

POSTER SUMMARY

A BENCHMARK ENERGY INDICATORSTOLZ HNP¹

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Abstract

Traditionally, “HP Steam % Cane” and “tons coal” have been used to represent energy used in a sugar factory. Other intensity indicators like energy (kJ)/ton cane or energy (kJ)/ton sugar made also featured. These have a place in the operation and are well understood. Reporting of coal use is important for sustainability and tax reasons but in the case of mills selling bagasse the reporting of coal can skew the understanding of the energy use. These typical indicators do not allow for easy comparison of energy efficiency between mills. Each mill has a unique arrangement of equipment and operational parameters, although the unit operations are similar. The comparison is further complicated depending on whether the mill has a refinery or not.

An alternative way to see how a mill performs relative to another is currently being tested. It provides for a level playing field and the underlying input calculation takes into account the unique properties of each mill. There are three ranges in which the new Energy Indicator/Index (EI) will report, relative to design:

- >1 The mill is using more energy;
- =1 The mill is doing what it was designed for; and
- 0<1 The mill is achieving better energy use.

The EI confines itself to energy in the fuel going into the facility. EI can be used to facilitate capital motivations and post-implementation verification of changes.

This poster is the first in a series that will unpack the EI. The rules are being developed and some early result presented.

Keywords: energy monitoring, benchmarking, energy intensity