

Potential Contribution of Energy System Components looks at the significance of energy system components at the national scale within the pathway of the UK energy system meeting the 2050 CO2 targets. This criterion can be measured in GW, GWh, number of deployed units or any other measure suited to the energy system component under consideration.

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| HIGH | The energy system component is a significant ¹ part of the UK energy system by 2030 |
| MEDIUM | The energy system component is a significant part of the UK energy system after 2030 |
| LOW | The energy system component is not a significant part of the UK energy system regardless of the time scale |
| N/A | Potential Contribution is not a relevant indicator for the UK energy system component under consideration |
| Don't know | I would prefer not to provide a response based on the current state of my knowledge |

Criticality of Energy System Components measures the extent to which an energy system component is **critical** for the UK energy system to achieve the 2050 targets or plays an enabling role to critical technologies

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| HIGH | The energy system component is critical to meet UK 2050 targets or plays an enabling role to critical components |
| LOW | The energy system component is not critical to meet UK 2050 targets and does not play an enabling role for other critical components |
| N/A | Criticality is not a relevant indicator for the UK energy system component under consideration |
| Don't know | I would prefer not to provide a response based on the current state of my knowledge |

¹ Measures of significance depend on the type of energy system component. As a rule of thumb you may consider as significant:

- factors influencing or providing more than 5% of energy demand
- energy supply or storage options with capacity in the region of 5% of total capacity
- energy-using equipment deployed at scale above 1,000,000 units
- network components deployed at a scale above 500 kilometres.

Persistence of Impacts measures the extent to which environmental, social and economic impacts of UK energy system components are permanent or reversible.

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| HIGH | Environmental, social or economic impacts of an energy system component are permanent and irreversible |
| MEDIUM | Environmental, social or economic impacts of an energy system component are semi-permanent or difficult to reverse |
| LOW | Environmental, social or economic impacts of an energy system component are temporary or reversible |
| N/A | Persistence of impacts is not a relevant indicator for the energy system component under consideration |
| Don't know | I would prefer not to provide a response based on the current state of my knowledge |

Local social, environmental or economic impacts from energy system components can arise due to the size of a single installation or due to the impacts from the interaction of smaller installations in the same area.

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| HIGH | An energy system component that implies large ² installations or many small ³ installations that interact with other in the area to produce a step change in the cumulative impacts locally |
| MEDIUM | An energy system component that implies medium ⁴ installation or many small scale installations that interact with other in the area to produce cumulative impacts increasing in a linear manner. |
| LOW | An energy system component that implies small installations which do not interact with other energy system components to produce cumulative impact |
| N/A | Local Impacts is not a relevant indicator for the energy system component under consideration |
| Don't know | I would prefer not to provide a response based on the current state of my knowledge |

² As a rule of thumb you may consider power stations above 50 MW, major network and storage facilities.

³ As a rule of thumb you may power stations smaller than 20 MW, consumer technologies in the homes and in the transport sector.

⁴ As a rule of thumb you may consider power stations above between 20 MW and 50 MW, regional networks and storage facilities.

Uncertainty of Impacts is related to the knowledge on the nature and scale of the potential social, environmental and economic impacts arising from energy system components.

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| HIGH | Knowledge of the nature and scale of impacts of an energy system component is sparse and evidence shows considerable variability |
| MEDIUM | Knowledge of the nature and scale of impacts of an energy system component is maturing both in terms of quantity and consistency in the evidence |
| LOW | Knowledge of the nature and scale of impacts of an energy system component is well established and show considerable consistency in the evidence |
| N/A | Uncertainty of Impacts is not a relevant indicator for the energy system component under consideration |
| Don't know | I would prefer not to provide a response based on the current state of my knowledge |

Uncertainty in Decision Making is related to lack of established methods to address environmental, social or economic impacts from energy system components as part of existing local and national decision-making processes.

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| HIGH | Methods in local and UK-wide decision-making are emerging to address impacts from an energy system component |
| MEDIUM | Methods in local and national decision-making are fairly advanced to address impacts from an energy system component, although there is no consensus in their implementation |
| LOW | There are established methods for local and UK-wide decision-making to address impacts from an energy system component |
| N/A | Uncertainty in Decision Making is not a relevant indicator for the energy system component under consideration |
| Don't know | I would prefer not to provide a response based on the current state of my knowledge |