

# Security of Electricity Supply in Scotland Opinion Survey

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1. The recent “Securing a green recovery on a path to net zero: climate change plan 2018–2032 – update” document published by the Scottish Government outlines a vision towards achieving net-zero greenhouse gas emissions by 2045, alongside a focus on green recovery as an economic stimulus in response to the impact of the COVID-19. The report outlines policies across a range of sectors, including targets to increase energy supplied from renewable generation. Unsurprisingly, the continued change to the generation mix is particularly relevant to the power system, and capability to maintain a secure, reliable, and resilient power grid.

This survey is designed to gauge the current and 2030 status of the security of the Scottish electricity supply. Please consider each question carefully and offer your opinion in response to as many of the questions as possible. As your responses are personal opinions, it is understood that the responses provided do not necessarily reflect the views of your organisation. Furthermore, the results of this survey will be kept anonymous and no personal data is required or collected. Participants are strongly advised to **not** convey any information deemed to be confidential or sensitive.

Please note that by proceeding with this survey you are giving consent to participate, and by submitting your survey responses you are giving consent for the anonymised response data to be used. As the data is anonymised, we are unable to identify which participant submitted which responses, we are unable to withdraw your submissions once they have been submitted. However, if the responses have not been submitted, participation can be terminated without detriment. The survey should take about 10 - 15 minutes to complete, and you are advised to use a computer or tablet for the best experience.

Do you wish to continue?

- a. Yes
- b. No

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2. How likely are we to meet the target of a 75% reduction of greenhouse gas emissions in Scotland by 2030 when compared with 1990?
  - a. Highly Likely
  - b. Likely
  - c. Moderately
  - d. Unlikely
  - e. Highly Unlikely
3. How likely are we to meet the target of net-zero greenhouse gas emissions in Scotland by 2045?
  - a. Highly Likely
  - b. Likely
  - c. Moderately
  - d. Unlikely
  - e. Highly Unlikely
4. The Scottish Government has set a new ambition to increase offshore wind capacity to 11 GW by 2030. How likely are we to achieve this goal?
  - a. Highly Likely
  - b. Likely
  - c. Moderately
  - d. Unlikely
  - e. Highly Unlikely
5. How confident are you about your responses?
  - a. 95%
  - b. 75%
  - c. 50%
  - d. 25%

- e. 5%

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6. Electricity demand in Scotland is met sufficiently reliably now.
  - a. Strongly agree
  - b. Somewhat agree
  - c. Neither agree nor disagree
  - d. Somewhat disagree
  - e. Strongly disagree
7. Electricity demand in Scotland can be met reliably in 2030.
  - a. Strongly agree
  - b. Somewhat agree
  - c. Neither agree nor disagree
  - d. Somewhat disagree
  - e. Strongly disagree
8. How confident are you in your responses?
  - a. 95%
  - b. 75%
  - c. 50%
  - d. 25%
  - e. 5%

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9. To what extent will the reliable meeting of electricity demand **in Scotland** in 2030 depend on imports of electricity?
  - a. A very great deal
  - b. A lot
  - c. A moderate amount
  - d. A little
  - e. Not at all
10. To what extent will the reliable meeting of electricity demand **in GB** in 2030 depend on imports of electricity?
  - a. A very great deal
  - b. A lot
  - c. A moderate amount
  - d. A little
  - e. Not at all
11. How confident are you in your responses?
  - f. 95%
  - g. 75%
  - h. 50%
  - i. 25%
  - j. 5%

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12. At the moment, the electricity system in **GB** has adequate resources or mechanisms to ensure operational stability and protection.
  - a. Strongly agree
  - b. Somewhat agree
  - c. Neither agree nor disagree
  - d. Somewhat disagree
  - e. Strongly disagree

13. At the moment, the electricity system in Scotland has adequate resources or mechanisms to ensure operational stability and protection.
- Strongly agree
  - Somewhat agree
  - Neither agree nor disagree
  - Somewhat disagree
  - Strongly disagree
14. In 2030, the electricity system in GB will have adequate resources or mechanisms to ensure operational stability and protection.
- Strongly agree
  - Somewhat agree
  - Neither agree nor disagree
  - Somewhat disagree
  - Strongly disagree
15. In 2030, the electricity system in Scotland will have adequate resources or mechanisms to ensure operational stability and protection.
- Strongly agree
  - Somewhat agree
  - Neither agree nor disagree
  - Somewhat disagree
  - Strongly disagree
16. How confident are you in your responses?
- 95%
  - 75%
  - 50%
  - 25%
  - 5%

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17. At the moment, the electricity system in Scotland is resilient against major disturbances such as extreme weather or physical or cyber-attacks.
- Strongly agree
  - Somewhat agree
  - Neither agree nor disagree
  - Somewhat disagree
  - Strongly disagree
18. In 2030, the electricity system in Scotland will be resilient against major disturbances such as extreme weather or physical or cyber-attacks.
- Strongly agree
  - Somewhat agree
  - Neither agree nor disagree
  - Somewhat disagree
  - Strongly disagree
19. How confident are you in your responses?
- 95%
  - 75%
  - 50%
  - 25%
  - 5%

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20. At the moment, it would be possible to restore electricity supply quickly were there to be a widespread disruption e.g. a Scotland-wide blackout.
- Strongly agree
  - Somewhat agree
  - Neither agree nor disagree
  - Somewhat disagree
  - Strongly disagree
21. In 2030, it would be possible to restore electricity supply quickly were there to be a widespread disruption e.g. a Scotland-wide blackout.
- Strongly agree
  - Somewhat agree
  - Neither agree nor disagree
  - Somewhat disagree
  - Strongly disagree
22. How confident are you in your responses?
- 95%
  - 75%
  - 50%
  - 25%
  - 5%

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23. On a scale of 1 to 5, with 1 being “No contribution” and 5 being “Critical contribution”, please rate each of the following factors in terms of how much they contribute to a secure, reliable and resilient electricity supply in Scotland now.

Reliable supplies of fossil fuels for the generation of electricity	<i>1 to 5 Scale</i>
A high amount of wind generation capacity in <b>Scotland</b>	<i>1 to 5 Scale</i>
A high amount of wind generation capacity in <b>Britain</b>	<i>1 to 5 Scale</i>
A clear electricity sector mechanism to ensure sufficient ‘dispatchable’ electricity generation capacity in <b>Scotland</b>	<i>1 to 5 Scale</i>
A clear electricity sector mechanism to ensure sufficient ‘dispatchable’ electricity generation capacity in <b>Britain</b>	<i>1 to 5 Scale</i>
A strong electricity network within <b>Scotland</b>	<i>1 to 5 Scale</i>
A strong electricity network within <b>Britain</b>	<i>1 to 5 Scale</i>
A strong electricity network connection between <b>Scotland</b> and other countries	<i>1 to 5 Scale</i>
Strong and clear electricity prices to highlight times and locations of scarcity	<i>1 to 5 Scale</i>
Innovative, ‘smarter’ ways of operating an electricity system	<i>1 to 5 Scale</i>
Large volumes of large-scale energy storage	<i>1 to 5 Scale</i>
Large volumes of localised energy storage	<i>1 to 5 Scale</i>
Large volumes of localised back-up generation	<i>1 to 5 Scale</i>
Large volumes of flexible demand, i.e. demand side management or demand side response	<i>1 to 5 Scale</i>
Large volumes of seasonal energy storage	<i>1 to 5 Scale</i>
Other (Please Specify)	<i>1 to 5 Scale</i>

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24. On a scale of 1 to 5, with 1 being “No contribution” and 5 being “Critical contribution”, please rate each of the following factors in terms of how much they contribute to a secure, reliable and resilient electricity supply in Scotland in 2030.

Reliable supplies of fossil fuels for the generation of electricity	<i>1 to 5 Scale</i>
A high amount of wind generation capacity in <b>Scotland</b>	<i>1 to 5 Scale</i>
A high amount of wind generation capacity in <b>Britain</b>	<i>1 to 5 Scale</i>

A clear electricity sector mechanism to ensure sufficient ‘dispatchable’ electricity generation capacity in <b>Scotland</b>	<i>1 to 5 Scale</i>
A clear electricity sector mechanism to ensure sufficient ‘dispatchable’ electricity generation capacity in <b>Britain</b>	<i>1 to 5 Scale</i>
A strong electricity network within <b>Scotland</b>	<i>1 to 5 Scale</i>
A strong electricity network within <b>Britain</b>	<i>1 to 5 Scale</i>
A strong electricity network connection between <b>Scotland</b> and other countries	<i>1 to 5 Scale</i>
Strong and clear electricity prices to highlight times and locations of scarcity	<i>1 to 5 Scale</i>
Innovative, ‘smarter’ ways of operating an electricity system	<i>1 to 5 Scale</i>
Large volumes of large-scale energy storage	<i>1 to 5 Scale</i>
Large volumes of localised energy storage	<i>1 to 5 Scale</i>
Large volumes of localised back-up generation	<i>1 to 5 Scale</i>
Large volumes of flexible demand, i.e. demand side management or demand side response	<i>1 to 5 Scale</i>
Large volumes of seasonal energy storage	<i>1 to 5 Scale</i>
Other (Please Specify)	<i>1 to 5 Scale</i>

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25. On a scale of 1 to 5, with 1 being “Unimportant” and 5 being “Extremely important”, how important do you think each of the following are in ensuring a reliable, resilient supply of electricity, in the medium to long term?

Via clearly defined standards and obligations on parties in the energy sector	<i>1 to 5 Scale</i>
Via centrally administered market mechanisms such as the capacity market	<i>1 to 5 Scale</i>
Via a market mechanism that reveals the value that different energy users attach to security of supply	<i>1 to 5 Scale</i>
Via explicit government decision to commission new facilities	<i>1 to 5 Scale</i>
Via direction from an authority such as Ofgem to commission new facilities	<i>1 to 5 Scale</i>
Other (Please Specify)	<i>1 to 5 Scale</i>

26. On a scale of 0 to 10, with 0 being “Not at all” and 10 being “Very much so”, to what extent do you believe your answer to the previous question should be specific to Scotland?

- a. (Add scale)
- b. Please add any comments explaining your answer and any gaps in relevant electricity sector arrangements today.
  - i. Comment box

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27. Do you work within the electricity supply industry?

- a. Yes
- b. No

28. Do you have a responsibility for security of supply as part of your job?

- a. Yes
- b. No

29. Do you have any additional comments on the topic of this survey?

- Comment box

30. Do you have any comments or suggestions on how any similar future survey can be improved?

- Comment box

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Thank you for taking the time to complete this survey.