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Profit through energy savings.....

Energy Efficiency Improvement in MSME Sector

Issue 4

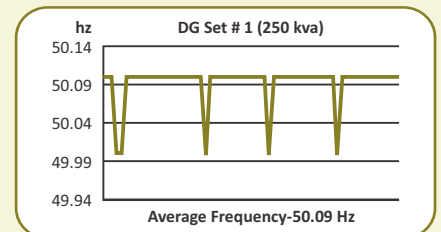
Faridabad

July – September 2013

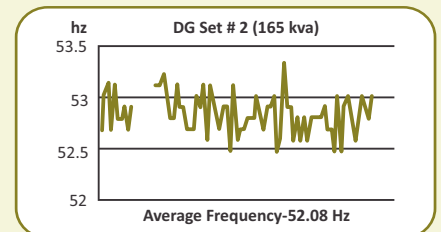
e-newsletter

Frequency setting in DG Sets reduces HSD bill by Rs 1.2 lakhs per year

DG sets come as the most common and reliable source of power for industries located in regions with irregular power supply from the Grid. Convenient it may be, however, generating electricity from your DG set at lowest possible cost needs some real insight. The team of experts under GEF-WB project observed frequency (Hz) of generated electricity from two DG Sets in an MSME unit in Faridabad, and the result looked like this.



The majority of loads are of usually centrifugal type. The optimum range for electricity frequency is 49 – 50 Hz. for DG Set and the unit was recommended to adjust the frequency to 49 Hz., after considering all loads connected. The unit is getting following benefits by adopting the suggested Energy Efficiency Improvement Action.



Savings by reduction in HSD consumption Rs 1.24 lakhs/year
Reduction in HSD consumption in DG Sets 2,761 Litres/year
Adjusting the frequency of both DG Sets costs
Rs One thousand only & the unit gets immediate payback!

Additional benefits: Production capacity shall improve by two folds with cleaner working environment

Variable Frequency Drive on Air-compressor saves Rs 1 lakh every year!

Air is free, but Compressed Air is a costly resource! Compressors operate between the cut-in and cut-out air pressure which needs to be carefully set by the unit as per the requirement. Our team of energy experts studied and observed the power drawn by an air-compressor (75 HP) at one MSME unit to look for any possibility of power saving. The load and un-load operating times of compressor were 331.8 sec and 54 sec respectively.

The MSME is suggested to install a Variable Frequency Drive (VFD) on the air-compressor to reduce power consumption during unload running time. The Energy Efficiency Improvement Action shall result in following benefit to the unit.

Savings by reduction in electricity consumption Rs 1.2 lakhs/year
Reduction in electricity consumption 14,269 kWh/year
Installing VFD on air-compressor shall costs Rs 1.8 lakhs & the unit gets payback in 18 months only!

GEF-WORLD BANK PROJECT- Financing Energy Efficiency at MSMEs



The World Bank



Global Environment Facility



Small Industries Development Bank of India (SIDBI)



Bureau Of Energy Efficiency

Cluster News



PwC organised Technical Workshop on Veneering Technology and Open Access Power Purchase System on August 19. Mr. R.K. Sharma, MD, Sri Aurobindo Automotives, Faridabad, shared the successful results of Veneering Technology demonstration in heat treatment furnace at their unit. Mr. Bikram Singh, AVP, Indian Energy Exchange (IEX), and Mr Manan Thapar, PwC, explained the schematics and benefits of Open Access Power Purchase System in particular reference to Faridabad.

IamSMEofIndia organized a series of interesting workshops including Workshop on 'Energy Management System - Track your Power Minute to Minute' on August 10, Workshop for Finance Professionals and Bankers on August 13, and Software Technologies for Energy Efficiency through Designing and Machining on September 18.

Upcoming Activities

Exhibition cum Technical Seminar on Energy Efficient Technologies (EETs)

FICCI is Organizing Exhibition cum Technical Seminar on Energy Efficient Technologies (EETs) on 19 November 2013 at Hotel Delite, Neelam Bata Road, NIT, Faridabad. On the occasion, an Industrial site visit is being planned to showcase implemented and successfully operating Energy Efficient Technologies (EETs) applicable to MSME sector.

Who should attend: MSMEs, Industry Associations, Energy professionals, Consulting organisations, Equipment dealers, etc.



2 Days Hands-on Training Programme for Energy Professionals at CETEE, Chennai

Who should attend : Energy professionals engaged with MSME sector in Faridabad, production and maintenance personnel from MSME units in Faridabad.

NO participation fee, FREE accommodation at CETEE, Chennai. Participants have to bear travel and all other costs.

Date: To be Announced

For any further information and clarification related to project activities, please contact



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