



Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

Winter Peak Demand Reduction Scheme and Powersave
Rules and Rates 2009/10

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Abstract:

On the 26th August 2009 the Commission consulted on the proposed amendments to the rules and rates for the 2009/10 Winter Peak Demand Reduction Scheme (WPDRS) and Powersave scheme. This paper sets out the Commission's decision with regard to the rules applicable to WPDRS & Powersave during 2009/10. The rates have been revised to reflect the retail price decreases in 2009.

Target Audience:

This paper is for the attention of members of the public, the energy industry, customers and all interested parties.

Related Documents:

CER/09/142 Proposed changes to the Winter Peak Demand Reduction Scheme & Powersave 2009/10.

CER/09/142 (a) EirGrid's Winter Peak Demand Reduction Scheme & Powersave Proposals for Rules & Rates for 2009/10.

CER/09/142(b) EirGrid's proposed WPDRS Rules 2009/10

CER/08/192 EirGrid's Powersave Scheme Rules 2008/09

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1.0 Introduction

1.1 The Commission for Energy Regulation

The Commission for Energy Regulation ('the Commission') is the independent body responsible for overseeing the regulation of Ireland's electricity and gas sector's. The Commission was initially established and granted regulatory powers over the electricity market under the Electricity Regulation Act, 1999. The enactment of the Gas (Interim) (Regulation) Act, 2002 expanded the Commission's jurisdiction to include regulation of the natural gas market, while the Energy (Miscellaneous Provisions) Act 2006 granted the Commission additional powers in relation to gas and electricity safety. The Electricity Regulation Amendment (SEM) Act 2007 outlined the Commission's functions in relation to the Single Electricity Market (SEM) for the island of Ireland. This market is regulated by the Commission and the Northern Ireland Authority for Utility Regulation (NIAUR). The Commission is working to ensure that consumers benefit from regulation and the introduction of competition in the energy sector.

1.2 Purpose of this paper

The purpose of this paper is to outline and describe the Commission's decision with regard to the rules and rates of the WPDRS (Winter Peak Demand Reduction Scheme) and Powersave schemes respectively. The Commission has carried out a full public consultation on this topic and has considered fully the comments and submissions received. In addition, Eirgrid held two Workshops in early September at which the proposed changes to the schemes were outlined. Issues raised throughout the consultation process will be addressed in this paper, as well as outlining the final decision on this topic.

1.3 Comments Received

The Commission has received six responses to the consultation paper CER/09/142. The Commission received responses from the following organisations:

- Dairygold Co-operative Society Ltd
- Fingleton White & Co Ltd
- Food and Drink Industry Ireland (FDII)
- Irish Business and Enterprise Confederation (IBEC)
- Queally Pig Slaughtering Ltd
- Viridian Power and Energy

1.4 Structure of this paper

This paper is structured in the following manner:

- **Section 2** provides an overview of the WPDRS and Powersave schemes and the proposed changes for 09/10;
- **Section 3** sets out the Commission's decision in respect of the scheme rules for both the WPDRS and Powersave schemes;
- **Section 4** sets out the Commission's decision in respect of scheme rates for both the WPDRS and Powersave schemes;
- **Section 5** summarises comments received and the Commission's response;
- **Section 6 Conclusions.**

2.0 Background to WPDRS & Powersave

2.1 Introduction

Demand side management pertains to actions taken by customers, as a result of incentives and market information, which have the potential to impact positively on system demand. The Commission currently approves the rules and rates for two demand side management schemes, WPDRS and Powersave, the details of which are discussed further below.

2.2 WPDRS

The WPDRS is operated by EirGrid on behalf of the Commission, and is designed to encourage participants ('designated customers') to reduce their peak demand and consumption from typical usage and demand levels during the peak hours of 17:00 hrs to 19:00 hrs on selected business days during the winter months from the November to February. The demand side management scheme is designed to incentivise medium and large electricity customers with on-line quarter-hour meters and a minimum import quantity of 250 kVA to reduce their peak winter consumption and demand.

Participants are rewarded for demand and consumption level reductions at peak times. The payments they receive for this demand reduction are based on the difference between their predicted demand consumption at peak times and their actual demand consumption at those times. Participants can change their committed demand level on a daily basis. Customers who reduce their demand and consumption according to their committed levels are rewarded. Customers who significantly deviate from committed levels are charged resulting in reduced payments. Payments are made to participants by their respective supplier.

2.3 Powersave

Analogous to the WPDRS, the Powersave scheme is a voluntary demand side management initiative, designed to incentivise registered Powersave customers to reduce their electricity consumption or increase exports during periods where total system demand is close to available supply. Having previously been within the remit of ESB Power Generation, the Powersave scheme is currently administered by EirGrid on behalf of the Commission.

The rationale behind the provision of the Powersave scheme is to encourage medium and large scale customers, with on-line quarter-hour interval meters, to

reduce their electricity consumption or increase exports of electricity. All licensed electricity suppliers are permitted to offer the Powersave scheme to their respective customers.

Customers wishing to participate in the scheme must have the capability to reduce consumption by a minimum of 100kW or alternatively increase electricity exports during periods of limited supply. In return, a 'Registered Powersave Customer' who responds to a Powersave request, will be compensated via a payment mechanism that is based on the kWh reductions achieved during the 'Powersave Event'.

Payments will be linked to the difference between the customer's consumption in the notified period and the average consumption in the same period over the previous four weeks. The payment a 'Registered Powersave Customer' receives in the event of a Powersave request is set out in EirGrid's annual 'Statement of Charges and Payments for Ancillary Services' document. In terms of pricing, Powersave rates vary by 'peak' and 'off-peak' periods. 'Peak Hours' are those hours which occur on Monday to Friday inclusive of the calendar months November, December, January and February between 17:00 hrs and 19:00 hrs. 'Off-Peak Hours' occur on Monday to Friday inclusive in all the other months of the year between 11:30 hrs and 12:30 hrs.

2.4 Proposed Changes to WPDRS and Powersave Rules 2009/10

On the 26th August 2009 the Commission consulted on the proposed amendments to the rules and rates for the 2009/10 (WPDRS) and Powersave schemes as proposed by Eirgrid. The key proposed changes to the respective demand side management schemes are outlined below and all changes are reflected in Eirgrid's accompanying documents setting out the approved rules.

2.4.1 WPDRS

The table below summaries the proposed changes to the WPDRS scheme and the primary impact for participants.

	WPDRS 2008/09	WPDRS 2009/10	Primary Impact
1	The Benchmark Energy is currently calculated using the average energy consumption and the peak consumption during peak and off peak hours.	The Benchmark Energy will be calculated by interpolating each customer's demand data available during a 24 hour period to estimate the electricity consumption between the hours of 5 and 7pm.	This proposed methodology for calculation of the benchmark energy will produce a more accurate estimate of customer's electricity consumption between the hours of 5 and 7 p.m.
2	The Baseline is currently calculated for various customer types based on the type of customer demand data available.	The calculation of the Baseline will be the same for all customer types.	The changes to the calculation methodology for the baseline mean that customers are eligible for participation in the scheme if they have two months demand data. Previously customers had to provide demand data from the previous winter. Some customers may have been excluded from participating in the scheme for this reason. This proposed approach will simplify the calculation of the baseline.
3	The Baseline is recalculated and assigned to Customers once during the WPDRS period.	The Baseline will be recalculated monthly and sent to Customers a week in advance of the start of each month (November, December, January & February).	The customer will receive a regularly updated baseline providing a more accurate estimate of their demand profile.
4	The Baseline is currently calculated using the 80 th percentile of the customer demand data from the previous winter or the shoulder months around the WPDRS period.	The Baseline will be calculated for each month using the 60 th percentile of the previous two months demand data.	The estimate of the Baseline will be more dynamic thus providing a more accurate estimate of the baseline. The 60 th percentile should provide an accurate reflection of a customer's typical consumption. Customers with a consistent peak consumption profile will not see a significant change in their baseline values.
5	There is no requirement for the supplier to issue statements to customers.	Based on customer feedback from the WPDRS survey, there will be a requirement for suppliers to issue statements to customers.	Suppliers will now be obliged to provide regular WPDRS statements to their customers. This will improve feedback to WPDRS customers.
6	The current WPDRS rules allow for Demand Side Unit (DSU)/Aggregator Generator Unit (AGU) participation in SEM outside the WPDRS hours of 5 – 7pm on WPDRS business days.	No DSU/AGU participation in WPDRS will be allowable.	With the introduction of SEM, there are now opportunities for DSM in the market in the form of demand side units (DSU) and aggregator generator units (AGU). Therefore it is no longer appropriate for DSU and AGU to participate in the WPDRS.

Table 2.1 Proposed Changes to WPDRS 09/10

2.4.2 Powersave

There are no proposed changes to the Powersave scheme.

2.5 Proposed Changes to WPDRS and Powersave Rates 2009/10

The proposed rates are linked to the average retail price decreases implemented in the electricity market in 2009. In May 2009 consumers saw an average reduction 10.3% and a further average 0.2% reduction from 1st October 2009. The proposed rates are set out below.

2.5.1 WPDRS Reduction

Reduction on the 08/09 WPDRS rates of 10.5%.

2.5.2 Powersave Reduction

Reduction on the 08/09 Powersave rates of 10.5%.



3.0 Commission's Decision on WPDRS and Powersave Rules 2009/10

The Commission has considered the proposed changes to the WPDRS rules and the responses received to same.

3.1 WPDRS

The Commission has made the following decisions on changes to the WPDRS rules, as proposed by Eirgrid, in order to enhance the performance of the scheme.

- The Commission has decided to approve a number of changes (items 1-3 in table 2.1) to the WPDRS scheme as proposed by Eirgrid which will improve the accuracy of baseline calculations while rewarding scheme participants that provide consistent levels of demand, with clarifications to the text as set out below.
- The Commission has not approved the proposal to reduce the percentile measurement at which the baseline for WPDRS is calculated.
- The Commission has approved the proposal for suppliers to provide statements to customers as part of the scheme.
- The Commission has not approved the proposal to exclude DSUs and AGUs from the WPRDS scheme for 2009/2010. This will be reviewed in the context of the overall review of Demand Side Management.

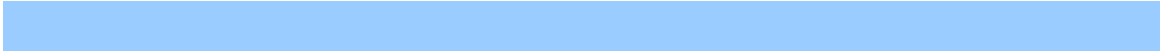
The Commission has also approved the following minor text changes, shown in *italics* below, to provide additional clarity to the WPDRS rules:

- "A Reliability Charge cannot be levied on a WPDRS Business Day if a Customer's Committed Level is set equal to its baseline on that WPDRS Business Day."
- "The baseline for a given month will be calculated using the previous two months interval metering data *and the benchmark energy data where appropriate*
- The previous two months interval metering data *and the benchmark energy data where appropriate* will be used in the calculation for WPDRS Business Days.

3.2 Powersave

There were no changes to the Powersave Rules.

The rules for both the WPDRS and Powersave will come into effect from 9th October 2009 – 30th September 2010. Details of the approved rules for the 2009/10 WPDRS & Powersave scheme are provided in the Eirgrid documents accompanying this decision.



4.0 Commission Decision on WPDRS and Powersave Rates for 2009/10

The Commission approves the rates for WPDRS and Powersave, as submitted by Eirgrid and included in the tables below. These rates correspond to a 10.5% reduction in line with tariff reductions implemented by CER during 2009.

4.1 WPDRS Rates for 2009/10

WPDRS Rates
<ul style="list-style-type: none">• Reliability Payment Rate €227/MWh• Reliability Rebate Rate €795/MWh• Profile Payment Rate €102/MWh

4.2 Powersave Rates for 2009/10

Powersave Payments
<ul style="list-style-type: none">• Off-Peak Rate 38.70 c/kWh• Peak Rate 96.75 c/kWh

5.0 Responses to Comments Received

This section summarises comments received on the changes to the WPDRS rules proposed by Eirgrid and sets out the Commission's response. The Commission received six responses to the WPDRS and Powersave consultation paper. Comments received are addressed under five headings below:

5.1 Baseline Calculation

Respondents' Comments

(i) Baseline

One respondent commented that the proposed changes to the baseline calculation methodology outlined in the proposed WPDRS scheme rules would yield a baseline that is reflective of more current demand levels. However the same respondent considered that exceptions should be made for customers with seasonal loads when it comes to calculating the baseline.

The majority of the respondents, notably those in the dairy industry with seasonal loads, expressed concern that the customer baseline would be calculated from months in the winter peak where the customer is already reducing load. However, this would mean that an artificially low baseline would be set for their site because of the seasonal nature of their load profile.

(ii) Percentile Calculation

Two respondents considered that using the 60th percentile in place of the 80th percentile is in effect a price reduction and could penalise those customers with varying demand profiles.

Commission's Response

(i) Baseline

The Commission notes that the proposed changes in the scheme are to ensure that there is an accurate, and appropriate, calculation of the baseline and also that rewards are made for genuine participation in the scheme. In 2008/2009 as a result of the downturn in the economy, where participants were reducing load for commercial reasons, some WPDRS customers were getting payments for reduced demand which would have occurred in any event. The change in the methodology for calculating the baseline is intended to address this issue.

The Commission notes that from submissions received to this consultation and comments received at the workshop, there appears to be some confusion among customers with regard to how the baseline is calculated for each month over the four month WPDRS period. In order to clarify matters the Commission has made two minor changes to the WPDRS rules. The customer baseline for November will be calculated using interval meter data for the previous two months. The December baseline will be calculated using interval data from October and benchmark energy data from November. For January and February only benchmark data from previous two months will be used. The benchmark data is used as it would not be reflective of demand to use interval data for months during which customer is already reducing load. Hence the reference to baseline calculation in the amended WPDRS Rules which specify using the previous two months interval metering data *and the benchmark energy data where appropriate*. Further to a proposal from Eirgrid, a third amendment was considered for the WPDRS rules on page 13, under “Breach of Committed Level”. This states that “a Reliability Charge cannot be levied on a WPDRS Business Day if a Customer’s Committed Level is set equal to its baseline on that WPDRS Business Day.” This is to clarify that a customer cannot be charged if they choose not to participate on a given WPDRS business day. An example of the calculation is set out below.

Example:

For a customer who participates in WPDRS from November to February the following baseline calculation methodology will apply:

- For November, the baseline will be calculated for peak half-hours (17.00-19.00) using the best available interval metering data from September and October. The 80th percentile of this data will then be calculated.
- For December, the baseline will be calculated for peak half-hours (17.00-19.00) using the best available October interval metering data and using the Benchmark Energy (see below) data from November. The Benchmark Energy is used for November as the customer may have provided a reduction during this month and it would not have been reflective if interval metering data was used from 17:00 to 19:00. The 80th percentile of this data (i.e. combination of October Interval data & November Benchmark Energy data) will then be calculated.
- For January the baseline will be calculated using the Benchmark Energy data from November and December. The 80th percentile of this data will then be calculated.
- For February the Baseline will be calculated using the Benchmark Energy data from December and January. The 80th percentile of this data will then be calculated.

The calculation methodology used in previous years required customers to provide demand data from the previous winter and therefore some customers may have been excluded from participating in the scheme for this reason. The new baseline calculation will be the same for all customers; however the Commission notes that in sectors where there is pronounced seasonal demand e.g. in the dairy industry it will have the effect of reducing the payments for some customers with seasonal profiles.

(ii) Percentile Calculation

The Commission notes that that the objective of the proposed change is to reward customers who provide consistent and reliable load reductions. However, noting the respondent's comments, the Commission considers that the reduction in the percentile of customer demand, at which the baseline is calculated, may be too punitive to some participants when combined with the changes to the baseline methodology as outlined above.

5.2 Benchmark Energy Respondents' Comments

One respondent welcomed the use of cubic spline methodology for the benchmark energy calculation. However, the latter respondent and another respondent commented that the shoulder period for the Benchmark Energy calculation should be preserved at one hour rather than the proposed 30 minute shoulder period. Both respondents commented that ramping up onsite generation would take about one hour and would affect the site load during this period.

Commission's Response

The cubic smoothing spline technique as proposed by Eirgrid interpolates a customer's demand data from 00:00 to 16:30 and from 19:30 to 00:00 to produce an estimate of the peak period consumption from 17:00 – 19:00. Since the interpolation uses a smoothed spline, the data points at 16:00 and 16:15 have no significant impact on the benchmark energy calculations. It is the effect of the preceding series of data points, and the data points after 19:30 that determine the value of benchmark energy.

5.3 Monthly Statements

Respondents' Comments

Three respondents have welcomed the requirement for suppliers to issue monthly statements to customers.

One supplier commented that the proposal to calculate the baseline on a monthly basis will lead to significantly more administrative work.

Commission's Response

The Commission welcomes the positive feedback to the requirement for suppliers to issue monthly statements to customers. The Commission notes the supplier's comment that this will result in additional administration. However, it is expected that this rule change will improve customer feedback and improve customer performance in the scheme.

5.4 Market Participation

Respondents' Comments

Two respondents commented on the rule change for Demand Side Units (DSUs) and Aggregated Generator Units (AGUs) in SEM. They commented that this rule unnecessarily discourages sites with onsite generation from participating in SEM as autonomous price takers. Respondent also questioned why the existing approach which penalises WPDRS customers who participate in both SEM and WPDRS on WPDRS business days between 17:00 and 19:00 could not be continued.

Commission's Response

With the introduction of SEM, there are now opportunities for DSM in the market in the form of demand side units (DSU) and aggregator generator units (AGU). However, the Commission notes the comments from respondents and in light of the overall review Demand Side Management in the SEM which is being undertaken with NIAUR, the Commission has decided not to implement any changes in relation to the participation of DSUs and AGUs for the 2009/2010 WPRDS scheme.

5.5 General Comments

Respondents' Comments

One respondent commented that the WPDRS offered excellent value for money for EirGrid and that there was scope to increase the price to attract greater

participation in the WPDRS. Two respondents commented that the WPDRS rule changes are too radical and that the new methodology increases the complexity of the scheme.

One respondent commented that since the start of SEM there has been insufficient attention to demand side participation due in part to the continuation of schemes such as WPDRS, WPDRI and Powersave.

Commission's Response

With regard to scope for increasing the price to attract greater participation, the Commission would point out that the Profile payment has to be taken into account and that this together with the Reliability payment would potentially bring the price much closer to the Best New Entrant (BNE) price.

The Commission does not consider the new calculation to be unduly complex when compared with the methodology of previous years. The baseline will now be provided monthly to the customer and the benchmark energy will still be calculated daily similar to the existing rules. The objective of the changes is to improve the efficiency of the scheme, to encourage more active demand side participation in the scheme and to reward customers who provide consistent and reliable load reductions. It is not anticipated that these changes will significantly affect customers' participation in the scheme. In addition performance statements will now be provided to customers regularly, which should greatly assist customers in monitoring their performance in the scheme.

The Regulatory Authorities in ROI and Northern Ireland understand that Demand Response has the potential to be an important element in the All Island market, delivering economic and environmental benefits. The RAs have commenced a review and will consult in Q1 2010.



6.0 Conclusions

The Commission has approved the rules and rates for the WPDRS and Powersave schemes for 2009/2010 as set out in sections 3 and 4 and summarised below;-

- The Commission has decided to approve a number of changes (items 1-3 in table 2.1) to the WPDRS scheme as proposed by Eirgrid which will improve the accuracy of baseline calculations while rewarding scheme participants that provide consistent levels of demand, with clarifications to the text as set out in section 3.
- The Commission has not approved the proposal to reduce the percentile measurement at which the baseline for WPDRS is calculated.
- The Commission has approved the proposal for suppliers to provide statements to customers as part of the scheme.
- The Commission has not approved the proposal to exclude DSUs and AGUs from the WPRDS scheme for 2009/2010. This will be reviewed in the context of the overall review of Demand Side Management.
- There are no rule changes to the Powersave scheme for 2009/2010
- The WPDRS and Powersave rates have been adjusted to reflect a 10.5% reduction on 2009/2009 rates.

The WPDRS and Powersave DSM schemes will be reviewed in the context of the RAs joint review of demand side management. The review will look at the broad demand response areas including; overall demand reduction/energy efficiency, ToU reduction/load shifting, demand side bidding and aggregation of generation and Smart Grids. Input from stakeholders will be sought in due course.

The rules and rates for both the WPDRS and Powersave will come into effect from 9th October 2009 – 30th September 2010.