

CDP Water Security Questionnaire 2022

W0. Introduction

W0.1

(W0.1) Give a general description of and introduction to your organization.

SSE is a UK-listed energy company, operating across the UK and Ireland and in international markets (ie East Asia, Europe and North America). It is involved in the generation, transmission, and distribution of electricity; and in the supply of electricity, gas and related services to customers. It is a leading generator of renewable electricity in the UK and Ireland and one of the largest electricity network companies in the UK. SSE's purpose is to provide energy needed today while building a better world of energy for tomorrow; and its vision is to be a leading energy company in a net-zero world. Its strategy is to create value for shareholders and society in a sustainable way by developing, building, operating and investing in the electricity infrastructure and businesses needed in the transition to net zero.

SSE set its own ambition to achieve net zero carbon emissions across all its operations by 2050, covering direct and indirect emissions, or its scope 1, 2 and 3 GHG emissions. SSE has medium-term carbon targets which have been approved by the Science Based Target Initiative: reduce the carbon intensity (scope 1) of electricity generated by 80% by 2030 from 2018 base year; reduce absolute scope 1 and 2 GHG emissions by 72.5% by 2030 from 2018 base year; reduce absolute GHG emissions from use of products sold (scope 3) by 50% by 2034 from 2018 base year and engage with 50% of suppliers by spend to set a science-based target by 2024. SSE has joined the 'Race to Zero' and was a Principal Partner of the UK Government's presidency of COP26.

SSE's businesses and how they contribute to net zero:

SSE's businesses are well positioned to capture the growth opportunities generated by the net zero agenda:

- **SSEN Transmission:** owns, operates and develops the electricity transmission network in the north of Scotland.
- **SSEN Distribution:** owns, operates and maintains the electricity distribution network in the north of Scotland and central southern England.
- **SSE Renewables:** develops, builds, operates and invests in assets that generate electricity from renewable sources.
- **SSE Thermal:** generates electricity from thermal sources in a flexible and reliable way, supporting balancing of the electricity systems in GB and Ireland. **Gas Storage** holds around 40% of the UK's underground capacity, supporting security of supplies in the UK.
- **Customers:** SSE Business Energy and SSE Airtricity provide energy and related services to households, businesses and public sector organizations across GB and the island of Ireland.
- **SSE Enterprise:** focused on investing in, building and connecting localised flexible energy infrastructure, as well as developing solar and battery projects, operating heat networks, and offering integration, aggregation and trading capability.

- **Energy Portfolio Management:** secures value for SSE's asset portfolios in wholesale markets and manages volatility through risk-managed trading of energy-related commodities.

CDP Water Report

This is SSE's 7th year reporting on water-related issues. SSE has focused on the material water-related activities associated with its electricity generation activities and the impact of severe weather on its electricity networks business:

Hydro-electricity generation: SSE Renewables operates 1,459MW of hydro generation capacity (inc pumped storage). This includes 91 hydro dams in the north of Scotland with a water catchment area of 5,382 sq. miles. At hydro generation sites water is taken from rivers and lochs and returned to the water almost immediately after being run through the turbines to generate electricity.

Thermal generation: SSE Thermal's generation business is now dominated by gas generation, its last coal-fired power station closed in March 2020. It has a small number of oil-fired generation units. Water is used in a several operations such as for cooling and as process water. Its last coal plant was closed on 31 March 2020 and this is reflected in the capacity and output data, however, there continues to be water use at the site due to ongoing decommissioning requirements and for the site to support local water course management.

Electricity network resilience: Increased severity of extreme weather events such as storms and flooding can damage the network assets resulting in interruption to customer supply, the loss of incentive revenue and increased maintenance.

NOTE: SSE's reported capacities and output are at 31 March 2022 and are in line with its Annual Report 2022. The output volumes refer to the renewable and thermal power generation plant (including Power Purchase Agreements) that SSE operates to generate electricity. SSE has two Power Purchase Agreements: Marchwood and Seabank power stations. In FY2021/22, SSE accounted for 100% output from Seabank power station up to 31 September 2021 when SSE's Power Purchase Agreement ended, and from October 2021 onwards SSE accounted for its 50% ownership share.

W-EU0.1a

(W-EU0.1a) Which activities in the electric utilities sector does your organization engage in?

- Electricity generation
- Transmission
- Distribution
- Other, please specify
- Energy retail - household and business, and gas storage

W-EU0.1b

(W-EU0.1b) For your electricity generation activities, provide details of your nameplate capacity and the generation for each technology.

	Nameplate capacity (MW)	% of total nameplate capacity	Gross electricity generation (GWh)
Coal – hard	0	0	0

Lignite	0	0	0
Oil	966	10	816
Gas	4,321	47	13,478
Biomass	15	0	73
Waste (non-biomass)	0	0	0
Nuclear	0	0	0
Fossil-fuel plants fitted with carbon capture and storage	0	0	0
Geothermal	0	0	0
Hydropower	1,459	16	3,334
Wind	2,461	27	5,329
Solar	0	0	0
Marine	0	0	0
Other renewable	0	0	0
Other non-renewable	0	0	0
Total	9,222	100	23,093

W0.2

(W0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date
Reporting year	April 1, 2021	March 31, 2022

W0.3

(W0.3) Select the countries/areas in which you operate.

Ireland

United Kingdom of Great Britain and Northern Ireland

W0.4

(W0.4) Select the currency used for all financial information disclosed throughout your response.

GBP

W0.5

(W0.5) Select the option that best describes the reporting boundary for companies, entities, or groups for which water impacts on your business are being reported.

Companies, entities or groups over which operational control is exercised

W0.6

(W0.6) Within this boundary, are there any geographies, facilities, water aspects, or other exclusions from your disclosure?

Yes

W0.6a

(W0.6a) Please report the exclusions.

Exclusion	Please explain
Joint Ventures	<p>SSE has excluded any joint ventures in which it does not have operational control. For scope 3 investment category, SSE has excluded any joint ventures where SSE has an equity ownership of less than 50%. Below is a list of some of the largest business units excluded from the inventory. For a full list of SSE's subsidiary undertakings, partnerships, joint ventures and associates, please refer to pages [303 to 308] of SSE's Annual Report 2022.</p> <p>SSE held a 33.3% financial investment stake in Scotia Gas Networks (SGN). SSE did not have a controlling stake in, or operational control of, this business and SGN completes its own GHG and SECR reporting. On 22 March 2022 SSE sold its entire 33.3% stake in SGN.</p>
Supply chain	The data for water withdrawal, discharge and consumption detailed in this report excludes data for SSE's suppliers.
Gas production activities	During 2021/22, SSE had investments in gas production assets in the North Sea and west of Shetland, all of which were owned by SSE E&P (UK) Limited. Although this company was wholly owned by SSE, SSE did not hold a controlling stake in any assets. SSE agreed the sale of all of its interests in its portfolio of gas exploration and production in December 2020, and the disposal of this business was concluded on 14 October 2021.
Thermal Power Purchase Agreements	SSE has excluded any power stations in which it does not have operational control this includes water withdrawal, discharge and consumption data for its Power Purchase Agreements at Marchwood and Seabank power stations.
International operations	SSE has recently extended its renewables expansion to carefully selected international markets including East Asia, Europe and North America. The activities involve onshore and offshore wind project development opportunities in these markets.

W0.7

(W0.7) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization.	Provide your unique identifier
Yes, an ISIN code	GB0007908733

W1. Current state

W1.1

(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Vital	Important	<p>Sufficient volumes of quality freshwater are vital for SSE's direct operations: SSE's hydro assets take water from rivers and lochs as a fuel source, 97% (23.9bn m3 2021/22) of all water abstracted was used in these plants.</p> <p>Some of SSE's thermal generation activities take quality freshwater to cool plant and as process water for a range of operations. Most of these assets are located near coastal areas, less than 1% (1.9m m3) of water abstracted by these assets was from freshwaters.</p> <p>In 2021/22 SSE hydro generation assets accounted for 17% and thermal generation accounted for 10% of the Group's total adjusted operating profit. If sufficient volumes of quality freshwater are not available, it has potential to impact around 50% of SSE's generation output.</p> <p>In 2021/22, hydro generation was 16%/14% of SSE's total capacity/ output, investment in existing hydro assets to ensure they perform over the coming decades in line with environmental obligations.</p> <p>SSE Thermal is currently commissioning Keadby 2, a new 893MW CCGT, which will be the most efficient CCGT in Europe. This will abstract freshwater for cooling purposes, sufficient quality freshwater will be required to generate electricity at the site. The site is due to be operational in 2022/23 and freshwater abstraction volumes are expected to increase.</p> <p>SSE is developing options in CCS and hydrogen at</p>

			<p>its Keadby and Peterhead sites. Whilst crucial to progressively reduce carbon emissions in the energy system, these technologies may increase abstraction from freshwater sources in the future.</p> <p>Some smaller quantities of quality freshwater are Important for SSE’s indirect operations: By contractors during project construction, eg at wind farms for activities such as dewatering sites. Such activities are periodic and not sustained so a rating of “Important” is deemed relevant. Also raw materials for processes in generation assets require water for their manufacture/ production eg raw materials for demineralisation.</p>
<p>Sufficient amounts of recycled, brackish and/or produced water available for use</p>	<p>Vital</p>	<p>Important</p>	<p>Sufficient volumes of brackish water are deemed vital for SSE’s direct operations: most of SSE’s thermal plants are located near coastal areas, and as such a majority of the water abstracted is classed as sea water or estuarine/brackish water. These plants rely on this water as cooling water for its operations. The water withdrawn from brackish surface water/ seawater is for SSE’s Keadby, Medway, Peterhead, Lerwick, Great Island and Tarbert power stations.</p> <p>SSE’s thermal generation assets accounted for 57% of SSE’s total capacity and 62% of output in 2021/22, and Thermal’s electricity generation activities accounted for 16% of the Group’s total adjusted operating profit. If sufficient volumes of brackish water are not available, it has potential to impact on a portion of SSE’s generation output and operating profit.</p> <p>Some smaller quantities of brackish water are Important for SSE’s indirect operations. The use of brackish water for ‘indirect’ activities (eg supplier goods and services) is minimal but important and therefore the rating of “Important” is deemed relevant. SSE is also investing in new net zero developments and the construction and development activities associated with these activities may increase the amount of brackish water required in time.</p>

W1.2

(W1.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	76-99	<p>Hydro and thermal generation activities contribute over 99% of SSE's total water withdrawals in terms of total volumes. These withdrawals are therefore business critical and monitored closely for both operational and regulatory purposes.</p> <p>SSE's Thermal power stations monitor, measure and report water aspects to the appropriate regulators against specific environmental permits/licenses and their requirements. Across these thermal generation sites, withdrawals are regularly monitored and are reported to the appropriate regulator. The frequency of reporting varies across sites and different jurisdictions – it can be as frequent as monthly but as a minimum is reported annually.</p> <p>The coverage is based on SSE Renewables' (Hydro only) and SSE Thermal's generation output as a share of the group's total output, which is 76.7%.</p>
Water withdrawals – volumes by source	76-99	<p>Hydro and thermal generation activities contribute over 99% of SSE's total water withdrawals in terms of volumes by source. This data is gathered and monitored for both regulatory and operational purposes.</p> <p>The coverage is based on SSE Renewables' (Hydro only) and SSE Thermal's generation output as a share of the group's total output, which is 76.7%.</p>
Water withdrawals quality	76-99	<p>Hydro and thermal generation activities contribute over 99% of SSE's total water withdrawals in terms of quality. This data is similarly gathered for regulatory and operational purposes.</p> <p>The coverage is based on SSE Renewables'</p>

		(Hydro only) and SSE Thermal's generation output as a share of the group's total output, which is 76.7%.
Water discharges – total volumes	76-99	<p>Hydro and thermal generation activities contribute over 99% of SSE's total water discharges in terms of total volumes. These activities are business critical and therefore the data is gathered and monitored for regulatory and operational purposes.</p> <p>The coverage is based on total generation output for the group which is 76.4%.</p>
Water discharges – volumes by destination	76-99	<p>Hydro and thermal generation activities contribute over 99% of SSE's total water discharges in terms of volumes by destination. This data is gathered for regulatory and operational purposes.</p> <p>The coverage is based on total generation output for the group which is 76.4%.</p>
Water discharges – volumes by treatment method	76-99	<p>Thermal power stations monitor, measure and report water aspects to the Regulators against specific environmental permits and this may include water discharge (volumes by treatment method).</p> <p>The coverage is based on thermal generation, which represents over 60% output for the group.</p> <p>SSE's hydro-electric generation stations use freshwater to generate electricity. Water passes through turbines and is returned to the environment almost immediately. Since there is no change to the water that is returned to the environment, this parameter is not relevant to these operations.</p>
Water discharge quality – by standard effluent parameters	76-99	<p>Thermal power stations monitor, measure and report water aspects to the Regulators against specific environmental permits and this may include water discharge quality (by standard effluent parameters).</p> <p>The coverage is based on thermal generation, which represents over 60% output for the group.</p>

		<p>SSE's hydro-electric generation stations use freshwater to generate electricity. Water passes through turbines and is returned to the environment almost immediately. Since there is no change to the water that is returned to the environment, this water discharge quality by standard effluent parameter is not relevant to these operations.</p>
Water discharge quality – temperature	76-99	<p>Thermal power stations monitor, measure and report water aspects to the Regulators against specific environmental permits and this may include water discharge quality in terms of temperature.</p> <p>The coverage is based on thermal generation, which represents over 60% output for the group.</p> <p>SSE's hydro-electric generation stations use freshwater to generate electricity. Water passes through turbines and is returned to the environment almost immediately. Since there is no significant temperature change as part of the hydropower operation, this water quality temperature parameter is not relevant to these operations.</p>
Water consumption – total volume	76-99	<p>The water that is consumed by SSE is used for cooling and as process water in SSE's thermal power stations and in SSE's non-operational buildings for amenities. SSE's thermal generation activities contribute over 85% of total water in terms of consumption with the remainder consumed by SSE's property portfolio. This is business critical activity and therefore data is gathered for both regulatory and operational purposes.</p> <p>The coverage is based on thermal generation, which represents over 60% output for the group.</p> <p>SSE's hydro-electric generation stations use freshwater to generate electricity. Water passes through turbines and is returned to the environment almost immediately. Since there is no water consumption as a part of hydropower operations this water consumption by total</p>

		volume parameter is not relevant for these operations.
Water recycled/reused	76-99	Hydro and thermal generation activities contribute over 99% of SSE's total water recycled/ reused. This data is gathered for regulatory and operational purposes (for example for optimising efficiencies in thermal generation) as it is business critical. The water which passes through one hydropower facility is immediately returned to the natural environment and will typically be recycled through a further 3-4 hydropower facilities as part of a cascade model. Therefore, the hydropower business, which is responsible for 97% of total water abstracted, recycles the bulk of this water without compromising its quality.
The provision of fully-functioning, safely managed WASH services to all workers	76-99	<p>The water that is consumed by SSE for WASH purposes is in SSE's non-operational buildings for amenities. This data is gathered for internal monitoring and measurement purposes to support efficiency activities and programmes.</p> <p>The coverage is based on the number of full-time employees.</p>

W-EU1.2a

(W-EU1.2a) For your hydropower operations, what proportion of the following water aspects are regularly measured and monitored?

	% of sites/facilities/operations measured and monitored	Please explain
Fulfilment of downstream environmental flows	100%	SSE's heritage has its foundations in the large-scale development of hydro-electricity in the north of Scotland in the 1940s and 1950s. SSE works closely with regulators, environmental organisations and the local community to ensure that its hydro-electricity operations have minimal adverse impacts on these stakeholders, biodiversity and the environment. SSE monitors all abstractions (based on the volume of water passing through its turbines), compensation and freshet flows and report these to the Regulator, the Scottish Environment Protection Agency (SEPA), on an annual basis or as requested.

		<p>Environmental flows are defined as conditions in the operating licence issued by SEPA. There is a legally defined process for SEPA to vary these flows if this is necessary to protect the environment.</p>
Sediment loading	100%	<p>There is no impact to sediment loading from SSE's hydro operations in normal operating conditions; during maintenance, non-routine overhauls and other non-routine activities sediment loading is monitored. For these activities, SSE has emergency response and containment processes in place to manage any impacts from these activities.</p> <p>Normal and ongoing management of sediment to maintain river continuity is undertaken using methods agreed with SEPA. SSE is beginning a process of developing specific sediment management plans for particularly environmentally sensitive locations.</p>
Other, please specify	100%	<p>SSE's hydro power stations operate in the north of Scotland in freshwater catchments. Salmon and sea trout return to breed in the rivers every year. To safeguard the fish stocks fish ladders and fish screens help the adult fish return upstream to breeding grounds and for juvenile smolts to return to the sea. SSE closely monitors the operation of these fish passes and fish screens.</p> <p>SSE's responsibilities to operate and maintain fish passes and screens date back to the original Acts of Parliament that were passed between the 1920s and the 1970s. These responsibilities are now covered by conditions of the operating licences issued by SEPA.</p> <p>Fish counters have been installed on most of the major fish passes since the 1950s and are still operated and maintained by SSE. The count data, and the software SSE has developed to manage and view the data, is made freely available to SEPA and the local District Salmon Fishery Boards. SSE also supports many projects to capture, tag and release salmon and sea trout</p>

		smolts heading out to sea as part of research and fishery management improvement projects.
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W1.2b

(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, and how do these volumes compare to the previous reporting year?

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	23,895,609	Lower	<p>SSE depends on water in various ways across its operations, from cooling and process use in electricity generation to an amenity in buildings. SSE seeks to use water in a sustainable way.</p> <p>In terms of water use, SSE's hydro-electric generation stations use freshwater to generate electricity in their operations. The water passes through turbines to generate electricity and is returned to the environment almost immediately and therefore the impact on the freshwater sources is minimal.</p> <p>In 2021/22 SSE abstracted 23.9 billion m3 of water compared to 26.0 billion m3 in 2020/21. Over 97% of the total water abstracted by SSE was used in its hydro generation operations. The reduction in water abstracted was therefore largely due to a reduction in water passing through SSE's hydro-electric generation plant as a result of lower levels of rainfall compared to the previous year. SSE's hydro generation output fell from 3.7TWh to 3.3TWh between 2020/21 to 2021/22.</p> <p>Around 3% of total water abstracted by SSE in 2021/22 was used in its thermal generation operations. For thermal generation water is used for cooling and as process water in a variety of operations. Water abstraction and return for thermal generation reflects the overall output of the power station as well as the type of cooling water system used by the power station. Total water abstracted from SSE's thermal power stations fell between 2020/21 and</p>

			2021/22 predominantly due to a reduction in the thermal generation output.
Total discharges	23,894,860	Lower	<p>Similar to water abstraction, SSE's water discharges are from across its operations, from cooling and process use of water in electricity generation to amenity in buildings.</p> <p>SSE's hydro generation activities contribute to the majority of water returned to the environment - the water passes through turbines to generate electricity and is returned almost immediately to the freshwater environment. In 2021/22, SSE discharged 23.9 billion m³ of water in comparison to 26.0 billion m³ the previous year. The fall in discharge volumes reflects the decrease in generation output primarily from SSE's hydro generation activities which represent 97% of the total water discharged. SSE's hydro generation output fell from 3.7TWh to 3.3TWh between 2020/21 to 2021/22.</p> <p>For SSE's thermal generation operations, the water returned mirrors the water abstracted trend. 3% of total water returned in 2020/21 was from SSE's thermal generation operations. For thermal generation water is used for cooling and as process water in a variety of operations. Water abstraction and return for thermal generation generally reflects the overall output of the power station and the type of water system used by the power station. Between 2020/21 and 2021/22 total water abstracted from SSE's thermal power stations fell this was predominantly due to a reduction in the thermal generation output.</p>
Total consumption	838	Much lower	<p>The water that is consumed by SSE is used primarily as cooling and process water in SSE's thermal power stations and some is used in SSE's non-operational buildings for amenities.</p> <p>In 2021/22, SSE consumed 0.8 million m³, accounting for <0.01% of the total water withdrawals in this period. This compares to consumption of 3.9 million m³ in 2020/21,</p>

			<p>accounting for 0.01% of the total water withdrawals in that period.</p> <p>Between 2020/21 and 2021/22 total water consumed from SSE's thermal power stations fell significantly and this was predominantly due to a reduced proportion of generation using once through cooling systems (with consumptive losses).</p> <p>Total water consumed is calculated using UK Government (BEIS) reporting standards. For water consumed it is the amount of water that is abstracted less the amount of water returned to the environment. Water is used for four main purposes: to cool generation plant (in thermal operations); as process water for a variety of operations (thermal generation operations); as a source of energy in hydro generation schemes; and for amenities in offices and buildings. The total water consumed reflects the 'volume of water used by the business to conduct its operations'.</p>
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W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress and provide the proportion.

	Withdrawals are from areas with water stress	Identification tool	Please explain
Row 1	No	WRI Aqueduct	<p>Hydro and thermal generation activities contribute over 99% of SSE's total water withdrawals in terms of quantity. This data is gathered for regulatory and operational purposes as it is business critical.</p> <p>In SSE's thermal power stations water is primarily used for cooling and as process water. Individual installations monitor, measure and report water aspects to the Regulators in accordance with specific environmental permits or licences. None of SSE's thermal power stations have been identified as being located in areas of water stress under the Environment Agency's 'Water Stressed Areas 2013 classification' for England and Wales and under the EU Water Framework Directive in Ireland. In December 2017 the UK Government published its Water</p>

		<p>Abstraction Plan which set out how the UK government will reform water abstraction management in England over the coming years and how this will protect the environment and improve access to water. This plan aims to make full use of existing regulatory powers to address unsustainable abstraction; promote a stronger catchment focus to develop local solutions to protect the environment that will inform updated abstraction licensing strategies that detail the solutions and set out approaches to environmental issues; and modernise the abstraction service by upgrading systems and moving the water abstraction licensing regime into the Environmental Permitting Regulations. Water companies are to play a leading role in abstraction planning in England and Regional Water Resource Management groups have been established to deliver a multi-sector resource planning function. SSE is engaged in these initiatives, either directly or through it's membership of EnergyUK, in order to track potential impacts on its thermal generation activities.</p> <p>For SSE's hydro generation, there is no direct classification by SEPA in Scotland for water stressed areas. For water bodies affected by SSE hydro operations these are classified by SEPA under the European Water Framework Directive (WrFD) for quality, ecology and hydrology. SSE uses the Aquator tool to analyse hydrology and other hydro operational metrics to ensure water resources are efficiently managed within the constraints of the system (for instance: in terms of rainfall, reservoir inflows, snowmelt, storage, power station availability and efficiency). Following SSE's reduction in water abstraction on the River Garry and its tributaries to meet the WrFD requirements under SEPA's second River Basin Management Plan (RBMP), SSE continues to engage with SEPA on a small number of minor water bodies under potential consideration for the third RBMP to identify and agree what, if any, operational changes may be necessary to meet WrFD requirements in the future.</p> <p>Additionally, the WRI Aqueduct tool demonstrates that Scotland, where SSE's hydro operations are located, are in the lowest category of risk. For SSE's thermal operations, which are located across UK and Ireland, these are located in the lowest or second lowest category of risk.</p>
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W1.2h

(W1.2h) Provide total water withdrawal data by source.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	23,116,556	Lower	<p>Withdrawals from fresh water sources is undertaken by SSE's hydro generation assets (97%) which withdraw water from freshwater lochs which is returned almost immediately to the environment. SSE's Thermal business also withdrew some small volumes of water from freshwaters for water management.</p> <p>In 2021/22 withdrawals from fresh water sources decreased by 9% compared to 2020/21. The reduction was due to a 10% decrease in generation output from SSE's hydro generation assets in the same period.</p> <p>Thresholds between periods: 'much higher/ lower' involve a 'increase/ decrease of 10% or greater'; 'higher/lower' '3%-9% change'. The 'stayed the same' category is '0%-2% change'.</p> <p>SSE calculates the water withdrawn using UK Government (BEIS) reporting standards. Data is independently assured by professional services firm PwC. Volume of water abstracted by hydro plant is</p>

				measured via telemetry and for thermal plant is measured through flow meters.
Brackish surface water/Seawater	Relevant	777,343	Lower	<p>Brackish water / seawater is withdrawn for SSE's thermal generation assets: Keadby, Peterhead, Medway, Lerwick, Great Island and Tarbert. The overall output of the power station and the cooling system used by the generators would have the most influence on the water withdrawals from brackish water.</p> <p>In 2021/22 SSE's output from its thermal generation plant fell and this resulted in a corresponding reduction in water withdrawn.</p> <p>Thresholds between periods: 'much higher/ lower' involve a 'increase/ decrease of 10% or greater'; 'higher/lower' '3%-9% change'. The 'stayed the same' category is '0%-2% change'.</p> <p>Water abstracted is measured with flow meters. Water volumes are calculated using UK Government (BEIS) reporting standards. PwC assure the data.</p>
Groundwater – renewable	Relevant	1,666	Much lower	<p>Water withdrawn from groundwater is for Rhode and Slough power stations. The water withdrawn is influenced by output and the type of cooling water system used. Water withdrawn is measured using flow meters.</p> <p>In addition, SSE's Slough Heat and Power biomass</p>

			<p>power station abstracts water from renewable groundwater for use in its power station and for supply to SSE's private water supply business which serves around 600 large and small business customers.</p> <p>Between 2020/21 and 2021/22 there was a reduction in the water withdrawn from groundwater and this was primarily due to a reduction in water withdrawn to supply SSE's private water supply customers in Slough.</p> <p>Thresholds between periods: 'much higher/ lower' involve a 'increase/ decrease of 10% or greater'; 'higher/lower' '3%-9% change'. The 'stayed the same' category is '0%-2% change'.</p> <p>SSE calculates the water withdrawn, consumed /returned using UK Government (BEIS) reporting standards. Data is independently assured by PwC.</p>
<p>Groundwater – non-renewable</p>	<p>Not relevant</p>		<p>Not applicable, there is no groundwater usage within the thermal business. Dewatering has occurred during the construction of Keadby 2 to allow for the pouring of concrete constructions, but all extracted water is returned to water courses without contamination.</p>

Produced/Entrained water	Not relevant			Not applicable, SSE does not have any oil and gas extraction operations.
Third party sources	Relevant	34	Much lower	<p>Water withdrawn from third party sources is used by SSE's Tawnaghmore, Chickerell and Burghfield thermal generation assets and is influenced by the overall output of the power station. SSE monitors the water use in these activities through meter readings flow meters.</p> <p>Small volumes of water are used in amenities (provided by a third-party supplier), this decreased by a further 6% between 2020/21 and 2021/22 reflecting the reduction in office occupancy due to the Covid-19 pandemic. SSE monitors the water use in these activities through meter readings.</p> <p>SSE has water efficiency and saving programmes in its generation operations and non-operational offices, data centres and depots.</p> <p>Thresholds between periods: 'much higher/ lower' involve a 'increase/ decrease of 10% or greater'; 'higher/lower' '3%-9% change'. The 'stayed the same' category is '0%-2% change'. SSE calculates the water withdrawn, consumed/returned using UK Government (BEIS) reporting standards and is assured by PwC.</p>

W1.2i

(W1.2i) Provide total water discharge data by destination.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	23,116,298	Lower	<p>Water discharges to fresh water sources is undertaken by SSE's hydro generation assets, and a few of its thermal generation assets discharge water to rivers (ie Fiddlers Ferry decommissioning).</p> <p>Over 97% of SSE's total water returned to the environment is by its hydro generation assets. Water discharged to fresh surface water decreased by 9% between 2020/21 and 2021/22. The fall in discharge volumes to fresh surface water was due to a decrease in output from SSE's hydro generation assets. Between 2020/21 and 2021/22, there was a 10% decrease in SSE's hydro generation output.</p> <p>Thresholds between years: 'much higher/ lower' involve a 'increase/ decrease of 10% or greater'; 'higher/lower' '3%-9% change'; 'stayed the same' is '0%-2% change'.</p> <p>SSE calculates the water returned using UK Government (BEIS) reporting standards. Data is assured by PwC. Water passing through hydro turbines is measured via telemetry and discharges by thermal plant through flow meters.</p>

Brackish surface water/seawater	Relevant	777,091	Lower	<p>SSE's Keadby, Peterhead, Medway, Lerwick, Great Island and Tarbert power stations discharge to brackish waters.</p> <p>The overall output of the power station and the cooling system used by the generators would have the most influence on the water withdrawals from brackish water. In 2021/22 SSE's output from its thermal generation plant fell and this resulted in a corresponding reduction in water withdrawn.</p> <p>Water abstracted is measured with flow meters. Water volumes are calculated using UK Government (BEIS) reporting standards and PwC assure the data.</p>
Groundwater	Not relevant			<p>SSE's policy is to meet all regulatory requirements. Environmental regulations that govern SSE's operations do not allow for discharge to groundwater. Therefore, this is not applicable.</p>
Third-party destinations	Relevant	1,471	Much lower	<p>Water discharged to third-party destinations is from SSE's non-operational buildings, Burghfield, Chickerell, Rhode, Tawnaghmore and Slough power stations.</p> <p>Water discharged to third-party destination decreased by 11% between 2020/21 and 2021/22 reflecting a decrease in water supplied to SSE's private water supply customers at Slough Heat and Power station.</p> <p>Water used and subsequently discharged to sewer in SSE's amenities decreased by a further 6% between 2020/21 and 2021/22 reflecting the impact of the coronavirus pandemic and the low</p>

				occupancy of buildings in 2020, 2021 and 2022. SSE continues to implement a water efficiency, behavioural change and saving programme in its non-operational offices, data centres and depots.
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W1.2j

(W1.2j) Within your direct operations, indicate the highest level(s) to which you treat your discharge.

	Relevance of treatment level to discharge	Volume (megaliters/year)	Comparison of treated volume with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Relevant	0	Much lower	Less than 1%	SSE's thermal power stations previously treated some process and cooling waters using tertiary treatment methods prior to discharge back to source. The closure of the Fiddlers Ferry power station in 2020 meant that SSE no longer required any Tertiary treatment of Flue Gas Desulfurization (FGD) wastewater.
Secondary treatment	Relevant	14.9	Much lower	Less than 1%	SSE's thermal power stations treat some

					process and cooling waters using secondary treatment methods prior to discharge back to source. Lower volumes of water treatment using secondary treatment methods was due to reduced estimated sewage volumes at Medway, due to lower abstraction and running hours.
Primary treatment only	Relevant	49.7	Much higher	Less than 1%	SSE's thermal power stations treat some process and cooling waters using primary treatment methods prior to discharge back to source. Higher volumes of water treatment using primary treatment methods was due to increased generation at

					the Tarbert power station and improved data collection methods.
Discharge to the natural environment without treatment	Relevant	23,893,261	Lower	91-99	<p>Over 97% of the total water abstracted by SSE in 2021/22 was used in its hydro generation operations, and therefore was returned to the environment almost immediately, meaning there is no change of state, and that no treatment is required.</p> <p>For thermal generation water is used for cooling and as process water in a variety of operations. The majority of water abstracted and returned for thermal generation is used for cooling purposes. Cooling processes can</p>

					include recirculatory systems which reuse the water or once through cooling systems. Both systems use the water to cool and therefore there is no change in the water between abstraction and its return to the natural environment. For some thermal process uses the water abstracted is treated before discharged back to source (as described above). Overall, the volume of water discharged to the natural environment without treatment fell in 2021/22, due mostly to the decrease in generation output.
Discharge to a third party	Relevant	1,535	Higher	Less than 1%	Water discharged to third-party destinations is

without treatment					from SSE's non-operational buildings, Slough Heat and Power biomass power station, Rhode, Tawnaghmore, Burghfield and Chickerell power stations.
Other	Not relevant				Not applicable, SSE does not have any other water discharge categories.

W1.3

(W1.3) Provide a figure for your organization's total water withdrawal efficiency.

	Revenue	Total water withdrawal volume (megaliters)	Total water withdrawal efficiency	Anticipated forward trend
Row 1	8,608,000,000	23,895,609	360.2335475108	Over 97% of the total water abstracted by SSE in 2021/22 was used in its hydro generation operations. SSE expects the quantity and efficiency of hydro water withdrawal to continue to be a significant as hydro and other renewable technologies are key to its net zero transition plans by 2040. SSE's thermal generation activities will invest in CCS and hydrogen technologies over the next 10 years and it is expected that water withdrawal volumes and efficiencies will be change in this time.

W-EU1.3

(W-EU1.3) Do you calculate water intensity for your electricity generation activities?

Yes

W-EU1.3a

(W-EU1.3a) Provide the following intensity information associated with your electricity generation activities.

Water intensity value (m3)	Numerator: water aspect	Denominator	Comparison with previous reporting year	Please explain
0.05	Total water withdrawals	MWh	Much higher	<p>SSE uses water intensity to inform water optimisation strategies in its thermal generation plant as well as for regulatory resource efficiency metrics reporting purposes.</p> <p>For thermal generation water is used for cooling and as process water. Water abstraction and return for thermal generation reflects the overall output of the power station as well as the type of water system used by the power station. The water withdrawal intensity value increased primarily as a result of an increased proportion of output from stations that use water in a system that has only one water use cycle (called a 'once through cooling water system'). The water withdrawn intensity increased from 0.046 megalitres/MWh to 0.055 megalitres/MWh during the two periods (water withdrawn intensity is calculated using total water abstracted - thermal (megalitres) against total thermal generation output (MWh)).</p>
0.05	Other, please specify Total water returned	MWh	Much higher	<p>For thermal generation, water is used for cooling and as process water. Water abstraction and return for thermal generation reflects the overall output as well as the type of water system used by the power station. The water withdrawal intensity value increased primarily as a result of an increased proportion of output from stations that use water in a system that has only one water use cycle (called a 'once through cooling water</p>

				system').As a result, the water returned intensity increased from 0.046 megalitres/MWh to 0.054 megalitres/MWh during the two periods (total water returned intensity is calculated using total water returned - thermal (megalitres) against total thermal generation output (MWh)).
0	Total water consumption	MWh	Much lower	<p>SSE uses water intensity to inform water optimisation strategies in its thermal generation plant as well as for regulatory resource efficiency metrics reporting purposes. For thermal plants water is used for cooling and as process water. Water is treated onsite if required before returning it to source in accordance with specific environmental permits.</p> <p>For thermal generation water is used for cooling and as process water. Water abstraction and return for thermal generation reflects the type of water system used by the power station. The decrease in water consumption was primarily a result of a reduction of generation from stations that use recirculatory cooling systems with evaporative losses. To a lesser extent a reduction in generation output also had an influence. This resulted in SSE's total water consumption reducing to 0.00001 in 2021/22 compared to 0.0002 the previous year.</p> <p>Total water consumed intensity is calculated using total water consumed - thermal (megalitres) against total thermal generation output (MWh).</p>

W1.4

(W1.4) Do you engage with your value chain on water-related issues?

No, not currently but we intend to within two years

W1.4d

(W1.4d) Why do you not engage with any stages of your value chain on water-related issues and what are your plans?

	Primary reason	Please explain
Row 1	We are planning to do so within the next two years	<p>SSE is working with its value chain (primarily suppliers) to review environment, social and governance issues that are relevant and influence its business.</p> <p>SSE asks its suppliers to outline water management policies and systems at the point of contract tender and disclose any breaches to permits over the last 3 years as well as the mitigations required and the impact of these. This is particularly relevant for suppliers or contracts engaged with construction projects across the business when this construction is taking place in the vicinity of water courses. When abstraction is required a water management plan will be developed.</p> <p>Over the next 2 years and as part of SSE's Sustainability Procurement Code, SSE will engage with suppliers who develop products/ services in areas of water scarcity. This will promote suppliers who do not participate in detrimental actions.</p> <p>In 2022, SSE established the Powering Net Zero Pact with 10 other founding partners as a legacy of COP26. The Pact focuses on five areas of ambition, including protecting and enhancing the natural environment. Pact members are committed to publicly disclose wider environment metrics, including water use, in getting to net zero. The desired outcome of this commitment would be for better data coverage for water use in the value chain. Additionally, with improved data quality, SSE can make informed decisions on where to focus its water-related value chain engagement.</p>

W2. Business impacts

W2.1

(W2.1) Has your organization experienced any detrimental water-related impacts?

No

W2.2

(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

No

W3. Procedures

W-EU3.1

(W-EU3.1) How does your organization identify and classify potential water pollutants associated with your business activities in the electric utilities sector that could have a detrimental impact on water ecosystems or human health?

For SSE's hydro generation operations, sufficient amounts of water from freshwater sources is very important for the business as a fuel source for hydro generation operations. At hydro generation sites water is taken from rivers and lochs and returned to the water environment after being run through the turbines to generate electricity. SSE monitors, measures and reports on all compensation and freshet flows to regulators as well fish passes and fish screens. SSE's hydro generation licences also have a condition to avoid any release of lubricating or other oils when the water is returned to the environment. As part of SSE's value chain, we engage with both upstream and downstream stakeholders to ensure our activities are compliant with their requirements. One potential risk is pollutants of small quantities of oil from bearings within moving equipment for lubrication, this is measured and mitigated by contractors who filter oil from water and sell the oil back to be reused in the same equipment.

In SSE's thermal power stations water is primarily used for cooling with some water used as process water. All SSE's thermal installations have environmental permits or licenses that include water pollution prevention conditions. All of our thermal power stations have ISO 14001 certified Environmental Management Systems and as part of this the environmental aspects and impacts are assessed, and appropriate engineering and procedural control measures implemented. Each site monitors, measures and reports on water quality to the Regulators in accordance with specific environmental permits / licenses. SSE also monitors water intake to understand and monitor quality of the water entering its power stations.

Across SSE's value chain there is minimal variation. We ask suppliers to detail any non-compliant environmental issues such as those which would incur fines or penalties. SSE has also recently launched a sustainability supply chain commitment, a new industry leading approach to sustainable practice. This document requires that all suppliers detail their own policy documents at the point of tender activity, detailing any non-compliance by way of contract management.

W-EU3.1a

(W-EU3.1a) Describe how your organization minimizes the adverse impacts of potential water pollutants associated with your activities in the electric utilities sector on water ecosystems or human health.

Potential water pollutant	Description of water pollutant and potential impacts	Management procedures	Please explain

<p>Other, please specify</p> <p>Thermal discharge</p>	<p>Thermal cooling-water discharges have been shown to have minimal detrimental impact to the water ecosystems. Process water discharges are treated as required by environmental permits / licences to ensure that there are no detrimental impacts to the water environment. SSE also monitors water intake to understand and monitor quality of water entering its power stations.</p>	<p>Compliance with effluent quality standards</p> <p>Measures to prevent spillage, leaching, and leakages</p> <p>Community/stakeholder engagement</p> <p>Emergency preparedness</p> <p>Other, please specify</p> <p>Monitoring and measurement process</p>	<p>SSE monitors, measures and reports water aspects in accordance with specific requirements of the environmental permit.</p> <p>SSE has an environmental management system certified to ISO14001:2015 in place to manage these activities. This ISO14001:2015 certificate covers all of the business units which are detailed by this water survey. This system is audited annually by an external auditor.</p> <p>It also has emergency response procedures, secondary containment, and water treatment facilities where required in relation to permit conditions.</p> <p>In addition, SSE monitors water intake in its thermal generation assets to understand and monitor quality of water entering its power stations.</p>
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W3.3

(W3.3) Does your organization undertake a water-related risk assessment?

Yes, water-related risks are assessed

W3.3a

(W3.3a) Select the options that best describe your procedures for identifying and assessing water-related risks.

Value chain stage

Direct operations

Coverage

Full

Risk assessment procedure

Water risks are assessed in an environmental risk assessment

Frequency of assessment

More than once a year

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

International methodologies and standards

Tools and methods used

Environmental Impact Assessment
ISO 14001 Environmental Management Standard

Contextual issues considered

Water availability at a basin/catchment level
Water quality at a basin/catchment level
Stakeholder conflicts concerning water resources at a basin/catchment level
Implications of water on your key commodities/raw materials
Water regulatory frameworks
Status of ecosystems and habitats
Access to fully-functioning, safely managed WASH services for all employees

Stakeholders considered

Customers
Employees
Investors
Local communities
NGOs
Regulators
Suppliers
Water utilities at a local level
Other water users at the basin/catchment level

Comment

The Chief Executive has lead responsibility for environment issues at Board level. The Board approves Group Principal Risks (GPR). As part of the GPR a viability assessment is undertaken for each of the 11 Principal Risks. Some scenarios assessed include water related issues e.g. the 'Climate Change' GPR assesses the impact of severe weather events on networks; and the 'Safety and Environment' GPR assesses adverse weather and safety.

In addition to the GPR assessment SSE also conducts a specialist TCFD climate-related risk and opportunity assessment, which seeks to identify and assess the climate-

related risks and opportunities, inc flooding and severe weather events.

To ensure effective environmental management, SSE operates an environmental management system (EMS) certified to ISO14001, including controls, processes and procedures, across all its business activities that interact with the environment. All SSE businesses are covered by SSE's EMS. In the last 12 months, SSE was externally audited and has maintained existing ISO14001 accreditation, and plans to extend accreditation to SSEN Distribution, Distributed Energy and Energy Customer Solutions in 2022/23. This means SSE is currently ISO14001 certified for around 61% of its business activities that interact with the environment by reported revenue (based on 2021/22 figures).

Value chain stage

Supply chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed in an environmental risk assessment

Frequency of assessment

More than once a year

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

International methodologies and standards

Tools and methods used

Environmental Impact Assessment

ISO 14001 Environmental Management Standard

Contextual issues considered

Water availability at a basin/catchment level

Water quality at a basin/catchment level

Stakeholder conflicts concerning water resources at a basin/catchment level

Implications of water on your key commodities/raw materials

Water regulatory frameworks

Status of ecosystems and habitats

Access to fully-functioning, safely managed WASH services for all employees

Stakeholders considered

Customers

Employees

Investors

Local communities

NGOs
 Regulators
 Suppliers
 Water utilities at a local level
 Other water users at the basin/catchment level

Comment

SSE works with its suppliers, identified by risk, to review and understand the impact of environmental issues. Water is identified as a risk of our activities but considered low risk in terms of likelihood/magnitude.

SSE meets planning obligations by doing detailed Environmental Impact Assessments (EIA) for large projects, and completing an environmental assessment for projects where an EIA is not a statutory requirement. These assessments take account of surrounding water courses and any potential impacts on these are identified, alongside any other water-related issues. SSE's Tier 1 contractors are required to mitigate any potential impacts identified through the assessments. Tier 1 contractors have contractual obligations to report environmental incidents or breaches (including water-related) through SSE's internal reporting system. These incidents are monitored continuously at site level with monthly reports at Group level. Going forward SSEN Transmission will also require Tier 1 contractors to provide data of water use from works activities on site, including pre-construction estimates and as-built reporting during and at the end of construction.

SSE's businesses have supplier frameworks in place which outlined planned activities and new developments. These cover a minimum of 3 years but often up to 10 years and allow stronger collaboration with our supply chain to identify and mitigate environmental risks, including water use and pollution.

Value chain stage

Other stages of the value chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed in an environmental risk assessment

Frequency of assessment

More than once a year

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

International methodologies and standards

Tools and methods used

Environmental Impact Assessment
 ISO 14001 Environmental Management Standard

Contextual issues considered

Water availability at a basin/catchment level
 Water quality at a basin/catchment level
 Stakeholder conflicts concerning water resources at a basin/catchment level
 Implications of water on your key commodities/raw materials
 Water regulatory frameworks
 Status of ecosystems and habitats
 Access to fully-functioning, safely managed WASH services for all employees

Stakeholders considered

Customers
 Employees
 Investors
 Local communities
 NGOs
 Regulators
 Suppliers
 Water utilities at a local level
 Other water users at the basin/catchment level

Comment

SSE has identified its material issues relating to its key business operations. SSE has a programme of work with its value chain based on risk to review and understand the impact of environment, social and governance issues. Water is identified as a risk but highlighted as low risk in terms of likelihood/ magnitude of potential financial/ reputation impact. Climate change is the most material environment risk. SSE remains vigilant to the emergence of higher risks relating to water.

W3.3b

(W3.3b) Describe your organization's process for identifying, assessing, and responding to water-related risks within your direct operations and other stages of your value chain.

SSE identifies and evaluates risk at both Group and divisional (including assets) level by considering, controlling, and monitoring the impact of risks against the achievement of SSE's strategic objectives (set by the Board). The Group Executive Committee and its sub-committees have responsibility for overseeing SSE's Principal Risks. The Group Risk Management and Strategic Frameworks have been designed to ensure (amongst other things) that SSE is in a position to address the issue of water, whether as a risk or as an opportunity. The risk assessment timeframe is greater than 10 years because in terms of water risk there are regulatory, physical and asset risks that can occur over the short-term horizon (0 to 3 years), medium-term (3 to 12 years) and long-term (12 years and beyond). These time horizons are aligned with other business practice time horizons and SSE's climate-related aspects. Risk assessments are completed six monthly or more frequently (when required) to ensure risks are still relevant/ mitigated and managed.

Water risks are relevant to all geographies and all businesses. E.g. water quality/ quantity issues could present challenges in operations of hydro and thermal generation assets; equally, flooding could cause disruption to operations across networks, generation and retail. For SSE, the challenge of water (regulatory, physical and reputational) does not have a significant impact (in terms of likelihood and impact) to change or impact the businesses strategic objectives.

Where water risk is relevant, SSE responds by having mitigation plans in place to manage the impact. Water risks can arise from issues like: flooding (short term), to mitigate this over 300 risk assessments are completed to understand the impact of flooding to business operations (i.e substations); future legislation (medium term) could impact thermal assets. SSE has compliance and regulatory teams to mitigate/ manage the impact of regulatory frameworks; and in the long term climate change may impact water resource availability for generation assets, SSE manages this by monitoring trends in climate/ weather.

W4. Risks and opportunities

W4.1

(W4.1) Have you identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes, only within our direct operations

W4.1a

(W4.1a) How does your organization define substantive financial or strategic impact on your business?

The successful delivery of SSE's strategic objectives depends on effective identification, understanding and mitigation of its Principal Risks. SSE has an established Risk Management Framework and wider system of internal control to inform decision-making in support of creating value in a sustainable way. The Board directly sets the Group Risk Management and Internal Control policy and reviews risk management performance at SSE on an ongoing basis. The Safety, Health and Environment Committee supported by the Board's Safety, Health and Environment Advisory Committee provides oversight for environment and safety risks. SSE defines risk as anything that can threaten the achievement of its business and strategic objectives or compromise SSE's core values. Each of SSE's business units have differing levels of exposure to additional risks. For example, the Transmission and Distribution businesses are largely economically regulated and are characterised by relatively stable, inflation linked cash flows while the SSE Renewables business benefits from cash flows linked to government-mandated renewables subsidies. Those business units that generate and trade energy are also exposed to significant medium to long term energy market and commodity risks in operational and investment decision making. SSE's risk management framework ensures that all risks associated with the environment (including water-related risks) are identified, assessed, evaluated, recorded, monitored and reviewed to understand the impact on the business. In relation to water risk, a pollution incident, water availability/ quality issue or climate

related impact could have a material adverse impact to the environment, operations, property, employees, contractors or members of the public.

W4.1b

(W4.1b) What is the total number of facilities exposed to water risks with the potential to have a substantive financial or strategic impact on your business, and what proportion of your company-wide facilities does this represent?

	Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
Row 1	30	1-25	SSE's hydro generation facilities represent 16% of SSE's generation capacity and 14% of the Group's electricity generation output in 2021/22. The hydro generation plant is located in regions of high average rainfall – north of Scotland. It is the variability and change of climate (and associated weather) that impact the way SSE generates from its hydro generation sites. This in turn means that there is the possibility that climate change could exacerbate weather-related fluctuations by impacting weather patterns over the longer term. The risk facing SSE is that lower levels rainfall could reduce the output from SSE's hydro assets which could result in a reduction in revenue. Conversely, higher periods of rainfall may require that SSE reduce output in order to limit flow during periods of high discharge to prevent downstream flooding. In the past few years, SSE has had to respond to milder and wetter winters. This means that SSE has to operate and adapt its generation activities and has resulted in a different way of managing the assets to the way it did 5 to 10 years ago. This is an opportunity as well as a risk for SSE.

W4.1c

(W4.1c) By river basin, what is the number and proportion of facilities exposed to water risks that could have a substantive financial or strategic impact on your business, and what is the potential business impact associated with those facilities?

Country/Area & River basin

United Kingdom of Great Britain and Northern Ireland

Other, please specify

River catchments in Scotland

Number of facilities exposed to water risk

10

% company-wide facilities this represents

1-25

% company's annual electricity generation that could be affected by these facilities

1-25

% company's total global revenue that could be affected

Less than 1%

Comment

The hydro generation plant is located in regions of high average rainfall – north of Scotland. It is the variability and change of climate (and associated weather) that impact the way SSE generates from its hydro generation sites. This in turn means SSE may have to adapt and change the way it operates in the future to respond to water related issues that arise as a result of climate change.

SSE has worked with the regulator, SEPA, to carry out surveys to better understand water-related impacts, as a result around 10 of the sites are viewed to be exposed to water risk that could have a substantive financial or strategic impact to the business. In the past few years, SSE has had to respond to milder and wetter winters. This means that SSE has to operate and adapt its generation activities and has resulted in a different way of managing the assets to the way it did 5 to 10 years ago. This is an opportunity as well as a risk for SSE.

W4.2

(W4.2) Provide details of identified risks in your direct operations with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Area & River basin

United Kingdom of Great Britain and Northern Ireland

Other, please specify

River catchments in Scotland

Type of risk & Primary risk driver

Chronic physical

Changing precipitation patterns and types (rain, hail, snow/ice)

Primary potential impact

Other, please specify

Reduction in generation output and associated profit

Company-specific description

SSE's hydro generation assets rely on rainwater to operate by using water as a 'fuel' to generate electricity. Climate change has the potential to change future weather patterns. This could result in changes to water availability and the way SSE runs its generation portfolio. For example, longer term changes in climate patterns have the potential to cause sustained higher temperatures that may result in lower rainfall and reduced wind levels. These changes may impact SSE's renewables (including hydro and wind generation assets) output and associated earnings.

SSE's business activities are significantly influenced by the weather: from influencing how much energy is demanded from customers, to providing the 'fuel source' for renewable generators. Therefore, weather patterns are an important contributor to SSE's business performance. Weather affects production of renewable energy, the operation of the electricity transmission and distribution networks, and the amount of gas and electricity SSE's energy customers use.

One of the most material impacts that weather can have is fluctuations in weather patterns impacting adversely on the output of SSE's hydro-electric and wind generation assets. SSE has hydro-electric generation assets across the north of Scotland, and onshore wind farms across the UK and Ireland (with the majority of installed capacity in Scotland). In particular, impacting SSE's 1,459MW of hydro electricity generation capacity (including pumped storage) which includes 91 hydro dams in the north of Scotland covering a water catchment area of 5,382 sq. miles and its 2,461MW of on-and-off-shore wind generation capacity.

In the first half of 2021/22 this risk played out, as SSE experienced one of the driest and calmest summer periods (April to September) on record.

Changes in generation output that is associated with changes in the weather is already factored into SSE's Risk Management Framework. There is the possibility that climate change could exacerbate these weather-related fluctuations by impacting weather patterns over the longer term. The risk facing SSE is that lower levels of wind and rainfall could reduce the output from SSE's wind and hydro assets which could result in a reduction in adjusted operating profit.

Timeframe

More than 6 years

Magnitude of potential impact

High

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

2,000,000,000

Potential financial impact figure - maximum (currency)

3,000,000,000

Explanation of financial impact

Based on SSE's long-term monitoring of weather changes and current forecasts, a plausible scenario has been established of significantly below-average rainfall and of low wind. The combination of both these weather impacts will result in reduced renewable generation output and associated earnings. This weather risk is a perennial feature of risk for SSE as the largest generator of renewable electricity in the UK and Ireland.

The impact of the dry and calm period in this financial year was a reduction to adjusted operating profit from plan of c.£140m through the summer period. While the business recovered some of the volume through the second half of the financial year, the financial result for the year was c.£130m below plan.

Further significant and sustained weather patterns similar to this could impact the recoverable value of the assets. A sensitivity to the wind goodwill impairment model was performed with a 15% adverse volume variance, which indicated significant headroom on the carrying value of the assets (see SSE Annual Report: note 15).

There is still potential for events such as those that took place in 2021/22 to occur in the future, and therefore this remains a potential financial impact to SSE Renewables in the short, medium and long term. Due to the potential for weather patterns to affect renewable output in the future, SSE has calculated the cumulative impact over the next decade (to 2031) on renewable operating profit to be around £2bn to £3bn.

Primary response to risk

Improve monitoring

Description of response

While the opportunity to mitigate against year-to-year weather variability is limited, there is an element of geographical and technological diversity amongst SSE's renewable portfolio providing a natural hedge to changing weather patterns within and between years. For example, 2,423MW of on-and off-shore wind capacity in UK and Ireland and 1,459MW of hydro generation capacity (inc. pumped storage) in Scotland. This diversity enabled SSE to generate a renewable output of 9.5 TWh in 2021/22.

SSE monitors short- and long-term weather conditions so that it can manage and respond to conditions across its assets. For instance, in the first half of 2021/22 SSE experienced a dry, still weather period leading to lower wind speeds and hydro production than expected. In the past few years, SSE has responded to these changes in weather patterns by operating and adapting its conventional hydro generation plant in a way that allows it to more flexible and responsive for the needs of the electricity system, with increased storage and adaptive operation regimes.

SSE has crisis management and business continuity plans in place to deal with severe weather events that can damage energy assets.

One element of management costs directly attributed to this climate-related risk is the monitoring/forecasting of weather by SSE's meteorological team. The costs directly attributed to SSE's meteorological team and the management of weather is in the region of £250,000 annually.

Cost of response

250,000

Explanation of cost of response

One element of management costs directly attributed to this climate-related risk is the monitoring/forecasting of weather by SSE's meteorological team. The costs directly attributed to SSE's meteorological team and the management of weather is in the region of £250,000 annually.

Country/Area & River basin

United Kingdom of Great Britain and Northern Ireland

Other, please specify

River catchments Scotland

Type of risk & Primary risk driver

Regulatory

Regulation of discharge quality/volumes

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Use of water by SSE's hydro generation assets are assessed through Scottish River Management Basin Plans in order to meet the requirements of European Union Water Framework Directive. Changes to environmental flows to meet the requirements of the Water Framework Directive can result in reduced generation output. SEPA has capped the cumulative impact of improving the water environment out to 2027 on hydro generation activities to a maximum of 2% across all Scottish operators which equates to 100GWh/yr of output. For example, at the River Garry in Perthshire a change to the operating licence in 2017/18 reduced generation from hydro power stations along the river by 20 to 30 GWh per annum. As a result, SSE reduced the water abstraction on the River Garry and its tributaries to meet the Water Framework Directive requirements. Following this reduction in water abstraction on the River Garry and its tributaries, there remain a small number of minor water bodies under potential consideration for the third RBMP (2021 – 2027) to identify and agree with SEPA what, if any, operational changes may be necessary to meet WFD requirements in the future. SSE and SEPA are currently reviewing water bodies affected, no decisions have been taken but a small number of water bodies where SEPA will request us to release water have provisionally

been identified, this will have a limited impact on the business as the scale of these sites cumulate to less than 20GWh per annum.

Timeframe

More than 6 years

Magnitude of potential impact

Medium-low

Likelihood

Virtually certain

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

An illustration of the potential financial impact of this risk is the reduction of water abstracted from the River Garry and its tributaries which has the potential to reduce hydro generation output by around 20-25 GWh in future years.

Primary response to risk

Engage with regulators/policymakers

Description of response

The response involves engagement with regulators, public policy makers, and other stakeholders in the river basin along with the adaptation and change of SSE's hydro generation assets in order to reduce the impact of future legislation on its generation output. The management and operation of the assets is kept under constant review to ensure output of renewable energy can be maximised, consistent with SSE's regulatory and other obligations. SSE's response to the risk of the impact of future legislation on generation activities is constantly monitored by regulatory and public affairs experts, along with the management team that oversees operations. SSE's experts respond in the designated timeframes to formal consultations. SSE's experts also engage and consult with government and regulators before legislation is statutory. Projects will be identified (where required) in operational and capital plans to ensure that any mitigating plans are in place to meet regulatory requirements. For example, SSE recently reduced the water abstraction on the River Garry and its tributaries to meet the Water Framework Directive requirements after extensive consultation and engagement with government, regulators and impacted local stakeholders (such as the Fisheries Board).

Cost of response

0

Explanation of cost of response

All costs associated with SSE's response to this risk are included within operational and capital investment plans and budgets. SSE engages and consults regularly with key stakeholders through formal consultation processes and through industry and sector working groups. SSE also has community consultation experts, public policy and regulatory experts that engage and consult with communities and other local stakeholders, government and regulators on any future legislation changes.

Country/Area & River basin

United Kingdom of Great Britain and Northern Ireland

Other, please specify

River catchments Scotland/ south England

Type of risk & Primary risk driver

Acute physical

Flood (coastal, fluvial, pluvial, groundwater)

Primary potential impact

Other, please specify

Reduction in generation output and associated profit

Company-specific description

Increased severity of extreme weather events, such as storms, floods and heat waves bring prolonged extreme temperatures, wind or rainfall. This may damage or stress network assets resulting in additional costs to repair and maintain the network and the loss of incentive revenue for distribution operators.

The impact of weather is a perennial feature of operating an electricity distribution network in the north of Scotland and south of England. In an exceptional 2021/22 winter season, seven storms were named by the Met Office including three, Storm Arwen, Storms Malik/Corrie and Storms Eunice/Franklin that became Red Alert events, the most in any year since SSE's records began. Each of these events impacted over 100,000 customers, with a significant number for a multi-day period. Future climate models predict that climate change will continue to bring extreme events such as storms, floods and heatwaves which will impact network assets. For example, severe adverse weather events can result in flooding of substations and/or damage to overhead lines.

Timeframe

More than 6 years

Magnitude of potential impact

Medium

Likelihood

Virtually certain

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

100,000,000

Potential financial impact figure - maximum (currency)

300,000,000

Explanation of financial impact

It is recognised that 2021/22 brought 'once in a generation' levels of impact and disruption, but with climate impacts accelerating the potential remains for similar events to occur across the network in the short, medium and long term, resulting in potential financial impact. To estimate a potential financial impact of this risk, SSE has assessed the value of the next distribution price control (2023 to 2028) and the impact of weather modelling on fault costs and annual incentive revenue for the next decade (up to 2031). Two scenarios were used:

- The first scenario is a simple consistent assessment where there is an additional 10% fault cost incurred each year for the next 10 years and this would have a corresponding 10% impact on incentive revenue each year in the same period.
- The second scenario takes account of weather modelling which suggests that the weather changes will not be consistent and that in the first part of the decade fault costs will increase by 10% with a corresponding 10% decrease in annual incentive revenue in three of the five years between 2021 and 2026. Whilst in the second part of the decade (between 2026 and 2031) the impact of weather will be greater in magnitude and fault costs will increase by 20% with an 20% annual incentive revenue reduction in two of the five years.

This assessment estimated the cost of faults and loss of incentive income over the next 10 years may result in a potential loss of operating profit cumulatively of between £0.1bn and £0.3bn. These calculations are consistent with the number of faults and current RIIO-ED1 incentive and penalty methodology.

As SSE invests in its networks infrastructure, the impacts of climate change are being built into its capital and operational investment plans, including a Climate Resilience Strategy published as part of the RIIO-ED2 Distribution business plan.

Primary response to risk

Develop flood emergency plans

Description of response

To mitigate the impact of severe weather events, SSE monitors short- and long-term weather conditions; has crisis management and business continuity plans; and has a continuous programme of investment in strengthening and improving the resilience of

the electricity network (including overhead line replacement and refurbishment).

Using the Met Office's Climate Projections, asset resilience is reviewed using climate projections for the next 30 years. This includes assessing the impact to the assets from higher temperatures, changing rainfall patterns, rising sea levels, and more extreme weather events such as floods, droughts and heat waves. This process is part of the UK Government's assessment of critical infrastructure which takes place every five years and SSEN Transmission and Distribution responded to the latest call for updates to actions in December 2021.

In 2021/22, extreme weather events, such as storms, floods and heat waves, impacted the resilience of SSENs electricity networks. Seven Met Office named storms impacted SSEN's distribution network in the winter of 2021/22, three of which became Red Alert events, Storm Arwen, Storms Malik/ Corrie and Storms Eunice/Franklin. These storms impacted over 100,000 customers, with a significant number over a multi-day period.

Although the impact on the Interruptions Incentive Scheme (IIS) revenue is mitigated during the most severe weather events, there are significant additional costs incurred through the provision of compensation, customer welfare and upweighted operational requirements. In 2021/22, the total cash expenditure incurred on storm responses was £48m, this including overhead line replacement and refurbishment (£22.8m), tree cutting (£23.7m) and flood protection (£1.5m). Weather-related resilience spend is managed over price control periods and SSEN's RIIO-ED2 business plan for the upcoming price control period from 2023 to 2028 outlines significant new investment in network resilience.

Cost of response

48,000,000

Explanation of cost of response

Examples of the cost to management of directly mitigating severe adverse weather in SSEN Distribution is the combination of costs associated with:

- Investment in overhead line replacement and refurbishment (£22.8m).
- Tree cutting (£23.7m).
- Flood protection (£1.5m).

The combination of these costs was £48m in 2021/22. These investment costs strengthen and improve the resilience of the assets, this in turn ensures that SSE also mitigates the impact of weather damage on its assets.

W4.2c

(W4.2c) Why does your organization not consider itself exposed to water risks in its value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact?

Primary reason	Please explain
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Row 1	Risks exist, but no substantive impact anticipated	SSE has identified its material sustainability issues relating to its key business operations. SSE is working with its value chain (primarily suppliers) based on reviewing and understanding environment, social and governance issues that are relevant and influence the business and its operations. Climate change, safety and local economic impact have been identified as high priority with the likelihood of and magnitude of potential financial/ reputational impacts higher than those posed by water issues. Water is highlighted as an issue to the business, but the risk review highlighted it as low priority in terms of the likelihood and magnitude of potential financial and reputation impact. Risks are reviewed annually. Overwhelmingly climate change is the most material environmental priority. SSE remains vigilant regarding the emergence of higher priority risks relating to water.
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W4.3

(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes, we have identified opportunities, and some/all are being realized

W4.3a

(W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.

Type of opportunity

Products and services

Primary water-related opportunity

Increased sales of existing products/services

Company-specific description & strategy to realize opportunity

Increasing volumes of intermittent wind energy will require support from flexible generators that provide system services, such as short-term reserve, frequency and long-duration energy storage services. The opportunity exists, from existing hydro expertise, to develop long-duration, low-carbon flexibility solutions that provide significant enduring value to the GB electricity system.

Hydro is unique in SSE's portfolio (it represents 16% of its portfolio capacity), as it can be characterised as both renewable and flexible. In addition to 400MW of run-of-river hydro, SSE has 750MW of flexible hydro and SSE's 300MW of pumped storage as well as planning consent for an additional 1.5GW of pumped storage. Flexible hydro operates as 'Britain's biggest battery' and SSE has a significant role to play in providing this. For SSE's existing hydro portfolio, ongoing investment in maintenance, upgrades and repowering will optimise the provision of low carbon flexibility.

SSE also has an important development option for large-scale, long-duration pumped hydro storage at Coire Glas in Scotland, with planning consent for a 1.5GW capacity project and c.30GWh of storage capacity potential. This would more than double existing pumped hydro storage capacity in GB. SSE is working with Government and the regulator to establish a market mechanism that would unlock investment into long-duration storage projects such as Coire Glas given the critical role they can play in securing low-carbon energy supplies in the UK.

The costs associated with realising this opportunity are wrapped up in the costs of the refurbishment of SSE's assets (which involves upgrades and replacement of plant as a result of age as well as to respond to this opportunity to provide more flexibility) as well as the capital development expenditure of Coire Glas.

SSE has been investing in its hydro fleet to make them more efficient and provide flexible and renewable energy to ensure that they can take advantage of a decarbonized energy system. SSE has an ongoing programme of maintenance, refurbishment and construction to ensure these assets continue to deliver during the low-carbon transition. In 2021/22 SSE invested c.£50m on existing hydro asset maintenance and repowering and early-stage development expenditure has already been incurred on Coire Glas, with the total capital cost for development expected to be in excess of £1bn

Estimated timeframe for realization

More than 6 years

Magnitude of potential financial impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

500,000,000

Potential financial impact figure – maximum (currency)

1,500,000,000

Explanation of financial impact

SSE has 1,459MW of existing hydro capacity (inc. pumped storage) and has planning consent for an additional 1.5GW of pumped storage at Coire Glas. SSE continues to invest in its hydro generation assets to increase flexibility to the UK grid. This represents 16% of SSE's generation capacity and 14% of the Group's electricity generation output in 2021/22.

SSE's current hydro generation capacity of 1.5GW had an adjusted operating profit of £293.1m and adjusted EBITDA of £324.7m in the year ended 31 March 2022.

The opportunity for more flexible hydro output from existing assets alongside the investment in pumped storage at Coire Glas provides the potential for SSE to generate an additional £0.5bn to £1.5bn in operating profit cumulatively for the next 10 years to 2031.

W5. Facility-level water accounting

W5.1

(W5.1) For each facility referenced in W4.1c, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Facility reference number

Facility 1

Facility name (optional)

Hydro generation Scotland

SSE's hydroelectric power stations are located across Scotland. Pitlochry is one of the key sites for hydro power at SSE and the longitude and latitude is taken from this point.

Country/Area & River basin

United Kingdom of Great Britain and Northern Ireland

Other, please specify

River catchments Scotland

Latitude

56.7044

Longitude

3.7297

Located in area with water stress

No

Primary power generation source for your electricity generation at this facility

Hydropower

Total water withdrawals at this facility (megaliters/year)

23,116,298

Comparison of total withdrawals with previous reporting year

Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

23,116,298

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

0

Total water discharges at this facility (megaliters/year)

23,116,298

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

23,116,298

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

0

Comparison of total consumption with previous reporting year

About the same

Please explain

Over 97% of water abstracted and then discharged is associated with SSE's hydro generation business. In 2021/22, SSE's hydro electricity generation output decreased by 10% compared to 2020/21. As a result, water withdrawals and associated discharges for hydro generation purposes decreased by around 8% in this same period.

Facility reference number

Facility 2

Facility name (optional)

Thermal generation

SSE's thermal power stations are situated across different locations in the UK. Keadby power station in North Lincolnshire is one of SSE's power station assets and the longitude and latitude is taken from this point.

Country/Area & River basin

United Kingdom of Great Britain and Northern Ireland

Other, please specify

River catchments of England and Scotland

Latitude

53.5967

Longitude

0.7395

Located in area with water stress

No

Primary power generation source for your electricity generation at this facility

Gas

Total water withdrawals at this facility (megaliters/year)

779,288

Comparison of total withdrawals with previous reporting year

Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

268

Withdrawals from brackish surface water/seawater

777,343

Withdrawals from groundwater - renewable

1,666

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

0

Total water discharges at this facility (megaliters/year)

778,539

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

777,091

Discharges to groundwater

1,443

Discharges to third party destinations

5.4

Total water consumption at this facility (megaliters/year)

750

Comparison of total consumption with previous reporting year

Much lower

Please explain

For thermal plants water is used for cooling and as process water in a variety of operations. Cooling water is abstracted and returned to the environment. The better the cooling the higher the efficiency of water use and process water use.

Water abstraction and return for thermal generation reflects the overall output of the power station as well as the type of water system used by the power station. Total water abstracted from SSE's thermal power stations fell between 2020/21 and 2021/22 predominantly due to a reduction in the thermal generation output. In the reporting periods 2020/21 and 2021/22 the majority of SSE's thermal generation mix was primarily based on power stations that use water in a 'once through direct cooling water systems' with minimal consumptive losses. Total water consumed also fell significantly over this period, by over 78%. This was due to reduced output from thermal generation overall, as well as a proportional reduction in the output from thermal power plants with cooling systems that have evaporative losses of water.

Facility reference number

Facility 3

Facility name (optional)

Non-operational buildings SSE is headquartered in Perth, Scotland.

Country/Area & River basin

United Kingdom of Great Britain and Northern Ireland

Other, please specify

River catchments England and Scotland

Latitude

56.935

Longitude

3.4308

Located in area with water stress

No

Primary power generation source for your electricity generation at this facility

Not applicable

Total water withdrawals at this facility (megaliters/year)

22.9

Comparison of total withdrawals with previous reporting year

Much lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

22.9

Total water discharges at this facility (megaliters/year)

22.9

Comparison of total discharges with previous reporting year

Much lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

22.9

Total water consumption at this facility (megaliters/year)

22.9

Comparison of total consumption with previous reporting year

Much lower

Please explain

Water used in amenities continued to decrease between 2020/21 and 2021/22, reflecting the impact of the coronavirus pandemic on the occupation of offices. SSE continues to implement ongoing water efficiency, behavioural change and saving programme in its non-operational offices, data centres and depots.

SSE monitors the water use in these non-operational buildings, and in 2017 a target was launched as part of the programme, to reduce water consumption every year by 2.5%.

W5.1a

(W5.1a) For the facilities referenced in W5.1, what proportion of water accounting data has been third party verified?

Water withdrawals – total volumes**% verified**

76-100

Verification standard used

Assured by PwC to the ISAE3000 standard and ISAE3410 (assurance engagements on greenhouse gas statements). This document is uploaded in the response to W9.1

Water withdrawals – volume by source**% verified**

76-100

Verification standard used

Assured by PwC to the ISAE3000 standard and ISAE3410 (assurance engagements on greenhouse gas statements). This document is uploaded in the response to W9.1

Water withdrawals – quality by standard water quality parameters**% verified**

76-100

Verification standard used

Assured by PwC to the ISAE3000 standard and ISAE3410 (assurance engagements on greenhouse gas statements). This document is uploaded in the response to W9.1

Water discharges – total volumes

% verified

76-100

Verification standard used

Assured by PwC to the ISAE3000 standard and ISAE3410 (assurance engagements on greenhouse gas statements). This document is uploaded in the response to W9.1

Water discharges – volume by destination

% verified

76-100

Verification standard used

Assured by PwC to the ISAE3000 standard and ISAE3410 (assurance engagements on greenhouse gas statements). This document is uploaded in the response to W9.1

Water discharges – volume by final treatment level

% verified

Not verified

Please explain

This metric has not undergone third party assurance.

Water discharges – quality by standard water quality parameters

% verified

Not verified

Please explain

This metric has not undergone third party assurance.

Water consumption – total volume

% verified

76-100

Verification standard used

Assured by PwC to the ISAE3000 standard and ISAE3410 (assurance engagements on greenhouse gas statements). This document is uploaded in the response to W9.1

W6. Governance

W6.1

(W6.1) Does your organization have a water policy?

Yes, we have a documented water policy that is publicly available

W6.1a

(W6.1a) Select the options that best describe the scope and content of your water policy.

	Scope	Content	Please explain
Row 1	Company-wide	Description of business dependency on water Description of business impact on water Company water targets and goals Commitments beyond regulatory compliance Commitment to water-related innovation Commitment to stakeholder awareness and education Commitment to water stewardship and/or collective action Recognition of environmental linkages, for example, due to climate change	<p>SSE's Environment policy is company-wide and provides the policy framework on the environment for all its business operations, recognising our management commitments and dependency on resource use such as water. This policy is implemented locally by business units through environmental management systems. The policy requires SSE's operations to, amongst other things, identify material impacts, manage environmental risks, engage positively with key stakeholders, work with suppliers, and integrate environmental improvements into everyday decision making. Water is included as part of this policy, processes and procedures. Specifically, SSE commits to "decreasing the impact of our resource consumption by:</p> <ul style="list-style-type: none"> • Minimising resource use and waste production. • Minimising waste to landfill and increasing recycling. • Working with our supply chain to improve performance and innovation. • Engaging with the circular economy, by using reprocessed materials and ensuring our resources can readily be reused or recycled so far as is practical. • Selecting materials that have sustainable lifecycle impacts." <p>The policy also commits to "Engage positively with key stakeholders on environmental issues and take responsibility within the wider community for improving the environmental impact of our business."</p> <p>SSE's Group Climate Change policy also acknowledges the potential for water-related climate risks: "SSE assessed the physical impacts of climate change, including</p>

			<p>the increased likelihood of severe weather events, in its business continuity and crisis management plans, implementing climate adaptation plans.</p> <p>These policies are group policies, signed by the Chief Executive Officer.</p>
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W6.2

(W6.2) Is there board level oversight of water-related issues within your organization?

Yes

W6.2a

(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.

Position of individual	Please explain
Chief Executive Officer (CEO)	<p>The Chief Executive has overall responsibility for ensuring the decisions and actions of the company are sustainable in the long-term, through appropriate management, implementation and progress of sustainability interventions which support SSE's strategy and address material impacts inc. climate change and environment (inc. water). The Chief Executive is assisted by Board-level committees, senior management and specific management committees.</p> <p>The Board is advised on matters of safety, health and environment (SHE) by the Safety, Sustainability, Health and Environment Advisory Committee (SSHEAC). The SSHEAC has an overarching role in supporting SSE's commitment to be a sustainable company. In fulfilling this role, the SSHEAC reviews and oversees the implementation of key sustainability-related Group policies (that include water-related aspects), which in 2021/22 included the Safety and Health policy, Environment policy, and Sustainability policy.</p> <p>Below the board, the Safety, Health and Environment Committee (SHEC) makes sure that the Environment policy is adhered to through awareness, training and monitoring of policy implementation. Incidents and breaches are reviewed and where appropriate opportunities for improvement are actioned. Further, the Health, Safety and Environment Committee (HSEC) provides a forum for senior SSE managers to meet with Trade Union/Employee representatives.</p> <p>The SSEPD Board (SSE's two electricity network businesses have a dedicated governance framework underneath SSE plc Board reflecting business separation obligations under Ofgem licenses) is responsible for the oversight of SSEN's most material sustainability impacts (including severe weather and flooding). The Sustainability Sub-Committee of the SSEPD Board governs the sustainability strategies (including water-related aspects) of these businesses, comprising one</p>

	non-Executive Director, the Group Chief Sustainability Officer and Executives from each of the representative businesses.
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W6.2b

(W6.2b) Provide further details on the board's oversight of water-related issues.

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - some meetings	<p>Monitoring implementation and performance</p> <p>Reviewing and guiding annual budgets</p> <p>Reviewing and guiding business plans</p> <p>Reviewing and guiding major plans of action</p> <p>Reviewing and guiding risk management policies</p> <p>Reviewing and guiding strategy</p> <p>Reviewing and guiding corporate responsibility strategy</p> <p>Reviewing innovation/R&D priorities</p> <p>Setting performance objectives</p>	<p>The Board is advised on matters of safety, health and environment (SHE) by the Safety, Sustainability Health and Environment Advisory Committee (SSHEAC). Committee membership comprises four non-Executive Directors; the Chair of the Board; the Chief Commercial Officer; the Chief Sustainability Officer; and three senior executives. The SSHEAC has an overarching role in supporting SSE's commitment to be a sustainable company that makes a positive contribution to the communities and societies of which it is part. The Committee underwent a degree of reform in 2021/22 to enhance its role in relation to sustainability and now has expanded responsibility for: reviewing SSE's comparative ESG ratings performance; approving SSE's Sustainability Report; reviewing the physical risks of climate change on SSE's activities with a focus on climate adaptation and resilience; and increased oversight of SSE's policy, practice and performance surrounding environmental impacts, including waste, air emissions, biodiversity and water consumption – under which it continues to oversee the actions which have been agreed to manage SSE's environmental footprint.</p> <p>SSE's Chief Sustainability Officer (reporting to the Chief Executive) is responsible for advising the Board and its Committees, the Group Executive Committee (GEC) and individual Business Units, on sustainability issues and strategy (including water-related aspects). The Sustainability team supports and drives sustainability performance programmes across the organisation and reports progress on sustainability activities to the full range of SSE's</p>

			stakeholders. For example, water disclosure was identified as an area for improvement and processes were established and implemented to improve the quantity and quality of water reporting by SSE businesses to external stakeholders.
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W6.2d

(W6.2d) Does your organization have at least one board member with competence on water-related issues?

	Board member(s) have competence on water-related issues	Criteria used to assess competence of board member(s) on water-related issues
Row 1	Yes	<p>SSE has two non -executive directors with direct water experience and four non-executive directors with carbon and climate expertise. Additionally, three of SSE’s executive directors each have over twenty years’ of experience of managing climate and environmental impacts. As a result, SSE believes that the board has significant depth of knowledge on water and environment-related issues.</p> <p>However, the science on climate and the natural environment are updated all the time, and the methods to both mitigate and adapt to climate and water-related issues are continuously developing. It is for that reason, that, in 2022/23, SSE are developing an ongoing, multiyear development programme on climate matters, which will cover the impact climate has on the natural environment and water resources, for the Board.</p>

W6.3

(W6.3) Provide the highest management-level position(s) or committee(s) with responsibility for water-related issues (do not include the names of individuals).

Name of the position(s) and/or committee(s)

Other committee, please specify
Group Executive Committee

Responsibility

Assessing future trends in water demand
Assessing water-related risks and opportunities
Managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

Quarterly

Please explain

The Group Executive Committee (GEC) is responsible for implementing the Group strategy set by the Board. Sustainability (including water-related aspects) are integrated and considered within the Group strategy. SSE's strategy is focused on the transition to net zero and its business model which embeds sustainability throughout is designed to ensure that in achieving its core business objectives, it creates value for shareholders and society in a sustainable way by developing, building, operating and investing in the electricity infrastructure and businesses that are needed in the transition to net zero. This includes the environment and water-related issues that impact its key stakeholders and wider society. The GEC also monitors the operational and financial performance of sustainability related activities across the organisation. It is supported by the Group Safety, Health and Environment Committee in relation to sustainability matters.

Name of the position(s) and/or committee(s)

Safety, Health, Environment and Quality committee

Responsibility

Assessing future trends in water demand
 Assessing water-related risks and opportunities
 Managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

Quarterly

Please explain

The Safety, Health and Environment Committee advises the Group Executive Committee on safety, health and environment (SHE) matters. It is responsible for SHE policies, targets and strategy, performance, awareness and action including water related issues.

W6.4

(W6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

	Provide incentives for management of water-related issues	Comment
Row 1	Yes	SSE's Exec Directors have part of their annual incentive linked to achievement of SSE's 2030 Goals, stakeholders and safety (inc. environmental performance). They can also have personal objectives linked to environmental performance. The Chief Executive and the Energy Director's 2021/22 performance assessments noted strong environmental performance. If a significant water-related issue, incident or breach were to occur, this would be reflected in the personal performance assessment. SSE operates in countries with robust regulatory systems, meaning its hydro and thermal operations

		<p>must meet licence/permit conditions set by environmental regulators. Its distribution business has regulatory incentives on customer minutes lost and interruptions, so it is incentivised to reinforce the network to mitigate the impact of flooding or severe weather. As such, water-related issues are managed well at business unit level and most incentives for managing water-related issues sit below the C-suite.</p>
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W6.4a

(W6.4a) What incentives are provided to C-suite employees or board members for the management of water-related issues (do not include the names of individuals)?

	Role(s) entitled to incentive	Performance indicator	Please explain
Monetary reward	Board/Executive board Chief Sustainability Officer (CSO)	Improvements in efficiency - direct operations Implementation of employee awareness campaign or training program Supply chain engagement Implementation of water-related community project	<p>20% of the Exec Directors' Annual Incentive Plan (AIP) is linked to performance against SSE's 2030 Goals, one of which is to treble renewable output by 2030. While the majority of this output will be from SSE's wind portfolio, it also covers hydro output.</p> <p>15% of the AIP is also made up of personal assessment, which takes account of environmental performance where relevant.</p> <p>A further 15% of the AIP is contributed to by measures against stakeholder engagement. One of these stakeholder groups is employees.</p> <p>In 2021/22 it was noted that there was strong overall safety performance including environmental performance. Environmental performance takes account of environmental incidents, which would pick up any water-related incidents as well.</p>
Non-monetary reward	No one is entitled to these incentives		

W6.5

(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?

- Yes, direct engagement with policy makers
- Yes, trade associations
- Yes, funding research organizations

W6.5a

(W6.5a) What processes do you have in place to ensure that all of your direct and indirect activities seeking to influence policy are consistent with your water policy/water commitments?

SSE's business strategy and its sustainability value guides its overall approach on environment and climate change issues. SSE has policy and public affairs specialists based across the UK and Ireland who engage constructively with legislators, officials and other policy makers on all aspects of environment and climate change policy. All communications across the business are managed by these experts and processes are in place to ensure consistency, quality, and accuracy of communications across SSE. These processes ensure approaches are consistent with SSE's Environment Policy.

Any issues of non-compliance once identified are handled through constructive engagement with the relevant regulator to ensure mitigations and remunerations are actioned. SSE has a commitment to responsible political engagement, and this is communicated through its political engagement policy. This policy is in place for all employees and is consistently applied across the SSE Group and governs both SSE's policies in this area – for example its policy on political contributions - and serves as a guide to how employees should conduct themselves when representing SSE to government or other institutions.

W6.6

(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?

Yes (you may attach the report - this is optional)

 Annual Report 2022.pdf

W7. Business strategy

W7.1

(W7.1) Are water-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	21-30	SSE's vision is to be a leading energy company in a net-zero world. Its purpose is to provide the energy needed today while building a better world of energy for tomorrow. Its strategy is to create value for shareholders and society from developing, building, operating and investing in electricity infrastructure and

			<p>businesses needed in the transition to net zero.</p> <p>SSE's businesses involve a mix of net-zero focused businesses including a portfolio of world-class renewable generation assets and electricity network businesses. These businesses are key to enabling a net zero economy, have significant growth potential and, importantly, they fit together. The strategy is therefore focussed on developing, building, operating and investing in assets that create long-term value and are vital to the low-carbon transition. Increasing volumes of clean energy are required to enable a net zero economy. Flexible generation and storage are required to provide electricity when wind output is low. SSE's hydro generation assets (inc. pumped storage) are in a good position to take advantage of an increase in value of flexible output. In addition, SSE has further options through investment in flexible pumped storage such as an additional 1.5GW at Coire Glas. Therefore, SSE's hydro generation assets are well placed to provide this in an optimal way.</p>
<p>Strategy for achieving long-term objectives</p>	<p>Yes, water-related issues are integrated</p>	<p>21-30</p>	<p>SSE's strategy is a commitment to contribute substantively to the transition to a low-carbon electricity system. To support this strategy, SSE's businesses will be focused on economically regulated electricity networks and renewable sources of energy, complemented by others that contribute to the transition to net zero.</p> <p>Flexible generation and storage are required to provide electricity when wind output is low. SSE's hydro generation assets (inc. pumped storage) are in a good position to take advantage of an increase in value of flexible output.</p> <p>SSE's strategy to achieve these objectives relies on two pillars: increasing the efficiency of current assets and developing new ones.</p> <ul style="list-style-type: none"> • SSE has a consent for the development of 1.5GW (30GWh) Coire Glas scheme. SSE sees this has having an important role in providing critical flexibility to balance the increasing volumes of variable renewables. SSE is working closely with policy makers to encourage further clarity on the policy framework and route to market for such projects.

			<ul style="list-style-type: none"> In recent years hydro-electric generation has demonstrated its capability in delivering substantial value through flexible operation enabled by enhancements to SSE's commercial management of these assets. These assets will continue to play an important role in providing low-carbon flexibility required for the net zero transition.
Financial planning	Yes, water-related issues are integrated	11-15	<p>The expansion of SSE's renewable energy portfolio includes the development and investment of its hydro generation assets. Capital and operating investment decisions integrate water-related issues into the financial planning process.</p> <p>In addition, SSE's environmental improvement plan sets goals and targets on water-related issues. These water-related goals and targets require capital and operational investment, and these are included as part of annual financial plans and decision making.</p>

W7.2

(W7.2) What is the trend in your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

Row 1

Water-related CAPEX (+/- % change)

6

Anticipated forward trend for CAPEX (+/- % change)

Water-related OPEX (+/- % change)

17

Anticipated forward trend for OPEX (+/- % change)

Please explain

The capex figures include: SSE's adjusted capital expenditure in its Thermal generation (all business activities); and hydro generation capex. Between 2020/21 and 2021/22 SSE's water-related capex decreased by 6%.

The opex figures include: SSE's operational expenditure in relation to its Thermal generation (GB fleet only). Between 2020/21, and 2021/22 SSE's water-related opex decreased by 17%.

In November 2021, SSE announced an investment programme of £12.5bn focused on low-carbon infrastructure. 40% of the spend is earmarked for Renewables projects (including hydro); 40% in electricity networks, with the remaining 20% focused on low-carbon thermal and other flexible technologies.

W7.3

(W7.3) Does your organization use scenario analysis to inform its business strategy?

	Use of scenario analysis	Comment
Row 1	Yes	<p>As part of SSE's TCFD disclosures and the risks/ opportunities presented in the CDP Climate and Water responses, SSE describes the resilience of the organisation to key identified climate-related risks. The assessment of climate-related risks follows a process of bottom up analysis and SSE is continuing to develop its scenario analysis and in 2022/23 will build appropriate macro enterprise level climate scenarios to build on the climate scenario analysis performed in the past.</p> <p>SSE's previous reports, Post Paris, published in July 2017, and Transition to Net Zero, published in November 2019, assessed the resilience of SSE's electricity businesses and gas businesses to different warming scenarios respectively.</p> <p>SSE's networks business, has published reports forecasting the impact of a net zero future and these identify the impact of electrification on the distribution network. These reports also showed the importance of hydro generation and storage in these future scenarios.</p>

W7.3a

(W7.3a) Provide details of the scenario analysis, what water-related outcomes were identified, and how they have influenced your organization's business strategy.

	Type of scenario analysis used	Parameters, assumptions, analytical choices	Description of possible water-related outcomes	Influence on business strategy
Row 1	Water-related Climate-related	National Grid's Future Energy Scenarios	The "Transition to Net Zero: The Role of Gas" and "Post Paris" scenario reports identified the future role that thermal and renewables (including hydro electric power stations) will play in a net zero world. For thermal this will involve the development of low	SSE is developing plans with partners to support the UK's transition to net zero and accelerate the decarbonisation of some of the UK's most carbon intensive regions. SSE Thermal's focus is on CCS and hydrogen. As part of these plans, SSE is working with regulators, policy-

			<p>carbon options such as CCS and hydrogen crucial to a net zero world. While these projects are crucial to progressively reduce carbon emissions associated with its activities, adoption of these technologies may change the water volumes abstracted/ returned in the future.</p> <p>In addition, these reports also showed the importance of hydro generation for flexibility and storage in future net zero scenarios.</p>	<p>makers and other stakeholders on the impacts of these development on other environmental issues (including water-related impacts).</p> <p>In terms of flexible hydro generation: SSE continues to invest in its hydro generation assets to increase flexibility to the UK grid. SSE has a consent for the development of 1.5GW (30GWh) Coire Glas scheme. SSE sees this has having an important role in providing critical flexibility to balance the increasing volumes of variable renewables in a net zero world.</p>
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W7.4

(W7.4) Does your company use an internal price on water?

Row 1

Does your company use an internal price on water?

No, but we are currently exploring water valuation practices

Please explain

SSE actively manages its environmental footprint and takes careful consideration of water and related biodiversity in its activities. In 2021/22, all SSE Business Units committed to achieving no 'net loss' in biodiversity by 2023 and 'net gain' in biodiversity (BNG) by 2025 on onshore Large Capital Projects. To support these targets, SSEN networks has been piloting the use of natural capital tools to measure ecosystem services and the value of natural capital (including water quality, flood protection and other water-related impacts). The NatCapMap approach is being trialled by SSEN Transmission's at its Knocknagael – Tomatin Overhead Line project. In addition, SSEN networks is using Natural England's Biodiversity Metric 3.0 to calculate the units required to deliver the soon to be mandatory 10% BNG for new developments in England. This in turn has resulted in a trading market for biodiversity units. SSEN Distribution has used it as a proxy for measurement in England and Scotland.

W7.5

(W7.5) Do you classify any of your current products and/or services as low water impact?

	Products and/or services classified as low water impact	Primary reason for not classifying any of your current products and/or services as low water impact	Please explain
Row 1	No, but we plan to address this within the next two years	Important but not an immediate business priority	<p>The vast majority (97%) of water abstracted in 2021/22 was used in SSE's hydro generation operations. This water is technically recorded as abstracted, but it passes through turbines to generate electricity and is returned to the environment almost immediately, and therefore has minimal environmental impact.</p> <p>Despite this minimal environmental impact overall, SSE works closely with regulators, environmental organisations and the local community to ensure that its hydro-electricity operations have minimal adverse impacts on these stakeholders, biodiversity and the environment. SSE monitors all abstractions (based on the volume of water passing through its turbines), compensation and freshet flows and report these to the Regulator, the Scottish Environment Protection Agency (SEPA), on an annual basis or as requested.</p>

W8. Targets

W8.1

(W8.1) Describe your approach to setting and monitoring water-related targets and/or goals.

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals	Targets are monitored at the corporate level	The Safety, Sustainability, Health and Environment Advisory Committee (SSHEAC) (a sub-Committee of the Board) advises the Board on safety, sustainability, health and environment matters. It is responsible for SHE policies, targets and strategy, performance, awareness and action.

		<p>Goals are monitored at the corporate level</p>	<p>SSE has an environment improvement plan that has been agreed by the SSHEAC. This plan involves water-related goals and targets.</p> <p>In 2021/22, SSE's group wide Environment policy was implemented locally by business units through environmental management systems. Water is included as part of this policy, processes and procedures. Specifically, SSE commits to “decreasing the impact of our resource consumption by:</p> <ul style="list-style-type: none"> - Minimising resource use and waste production. - Minimising waste to landfill and increasing recycling. - Working with our supply chain to improve performance and innovation. - Engaging with the circular economy, by using reprocessed materials and ensuring our resources can readily be reused or recycled so far as is practical. - Selecting materials that have sustainable lifecycle impacts”. <p>The policy also commits to “Engage positively with key stakeholders on environmental issues and take responsibility within the wider community for improving the environmental impact of our business.” The policy requires SSE’s operations to, amongst other things, identify material impacts, manage environmental risks, engage positively with key stakeholders, work with suppliers, and integrate environmental improvements into everyday decision making.</p> <p>The Safety, Health and Environment Committee is a sub-Committee responsible for the careful management of safety, health and environment matters across the SSE Group. In 2021/22 the Committee, amongst many other matters, approved a new framework for a group-wide Environment Strategy. The Strategy outlines SSE’s role in supporting the conservation, restoration and sustainable use of the world’s land and water resources; and promoting the integration of amenity, ecosystem and biodiversity improvement into business activities, linking to UN SDGs 14 and 15. It also considered, in detail, the safety, health and environment plans from each of the SSE business units. For example, the SHE Committee approved SSE Thermal’s ambition to engage with and respond to the Water Resources East Regional Water Resources Plan and other associated catchment management plans to ensure water availability needs are recognised.</p>
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			<p>SSE's Group Climate Change policy also acknowledges the potential for water-related climate risks: "SSE assessed the physical impacts of climate change, including the increased likelihood of severe weather events, in its business continuity and crisis management plans, implementing climate adaptation plans.</p> <p>These group policies are signed by the Chief Executive Officer.</p>
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W8.1a

(W8.1a) Provide details of your water targets that are monitored at the corporate level, and the progress made.

Target reference number

Target 1

Category of target

Water pollution reduction

Level

Company-wide

Primary motivation

Reduced environmental impact

Description of target

This target is focused on pollution prevention to reduce impacts to the environment, protect the reputation of the company, reduce risk and ensure compliance with regulations.

Quantitative metric

Other, please specify
No pollution incidents - number

Baseline year

2021

Start year

2021

Target year

2022

% of target achieved

100

Please explain

In 2021/22, the number of environmental permit breaches as a result of SSE's activities totalled 7 compared to 4 in the previous year. In this period there were no major environmental incidents. SSE monitors, and reports water aspects in accordance with specific requirements of its environmental permits. SSE has a ISO14001 system in place to manage its activities. It also has emergency procedures, secondary containment, and water treatment facilities where required in relation to permit conditions. The increased transparency around water reporting has led to the improvement in the reliability of water data. In addition, SSE conducts internal water audits of water monitoring, data collection and reporting activities. Part of the improved due diligence process is the assurance of water data by PwC first in 2015/16 and the repeated assurance of water data by PwC from 2016/17 to 2021/22.

Target reference number

Target 2

Category of target

Water consumption

Level

Company-wide

Primary motivation

Cost savings

Description of target

SSE targeted a 2.5% reduction in water consumption in its non-operational buildings over a 5-year period. 2021/22 water use reported at our 18 largest FM sites was 2.0% greater owing to increased building occupancy this year compared to the previous year. The target to achieve a 2.5% annual reduction over a 5-year period is however achieved. SSE continues to implement a water efficiency, behavioural change and saving programme in its non-operational offices, data centres and depots. A rolling 2.5% annual reduction target remains in place.

Quantitative metric

% reduction in total water consumption

Baseline year

2017

Start year

2017

Target year

2023

% of target achieved

100

Please explain

2021/22 total consumption was 34,725m³, 2% higher than the previous year owing to increased building occupancy. However, reported consumption is below pre-pandemic 2019/20 reported consumption of 73,852m³ or a reduction of 52.9%.

W8.1b

(W8.1b) Provide details of your water goal(s) that are monitored at the corporate level and the progress made.

Goal

Watershed remediation and habitat restoration, ecosystem preservation

Level

Company-wide

Motivation

Water stewardship

Description of goal

Partnerships and collaborative working with regulatory bodies (such as SEPA) and other stakeholders to find the appropriate balance between maintaining renewable energy generation, security of supply and delivering local environmental improvements.

Baseline year

2016

Start year

2016

End year

2022

Progress

SSE has regular contact with regulators, Environment Agency, SEPA and Environment Protection Agency (Ireland) on water issues including consents, compensation flows and river basin/ ecosystem/ habitat management. SSE also maintains a strong presence at meetings that involve regulators and policy makers in relation to water issues for example SSE are engaging in workstreams associated with the water abstraction plan for England and SSE meets regularly with SEPA to discuss the impact of water framework directive (WtFD) and associated River Basin Managements Plans (RBMPs) on its hydro operations up to 2027. The RBMP process runs in six year cycles, the most recent Scotland RBMP 2021 – 2027 having been published in December 2021.

W9. Verification

W9.1

(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?

Yes

W9.1a

(W9.1a) Which data points within your CDP disclosure have been verified, and which standards were used?

Disclosure module	Data verified	Verification standard	Please explain
W1 Current state	Water withdrawn, consumed and returned by PwC and published externally.	ASAE3000	SSE calculates the water withdrawn, consumed and returned using UK Government (BEIS) reporting standards and is assured by PwC and published externally. This data is also included in section 5.

W10. Sign off

W-FI

(W-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

W10.1

(W10.1) Provide details for the person that has signed off (approved) your CDP water response.

	Job title	Corresponding job category
Row 1	Group Finance Director	Chief Financial Officer (CFO)

W10.2

(W10.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate's Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

Yes

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms