

20001

Nine Mile Point Waste Processing Facility

Energy Efficiency Plan

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Report

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Energy Efficiency Plan

1.1 Energy Consumption

Due to the removal of the dryer and RTOs associated with the previously approved Solid Recovered Fuel (SRF) Refuse Derived Fuel (RDF) facility, electricity is the main energy source for the facility. All waste sorting equipment is powered by electricity with mobile plant powered by diesel fuel.

1.2 Energy Efficiency Measures

Energy consumption on-site falls into two main categories, electricity used for the management and processing of waste and production of SRF and; diesel usage for site plant. The following measures have been applied:

1.2.1 Switching Off Equipment when Not In Use

This is a basic housekeeping measure that applies to all industrial applications to minimise inefficiencies caused by unnecessary running of equipment when not in use. Plant operatives are trained on the use of their machines and are instructed to ensure that plant is switched off should there be a break in operations i.e., plant will not be left running during break times or quiet periods. All unnecessary equipment will be switched off when not in use.

1.2.2 Operation and Maintenance

All plant and equipment and electrical installations will be kept maintained and in good working condition and subject to routine inspection and maintenance. Equipment associated with waste processing is covered by a maintenance contract and/or a programme of planned preventative maintenance. Vehicles will also be subject to regular maintenance and service schedules. Any identified maintenance or technical issues will be raised with the appropriate contact (i.e., onsite fitter / contractor / manufacturer) and rectified as soon as practically possible and a note will be made in the site diary. Reserve equipment will be kept on site so that any failed parts are quickly replaced and unnecessary delays in ordering parts can be avoided.

1.2.3 Maintenance of Heavy Plant

Heavy plant shall be maintained as per the manufacturers' recommendations. Regular servicing and maintenance will reduce fuel costs by ensuring that the machine is running at peak efficiency.

1.3 Energy Efficiency Plan

Soft starters will be applied on all electric motors to continuously control the motor's voltage supply during the start-up phase. This will allow the motor to speed up slowly, resulting in less current drawn than with a traditional motor starter. This will also help to lengthen service life, improve operating behaviour, and smooth workflow. High efficiency motors will also be applied to all plant to improve overall energy efficiency.

1.4 Energy Balance Record

Electricity is the main energy source for the facility. Incoming electricity to the facility will be used during the mechanical processing of waste. SRF/RDF produced during this process will then be exported offsite for energy generation. Recyclable wastes will be removed from the incoming waste during the production of the SRF/RDF.

Once in operation, the annual electricity and diesel usage will be related to the number of tonnes processed. This will then act as a baseline for future monitoring on both electricity and diesel consumption. Annually these values will be compared with the previous year and improvement measures will be implemented if required to ensure efficient energy use.

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