



ENERGY MANAGEMENT POLICY

EFFECTIVE FROM: 01/06/2013

REVISED ON: 01/06/2013

Next Review: 01/06/2018

Authorised by:  Chief Executive Officer

Tully Sugar Limited's objectives for and commitment to energy management

Tully Sugar Limited recognises that the management of energy production and usage is inherent to the effective operation of its business.

Our business operates in two distinctive and diverse operational modes.

These are the sugar cane crushing season (June → November) and the maintenance season (November → June).

The energy management regimes for each of the two operational periods are described below.

Sugar Cane Crushing Season

Tully Sugar Limited generates 99.5% of the total annual enterprise energy usage by firing steam boilers with renewable biomass. The biomass is known as "bagasse" and is the fibre that remains after extracting the juice from the sugar cane.

In addition to our own energy requirements, when our facility is operating, we export 10MW of "green" power into the Queensland Electricity grid. Our Company has been exporting green power since 1997. This level of energy production represents the limit of our current generating and transmission capacity.

Our Mill produces an excess of bagasse that cannot be converted into electricity with our current infrastructure (or that of the transmission authority). As a result the excess bagasse is loaded onto trucks and dumped onto fallow cane lands. The consequence of any improvement in the energy efficiency of our operations would be even more excess bagasse that needed to be trucked away. Truck haulage is expensive, energy inefficient and uses non-renewable fuel. This is a strong disincentive to use less renewable energy in our factory.

Prudent management of our bagasse stocks is required, so that by the end of the cane crushing season, the amount of bagasse kept in storage is enough for the following years steam trials and factory start-up. This amount is approximately 5000 tonnes.

The largest single contributor to the 0.5% of non-renewable energy used in Tully Sugar Limited's operation is the burning of diesel fuel to drive our fleet of cane haulage locomotives. The rail network is inherently energy efficient and has been established through very substantial investment by our company over many years. The energy efficiency of the rail system compares extremely favourably to the road transport alternatives used elsewhere in the sugar milling industry.

Tully Sugar Limited continues to improve the efficiency of our cane rail network through ongoing investment. There is an established programme of upgrading the engines of our locomotive fleet to modern, clean, efficient units. Maintaining our cane bin stock to high standards minimises the load on the locomotives hauling the bins. The bin fleet is continually upgraded using new designs that reduce the weight and drag of the bins.

Maintenance Season

During the maintenance period, the primary energy source used is electricity which is consumed for general factory maintenance activities as well as general administration office activities. The aim, during this period of operations is to minimise electricity usage.

This can be achieved by the diligent control of air-conditioning and lighting loads. Turning off equipment such as welders, fans and radios at the end of the day can also help in keeping electricity usage to a minimum.

In regard to air-conditioners, it is desirable to have the controllers set to about 23 - 25 degrees, and to turn off the units that service smoko rooms after lunch. For offices, the air-conditioners should be turned off at the end of the day. It is understood that there is equipment in control rooms, switch rooms / DCS rooms and computer server rooms etc. that require constant temperatures and leaving these units on is justified and approved.

In regard to lighting it is again desirable to only turn on lighting when required and to ensure that lighting is turned off at the end of the day.

There are many well understood contributors to electricity (energy) wastage. Addressing these issues by targeting equipment and practices will lead to greater efficiencies over time.

Supervisors should pay particular attention to compressed air leaks, water leaks, damaged or missing roof insulation, damaged or missing steam pipe lagging, equipment / lighting left on for no apparent reason.

Opportunities for reducing energy usage will be assessed for viability and management should encourage all personnel to contribute any ideas they may have.

Accountabilities and responsibilities for managing energy

All employees and officers of Tully Sugar Limited are responsible for managing energy. The degree of responsibility is commensurate with the extent of the control each person is authorised to exert over the activities in which they engage. The senior managers have a particular responsibility to manage energy production and usage in the business, and to ensure that the energy management policies and procedures are implemented effectively and comprehensively.