

## **Update and details of the Energy Conservation Scheme (ECS) and Associated Punitive Tariffs proposed by Eskom and the DME**

*by Chris Yelland CEng, managing editor, EE Publishers*

**Since the establishment of the Power Conservation Programme (PCP) by the National Electricity Response Team (NERT), set up by the Department of Minerals and Energy (DME) following the emergence of the generation capacity crisis at the beginning of 2008, serious moves have been afoot by Eskom and the DME to develop an Energy Conservation Scheme (ECS), the details of which are only now beginning to emerge.**

The first sign was the issuing for public comment of proposed new regulations in terms of the Electricity Regulation Act, 2006, by the Department of Minerals and Energy (DME) in Government Gazette No. 31339 of 15 August 2008. These draft regulations closed for comment on 19 September 2008, and the final regulations are expected to be promulgated and in place by end October 2008.

Entitled "Electricity Regulations on Deviation from Approved Tariffs", they seek to empower the minister of Minerals and Energy to deviate from the normal NERSA approved electricity tariffs and set various sector electricity saving targets in order to achieve an overall national electricity saving of 10%.

However, while these draft regulations are now in the public domain, electricity customers are generally unaware of what actually lies behind them, as well as the rules, details and price levels of the punitive tariffs being proposed by Eskom on behalf of the DME in order to achieve the national energy saving target.

While the ECS Rules are not fully finalised, Eskom has indicated the intention for them to be in place by the end of 2008, for commencement of the ECS in early 2009. However, there is now some doubt as to whether this will be achieved.

The ECS Rules and Regulations will set specific electricity saving targets and electrical energy allocations for various customer categories and for all electricity customers greater than a defined size, as well as punitive electricity tariffs for those customers that exceed their electrical energy allocations.

Eskom has indicated that the thinking at this stage is for the ECS to apply to customers consuming more than 100 MWh per annum (i.e. customers with a maximum demand greater than about 20 kVA at a load factor of 0,6 and power factor of 0,95).

The intention is that in 2009 each customer to which the ECS applies will be given a monthly energy allocation (kWh) based on the requirement to achieve a specified electrical energy saving in respect of the customer's consumption during the period October 2006 to September 2007 (referred to in the ECS Rules as the baseline period).

In terms of the latest ECS Rules and thinking, for each customer class the savings that will be required of customers in respect of their consumption for the baseline period are: mining: 8%; agriculture: 8%; industry: 10%; commercial: 20%; residential: 20%; and government/state owned enterprises: 25%.

Failure to meet these savings (i.e. a customer exceeding its energy allocation) will result in punitive electricity tariffs in accordance with the ECS Rules for that portion of the customer's electrical energy consumption in excess of its allocation.

In this regard there would be three applicable price bands for the first transgression of a particular month of the year under consideration, and then these price bands would be further multiplied by 1,5 and 2 (i.e. x1,5 and x2) for a second and third transgression respectively in the same year, as follows:

	<b>Control band</b> 0 - 2,5% above (1) 0 - 1% above (2)	<b>Disincentive band</b> 2,5% - 10% above (3) 1% - 10% above (4)	<b>Punitive band</b> > 10% above (5)
<b>1st transgression</b>	R2,80/kWh	R4,50/kWh	R9,00/kWh
<b>2nd transgression</b>	R4,20/kWh	R6,75/kWh	R13,50/kWh
<b>3rd transgression</b>	R5,60/kWh	R9,00/kWh	R18,00/kWh

*Note 1: For customers < 10 MVA, the control band is 0 - 2,5% above allocation*

*Note 2: For customers > 10 MVA, the control band is 0 - 1% above allocation*

*Note 3: For customers < 10 MVA, the disincentive band is 2,5 - 10% above allocation*

*Note 4: For customers > 10 MVA, the disincentive band is 1 - 10% above allocation*

*Note 5: For all customers, the punitive band is > 10% above allocation*

As an example, from the above and based on the present "normal" electrical energy price of about R0,50/kWh, it can easily be calculated that for a commercial customer that does not save the required 20%, but simply maintains its electrical energy consumption (kWh) in 2009 at the same levels as in the baseline period (October 2006 to September 2007), the electrical energy bill will be about 4,6x higher in the first month, then 6,4x higher in the second month, and finally 8,2x higher in the third month, as compared to that paid by the customer in the baseline period.

This is clearly intended as a big stick to punish those individuals and organisations that do not meet the electrical energy saving requirements of government and Eskom, and is aimed at changing their mindset and making them do things to save electricity that they would not voluntarily do.

In my opinion, however, the ECS as it currently stands may be missing the mark. I believe the real challenge is to reduce and remove non-productive, wasteful and inefficient electricity consumption from the system, without capping, punishing or limiting efficient electricity use and efficient growth of electricity consumption by the productive economy, which would otherwise compromise economic growth, job creation and growth in manufacturing output and commercial services that a developing economy so desperately needs.

There are now talks in progress about phasing in the energy saving targets, and the customers that are required to participate in the ECS, and this may help soften the impact on the economy and allow electricity customers time to make the appropriate investments in energy efficient equipment, and to change their behaviour.

I believe that before launching forth with the planned ECS as a fait accompli, the DME and Eskom should embark on a broad-based, open and transparent consultation, discussion, education and communication programme in order to take the public and electricity customers along with them. Otherwise there may be a significant negative backlash.

The current proposals undoubtedly have enormous economic impact and pose significant implementation and administrative challenges. It remains to be seen whether the DME and Eskom will be brave enough to announce and launch the proposed ECS before the general election in 2009!

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