SUN WORKS (C.I.) LTD - RESPONSE TO EY REPORT ON ELECTRICITY MARKET

Do respondents support 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.

Yes, supported. However, it's important to note that tariffs and their alignment with the modern 'prosumer' type customer is the key hurdle to improved renewable energy adoption. The framing of a suitable tariff for the customer could be far clearer across both the residential and commercial sectors.

Domestic Sector

Flexible rate and time-of-use tariffs for storing onsite generation (such as solar) and off-peak charging from the grid do not yet exist. The normal purchase of electricity does not support or promote storage of electricity for use during peak times, a feature found in tariffs in other jurisdictions to contribute to a distributed network. Jersey Electricity (JE) has somewhat outdated legacy economy heating tariffs which oblige grid-tied battery owners to charge from economy tariffs (and only a handful have access to them).

Typically, within a competitive marketplace, if a customer is not satisfied with a product/service, they would seek to switch to another provider. It is fair to say if there were another competitor to JE in the Jersey marketplace, they would have already published basic 'solar friendly' time-of-use tariffs and be well on their way with a Vehicle-to-Home (V2H) pilot scheme, which is another form of time-of-use tariff for electric vehicle ownership contributing to a distributed network.

Regarding 'infrastructure, systems and processes to enable consumers to cost-effectively switch between alternative electricity tariffs':

a. Jersey has a high proportion of three-phase services. When solar is installed in a three-phase property, there is no netting by the utility meter against electrical loads on other phases. Solar generation is therefore exported to the grid on one phase and purchased back on other phases. This creates significant frustration for hundreds of local solar customers, leading to a mismatch with their expectations and their own metering.
b. Utilising export data provided by existing smart meters rather than requiring the installation of a separate 'buy-back' meter, which incurs costs for the customer, installer and JE alike. Streamlining this process will reduce friction for customers adopting solar and promotes a positive experience.
c. The report highlights the absence of any data outside JE's own sources of decentralised generation, so why not meter AC generation data from private sites across Jersey (as in the UK), especially as the number of sites increase in the coming years? This would give a more accurate understanding and provide data on energy produced from various private sources. Technically this would involve retrospectively fitting utility-grade generation meters (undertaken by the contractor), which could also obviate the need for a separate buy-back meter if implemented correctly.

Regarding non-solar domestic heating, switching tariffs poses no immediate issue for the majority of customers. However, the nature of the E20 tariff (JE's primary heating tariff) requires a physical connection to the 'approved heating appliance'. This also applies to the 'comfort heat' tariff for storage heaters, which again requires a separate electrical connection from source to a heating board. If connected the benefits of this are high with excellent rates for economy electricity. However, for some customers, the cost implications of this electrical work are too great to make the switch and they are left with no choice but to power their electric heating on the standard General Power & Lighting tariff.

Enabling and promoting a tariff that utilises existing smart metering to charge the economy rate to just 'approved heating' appliances, be it a storage heater, air source heat pump, or electric boiler, would be beneficial. Ultimately a homeowner's electrical infrastructure or the presence of a separate connection should not determine their eligibility for economy rate electricity. As fuel switching to electric progresses, creative solutions will become increasingly important to ensure more complex properties do not meet barriers and also to avoid excessively high heating bills.

Commercial Sector

Standby charges for embedded generation are levied against commercial generators of electricity. This tariff mechanism, even for tech-savvy customers, causes a great deal of confusion.

Specifically, standby charges for embedded generation over 50kW are ambiguous and punitive, which has stifled the commercial solar sector for businesses wanting solar. This complexity has also hindered JE's own ability to publish variable rates for standby charges for generators above 50kW. Different 'bands' for charging over 50kW based on predicted proportions of self-consumption are yet to be published by JE, rendering all embedded generation above 50kW indefinitely 'on-hold'.

There ought to be a clear route to apply for and determine the charge level before an investment decision is made by the customer. Moreover, the idea of annually adjusting the standby charge rate to account for the actual recorded level of self-consumption will surely be met with challenges by customers as they struggle to predict the outcome and will be onerous for JE to administer.

A simple solution to resolve this would be to apply the standard published standby charge (£3.95/kW/month for generators up to 50kw) to all and accept a degree of inaccuracy to reduce administration. This could be capped at a higher level (say 0.5Mwp) and then be reviewed once solar reaches a higher level of penetration on the local grid.

This year Guernsey Electricity has dropped its standby charge for commercial solar to stimulate the renewable energy market and has restructured the way it recoups the costs to the grid. There could be more creative approaches, considering that distributed generation benefits all islanders. Possible approaches include:

- Charging a premium for locally generated power
- Spreading the cost of standby over all paying customers (rather than 100% on the solar adopter)
- Recalculating and restructuring the standby charge and overall tariffs

JE is currently publicising its commitment to powering 5,000 homes with a mix of solar sources by 2030. Without addressing the issues outlined above, this suggests they alone will provide the vast majority of solar power, leaving the private sector out of the picture.

Do respondents support 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.

Clear terms should be established laying out the role of all stakeholders when it comes to access to the electricity network, if not, JE should explain why it plans to develop all utility-scale solar projects independently. Currently, commercial solar developers receive the residential buy-back rate, which is based on current energy costs and offers no long-term assurance, thus hindering development. Private generators also require a set rate for a fixed period (PPA) that considers future wholesale price trends, providing certainty and encouraging on-island energy sources. All associated costs should be published to allow for accurate business case assessments.

The first step would be to establish terms for third-party developers to access the network and/or enter into Power Purchase Agreements (PPAs) with JE, as seen in other jurisdictions. These PPAs must consider future price trends and provide certainty to developers. All associated costs should be published or invited for engagement to enable proper business case costing up front.

Currently, the only deal available to land/building owners is JE's roof lease scheme which has benefits but is a one size fits all model. Enabling third parties to operate in this space could provide a point of comparison, benefit JE in being able to redistribute renewable power without deploying capital, potentially result in better deals for owners and increase commercial activity overall.

Simpler access and transparent pricing could encourage initiatives such as community renewable energy projects which by way of example could enable say parish-based schemes where any parishioner could invest and benefit from electricity generated 'from the barn round the corner'. Additionally, flexible generation tariffs could enable Andium Homes, the local social housing provider, to deploy solar across its 6,500+ properties knowing this will benefit their tenants in some way. This in turn would drive the education and understanding which is lacking at present.

Do respondents agree with the long-term recommendation with respect to Government Policy, and do respondents have views on the key areas of focus?
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.

Yes. If it is accepted that locally generated renewable energy is a positive thing (and it is because every unit produced displaces a fossil fuel unit somewhere on the European grid), there needs to be a focus on how we get to the targets already set in the Roadmap.

a) Ensure fair and transparent access to the grid for those wishing to participate in decentralised generation with a view to contributing to the goals of the carbon neutral roadmap and energy security in Jersey.

b) The EY Report (para. 6.1) makes reference to the Roadmap aspiring to all new buildings having renewable generation by 2030's-40's, but why wait until then? Building Control policy could be amended with immediate effect to require that new houses or major conversions over say 1,000 sq. ft (therefore exempting low-cost housing), be designed with proportional solar PV in mind.

c) The take-up of solar in the community could be assisted by some positive public education and framing of the solar opportunity. For example, it is still a widely held view that JE do not pay for surplus exported power, even though they have done since 2011 and there is widespread confusion between solar PV and solar thermal where the latter just heats water. Such initiatives don't cost much but provide a positive message to the public. As an example Guernsey publish an easily understood document enabling quick and effective points of reference for islanders Electricity Strategy - States of Guernsey (gov.gg)

d) If Jersey really wanted to increase local renewable energy, Government could find a way of mitigating the effects of the stand-by charge for commercial solar owners. As it stands it is the major barrier to the adoption of solar by the commercial customers who have the most suitable roofs and land and leaves the only option as JE's roof lease scheme.

Do you have any other comments on the EY draft report and the matters raised in the Authority's consultation paper?

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a) Box 5, bullet point 4 of the consultation paper suggests that storage batteries and solar panels, like EV chargers, benefit from Government funded, "associated financial incentives", which they do not.

b) At para. 6.5 of the EY Report it quotes a total of 929kWp originating from JE solar PV projects. We believe that may not be up to date and there is a further 600kWp to be included. It is stated that no figures are available for non-JE commercial Solar PV generation, but as >95% of it has been undertaken by Sun Works, we can advise that we have installed 1MW of 'non-JE funded' commercial solar projects.

To provide a total picture of Jersey renewables, it may be worth noting that Sun Works has installed a further 3MW of residential solar. The total is therefore currently c. 5.5MW or 26% towards the stated 2026 JE target of 20MWp (assuming non-JE financed generation counts towards that).

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