



# The Jersey Electricity Company Limited

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Deputy P.J. Rondel,  
Chairman – Environment Scrutiny Committee,  
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Dear Deputy Rondel,

Many thanks for your letter of 3<sup>rd</sup> April. By chance, I had sent you a similar letter which crossed with yours, suggesting that we might meet to discuss the matters you raise. I would be delighted to do this, but in the meantime I respond to your letter as follows.

At Jersey Electricity, long term sustainability and protection of the environment is at the core of our business. Over the last 20 years, we have deployed a very deliberate strategy to reduce carbon and particulate emissions that arises from our energy supply. We take responsibility not just for the environmental impact of electricity generated and distributed locally, but also for the environmental impact across the full electricity supply chain, including imported electricity, given that this is produced under contract by our supplier for our consumption in Jersey. We have driven this carbon reduction agenda by gradually displacing locally generated high carbon, oil derived electricity with low carbon imported electricity from EDF's fleet of primarily nuclear and hydro-electric generation.

We use a well-established methodology for calculating carbon emissions, based on the **actual system carbon intensity**. Under this methodology, the total carbon emissions of the electricity consumed on the system is calculated at the end of the year based on the carbon intensity of the volumes of electricity imported and generated locally, including allowances for distribution and transportation losses. This approach has been endorsed by a number of consultants, including the Buildings Research Establishment (BRE), an independent and respected research and test authority. This body has validated this approach for energy policy, building bye-laws and other long term decision-making. We believe this approach is sound for the following reasons:

1. **The methodology has a firm legal basis and is an established European Standard.**

European Union Directive 2003/54/EC contains a requirement on all Member States to ensure that electricity suppliers by Law publish information on the fuel mix and environmental consequences of the electricity they supply. Under the Directive, the CO<sub>2</sub> intensity is the average of the fuel sources comprising a supplier's portfolio of generation purchases. In compliance with this Directive, Jersey Electricity's supplier, EDF declared that in 2007, each kWh of electricity supplied to the JEC resulted in the emission of 59g of CO<sub>2</sub>/ kWh. The weighted average emission intensity in Jersey, after taking into account locally generated and imported electricity is 80g of CO<sub>2</sub>/ kWh.



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2. **The methodology is appropriate given the nature of the relationship between Jersey Electricity and EDF.** Long term contracts and other commitments allow generators to plan and build to meet purchaser's energy requirements. In EDF's case, the construction of the France-Jersey interconnectors (in 1985 and 2000) and the commitment by Jersey Electricity and Guernsey Electricity to take up to 145MW from EDF over a 15-year period gave EDF a clear signal of the need for new generation capacity and the security to build it. The Jersey Electricity/ Guernsey Electricity contract, and others like it, in effect underwrite additional capacity and have given EDF the certainty to allow investment in new plant that otherwise would not exist.
3. **This method is transparent and transferrable.** If the existing contract with EDF is not renewed (for whatever reason), there are several alternative suppliers of low carbon electricity with whom the Company could contract. This ensures that there is competition in our supply chain on both price and carbon content. If Jersey Electricity contracts with a different supplier, they, like EdF will be required to publish the carbon intensity of their portfolio, and hence we can continue to reflect the *actual* carbon content of our electricity purchases in our annual carbon calculation. The method is also robust in the face of any major corporate changes in France or indeed Europe. The output of the low carbon nuclear, hydro-electric and new renewable assets will continue to be available to purchasers such as Jersey Electricity, regardless of any changes in ownership, and the owner required to declare its carbon intensity. If in the worst case, Jersey Electricity was unable to find a suitable low carbon supplier, Jersey Electricity would always have the ability to buy additional carbon credits to help ensure continued progress towards our 'sustainability' or 'low carbon' goals, which we have made public.
4. **The methodology encourages generators and suppliers to take responsibility and ensures appropriate incentives.** If the *actual* carbon intensity of the electricity is ignored in preference to an arbitrary proxy assumption like the European grid average, then suppliers would not be incentivised to source low carbon electricity, and similarly generators would not be incentivised to build low carbon generation facilities. In this instance, Jersey Electricity might reasonably choose to source electricity from, for example, lower cost, higher carbon, coal plants of Eastern Europe, given that the carbon intensity figure suggested by the European grid average is just that – an average across Europe that cannot be directly influenced. Similarly electricity generators would be considerably less incentivised to install, for example, expensive carbon sequestration plant on existing coal plants, or develop costly low carbon renewable generation facilities, if there is no demand for it from suppliers like Jersey Electricity.

For additional comfort, Jersey Electricity has also consulted another respected energy consultant, which has confirmed that this is a valid methodology consistent with the accepted conventions and the relevant European Union Directive.



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It's also worth noting that another approach to carbon intensity measurement could have been used based on another convention used for the GHG National Inventory. Under this scheme, defined under Kyoto Protocol, all imported electricity would be treated as having zero carbon emissions, because carbon emissions are accounted for by the territory of origin of *production* and not *consumption*. Although this would enable our Company to declare a lower emissions figure, Jersey Electricity would not support this approach because it would not be consistent with our 'sustainability' goals. The result of such a measure would be to effectively outsource and ignore any poor environmental performance of our suppliers.

Apart from the perverse incentives that would result from the use of the European grid average proxy, this benchmark is not an established standard. It is not underpinned by a legal framework. Most importantly, it bears no resemblance to the reality of Jersey's actual electricity imports. Even the UK conventions of the Carbon Trust, DEFRA and BSI PAS2050, and the Greenhouse Gas Emissions Protocol propose the use of national average emission factors when more specific factors are not available (in fact they suggest the reference to be 'as specific to the product system as possible'). These national averages are typically only published to be used as guides to companies and organisations to assist them in calculating their carbon footprint. They are not used for long term energy policy decisions nor to establish building standards, and are not meant to replace the labelling of electricity under the EU Directive referred to above. Even if these conventions were (inappropriately) applied to Jersey, the national grid average of France should logically be used (not the European grid average). The French national grid has average carbon intensity of about 90g of CO<sub>2</sub>/ kWhr, a little higher than that of EDF but still considerably lower than that of LPG.

Finally, regarding the Building Bye Laws, we support any measures by the States of Jersey to reduce energy consumption and reduce carbon emissions over the long term, and believe that there is a significant opportunity. Improving the efficiency of buildings is a cornerstone initiative to achieving this and we believe the benefits in reduced energy bills, lower environmental costs and improved energy security are compelling. Should there be any increasing reliance on electricity, we do not believe that this should be a cause for concern. Jersey Electricity has a well diversified infrastructure base with two interconnectors in place (and a third on its way for physical diversity and security) and on-island generation backup at La Collette and Queens Road. Electricity is also distinctive from 'primary' fossil fuels (like oil and gas) in that it is implicitly 'future proofed', resilient and flexible. Jersey's electricity grid and submarine cables are a *delivery system* which can connect consumers to a large range of conventional and new generation technologies, such as renewables. That said, we welcome competition from oil and gas in the local energy market.

I hope this goes some way to explaining our position on these matters. I would welcome the opportunity to meet you to discuss the above or any other matters as you see fit.

Yours sincerely,

**C.J. AMBLER**  
Chief Executive