

## Green Bond reporting criteria

### Scope

This covers investments in Eligible Green Projects as detailed by the [Green Bond Framework \(dated August 2017\)](#) refinanced by the issuance of SSE plc's (SSE) two Green Bonds.

	<b>Green Bond 2017</b>	<b>Green Bond 2018</b>
<b>Issuer</b>	<b>SSE plc</b>	<b>SSE plc</b>
Currency	EURO	EURO
ISIN	XS1676952481	XS1875284702
Size	€600,000,000	€650,000,000
GBP:EUR at issuance	1.09404	1.0990
Sterling Equivalent	£548,426,017.30	£591,446,676.80
Pricing Date	30 August 2017	28 August 2018
Settlement Date	6 September 2017	4 September 2018
Maturity Date	6 September 2025	4 September 2027
Coupon	0.875%	1.375%

### Green Bond Framework

Under SSE's Green Bond Framework, SSE committed to the following reporting:-

#### Allocation Reporting

Allocation reporting will be available to investors within one year from the date of the Green Bond issuance as specified in the Green Bond Framework. There will be one report after issuance, as the proceeds will be used for the refinancing of projects, thus the whole amount raised will be employed at settlement. Where SSE refinances its equity share within a joint venture it will be reported on an equity stake basis. Should there be any variance in the initial allocation reporting, such as divestments, SSE will duly update the allocation report within one year, in its Annual Sustainability Statement on SSE's website to be published in June 2019.

Independent auditors or any other third-party appointed by SSE will verify the internal tracking method and the allocation of funds from the Green Bond proceeds to the Eligible Green Projects.

#### Impact Reporting

SSE will provide investors with information on its investor website and within its Annual Sustainability Statement on SSE's website regarding the environmental impact of the category of projects on an annual basis until the maturity of the Green Bond. This reporting will include relevant environment metrics related to the eligible Green Bond projects, for example the expected annual carbon saved, expected renewable electricity capacity and output.

For the environmental impact metrics of renewable electricity capacity and output, and carbon saved, reporting will be on the basis of SSE's equity stake. Environmental impact reporting is on the basis of the proportion of the total capital expenditure for the onshore wind farms refinanced by the proceeds from both the Green Bonds, which as at 31 March 2019 post disposal of equity stakes has been calculated at 98%. The environmental impact reporting for

the Caithness-Moray transmission link is reported qualitatively to reflect the nature of the project.

## Methodology

### Statement of Proceeds

Table 1 (below) confirms the proceeds of the Green Bond issued on 4 September 2018. The proceeds were fully employed at settlement. This is confirmed by taking the total capital expenditure on the eligible green projects and comparing this with the proceeds of the Green Bond. Table 1 also includes the restated allocation of proceeds for the 2017 Green Bond, due to the sale of a 49.9% stake in the Dunmaglass wind farm, with £85.5m reallocated from Dunmaglass to Bhlaraidh wind farm. The total values are sourced from SSE's project accounting system, TM1.

**Table 1: List of eligible green projects refinanced by proceeds from the 2017 and 2018 Green Bonds at 31 August 2018 (details of qualifying criteria are outlined in the Green Bond Framework)**

Eligible green projects <sup>1</sup>	Total actual capex spend (£m) <sup>2</sup>	Qualifying capacity (MW) <sup>2</sup>	Date fully operational	Allocation of 2017 Green Bond proceeds (£m)	Allocation of 2018 Green Bond proceeds (£m)
Strathy North	102.9	67	Nov 15	102.9	NIL
Tievenameenta	42.9	34	Feb 17	41.5	NIL
Slieve Divena 2	26.5	19	Jun 17	26.5	NIL
Comhlach Gaoithe Teoranta (Galway Wind Park)	85.6	66	Jun 17	81.9	NIL
Dunmaglass	88.9	47	Aug 17	88.9	NIL
Clyde Extension (part of Clyde Windfarm (Scotland))	100.3	87	Sep 17	100.3	NIL
Bhlaraidh	117.1	110	Oct 17	106.6	NIL
Leanamore	30.8	18	Feb 18	NIL	30.8
Stronelaairg	147.6	114	Dec 18	NIL	147.6
Caithness Moray Link	1,020.0	1,200	Jan 19	NIL	413.0
<b>Total</b>	<b>1,762.6</b>	<b>1,762</b>		<b>548.6</b>	<b>591.4</b>

<sup>1</sup> Onshore wind farms and Caithness Moray high voltage direct current (HVDC) connection.

Where SSE hold a partial stake, the CAPEX spend reported represents SSE portion only as at 31 March 2019.

<sup>2</sup> Reported Actual Capex and Qualifying Capacity reflect SSE's 50.1% ownership in Clyde Windfarm (Scotland), Dunmaglass and Stronelaairg wind farms as at 31 March 2019.

All projects were complete as at 31 August 2018 apart from Stronelaairg wind farm and the Caithness Moray Transmission Link, capital expenditure at 31 August 2018 was £177.6m (based on 100% ownership) for Stronelaairg and £943m for Caithness Moray and therefore per the allocation in Table 1, proceeds from the 2018 Green Bond were fully employed at settlement.

As at 31 March 2019 SSE's equity stake was 50.1% in Clyde Extension<sup>1</sup>, Stronelairg and Dunmaglass<sup>2</sup> wind farms. All proceeds allocation reporting for Clyde Extension, Dunmaglass and Stronelairg is proportional to SSE's 50.1% equity stake, including the Total Actual Capex Spend as shown in Table 1.

All other onshore wind farms listed in Table 1 are 100% owned by SSE. Strathy North is listed as a SSE wind farm on page 28 of the 15/16 [Interim Statement](#) the other wind farms are all listed on page 25 of SSE's 17/18 [Interim Statement](#).

Comhlacht Gaoith Teoranta is part of the Galway Wind Park and 100% owned by SSE, further details can be found in the [SSE Press Release dated 16<sup>th</sup> June 2017](#).

On 11 January 2019 SSE confirmed the completion<sup>3</sup> of the Caithness Moray high-voltage direct current (HVDC) connection which is listed on page 56 of the 17/18 Annual Report.

### **Capacity reporting (MW – megawatts)**

For the purposes of reporting the capacity is taken from the total installed capacity. This is calculated using the sum of the number of operational turbines installed within each wind farm multiplied by their given turbine rating. The capacity for operational Onshore Wind Farms and those still under construction listed as eligible green projects in the Green Bond Framework is taken from the SSE's published Interim Statements referenced under Statement of Proceeds section.

### **Output reporting (GWh – gigawatt hours)**

Output (or volume) is taken from the 1 April 2018 to 31 March 2019 for Green Bond 2017 and from 1 September 2018 to 31 March 2019 for Green Bond 2018. The output reporting is based on SSE's equity stake during the Green Bond reporting period (for example 65% for Clyde Extension until 30 May 2018, then 50.1% and 100% for Stronelairg and Dunmaglass). The output volumes include projects that are operational. For projects that move from construction to operation during the reporting period, output data is taken from the date of commissioning.

The output refers to the generation from the wind turbines at the Notional Balancing Point. This is where demand is managed and is comparable across the industry for trading and monitoring.

For the Clyde Extension the output is estimated based on the Renewable Obligation Certificate banding to determine the split of the total output relevant to the Clyde Extension from the windfarm which was an extension of an already existing windfarm (Clyde).

---

<sup>1</sup> For the Clyde Extension, SSE's equity stake had been reduced to 65%, as was announced in RNS Number 6396M on 1 August 2017, the joint venture partners then exercised their right to purchase a further 14.9% equity stake on 30 May 2018, as noted on page 70 of the 18/19 Interim Statement.

<sup>2</sup> On 1 February 2019 in RNS Number 80130 it was announced that an agreement had been reached to sell a 49.9% stake in Stronelairg and Dunmaglass wind farms, the transaction completed on 31 March 2019.

<sup>3</sup> RNS 8966M confirms the completion of the Caithness Moray high-voltage direct current connection, which is 100% owned by SSEN Transmission a wholly-owned subsidiary of SSE plc.

Output data is based on meter points at the Notional Balancing Point. This data is collected by Elexon, stored on SONET (an external database that stores electricity settlement data) and managed through an internal finance management system by business finance at SSE.

### **Environmental impact reporting (tCO<sub>2</sub>e – tonnes of carbon dioxide equivalent)**

The carbon emissions associated with the production of electricity at a wind farm are assumed to be zero.

The GHG standard project protocol states that for wind power projects the primary effect of these projects is to reduce the combustion emissions from generating grid-connected electricity. For these projects the baseline (or counterfactual) is estimated from the GHG emission rates of existing sources of production that will be displaced or reduced.

SSE's methodology calculates the carbon emissions saved as a result of the renewable energy project by comparing its likely emissions to those of a marginal grid electricity mix, using the UK government's Greenhouse Gas (GHG) reporting guidance and conversion factors. To do this the output from the 1 April 2018 to 31 March 2019 for Green Bond 2017 and 1 September 2018 to 31 March 2019 for Green Bond 2018 is taken for each windfarm and multiplied by the marginal grid conversion factors (as stated by UK government GHG conversion factors, August 2017).

The carbon emissions reporting is based on SSE's equity stake during the Green Bond reporting period (for example 65% for Clyde Extension until 30 May 2018, then 50.1% and 100% for Stronelairg and Dunmaglass).

### **Caithness-Moray electricity transmission link capacity (MW – megawatts)**

Caithness-Moray is a HVDC (High Voltage Direct Current) technology used to transmit power through 113km of subsea cable beneath the Moray Firth seabed between the new converter stations at Spittal in Caithness and Blackhillock in Moray. The transmission link provides up to 1,200MW<sup>4</sup> of capacity to transmit power from the north of Scotland across the UK.

For the Caithness-Moray transmission link, the green impact refers to the 1,200MW of capacity that transmits power from the north of Scotland across the UK. The project has already facilitated the connection of 985MW of renewable generation to connect to the national grid. This includes the recently connected turbines from Beatrice offshore wind farm (588MW capacity on completion) and Dorenell onshore wind farm (177MW capacity on completion).

The project supports the additional connection of onshore renewable generation on the mainland as well as the Scottish Islands of the Western Isles, Orkney and Shetland.

### **Adjustments**

Where there are adjustments to previously reported data, this will be stated in the year end reporting by 31 March.

---

<sup>4</sup> For this transmission link, the actual electricity transmitted is controlled by National Grid Electricity System Operator.

## References

- SSE Green Bond Framework – <http://sse.com/media/478802/SSE-Green-Bond-Framework-2017.pdf>
- GHG Standard Project Protocol - [http://www.ghgprotocol.org/sites/default/files/ghgp/standards/ghg\\_project\\_accounting.pdf](http://www.ghgprotocol.org/sites/default/files/ghgp/standards/ghg_project_accounting.pdf)
- UK government GHG reporting guidance and conversion factors - <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>