

Case M-008

**Electricity Market Study** 

Draft Report: Consultation Paper

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# 1 Executive Summary

- 1.1 This document is the Jersey Competition Regulatory Authority (the **Authority**)'s consultation paper for the Electricity Market Study. A market study is an analysis of a market, or features of a market. It examines a variety of evidence to assess how well the market is presently working and may recommend changes designed to make it work better.
- 1.2 The Authority is carrying out the Study against a published Terms of Reference.<sup>1</sup> This identified the efficiency of electricity supply as an area of focus for the Study, alongside consideration of market characteristics and comparative data. The Study furthermore reviewed current and future market developments and considered their likely impact on current and future competition.
- 1.3 The Authority notes that while the electricity sector is not currently subject to any form of sector-specific economic regulation, it falls within the remit of the Competition (Jersey) Law 2005 overseen by the Authority.
- 1.4 Experts from the EY Economic Advisory team have supported the Authority in the delivery of the Study.<sup>2</sup> A document produced by them, the **EY Draft Report** accompanies this document and contains relevant information and analysis supporting the statements and conclusions of this document.
- 1.5 The EY Draft Report indicates that current market outcomes, such as price levels and price stability, compare favourably to other jurisdictions. When considering various efficiency measures, it also finds that Jersey Electricity (the key provider) performs well when compared to similar organisations. However, the report draws attention to specific market conditions, such as the absence of competition and highlights potential barriers to changing this situation. It furthermore offers a view of the existing and futures challenges faced by the local electricity market.
- Overall, Jersey Electricity's performance has been good particularly when considering recent market turbulence driven by world events. The Authority has found no reason to believe this will change in future – indeed, Jersey Electricity should be reasonably expected to maintain and improve its performance, subject to the influence of certain external factors and structural developments, including supply arrangements.
- 1.7 Taking all these points into account, the Authority's draft findings suggest there is scope to improve consumers' ability to exercise choice while delivering greater efficiency by enabling access to Jersey Electricity's network (for more self and distributed generation). In the longer-term, the Government's existing energy policy requires refinements to mitigate market uncertainty and help secure positive consumer outcomes.
- 1.8 This consultation seeks views on the draft report to further inform the Authority's understanding of the electricity market and ensure its recommendations are appropriate for

<sup>&</sup>lt;sup>1</sup> All documents relating to the market study can be found at: M-008 Electricity Market Study

<sup>&</sup>lt;sup>2</sup> EY is a leading professional consulting firm with extensive experience in electricity and energy markets across the world. Further information about EY is available at EY UK - Home | Building a better working world

Jersey. After the consultation closes, the findings and recommendations will be reassessed, taking into account stakeholder feedback. The final report will be published by the end of 2024.

### 1.9 This document is structured as follows:

- Chapter 2 sets out the background to the study;
- Chapter 3 summarises the findings of the EY draft report;
- Chapter 4 sets out further considerations for future looking competition policy;
- Chapter 5 sets out the draft recommendations; and
- Chapter 6 sets out the consultation topic and next steps and is followed by a Glossary.

# 2 Background

- 2.1 This section is split into three subsections, which cover in turn:
  - The Authority;
  - · Overview of market studies; and
  - The market study process.

# The Authority

- 2.2 The Authority is responsible for promoting competition in the supply of goods and services in Jersey, together with the economic regulation of ports, postal and telecommunications sectors.
- 2.3 As an independent regulator, the Authority has ambitious aims to help shape and sustain Jersey's economic future for the benefit of Jersey consumers, citizens and businesses. The Authority's Strategic Plan further explains these aims.<sup>3</sup> This plan is the guiding framework within which the Authority shapes, prioritises and delivers its annual Business Plan.
- 2.4 Competition law and economic regulation seek to achieve economic efficiency and sustainable competition, which allows consumers to enjoy the benefits of fair prices, desirable goods and services alongside choice in what they want to buy. A small market such Jersey can make this challenging at times because of understandable economic constraints. However, it can also present opportunities for pragmatic regulatory approaches that are tailored to market needs.

### Overview of market studies

- 2.5 A market study is a flexible tool to explore whether a market, or a feature of a market, is working well for Jersey consumers. Broadly, it considers the relationship between consumer behaviour in a market, the behaviour of businesses in that market, the market's structure and other factors relevant to the performance and operation of a market. By looking at these issues, the Authority can determine whether action that can encourage change will help address any actual or potential constraints to competition.
- 2.6 While the Authority will seek to apply a consistent approach and 'template' to each market study, a market study is not a formal competition investigation, and the Authority has wide discretion in how it frames a market study and the analytical framework it chooses to apply to any market study.
- 2.7 The outcomes of a market study may be one or more of the following:
  - A clean bill of health for the market;
  - Consumer/business focused action; and /or
  - Recommendations to Government/Authority.
- 2.8 It should be noted that should evidence emerge during a study suggesting it was necessary to undertake a formal investigation under the Competition Law, then the appropriate tool is

<sup>&</sup>lt;sup>3</sup> See: Authority Strategic Plan

- competition enforcement, not a market study. Should this occur, the market study would stop and a formal investigation would be launched.
- 2.9 Consistent with its Strategic Plan, the Authority uses market studies to address competition issues in those markets where change would most benefit Islanders.

# The market study process

- 2.10 The electricity market was selected for study following a structured approach. This involved screening potential candidate markets to identify those most relevant to Jersey. The subsequent short-list was then assessed against a structured range of criteria to rank them in order of desirability. This process resulted in the electricity market being selected because:
  - The Authority's last study into this market was completed over 10 years ago;
  - Electricity is essential for Jersey households, representing a significant proportion of household expenditure (and a key variable in the context of the cost of living); and
  - There have been wider market developments since the last study the emergence of the decarbonisation/net zero focus in Jersey, for example, and across the world.
- 2.11 As set out, the study has in part been framed in the context of the previous market study, which was completed in 2012.<sup>4</sup> This focused on whether consumers were receiving fair value for money and if Jersey Electricity was a 'reasonably efficient operator'. Box 1 provides a summary of the previous study.

### Box 1: The 2012 electricity market study

The 2012 market study considered whether:

- Electricity customers in Jersey are receiving fair value from electricity prices;
- Jersey Electricity is a reasonably efficient operator, having regard to the burden it bears with respect to security of supply;
- There are unreasonable cross-subsidies between Jersey Electricity's core and non-core businesses;
- The electricity market in Jersey is sufficiently open [...] having regard to current and potential future investment in renewables; and
- If it is appropriate to modify the arrangements for regulation of the electricity sector in Jersey.

The data assessed was mostly publicly available data, with some requested and provided by Jersey Electricity. The comparator jurisdictions were Guernsey, Isle of Man, Malta and Ireland. The study did not consider the wider impact of this market on the Jersey economy, renewable energy or interrelation between this market and markets relevant to decarbonisation.

The findings of the study were that:

• There are no substantive reasons for modifying the regulatory arrangements or further intervention in this sector;

<sup>&</sup>lt;sup>4</sup> See: <u>2012 Electricity market study</u>

- On the basis of benchmarking, Jersey household tariffs are around 25 percent less than in Guernsey and 17 percent less than the Isle of Man;
- Return on assets of the business are in line with those of utilities in the UK;
- Despite recent outages, performance indicators such as customer minutes lost are better [sic] than those in many other jurisdiction; and
- While a degree of cross-subsidy may exist between the core electricity business and Jersey Electricity's other business [...] the arrangements appear reasonable.
- 2.12 Taking this and a number of other factors into account, the terms of reference for the current study were developed. The terms of reference for this study are set out in Box 2 below.

#### Box 2: The terms of reference

The Authority will conduct a market study into the electricity market in Jersey. The efficiency of electricity supply in Jersey will be a key focus of the study. The study will also consider market characteristics and comparative data, as well as reviewing current and future market developments and their impact on competition. Overall, it will assess whether recommendations can be made to improve competition and consumer outcomes.

In particular, the study will consider:

- the efficiency of electricity supply in Jersey, taking into account the resilience of supply;
- market characteristics, including consumer demand, market structure and market outcomes;
- comparative data and findings from the previous market study carried out by the Authority;
- features of the electricity market, including investment in renewables and alternative generation, which potentially impact present and future competition.

Subject to the above, the study will set out recommendations for prioritising areas likely to have a significant impact on competition and consumer outcomes in the electricity market. The scope of the study will take account of the key components of the electricity supply chain, including physical infrastructure, and wholesale supply through to end user outcomes.

- 2.13 The Authority launched the study in October 2023 and EY were appointed to provide expert technical support after a competitive procurement process based on proven experience, strategic fit and value for money. The key draft findings from EY are summarised in the next chapter.
- 2.14 Given its prominent role in the electricity market, Jersey Electricity was a key stakeholder. Over the course of this study, there has been extensive engagement with Jersey Electricity including information requests to ensure an accurate understanding of the market. Independent research into comparators and wider precedents supported this, along with consideration of the previous study carried out in 2012.
- 2.15 Alongside this, extensive stakeholder engagement has been carried out. Eleven stakeholders were interviewed, including Government, business/consumer groups, and wider market participants and other interested parties to further inform the market study. An overview of some of the key themes emerging through stakeholder engagement are set out in Box 3, and where appropriate, these themes are reflected in the Draft Report.

#### Box 3: Overview of stakeholder engagement

In general interviewees agreed that Jersey Electricity had offered a consistent and reliable basic level of service, and this had delivered benefits for Jersey consumers. The focus of Jersey Electricity was perceived to be on consumers, rather than businesses, albeit the supply of electricity was not perceived to be a barrier to business.

A few themes emerged around the generation of on-island electricity. The role of on-island generated electricity was also identified as key to Jersey's wider transition to net zero.

Most interviewees noted insufficient policy, financial or planning incentives were in place to encourage homeowners, developers and businesses to switch to electricity and install their own generation. Given Jersey's geographical position, with plentiful days of sunshine, one interviewee summarised this as 'solar should be the default' and another as 'solar should be everywhere'. In particular, planning was identified as a key barrier to more on-island solar generation.

While Jersey Electricity's infrastructure assets were perceived to be robust, some interviewees raised the issue of cost of connecting to the grid, which is overseen by Jersey Electricity. It was perceived that this is assessed on a case-by-case basis, reducing the visibility to end users wishing to install solar generation. Moreover, the financial incentives are seen as limited, and many might not be advantageous for all consumers that wish to make use of solar energy. At the same time, Jersey Electricity offers financial flexibility to its direct customers in installing solar, and the option of using their in-house team.

Overall, the grid connection process was perceived as lacking transparency. Further it was noted that businesses that use electricity in particular do not benefit from innovation, a speedier process or financial incentives. They also do not benefit from financial incentives to generate solar energy, despite potentially being able to install larger capacity solar generation on their premises.

Interviewees had differing views over the current and future role on the main operator in the electricity market, with some contrasting views observed. Some believe Jersey Electricity could enable more participation in the market from other firms, while others believed Jersey Electricity are in a good position to set up and manage substantial on-island generation, solar or wind. Generally, it was agreed that Jersey Electricity have a central role in this market, and that they have a critical impact on the island's decarbonisation objectives.

2.16 Consistent with its approach to market studies, the Authority seeks stakeholder feedback on this consultation paper and accompanying EY Draft Report. Where appropriate, any feedback received will be incorporated into the final report setting out findings and recommendations. The final report will be published on the Authority's website alongside any stakeholder responses to the draft report.

# 3 EY draft report: key findings

- 3.1 The EY draft report presents a detailed view of the market, setting out the market size and structure, consumer demand, efficiency, and pricing comparisons. The report indicates that current outcomes such as price levels, quality of service and price stability compare favourably relative to other jurisdictions. Further, Jersey Electricity performs well relative to comparable organisations in terms of efficiency and quality of service.
- 3.2 Consistent with previous Authority studies into electricity however, the EY draft report illustrates the absence of competitive forces in the market, and the likely challenges in promoting an on-island competitive market structure and process (within the context of evolving market demands and uncertain macroeconomic conditions).
- 3.3 When the Authority carried out its 2012 study there was only limited requirement to assess key external economic and political factors, or the potential relevance of alternative and renewable energy sources. These issues are now central to any review of the on-island electricity market and are likely to inform views on the future market structure, the potential impacts on consumer demand and the scope for competition.
- 3.4 In respect of market entry and structure, the EY draft report shows the electricity market is vertically integrated, with Jersey Electricity being the only company directly responsible for procuring, generating, transporting, and distributing electricity in Jersey. Other companies install and provide advice on renewable and solar (PV) systems such as Sunworks and Rubis. It is also noted that the electricity sector in Jersey is not currently subject to any form of sector-specific economic regulation.
- 3.5 In respect of information and consumers' ability to exercise choice switching between electricity tariffs or between energy sources, for example the EY draft report illustrates that switching rates are comparatively low, and that consumers can face significant constraints when switching between energy sources.
- 3.6 Electricity tariffs are composed of unit costs and standing charges. The EY draft report indicates that on-island pricing for electricity remains generally below Great Britain and other jurisdictions. While the average tariff in Jersey is lower than in other countries, the unit cost is higher than in France. Malta is the only comparator country with lower tariffs, which may also be attributable to government subsidies.
- 3.7 Similarly, Jersey Electricity perform well on certain efficiency metrics e.g., minutes lost although the results appear mixed on other ratios.
- 3.8 The EY draft report also comments on one of the likely underlying reasons for price differences. The Jersey electricity market and Jersey Electricity as the only on-island electricity supplier is effectively a 'price taker'. Over the past five years, Jersey imported at least 94% of its electricity demand from France, based on a contract with Électricité de France (EdF), which was agreed in 2012 and expires in 2027. The EdF contract is a major factor influencing prices paid by electricity consumers in Jersey.
- 3.9 The current supply arrangement, as between Jersey Electricity and EdF, has acted as a form of supply 'stabiliser' and, in effect, helped to insulate Jersey consumers from the full effects of the recent energy crisis. However, retail prices have increased a number of times since 2020/2021

in line with inflation (albeit with a lag) and are now approximately 36% higher than in 2018. Future supply arrangements, and inflationary pressures, will continue to impact retail electricity prices on-island.

# 4 Further considerations for future looking competition policy

- 4.1 Alongside the key findings set out in the previous chapter, the EY draft report highlights significant areas which frame any forward-looking competition policy.<sup>5</sup>
- 4.2 The Authority's draft recommendations, set out in chapter 5, are by definition forward looking. As they are likely be implemented over an extended period, the Authority is required to consider the relevance and likely effectiveness of any proposed recommendations within a reasonable future timeframe. It is in this context, and in considering future competition (as set out in the terms of reference), it is important the following considerations are captured:
  - Consideration 1: Market and economic uncertainty;
  - Consideration 2: Market structure;
  - Consideration 3: Future demand and supply; and
  - Consideration 4: Government policy framework

# Consideration 1: Market and economic uncertainty

- 4.3 The wider electricity (and energy) market is characterised by relative instability and has shown itself to be sensitive to geo-political events and macroeconomic developments. For example, because of recent and ongoing political and economic events, Great Britain and France have experienced significant fluctuations in retail prices, due to movements in wholesale electricity markets.
- 4.4 In France, between April 2020 and August 2022, average day-ahead wholesale electricity prices increased significantly from EUR13.45/MWh to EUR492.49/MWh. In Great Britain, for consumers the average unit rate in 2023 is estimated at 32.5p/KWh, while Great Britain unit rates prior to the period of high wholesale energy costs were significantly lower (early 2020); averaging 18p/kWh (see section 4.2 in the EY draft Report).
- 4.5 As a result of Jersey Electricity's hedging against short-term fluctuations, Jersey consumers have (to date) been effectively insulated from these market fluctuations (see Section 3.3 of the draft EY Report). However, these fluctuations in the wider market serve to illustrate its potential volatility, and relatedly, the criticality of the EdF contract and the on-island supply arrangements going forward.
- 4.6 The political and macroeconomic landscape remains uncertain, and it is reasonable to assume conditions will continue to be uncertain for the foreseeable future. This is certainly the case during the period leading up to, and possibly beyond, the end of the current supply arrangements (2027). In short, while energy markets may now appear 'stable', at least relative to the past two-three years, conditions will remain uncertain and electricity supply on-island may not be as effectively protected from short- and long-term fluctuations in the future.
- 4.7 The precise nature and degree of hedging, and the composition of any future Jersey Electricity contract with EdF will be critical to the future market and consumer prices. Indeed, the

<sup>&</sup>lt;sup>5</sup> The Authority notes that a three to five year forward time horizon is consistent with Regulatory review cycles and is a reasonable period within which competition might be further reviewed to capture the end of the EdF contract in 2027.

Authority's view is that the renegotiation of the current supply arrangement with EdF is an overriding issue for the market. Recommendations designed to improve consumer outcomes must therefore be considered in this context.

### Consideration 2: Market structure

- 4.8 Market structure plays a key role in the competitive process and in the nature and degree of competition. As referenced in the EY draft report (see section 2.2), the characteristics of electricity supply and the prevalence of scale economies suggest that even in larger markets there tend to be few competing suppliers (and often single network/transmission operators). However, the on-island electricity market is relatively unique in that it has a single vertically integrated supplier, operating across the value chain from generation through to end-user supply.
- 4.9 This structure necessarily constrains the potential scope of any recommendations. For example, over the short-to-medium term, proposed measures would likely be directed at the vertically integrated supplier (Jersey Electricity) as opposed to being more market-oriented (applicable to multiple suppliers and general market practices). Therefore, any proposed recommendations would be designed to encourage specific Jersey Electricity behaviours and practices, to help give effect to consumer outcomes that are more consistent with a competitive process.
- 4.10 In the same context, consideration is also required as to the potential scope for competition in the future. Currently, there is no competition in electricity generation. Moreover, there is a lack of clarity in respect of access to Jersey Electricity's network; and, while alternative sources of generation may be in prospect over the long-term (for example the wind farm<sup>6</sup> or large scale solar), these can take many years to build and operationalise. It is difficult to predict whether these or similar projects will go ahead.
- 4.11 Reliance on import and the effective absence of competing generation (and competition across the supply chain) means that reliability of supply and resilience is also a key consideration. While a different market structure with multiple suppliers would suggest greater resilience such that if one supplier fails there would be other available suppliers this only holds where there are alternative wholesale suppliers and electricity generators (e.g., in addition to EdF).
- 4.12 In this regard, it should be noted that Jersey Electricity operates on-island generation capacity to mitigate the impact of interruptions. However, this may be insufficient to mitigate simultaneous risks to the infrastructure, such as material cable outages or extended technical failures. Overall, being dependent on the French energy market necessarily implies exposure to the impact of French political decisions or to substantial nuclear outages in France.
- 4.13 Given the above, any proposed recommendations must also be framed in the context of consistency and the resilience of supply.

<sup>&</sup>lt;sup>6</sup> The Authority notes that in April 2024 the States Assembly voted in in favour of exploration work around building an offshore wind farm, see BBC article summarising the developments here: <u>Jersey States votes to 'explore' offshore wind farm proposal - BBC News</u>

<sup>&</sup>lt;sup>7</sup> To note, past independent reports commissioned by Jersey Electricity indicate resilience plans are in place to respond to some risks, for instance to cable and subsea cable failure. See: <u>Updated modelling of net zero implications - Jersey Electricity Annual update (jec.co.uk)</u> – Page 3

# Consideration 3: Future demand and supply

- 4.14 The EY draft report indicates that although average annual electricity consumption for residential consumers on-island has been falling in recent years<sup>8</sup>, it is significantly higher than other comparators 7,135kWh in 2023, compared to Great Britain which is estimated to be 2,700 kWh. This may be a result of Jersey's energy mix (discussed below).
- 4.15 The EY draft report also provides a high-level view of one potential aggregate future demand profile. In the context of the Carbon Neutral Roadmap, Jersey Electricity suggest that achieving the 2050 net zero target could increase maximum (peak) demand by 25%, with an overall increase in demand of 70% (see Section 6.1). It is reasonable to also assume that, as progress is made toward carbon neutrality through increased electrification of transport and space heating demand may increase noting that changes within the housing mix and energy efficiency mean the future demand profile is difficult to predict.
- 4.16 While financial incentives are available from the Carbon Neutral Roadmap to support Jersey Electricity's present and future consumers, the magnitude of investment required from Jersey Electricity to support new customers is unclear. This depends on the pace of adoption of strategic priorities contained within the Carbon Neutral Roadmap. For context, the initial budget for the Carbon Roadmap policy 'Supporting low-carbon heating systems and home insulation' was £5.7 million.<sup>9</sup>
- 4.17 In practice, it would require a considerably greater investment to fully respond to the decarbonisation challenge over a longer timeframe. Indeed, previous estimates of the potential costs associated with on-island decarbonisation, just for heating and road transport, are in the region of £60m and £360m, although with inflation this may now be higher.<sup>10</sup>
- 4.18 Further, electricity is a significant component of the energy mix in Jersey, representing 38.4% of final energy consumption in Jersey (2022). It is higher than Great Britain and the EU. While the current share of electricity in the energy mix is similar to that reported in the 2012 Market Study, subject to developments in other on-island energy sectors (gas, fuel etc.) and future Government policy, this proportion could significantly increase in the future.<sup>11</sup>
- 4.19 The ability for consumers to switch is key to the competitive process, both across tariffs within electricity, and from other energy sources onto electricity. The issue of consumer of switching is discussed in more detail in section 4.3 of the EY draft report. In short, on-island switching rates, while having experienced some increase in the past years, are comparatively low, possibly also constrained by technical issues and a lack of readily accessible consumer information. This theme is explored in Box 4.

<sup>&</sup>lt;sup>8</sup> This fall is driven by increases in energy efficiency.

<sup>&</sup>lt;sup>9</sup> See: <u>Distributional impacts of Jersey Carbon Neutral Roadmap</u>

<sup>&</sup>lt;sup>10</sup> See: Quantitative analysis of carbon neutrality by 2030

<sup>&</sup>lt;sup>11</sup> There may also be an increase in peak demand, consistent with the general increase in demand. To support this battery storage will likely play a part in meeting some of the future demand. See: <a href="Battery storage">Battery storage</a> – Jersey <a href="Jersey Electricity">Jersey</a>

### Box 4 – Switching electricity tariffs

A switch from one tariff to another is usually requested by the consumer, to benefit from improved conditions or lower total bills. In Jersey, electricity customers must speak to Jersey Electricity to request a switch. Jersey Electricity currently has around 10 domestic tariffs available, however not all of these are interchangeable, with conditions over the end use appliances or conditions on installing metering preventing consumers from switching to certain tariffs – see section 4 in the draft EY report for a wider discussion. While switching rates are on the rise in Jersey, they are below those of similar operators in other jurisdictions. In practice, this means consumers could shop around more but they may not have sufficient incentives or information to do so.

4.20 In terms of switching between energy sources, however, there appears to be limited available public data. Moreover, the ability to switch onto electricity – from another energy source and supplier - appears to be related to Jersey Electricity's capital spend, whereby capital expenditure varies according to the number of new connections to the grid and Jersey Electricity's preferred method of cost recovery. Box 5 sets out further considerations for switching from other energy sources to electricity.

#### Box 5 – Switching from other energy sources to electricity

A switch to electricity from other energy sources could involve switching both heating (including water systems), and cooking facilities. Government policy and financial assistance is an important factor in switching between fuels. Jersey Electricity, as the main operator, provides switching services<sup>12</sup> and associated financial incentives, funded by Government of Jersey. Other firms also provide services that can act as incentives or add-on services to switching, such as the installation of solar panels. In practice, a switch process typically involves:

- A connection to the electricity grid, if the property is not already connected;
- Provision of an electricity meter, if required;
- The choice of a suitable and appropriate tariff by the customer for the customer's property, usage pattern and appliances; and
- The installation of storage batteries, solar panels or EV chargers where appropriate, at additional cost.

The ability to switch is dependent on the availability of sufficient infrastructure and may require additional spend to facilitate this. For example, this could be linked to the network or the connection to the home requiring an upgrade. Therefore, the cost of connection is highly specific to the property being connected, unlike the cost of a boiler, which is fixed. As set out in the draft EY report (see section 6.4), the contribution to these connection costs is mixed, where both the customer and Jersey Electricity pay, and will be case specific for each switch and can be significant.

On the assumption that there is sufficient infrastructure, Jersey Electricity provides an indicative estimate of installation and switching cost on its website to different sources of electricity-based heating. To provide an illustrative overview, the following estimates have been obtained for a 3 bedroom semi detached house, currently using oil:

- To switch to an electric boiler:
  - Average installation will cost £6,300; and

<sup>&</sup>lt;sup>12</sup> See: Positive Energy - Jersey Electricity (jec.co.uk)

<sup>&</sup>lt;sup>13</sup> See: Finance for electric heating - Jersey Electricity (jec.co.uk)

- o This is reduced to £3,150 with Government incentives.
- To switch to smart panel heaters:
  - Average installation will cost £6,000; and
  - o This is reduced to £3,000 with Government incentives.
- To switch to air source heat pump:
  - o Average installation will cost £14,200; and
  - This is reduced to £9,200 with Government incentives.<sup>14</sup>

To note, Jersey Electricity offer all customers that are switching from oil or gas the option to spread the installation cost over 10 years (with no fees or interest charges). For the electric boiler this will result in a monthly payment of £26, £25 for the smart panel heaters, and £77 for an air source heat pump.

- 4.21 Another consideration is the likely variability and composition of forecast demand growth. For example, greater competition in supply may be feasible if aggregate demand for electricity is set to grow by a sizeable amount in the future (up to 70% see section 6.1 of the EY draft report). However, this may be dependent upon facilitating alternative and competing generation capacity.
- 4.22 Greater deployment and use of domestic and commercial capacity using distributed generation, e.g., from solar photovoltaic (PV), could also be used to meet at least some of the forecast increase in future demand. Subject to the terms of access and connection to the Jersey Electricity network, and the buy-back rate, this could incentivise Jersey Electricity to offer more competitive pricing.
- 4.23 To conclude, while multiple factors impact the ability to switch between tariffs and fuels, there are certain areas where steps could be taken to further facilitate switching.

# Consideration 4: Government policy framework

- 4.24 The States of Jersey holds the majority of shares in Jersey Electricity. As such, Government should play a significant role in shaping the company's strategic approach to local electricity supply and assurance. The policy framework necessarily impacts investment and long-term decisions in this market. This extends to labour market considerations the EY draft report notes a 25% increase in Jersey Electricity's Full Time Equivalents (FTEs) since 2018, to support both decarbonisation of the energy system and renewal of its workforce.<sup>15</sup>
- 4.25 The acquisition and retention of skilled energy and engineering resource is likely to be a key issue for the Government's future energy policy. This extends to connected markets reliant upon the electricity grid, such as electric vehicles. For example, it is unclear whether sufficient skilled resource is available in Jersey to support scale switching of the internal combustion vehicles to electric.

<sup>&</sup>lt;sup>14</sup> As of May 2024. Costs likely to change, please see Fuel switch calculator - Jersey Electricity (jec.co.uk)

<sup>&</sup>lt;sup>15</sup> The EY report refers to additional FTE also being related to workforce renewal. New FTEs are being engaged, trained and upskilled to meet the natural churn in staff, to help ensure Jersey Electricity maintains sufficient engineering – and other - resource.

- 4.26 Equally, States of Jersey's energy policy in respect of decarbonisation and the potential for alternative – and possibly competing - generation capacity is also a matter for Government consideration. Absent a framework for prospective competition, the current vertically integrated nature of the market acts as a barrier to entry.
- 4.27 Previously, prior to the Carbon Neutral Roadmap, the Energy Plan<sup>16</sup> for Jersey contained policy positions on energy use and decarbonisation. This Plan has since been superseded by the Carbon Neutral Roadmap, approved by the States Assembly in April 2022. The Carbon Neutral Roadmap commits Jersey to reaching net-zero emissions by 2050 and sets out certain tasks for Jersey Electricity see sections 4.5 and 6 of draft EY report for further detail. Jersey Electricity prepares its own modelling of carbon neutrality impacts on demand.<sup>17</sup>
- 4.28 There is scope for competition across the supply chain within the envelope of future energy policy, for example, in generation and retail, which merits consideration by Government. Relatedly, the absence of clear guidance and other information as to the terms on which users and other entities can access the Jersey Electricity network, prevents a greater proportion of alternative and self-generation. There may also be scope for greater guidance to be provided on the expected level of resilience to be obtained in the future.
- 4.29 However, if a consolidated market structure is preferable, then further consideration of the key issues arising under such a market structure is required. For example, this can involve looking at the resilience of supply, consumer tariffs and pricing, third-party access, self-generation and quality of service. As noted in paragraph 4.6 above, given continuing uncertainty and critical supply dependencies, it is not certain that current consumer outcomes in the electricity sector will be replicable in the future.
- 4.30 Lastly, as the electricity market evolves toward decarbonisation, and other potential energy sources like renewables become a near-term commercial consideration, consumers and users will require clear signals and incentives to help facilitate a successful evolution. This relates to pricing and affordability, the necessary infrastructure and access, and a clear view of the related timescales and approach. Many of these aspects would benefit from further policy framing which recognises the longevity of energy infrastructure, and the lifespan of certain projects and assets.

<sup>&</sup>lt;sup>16</sup> See: Pathway 2050: An Energy Plan for Jersey (gov.je)

<sup>&</sup>lt;sup>17</sup> See: <u>Jersey Electricity Annual Report - December 2023 (jec.co.uk)</u>

# 5 Draft recommendations

- 5.1 The market study identifies a number of inter-related issues, some of which might be considered behavioural while others are of a more structural nature. Further, it seems clear that any recommendations in respect of the structural issues would involve a longer time horizon, and will be less definitive at this stage, than recommendations which can be implemented in the short-term.
- 5.2 As a result, the Authority proposes two short- and one long-term recommendations. The short-term draft recommendations relate to current practice and the consumer related draft findings in the market study, and aim to deliver sustainable improvements in consumer choice, efficiency and market outcomes. The long-term recommendation takes account of the structural and forward-looking aspects arising in the market study.
- 5.3 The Authority recognises that consideration and implementation of the long-term recommendation will require wider stakeholder involvement and engagement, and this is a specific area on which the Authority is seeking comment and input (see chapter 6), alongside requesting stakeholder views on wider aspects of the study. In any event, the Authority notes it would expect to continue to follow developments in electricity and connected markets, after the delivery of the market study.

### Short-term recommendations

### Draft recommendation 1: Enabling consumers to exercise choice

- 5.4 In the absence of competition in the Jersey retail electricity market, consumers need to be encouraged to actively choose a tariff and supported to make an informed decision on their tariff choice.
- 5.5 While there are a variety of tariffs available, most domestic and commercial consumers are on their respective general tariffs. For example, consumers may not have full visibility of how Jersey Electricity decides the start and end time of its time of use tariffs (see section 4.1 of the EY draft report). Further, the ability for consumers to switch tariffs and effectively exercise choice appears to be constrained by metering and availability of electricity network infrastructure. The ability to switch to a cheaper electricity tariff is likely to be more beneficial for certain consumers.<sup>18</sup>

### Draft Recommendation 1

To enable more informed and effective consumer choice, Jersey Electricity should:

- provide information to existing and new consumers on all available tariffs (including greater clarity on time of use tariffs); and
- ensure that its infrastructure, systems and processes enable consumers to cost-effectively switch between alternative electricity tariffs.

<sup>&</sup>lt;sup>18</sup> For example, in 2023 nearly all adults living in social rented properties (94%) used electricity as the main fuel type, compared to less than half (49%) of owner-occupiers. Moreover, the proportion of households using electricity as their main fuel type decreased with household income. See: <u>Jersey Opinions and Lifestyle Survey Report 2023</u>)

### Draft recommendation 2: Access to Jersey Electricity's network and increasing efficiency

- 5.6 There is an inherent asymmetry of information in the Jersey electricity market; Jersey Electricity has information on all segments of the market, while consumers and other market participants do not have access to the same information (see section 6.5 in the EY draft report).
- 5.7 Consumers, and existing and prospective market entrants, do not have information on the cost of adding a connection or increasing the connection size to the network, or visibility of areas where there is spare capacity which may facilitate a lower cost of connection. Potential market entrants have identified how information asymmetry has impacted decision-making, for example, on location and sizing of connection requests of new demand and distributed generation.<sup>19</sup>
- 5.8 Clarifying the means and terms of access to Jersey Electricity's network (and related information) would lower the risks and cost faced by market participants, reduce barriers to entry and increase efficiency across the system. In Great Britain for instance, the Great Britain Connection and Use of System Code (CUSC) and/or the Distribution Connection and Use of System Agreement (DCUSA) provide helpful and appropriate reference points to inform and guide market participants on connection and access.<sup>20</sup>

### Draft Recommendation 2

To enable more economically viable self and distributed generation, Jersey Electricity should:

 facilitate greater access to its network through the development of general terms of access and the provision of operational information. For example, on potential geographic and network points of access and areas of spare network capacity.

# Long-term recommendation

### Draft recommendation 3: Competition, resilience and future market outcomes

- 5.9 The Jersey electricity market faces significant challenges in the future. A material change to existing supply arrangements, as between EdF and Jersey Electricity, would have a significant impact on consumer and market outcomes. It is plausible that wholesale costs and prices may increase in the future, though it is not clear how or whether any potential increase, or a proportion thereof, would be passed onto Jersey consumers. Given the significance of the EdF contract renegotiation, Government oversight of the process is important and would be consistent with the development of a refined long-term energy policy.
- 5.10 Competition can help absorb and distribute the effects of different cost pressures. However, only competition in the upstream segment of the market (wholesale, alternative generation etc.) is likely to be effective in off-setting cost pressures that may arise under the existing supply

<sup>&</sup>lt;sup>19</sup> The lack of publicly available process to follow on connection requests may hinder the installation of solar photovoltaic panels. A discussion of this area is provided within EY's draft report, sections 6, pages 34-35

<sup>&</sup>lt;sup>20</sup> See: Connection and Use of System Code (CUSC) | ESO (nationalgrideso.com) and Home - DCUSA

- arrangements.<sup>21</sup> Similarly, in respect of supply resilience, additional redundancy and security is likely to be achieved through the development of alternative wholesale supply options.
- 5.11 There remains high degree of uncertainty around future demand carbon emission targets, prospective electrification of heat and transport, and wider energy policy matters will all have a bearing on the profile of future demand for electricity in Jersey. Relatedly, investment and other resource required to meet future demand will be a key consideration, as will the nature and vehicle for any investment in alternative generation and renewable energy sources. The policy framework will be a key consideration in any prospective investment decision.
- 5.12 It is the Authority's view that structural and industrial policy is a matter for Government. As a result, this consultation paper does not discuss wider policy considerations. For example, whether subsidies and/or other incentives could be used to support options for universal connectivity (and therefore accessibility to all available electricity tariffs). Similarly, planning and energy efficiency will have a bearing on any Government proposed policy. This might include measures designed to help consumers mitigate potential increases in the cost of energy through greater efficiency, by means of relaxing planning constraints and encouraging energy efficient home improvements.
- 5.13 Given also that States of Jersey is majority shareholder (of Jersey Electricity), it will play an influential part in determining how Jersey Electricity supports the wider economy and decarbonisation in Jersey.

## Draft recommendation 3

To further mitigate market uncertainty and help improve future consumer outcomes, Government should:

refine its existing energy policy toward a more competitively resilient market structure, with
a detailed path to carbon neutrality. This should provide clarity and guidance to current and
potential suppliers, and where necessary, assurance to prospective investors.

<sup>&</sup>lt;sup>21</sup> It is recognised that consumption and efficiency could be further optimised, although such measures are unlikely to offset a material increase in wholesale costs.

# 6 The consultation and next steps

6.1 The Authority is consulting on the evidence, draft findings and recommendations set out in this paper and the accompanying EY draft report. The Authority welcomes feedback from any interested parties and the questions on which the Authority is seeking views are set out in box 6 below.

## Box 6: The consultation questions

- 1. Do respondents support draft recommendation 1 on consumers' ability to exercise choice of tariff, and greater support for switching tariffs?
- 2. Do respondents support draft recommendation 2 on the provision of more information around the network and connection process?
- 3. Do respondents agree with the long-term recommendation with respect to Government Policy, and do respondents have views on the key areas of focus?
- 4. Do you have any other comments on the EY draft report and the matters raised in the Authority's consultation paper?
- 6.2 Responses can be submitted by email to <a href="mailto:info@jcra.je">info@jcra.je</a> or alternatively in writing to:

Jersey Competition Regulatory Authority 2nd Floor Salisbury House 1-9 Union Street St Helier Jersey JE2 3RF

- 6.3 All responses should be clearly marked: "Electricity market study: draft report". Please respond no later than 9 August 2024. For transparency and to inform public debate, the Authority intends to publish all responses received. In providing responses:
  - Please supply a brief summary of the interests or organisations you represent, where appropriate;
  - Please consider whether you are providing any material that you consider to be confidential, and explain why this is the case; and
  - If the response contains confidential information, please also provide a non-confidential version of your response alongside it.
- 6.4 If you are an individual (i.e. you are not representing an organisation), please indicate whether you wish for your response to be attributed to you by name or published anonymously.
- 6.5 After the consultation closes, the draft findings and recommendations will be reassessed, taking into account stakeholder feedback received. The considerations will be captured, as appropriate, in the final report which is due to be published in 2024.

# Glossary

This Glossary covers the key acronyms and terms used in this consultation paper and supporting EY draft report.

BEIS - Business Energy Industry Department, UK Government

**Buy back rate** – Domestic and commercial consumers with distributed generation receive a buy-back rate for any electricity exported to the network.

**CIEG** – Channel Islands Electricity Grid (CIEG), a joint venture between Jersey and Guernsey.

**EDF** – Électricité de France, French government owned multinational electricity company.

**Electric Vehicle Charger Incentive (EVCI)** – Government of Jersey scheme under which eligible applicants can apply for £350 towards the cost of an electric vehicle smart charger. Jersey Electricity is the administrator for the EVCI scheme.

**Electric Vehicle Purchase Incentive (EVPI)** – Government of Jersey scheme under which the incentive value is deducted from the purchase price of a vehicle with approved retailers.

**Embedded generation** – Embedded generators are defined as sources of energy, like wind turbines or solar panels, which are connected to a customer's electricity supply and which export energy back to the local grid.

EU - European Union

**EV** – Electric vehicle

EY - Ernst & Young LLP

FTE – Full time equivalent, a measure which proxies total number of jobs in a company.

**GB** – Great Britain

**GST** – The Goods and Services Tax (GST) is a tax on sales of goods and services in Jersey. GST is charged at 5% on the majority of goods and services supplied in Jersey for local use, including imports.

**HV** – High voltage

JEBS – Jersey Electricity Business Services, a firm owned by Jersey Electricity group.

**Kilowatt (MW)** – A unit of power equal to one thousand watts.

**Low Carbon heating incentive** – Government of Jersey offers up to £5,000 match funding towards the switch towards a low carbon heating alternative. Jersey Electricity is the administrator for the scheme.

**LV** – Low voltage

Marginal cost (and price) – The marginal cost is the change in production cost from producing an additional unit. In this study, it represents the cost of producing one additional unit of electricity for Jersey Electricity, given their existing operations.

**Megawatt (MW)** – A unit of power equal to one million watts, often used as a measure of the output of a power station.

MWh - Mega Watt per hour.

Ofgem – Office of Gas and Electricity Markets, UK regulator.

**OfWat** – Water Services Regulation Authority, UK regulator.

Over The Counter (OTC) trade – A type of trade which occurs in a liberalised energy market.

**Power Purchase Agreement (PPA)** – A PPA is a long-term contract, between the owner of a generating asset and the purchaser, that sets out mutually agreed conditions, such as the price and the amount of electricity to be supplied.

**PV** – Solar photovoltaic generator, a technology of generation that utilises photovoltaic material to convert sunlight into electrical energy.

**RPI** – Retail Price Index, an index that measures increases in prices. For the Jersey RPI, see <u>Retail prices index (inflation) (gov.je)</u>.

**Standing charge** – A fixed daily charge applied to utility bills, regardless of usage. The electricity provider uses standing charges to contribute towards general fixed network costs that do not vary with electricity usage, such as the provision of electricity meters.

**Unit rate** – The unit rate is the price-per-unit of electricity consumed by a customer. Electricity usage is often measured in kilowatt per hour (kWh), so a unit rate would be the charge per each kWh used.

**VAT** – Value added tax is a UK government tax which applies to most goods and services.

**WACC** – Weighted Average Cost of Capital. The WACC represents the required return on debt and equity for an efficient business.

**YE** – Year ending, concept used in accounting and economics.