional waste deliveries.

Litter

3.3.14 As with the existing protocols on litter set out in consented LSEP scheme, the operator would maintain the LSEP site in a clean and tidy condition. All additional delivery vehicles accessing the LSEP site would be required to be adequately covered, thus avoiding problems associated with residual waste escaping onto the public highway or other areas outside the boundary of the LSEP site. Drivers would only be allowed to un-sheet vehicles after entering the reception (tipping) hall, in accordance with consented measures.

Summary

3.3.15 The key aspects of the Proposal can be summarised as follows:

- the Proposal is for a 128,000 tpa increase in waste fuel throughput at the LSEP facility. The current consented waste fuel throughput is 600,000 tpa and this will increase to 728,000 tpa;
- the Proposal, combined with changes to the anticipated mix of waste fuel delivery vehicles, will result in an increase in the number of HGVs delivering waste fuel to the facility, which necessitates an amendment to the HGV limit that is set by condition 9 of the DPP;
- the Proposal seeks to extend the waste delivery hours from 07:00 - 19:00 to 07:00 – 23:00 hours on weekdays only, which will necessitate an amendment to the hours set out in condition 8 of the DPP;
- The Proposal will only result in operational changes to the LSEP facility and does not necessitate any changes to the built form or to the site layout (as permitted by the original s.36 consent / s.36 variation consent);
- The Proposal will not result in the LSEP exceeding its overall consented power generating capacity of 90MW.

3.3.16 Table 3.1 sets out a comparison of the LSEP scheme amendments as now proposed against those in the currently consented scheme (i.e., in the s.36 variation consent).

Table 3.1: Comparison of LSEP scheme now proposed against consented scheme

Description of item / feature	Scheme approved under the 2019 s.36 variation consent	LSEP scheme as now proposed
Throughput capacity	600,000 tpa	728,000 tpa
Daily HGV movements to / from the facility	262 round trips (131 in, 131 out)	434 round trips (217 in, 217 out)
HGV delivery hours	Weekdays: 07:00 to 19:00 Saturdays: 07:00 to 13:00 Sundays / Bank Holidays: no deliveries	Weekdays: 07:00 to 23:00 Saturdays: 07:00 to 13:00 Sundays / Bank Holidays: no deliveries
Gross electricity generation	67.3 MW	76.9 MW
Net electricity generation exported to grid	58.5 MW	69.9 MW
LSEP / Application site area	10.3 hectares	10.3 hectares
Use of facility	Residual waste treatment with energy recovery	Residual waste treatment with energy recovery
Technology	Twin line, moving grate combustion	Twin line, moving grate combustion
Pre-treatment requirements	Not required – all residual waste would be pre-treated	Not required – all residual waste would be pre-treated
Estimated capital cost	£480 million	£480 million