Decommissioning

Request For Information

Document Classification | Public

Table of Contents

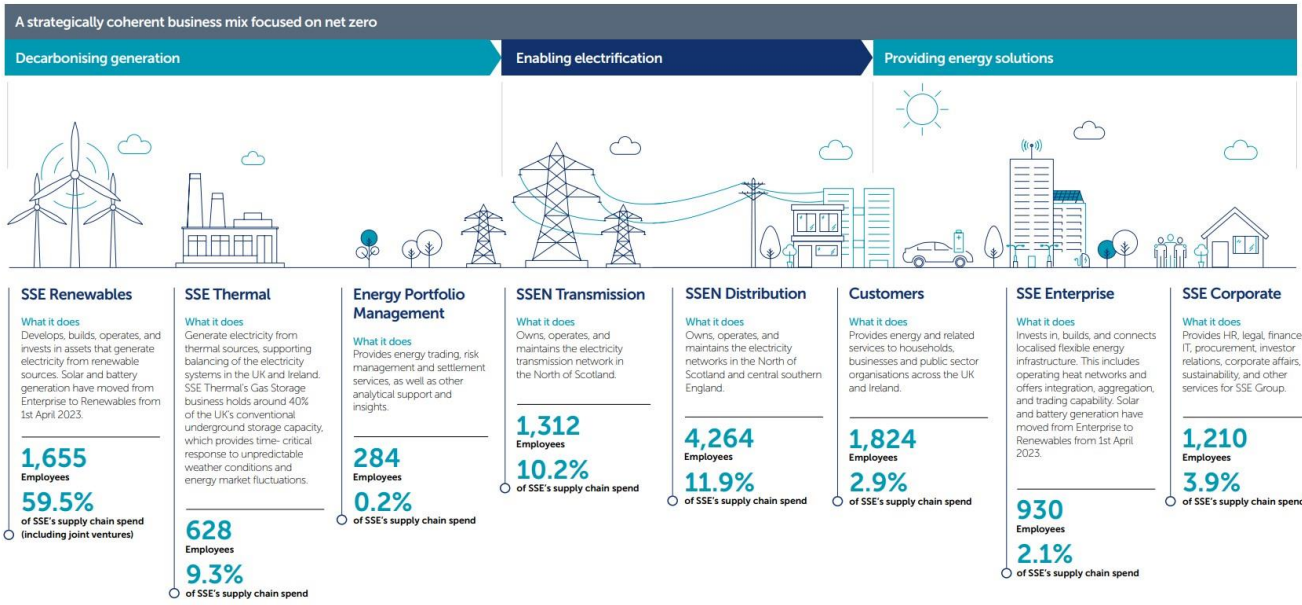
Introduction to SSE plc 2
Context 3
SSE Renewables 3
RFI Purpose 3
Request for Information 5
Questionnaire 6

Introduction to SSE plc

Scottish and Southern Electricity (SSE) is a leading generator of renewable electricity in the UK and Ireland. It is driven by a purpose to provide the energy needed today while building a better world of energy for tomorrow. It develops, builds, operates, and invests in low-carbon electricity infrastructure in support of the transition to net zero. Assets including onshore and offshore wind, hydro power, flexible thermal generation, electricity transmission and distribution networks, alongside providing energy products and services for its customers. SSE's ambitions for the development of renewable energy now extend beyond the UK & Ireland to carefully selected international markets, including Asia-Pacific, Europe, and North America. UK-listed and headquartered in Perth Scotland, SSE is a major contributor to the economy of the UK and Ireland. It employs around 12,000 people and is Real Living Wage and Fair Tax Mark accredited.

Through the Net Zero Acceleration Action Plan, SSE has established £40bn of investment in Net Zero over the next decade. We have already hit key milestones in the construction of flagship renewable projects while gearing up and accelerating the build-out of critical network infrastructure and offering much-needed flexibility to the system.

SSE's Business structure



Context

SSE Renewables

Part of the FTSE-listed SSE plc, we're taking action as part of SSE's Net Zero Acceleration Programme (NZAP) to increase our installed renewable energy capacity to 9GW by 2027, and over 16GW by 2032.

We have an operational portfolio of around 4.5GW of installed onshore wind, offshore wind and hydro generation capacity, with a secured future project pipeline of almost 15GW in development. We're also pursuing a further pipeline of over 13GW of additional prospective sites under development.

Our operational portfolio comprises nearly 2GW of onshore wind capacity, more than 1GW of offshore wind capacity, and almost 1.5GW of flexible hydro power and pumped storage capacity. These generation assets produce around 10TWh of renewable power each year.

We're committed to delivering the green energy the world needs now and in the future. Our 15.1GW construction and development pipeline includes 3.8GW of onshore wind, 1.3GW of pumped hydro storage, 1.2GW of solar and battery storage, and 8.8GW of offshore wind energy - the largest offshore development pipeline in the UK and Ireland.

RFI Purpose

SSE Renewables' strategy is, wherever possible, to continue to operate our onshore wind assets for as long as is reasonably possible through extension of life. Where extension of life is not possible, or the asset has surpassed the extension of life period, SSE Renewables will seek opportunity to repower the asset, or where this is not possible, decommission the asset. In both cases of repowering or decommissioning, SSE Renewables recognises, that as a prudent operator, suitable provisions for decommissioning <and disposal> should be in place. The purpose of this RFI is to investigate the opportunities with respect to decommissioning and to understand the existing and anticipated future capabilities of the supply chain to support SSE Renewables in projects of this nature.

Four wind farms in SSE Renewables' onshore wind fleet are currently operating in extended life and over the next five years, more than 30% of the SSE Renewables sites will surpass their design life of twenty years.

The table below provides an overview of all onshore SSE Renewables wind farms which are older than 15 years, some of which may require decommissioning services. SSE Renewables remains committed to delivering its Net Zero obligations and as such our operating strategy is under continual review. The decision to decommission assets will be based on several factors, SSE Renewables cannot provide a definitive schedule on any decommissioning projects and timescales can be subject to change. At the time of the publication of this RFI, only Tangy and Tangy Ext have been confirmed for decommissioning followed by repowering.

Site	Location	Age of Site	No Turbines	Turbine Manufacturer	Turbine Model
Artfield Fell	Scot	19	15	Siemens	1.3-62 CS
Bessy Bell 2	NIR	16	6	GE	1.5 S
Bindoo	ROI	17	32	GE	1.5 S
Coomacheo	ROI	16	18	Siemens	2.3-82 VS
Coomatalin	ROI	18	4	GE	1.5 S
Corneen	ROI	23	2	GE	1.5 S
Culliagh	ROI	24	18	Vestas	V47-660
Curragh	ROI	15	8	Siemens	2.3-82 VS
Drumderg	Scot	15	16	Siemens	2.3-82 VS
Gartnaneane	ROI	19	10	GE	1.5 S
Hadyard Hill	Scot	18	51	Siemens	2.3-82 CS
Kingsmountain	ROI	21	10	Nordex	N80-2.5
Knockastanna	ROI	15	4	GE	1.5 S
Meentycat 1.3	ROI	19	15	Siemens	1.3 CS
Meentycat 2.3	ROI	19	23	Siemens	2.3-82 CS
Mullananalt	ROI	16	5	GE	1.5 S
Richfield	ROI	18	18	GE	1.5 S
Tangy	Scot	21	15	Vestas	V52-850
Tangy Ext	Scot	15	7	Gamesa	G52-850
Tournafulla 1	ROI	17	5	GE	1.5 S
Tournafulla 2	ROI	16	13	GE	1.5 S

SSE Renewables are seeking engagement from interested parties on the below topics:

Decommissioning Plan

- Production and execution of a Decommissioning Plan to fulfil the terms of the pre-commencement condition of consent detailing the scope of work and method statement for the decommissioning work.

Recycling and Repurposing of Blades

- Production and execution of a Waste Management Plan with regards to the responsible repurposing or recycling of wind turbine blades and the avoidance of landfill disposal.

Component Management Plan

- Production and execution of a component management plan for reuse/refurbishment and repurposing of:
    - major and/or minor components including R&D projects on the development of refurbished or repurposed major and/or minor components.
    - unused components kept as stock for the decommissioned turbine(s)

Circularity

- Exploration of other services that can reduce the waste produced throughout decommissioning and increase the circularity rating of the project.

Turbine Re-Sell Market

- We wish to fully understand the market for re-selling used turbines and would welcome engagement from experienced parties.

Research and Development

- SSE has ambitious targets in terms of growing its UK & Republic of Ireland renewable energy capacity, alongside our commitment to sustainability and expansion of local circular supply chains. If your organisation, therefore, is currently working upon or planning any R&D activities that can benefit from involvement in decommissioning activities or utilisation of decommissioned components, SSE would welcome further details and engagement.

Request for Information

We cannot deliver these projects on our own; collaboration and partnership will be crucial for us to be able to deliver these projects in a sustainable and successful way. Your organisation's valued participation in this RFI exercise will fundamentally influence SSE's strategic approach to decommissioning The RFI process and how it is related to the project development activities is detailed in Figure 1 below.

The deadline for the RFI is 05/07/2024, with the following supply chain engagement activity taking place through July and August 2024. We encourage recipients to provide relevant information to allow assessment of current capabilities and future aspirations. Several questions are provided, and a comprehensive set of data is requested. If there is additional information that a recipient wants to provide then these can be provided in a free format.

Stage	Date
RFI Launch	09/04/2024

RFI Return	05/07/2024
Follow Up Engagement	July and August 2024

Questionnaire

Please complete the questionnaire with the sections relevant to your proposed scope and provide the response to Richard Bannerman (richard.bannerman@sse.com), cross-referencing the attachment(s) to the relevant question. If attachments provided are not specific to this RFI or are generic in nature, please detail which areas of the material are to be considered in relation to the questionnaire listed below. Failure to provide this information may lead to the submission not being reviewed.

RFI	Information Request - Decommissioning
1.1	Please provide a statement of your organisation's experience and competencies upon relevant decommissioning activities carried out under Construction (Design & Management) Regulations (CDM 2015) and/or Global Wind Organisation (GWO) Standards or equivalent, such activities to include but not be limited to: - Development of decommissioning plan - Submission of Safety, Health & Environmental Plan - Production of Method statement for the demolition and disposal of foundation cans - Execution of decommissioning activities
1.2	Please provide an indicative schedule of activities that your organisation may undertake in relation to decommissioning and based on relevant experience.
1.3	Please provide an example waste management strategy for decommissioned turbines, if relevant to your organisation (this may include reselling of whole turbines).
1.4	Please indicate your site requirements for supporting decommissioning projects, such as but not limited to: - Onsite storage/compound requirements - Technical requirements i.e., hardstanding/crane requirements, etc
1.5	Please state any critical enablers which SSE Renewables could implement to ensure effective decommissioning projects e.g. optimal contract structures/mechanisms/durations, notification of lead-in times to projects etc.
1.6	Please state your organisation's involvement in any industry wide working groups and/or collaborations fostering the development of decommissioning capabilities and/or best practice.

1.7	What scale (e.g. MW or project duration/no of turbines) of decommissioning activity optimises cost and sustainability efficiencies?

RFI	**Information Request – Recycling and Repurposing of Blades**
2.1	Please outline your organisation's proposed solution(s) for decommissioned blades, including how the proposed solution(s) help tackle growing composite waste by avoiding landfill or incineration.
2.2	Please provide a statement on how your organisation delivers value to local supply chain/communities.
2.3	Please outline your organisation's recycling and repurposing capabilities including capacity to process composite waste.
2.4	Please outline any requirements from your organisation to SSE Renewables to enable the proposed solution.

RFI	**Information Request – Reuse, repurposing and refurbishment of turbine components**
3.1	Please outline your organisation's proposed solution(s) for the management of used major components following decommissioning activities, such as reuse and/or refurbishment, followed by resale.
3.2	Please outline your organisation's proposed solution(s) for the management of used minor components following decommissioning activities, such as reuse and/or refurbishment, followed by resale.
3.3	Please outline your organisation's proposed solution(s) for the management of redundant stock at the point of decommissioning.
3.4	Please provide a statement on how your organisation delivers value to local supply chain/communities.
3.5	Please outline any further capabilities not listed in the foregoing questions, including capacity to handle used turbine components.

RFI	**Information Request – Reselling Turbines**
4.1	Please provide an outline of your organisation's service offering in terms of turbine resale.

4.2	Please specify any turbine information that would be required from SSE Renewables prior to purchase.
4.3	Please state how your organisation ensures that composites are not landfilled in relation to decommissioning activities. i.e. policies, processes, including for any movement or further sale of composites sold by SSE Renewables to your organisation and for which are being sold/transferred again by your organisation to a third party.

Any clarifications related to the questionnaire should be sent to Richard Bannerman (richard.bannerman@sse.com) no later than Friday 28th June 2024.