

## Electrical energy conservation in dairy industry

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■ **ABSTRACT** : Energy is a critical input for the production and consumption activities in the development of economy of any country. Electrical energy is the most widely used form of convectional energy. Processing of milk and milk products require considerable amount of energy in the terms of the heat and electricity. A major amount of electricity is used for running motors, fan, blowers, and lighting the plant building. The total cost of dairy product contributes to 80% for raw milk costs and remaining 20% comprises of the other variable and fixed costs. The energy cost reflects to ~ 4% of the expenditure. Hence, any attempt to efficiently manage the energy costs will influence the processing costs. Soft starter for motor control, energy efficient motor, variable frequency drive and fluorescent tubes for lighting purpose etc. in dairy industry would used to save immense electricity.

■ **KEY WORDS** : Energy, Electrical energy, Soft starter, EMM, VFD, Power factor

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