



Frequently Asked Questions

Energy Policy 2020 – 2050

<p>How does Guernsey get its energy supply?</p>	<p>Guernsey requires imports to satisfy virtually all energy requirements.</p> <p>These imports take the form of: petrol, diesel, gas and kerosene, as liquid fuels via the fuel ships discharging at St Sampson’s harbour. The Island also imports electricity through subsea cables to France, via Jersey, supplying certified low carbon electricity from hydro-electric and nuclear sources.</p> <p>Most of the liquid fuel imported by boat is unloaded in St Sampson’s harbour where it is piped into storage tanks. Getting the boats in is challenging due to the narrow, shallow, rocky entrance and the strong tides so they need to be small enough and highly manoeuvrable. These types of boats are no longer built as standard so there are very few suitable vessels available for hire and many are approaching the end of their life. As the harbour dries out at low tide and the process of unloading the fuel takes such a long time, the vessels must be able to sit on the seabed which needs to be carefully inspected and prepared before each delivery. To make the process more challenging, deliveries can only take place on a few days every fortnight either side of the highest, or “spring”, tides. All these factors combined mean that fuel delivery and unloading provides some unique challenges and risks and requires a solution for future delivery.</p> <p>We also import solid fuels, such as coals and woods, with a proportion of wood supplied from on Island sources.</p>
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	<p>Guernsey does not have any natural hydrocarbon resources but is well placed to develop renewable energy in the future given the abundance of natural wind, wave, solar and tidal resources. Electricity generated on Island is in the form of solar photovoltaic installations.</p>
<p>Is Guernsey the most expensive place for energy?</p>	<p>Guernsey sees a standard tariff of electricity at 18.88 per unit, placing it on par with the UK average and around the average for European countries. The price of petrol, diesel and kerosene is higher in Guernsey than in Jersey (as a comparison) primarily due to the amount of fuel duty paid on petrol and diesel. The costs of transporting and storing kerosene are slightly higher in Guernsey than Jersey.</p>
<p>What are the future options for energy in Guernsey?</p>	<p>Guernsey has advantages that some other islands do not - this is due to its proximity to a large energy market (France). We are already benefitting from imported electricity from France, and the energy policy recommends further enhancing the electricity infrastructure between Guernsey and France. Guernsey has the potential to exploit its renewable resources, with wind and solar power now considered cost competitive, and with hydrogen, and wave and tidal power continuing to be developed. Guernsey, with its west coast facing towards the Atlantic, has potential in these areas. A second interconnector directly to France supports local renewable energy development and creates an opportunity to export energy in the future, by increasing energy security and decarbonisation targets in a vibrant economy.</p> <p>The Hydrocarbons supply programme has investigated the future trends for the on-island requirements for hydrocarbons and, despite an international trend from reduction in hydrocarbons, it is highly likely that they will still play an important role in energy generation for many years to come. As such a solution for the long-term solutions will be subsumed into the Ports Infrastructure Programme and interim supply solutions for delivery of hydrocarbons to the Island will be developed in partnership with local organisations.</p>



	<p>We expect there will be a gradual shift towards electrification over time, subject to any unforeseen market changes and consumers will be able to easily adapt at the pace set by the market. We know that appliances are becoming increasingly more energy efficient and that technology will continue to develop and innovate to meet consumer needs, balanced with affordability.</p>
What are other countries doing to reduce emissions?	<p>See the timeline on www.gov.gg/energy for an overview of what other jurisdictions are doing to reduce emissions.</p>
What is the ‘buy-back’ arrangement for customers with ‘behind-the-meter’ generation?	<p>A “buy back” tariff is for electricity customers with installed private generation equipment. Micro and Macro generation input into Guernsey’s Electricity network shall be credited to customers on units delivered. Revenue could be generated from any surplus energy that is fed back into the grid.</p> <p>A “behind the meter” generation is a renewable energy generating facility such as solar PV, that produces power on site. As the power is being generated by the business, not produced on the side of the grid, it is referred to as “behind the meter.”</p>
What stakeholders have been involved with the Energy Policy?	<p>Go to www.gov.gg/energy to see feedback from stakeholders from an industry level workshop, a series of Ideathons, Focus Groups, and survey results.</p>
Was there a consultation on the Energy Policy? Where are the results?	<p>The consultation was targeted at industry level in order to receive feedback from experts at ground level, with local knowledge and expertise. Feedback received was, in the main, identified as commercially sensitive or confidential and therefore will not be published, to protect individuals, businesses and organisations.</p>



What will be achieved by the Energy Policy if it gets approved by the States?	The Energy Policy aims to provide a clear direction to the energy market that will enable the market to make considered, long term investment decisions. Once approved, the policy will activate a set of reviews, reports and recommendations to the States Assembly that will help individuals, businesses and organisations in the community to manage the transition period to low carbon energy sources, whilst managing 'the trilemma' for everybody.
What is the "Energy Trilemma?"	The energy trilemma consists of three parts for governments and communities to balance globally; 1. Security: the reliability of energy infrastructure and supply, and the ability of energy providers to meet current and future demand; 2. Affordability: ability for energy to provide to the population at an acceptable cost; and 3. Sustainability: the supply of renewable energy and low-carbon energy and the further development of energy efficiency.
What is 'energy security'?	'Energy security' refers to the measures that are taken to ensure that there is not a power outage or a fuel shortage. This is generally a balanced requirement against risk and cost and can include: •Fuels - this may affect stock holding with a requirement for several days' supply to be stored; •Electricity - this generally affects the amount of standby generator capacity (number of generators or supply cables to provide power) companies require above the estimated peak load.
Will the Energy Policy set out new taxes?	Taxation to drive behavioural change has been investigated, as directed by the States, as part of the work feeding into the Energy Policy. At this stage, there is no recommendation to implement an energy related tax. To make sure carbon emissions reduce over time, in line with the policy objectives and its aims, this will be reviewed by May 2023.
What will this mean for my energy costs in terms	There are several investment decisions that energy companies will have to make regardless of the direction of the energy policy. The policy aims to enable the energy companies to make the necessary and



<p>of petrol/diesel, electricity, heating oil, gas?</p>	<p>informed long-term investment decisions and to continue to supply the island into the future. As with any investment costs will need to be recovered from customers.</p>
<p>I have gas/oil systems/appliances in my home. What does this mean for me? Will I need to convert to electricity, and who will pay for this?</p>	<p>As the Island strives to decarbonise there will be a transition to low carbon sourced energy. A significant proportion of the Island currently uses oil and/or gas for some element of their energy requirements, and this is expected to continue. There will be a natural transition, over the next 20 to 30 years, when boilers reach the end of their life and are replaced with new, more energy efficient heating systems that could yield long term savings.</p> <p>Homeowners and landlords can expect make an informed decision on a new or replacement energy system with information already available. They may also choose to have their home assessed for energy efficiency by an independent contractor in order to reduce fuel bills.</p> <p>The States expect that the energy and fuel markets in Guernsey will be as competitive as it has been in other jurisdictions, to attract and retain customers during the transition to low carbon energy.</p>
<p>Will the Energy Policy make life in Guernsey more expensive?</p>	<p>The energy policy will not directly create any new or additional charges so will not have any direct impact on the costs of living. The policy aims to encourage energy reduction, which should help to reduce costs to households. However, the energy market is changing on a global scale and there are potential costs associated with the transition away from carbon. The policy aims to help balance competitiveness for the energy market and affordability for consumers, and energy security for the Island.</p>
<p>I can't afford to pay my energy bills today. How can the States help me right now?</p>	<p>We can all struggle from time to time and support may be available from Income Support, through the Committee for Employment & Social Security. More information is available online at www.gov.gg/incomesupport or can be obtained by emailing incomesupport@gov.gg.</p>



	<p>We would also recommend contacting your energy provider(s) as soon as you are aware of a change in circumstance as they are likely to have hardship tariffs and be able to offer help regarding repayment plans.</p> <p>As an individual or business, you may also choose to get advice from an independent Energy Assessor or your local energy provider, to carry out an energy survey that could improve your home or building's energy efficiencies.</p>
Could Guernsey be energy independent?	<p>Guernsey does not have any local hydrocarbon fuel stores that could be exploited and so will always require the importation of liquid fuels, oil and gas to use this form of energy.</p> <p>With rapid advances in technology in both the Hydrogen and hydrocarbons from CO2 sectors this could change - however these are not 'ready to go' technologies and in early stages of development. For example, biofuels could potentially be grown on island, although there have been no studies to understand what level of demand this could meet.</p> <p>From an electricity perspective Guernsey has renewable resources that could be exploited in wind, solar, tidal and wave. All these energy sources are (independently) intermittent and in the case of tidal and wave they are still emerging technologies at a commercial level. The intermittency of renewables means that, for the purposes of full energy independence additional technologies would be needed - storage in some form, would be required.</p>
If I install solar panels on my large south facing, sloped, roof will I be able to power my own home?	<p>You may be able to power your home but will need to use the Channel Islands Electricity Grid (CIEG) for power overnight, on cloudy days (assuming that the rate of production is below the rate of consumption, as solar panels still produce electricity on cloudy days, just at reduced efficiency) and during the winter months if you don't have enough battery storage. Battery storage technology is in early stages of development at grid scale but is becoming increasingly common at domestic level. If you use the grid, at any time of the year and however frequently or infrequently, you will be liable for all year-round maintenance costs.</p>



	<p>The cost of the installation and maintenance of solar panels and battery storage may yield a long-term saving, and this would be dependent on the amount of sunlight and number of panels you could install on your roof and the amount of power you could store.</p>
<p>Will the States subsidise Home installation of solar panels?</p>	<p>Solar panels were subsidised, in Scotland and in other jurisdictions, to encourage uptake as technology costs were higher compared with other more traditional forms of energy. The subsidies for domestic solar panels in Scotland were discontinued and then replaced by government issued interest-free loans. The uptake of the subsidised panels, as expected, led to cost decreases at manufacturing and wholesale levels for the technology, so the cost of energy per unit reached a level comparable with traditional forms of generation. Therefore, the subsidies were reduced and removed, as they have achieved their goal.</p> <p>In Guernsey, electricity costs are in line with EU average prices, and in the main it comes from nuclear or hydropower via the interconnector. Justification to subsidise domestic solar panels, or for government to offer interest free loans to install this technology for homeowners or businesses, would be difficult to justify given the relatively low carbon source of imported energy.</p> <p>There are no plans to recommend subsidising domestic solar panels, however wider implementation of renewables within Guernsey is being looked at.</p>
<p>I can't afford an electric vehicle; will I get a subsidy from the States? If not, how will people afford to change?</p>	<p>There will be a move away from conventional 'internal combustion engines' (ICE) that will be driven by the market. Manufacturers, for the European market, have invested in improved fuel efficiencies, hybrid, plug-in hybrid, and electric technologies, and alternative fuels in order to meet existing and future vehicle emissions legislation. There are no plans to subsidise or support purchase of electric vehicles, however wider plans to reduce emissions will be continually reviewed.</p> <p>The States, in partnership with local retailers, subsidised purchase of electric e-cycles in 2018. The scheme was funded via the Integrated Transport Strategy and designed to promote the use of electric cycles as an alternative to the motor car. A total of 366 electric cycles were purchased, with a 25%</p>



	<p>subsidy (the retailers making up 5%). The results from this initiative were well documented and overall positive.</p>
<p>Will the States give me a grant or a loan to install a charging point in my home?</p>	<p>There is a rolling programme to increase the number of communal electric vehicle charging points on the Island. There is no plan to subsidise or support the installation of domestic charging points.</p>
<p>Will there be more road closures and disruptions to install new infrastructure to support more electric vehicles?</p>	<p>It is likely that disruptions to traffic flow will continue as usual, and not increase due to changes to electric vehicle infrastructure. Planned works to upgrade, and reinforce, the grid as necessary will be managed with other scheduled and emergency works as normal. The increase of multiple grids, or micro grids, could increase the burden of road closures to the island's road users.</p>
<p>Are lithium batteries that power electric vehicles environmentally friendly?</p>	<p>The electrification of travel, at present, brings new challenges and concerns regarding lithium batteries. Lithium mining has an impact on the environment. Technologies are innovating and changing to meet the new demand, exploring environmental concerns and issues at the same time.</p>
<p>Can Guernsey reach 'net zero' emissions given current technology?</p>	<p>A target of 'net zero' emissions has been set for the Island to achieve by 2050 at the latest. This could be achievable given current technologies. Investment in renewable technology will be required to meet net zero and behavioural and lifestyle changes will need to be made by the whole community. Changes are already happening to reduce emissions and those have been driven by legislation in nearby countries, as well as innovation and transition at market level. The cost to meet 'net zero' has not yet been determined. We do know that there will be residual emissions by 2050 and that this will require offsetting.</p>



<p>Will there be a wind-farm in Guernsey, off-shore or on-shore?</p>	<p>Given our geographical location we are lucky to have resources for solar, wind wave and tidal that could be utilised. A robust energy system in the island in the future could well utilise existing resources, as well as storage, to provide locally sourced secure renewable energy.</p> <p>Water depth and wind direction indicate that there could be opportunities for the development of offshore wind. There are relatively deep waters off the south and west coasts. Wind resource would be affected by land off the east coast. The north to north-westerly area of the coast represent the best potential locations. With improvements in floating technology further areas of our waters will become available for consideration, especially given the recent extension of territorial seas out to 12nm.</p> <p>Guernsey has usable resources in terms of tidal and wave power and there has been research to quantify the resources. However, whilst the Island is lucky to have these resources, the technology required to utilise them is still being fully developed and tested. Whilst there have been recent steps forward in tidal power, the technology is still in its infancy and as such would be expensive to implement in the near future.</p> <p>The Renewable Energy Programme will investigate the potential that the island has for renewable energy opportunities. For more information go to www.gov.gg/renewables</p>
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