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The Jersey Electricity Company Limited

The Powerhouse
PO Box 45 Queens Road
St. Helier Jersey JE4 8NY

Customer Care
Tel 01534 505460 Fax 01534 505565
e-mail jec@jec.co.uk
www.jec.co.uk

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Deputy R. Duhamel,
Scrutiny Panel Chairman,
Environment Scrutiny Panel,
States Greffe,
Morier House,
St. Helier,
Jersey JE1 1DD



Dear Deputy Duhamel

AIR QUALITY REVIEW

Thank you for the opportunity to contribute to the Scrutiny Panel's review of air quality. I am pleased to catalogue below, details of our achievements in the reduction of atmospheric emissions and information on the standards relevant to emissions from our power generating plant.

Overall Performance

The draft Energy Policy report "Fuel for Thought" issued for public consultation last month notes that "Between 1990 and 2005 Jersey increased its total energy use by 26%. In the same period carbon emissions have reduced by 36% as a result of the switch away from on-Island oil based electricity generation to low-carbon nuclear/hydro imported electricity". Oil used for electricity production at La Collette power station has fallen from around 100,000 tonnes/annum in the early 1990's to around 5,000 tonnes/annum in the current decade. The well-established trend of fuel-switching away from oil and gas to electricity in residential and commercial buildings is assumed in the draft Energy Policy report to continue and is a major feature in the proposed target for 2030 of 52% carbon emissions reduction versus 1990.

This performance has entailed significant financial and human cost within Jersey Electricity. In excess of £100m has been expended to establish the high voltage power network which has enabled locally produced electricity to be displaced by emissions-free power from Europe and scores of jobs have been lost as the operating regime at La Collette power station has been reduced to one of strategic standby and "peak-logging". A further £75m expenditure is planned to establish a third submarine power connection to the Continent by 2012/13 and this will reduce power production in Jersey to zero, except during any catastrophic failure, of imports caused by technical or market failure or natural disaster.



INVESTORS IN PEOPLE



Specific Performance

Typically, less than 3% of the electricity used in Jersey each year is produced here. Notwithstanding its relative insignificance Jersey Electricity takes seriously the environmental performance of its power station plant. When originally built in the 1960's La Collette power station was deliberately situated on reclaimed land remote from the general population, in recognition of the potential nuisance risk presented by such a significant industrial process. Among the drivers for Jersey Electricity's investment in power importation infrastructure were the global and local environmental implications of climate change and the development of the Waterfront. Recognising that pending the 2012/13 final cessation of all routine power production at La Collette power station, approximately one or two cargoes of oil per annum will be burned there, Jersey Electricity has continued to invest in measures to reduce the polluting effect of the plant. Such measures have included:-

- Installation of multi-£million "State of the Art" automatic boiler control systems and Low Emissions burner technology which have reduced emissions of sulphur dioxide, nitrogen oxide and particulates by 40%.
- Sourcing fuel oil supplies with the lowest sulphur content available (1% - 1.5%).
- Water injection technology to reduce nitrogen emissions from gas turbine generators.

Compliance with International Standards

The European Directive on Emissions from Large Combustion Plants has enhanced already onerous emissions standards and must be achieved by Member States by 2008. The European Commission recognises that the forced closure of power plants which cannot comply, would threaten the security of electricity supplies and a derogation is included in the Directive which limits such plants to not more than 20,000 hours operation cumulatively, in the eight years from 2008. Although not bound by European Directives, Jersey Electricity adopts them wherever they do not entail excessive cost to electricity users. Accordingly, the E.U. specified limit on operating hours will be observed at La Collette power station up until the 2012/13 planned cessation of power production there.

Transient Emissions Performance

Notwithstanding the principle of derogation which Jersey Electricity will apply by limiting operational hours at La Collette power station, the plant's emissions are generally in compliance with International Standards for environmental performance. These Standards apply to steady-state operation, acknowledging that in transient conditions such as power plant run-up and run-down, testing or commissioning, the combustion process in large oil-fired boilers often becomes unstable and incomplete. It is not uncommon for such plants to cause pollution during these transient conditions:- chimneys emit darker smoke and occasionally emit "smuts" (which are coagulated products of combustion which can dislodge from the inside of chimney surfaces) falling in the vicinity as globules during abnormal plant operating conditions.

We monitor and act on pollution complaints from the public. A single polluting incident can cause multiple complaints. An average of 27 complaints per annum have been received since





year 2000. This, despite the investment in process control technology, rigorous operations and maintenance regimes and very low plant utilisation.

In Summary

Electricity is by far the least polluting form of energy available in Jersey and has been the sole factor in an impressive reduction in atmospheric emissions from the Island as a whole since 1990, as a result of which it has easily met its obligations under International Climate Change Treaties. Power production in Jersey now represents less than 3% of the total electricity supplied. All practical measures have been taken to reduce the atmospheric emissions from local power plant during the few weeks each year in which it operates, notwithstanding that only a fraction of the plant is in use at such times. Power station planned production will fall further to zero in 2012/13 when a third submarine power interconnection to the Continental electricity grid is completed. Thereafter, production would only take place in response to a major risk or event disrupting the importation of electricity and threatening the security of supplies throughout the Island.

I shall be pleased to provide any further information you may require in the course of your review.

Yours sincerely,

M.J. LISTON
Chief Executive

