

Eskom Tariff

Structures



All farms will have a unique set of constraints and care must be taken to ensure that the tariff option selected is most beneficial for those unique circumstances.

Electricity is a major cost component for irrigation. In many farming operations, the water source occurs in low lying areas and electrical energy is required to lift water from the water source to the field edge. The cost of electricity, expressed as a percentage of the total operating expenses, in the past typically ranged between 6 and 10%. The tariff increases planned for 2011 and 2012 will increase the cost of electricity into the region to 20% of total operating expenses.

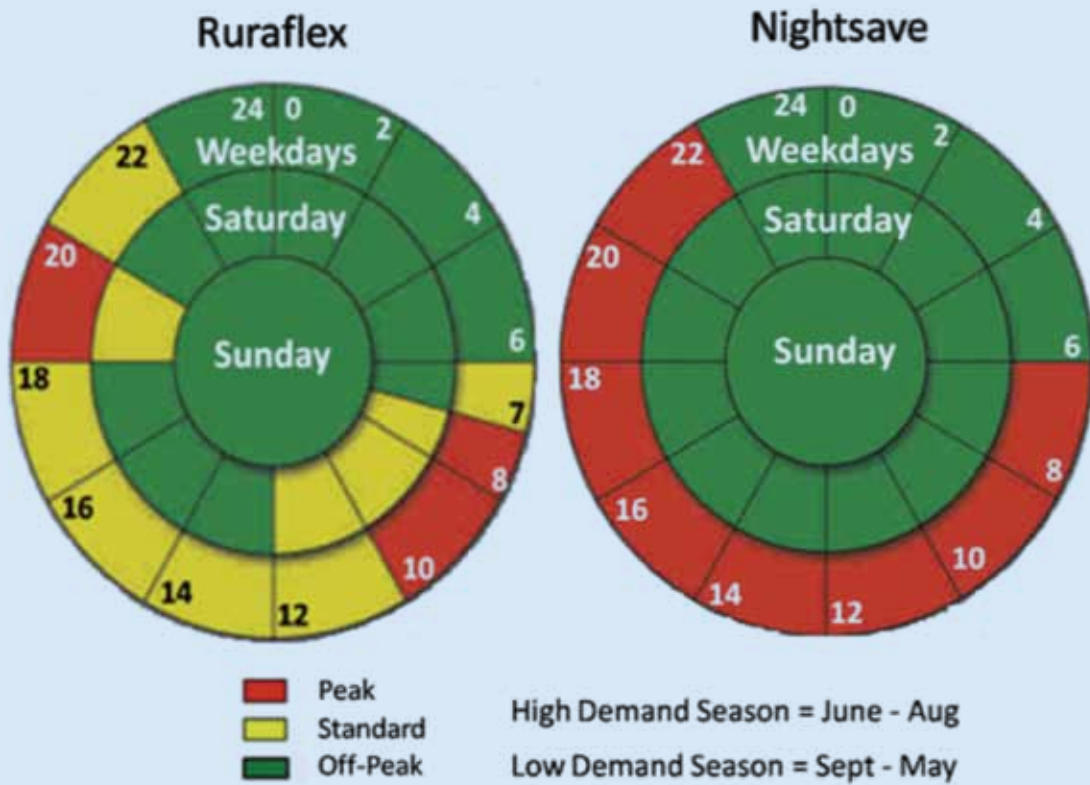


Figure 1
 Designated periods for peak, standard and off-peak consumption for the Ruraflex and Nightsave Rural tariff options

IT IS ESSENTIAL TO UNDERSTAND THE TARIFF OPTIONS AVAILABLE FROM ESKOM AND HOW BEST TO TAKE ADVANTAGE OF THE OPTIONS. THE RURAL TARIFF OPTIONS APPLICABLE TO FARMERS CONSIST OF THE LANDRATE, RURAFLEX AND NIGHTSAVE OPTIONS. ALL TARIFF OPTIONS INCLUDE A FIXED COST, FOR THE USE OF INFRASTRUCTURE IRRESPECTIVE OF WHETHER ELECTRICITY IS USED OR NOT, AND VARIABLE COSTS FOR THE ACTUAL CONSUMPTION OF ELECTRICITY.

The Landrate option is an electricity tariff for rural customers with a demand not exceeding 100kVa. The energy charge is fixed and does not vary according to time of year, but is dependent on the size of supply.

The Nightsave tariff has a flat rate energy charge no matter what time of the day it is used, only increasing during the high demand months (June-August). This tariff has a maximum demand charge pay-

able for peak times only. The kVa and energy charge varies according to the season (see Figure 1). The Nightsave option is best suited for high load factor applications e.g. 24 x 7 pumping for the month with a notified maximum demand of 25kVa and greater. These high load factor situations are not likely to occur in irrigation. The occurrence of rainfall, for example, will prevent continuous irrigation.

The Ruraflex option, offers the most flexibility for irrigators. It consists of basic charges according to supply size and energy charges depending on time of day and season (See Figure 1). It has no demand charge. The Ruraflex tariff provides opportunities where loads can be shifted to off-peak periods. In other words, use of electricity during low demand and off-peak periods is rewarded with lower charges.

All farms will have a unique set of

constraints and care must be taken to ensure that the tariff option selected is most beneficial for those unique circumstances. Eskom field advisors should be approached to provide specialist advice on this issue. In addition, care must be taken to ensure that any strategy to reduce irrigation during peak electricity periods must be evaluated very carefully to determine the impact on cane yields and profitability before being implemented.

An Eskom Energy Advisor can be contacted on 08600 ESKOM (37566).

Rob Gordijn, Keith Horlock and Nick Moynihan, from ESKOM, are gratefully acknowledged for their assistance in preparing this article. ☺

Ashiel Jumman
 Agricultural Engineer
 South African Sugarcane
 Research Institute
 South African Sugar Association

