



Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

**Market Arrangements for Electricity  
Margadh Aibhléise na hÉireann**

**Implementation of the Market Arrangements for  
Electricity (MAE) in relation to  
CHP, Renewable and Small-scale Generation**

**An MAE Draft Decision by the Commission for Energy Regulation  
Under S.I. 304 of 2003**

**DRAFT**

**23rd April 2004**

**CER/04/149**

# DRAFT

## 1 INTRODUCTION

This document is a draft decision paper by the Commission for Energy Regulation under Regulation 5(1) of S.I. No. 304 of 2003 – Electricity Regulation Act 1999 (Market Arrangements for Electricity) Regulations 2003.

The purpose of this paper is to outline the detailed design of the Market Arrangements for Electricity (MAE), in relation to CHP<sup>1</sup>, renewable<sup>2</sup> and small-scale generation in Ireland. A consultation paper on the issue was published on the 10<sup>th</sup> October 2003 (CER/03/253).

## 2 MAE MARKET OPERATION

### 2.1 Dispatch Thresholds

The Commission is of the view that the following thresholds should apply<sup>3</sup>:

- Micro-generators i.e. those less than 100kW shall be exempt from the MAE Rules;
- All generating plant with a rated capacity greater than or equal to 5MW or a site total greater than or equal to 5MW shall be required to register with the SMO as dispatchable or ‘centrally controllable’;
- Generating plants of less than 5MW will self-dispatch<sup>4</sup>.

In the case of CHP plant, the dispatchable quantity shall be the quantity exported to the grid net of the in-house load. The amount traded will be the net position in each trading period of the quantity generated less in-house consumption.

The Commission considers that all plant including intermittent plant (e.g. wind) will be required to satisfy the Commissioning and Notification requirements included in the Grid Code (CC.15) in order to be considered dispatchable. Dispatchable participants i.e. plant above the dispatch limits which has completed the commissioning test and are deemed to be dispatchable, shall be required to make generation offers to the SMO. If intermittent plant cannot fulfil the requirements for dispatchability, they will be required to be ‘centrally controllable’<sup>5</sup>.

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<sup>1</sup>CHP is defined under the Act as follows: “Combined heat and power” means the simultaneous production of utilisable heat and electricity from an integrated thermo-dynamic process where the overall process operating efficiency, based on the gross calorific value of the fuel used and defined as the ratio of energy output usefully employed to the energy input, is greater than 70 per cent. and where the integrated thermo-dynamic process satisfies such technical, operational, economic and environmental criteria as may be specified by the Minister from time to time, following consultation with the Commission.”

<sup>2</sup> “Renewable, sustainable or alternative forms of energy” is defined under the Act as ‘electricity which uses as its primary source one or a combination of more than one of the following - a) wind, b) hydro, c) biomass, d) waste, including waste heat, e) biofuel, f) geothermal, g) fuel cells, h) tidal, i) solar, j) wave’.

<sup>3</sup> The Commission considers that these limits should be based on rated capacity.

<sup>4</sup> Self-dispatched plant will be required to produce for the SMO a “best-efforts” schedule as agreed between the individual plant and the SMO and approved by the Commission.

<sup>5</sup> This is defined as meaning that the output of the intermittent plant can be controlled in a downward fashion.

Participants under the dispatch limits and ‘centrally controllable’ plant shall not be required to make offers to the SMO. They will be required to produce a ‘best-efforts’ schedule as per the self-dispatch plant.

Plant that is considered dispatchable will be able to set the market price, whereas plant that is not dispatchable will be a pricetaker in the market.

## **2.2 Priority Dispatch**

The Commission is of the view that priority dispatch in line with Article 7 of the Renewables Directive (2001/77/EC) and the Electricity Regulation Act, 1999 must be facilitated in the MAE. The Commission interprets priority dispatch to mean that there will be no impediment to a renewable<sup>6</sup> generator producing power, whenever they wish, subject to system security and stability.

The Commission has determined two options for dispatching renewables, which could give effect to this Directive:

- 1) Dispatchable renewable generators (which have successfully completed commissioning tests according to the Grid Code) will be permitted to offer price and quantity pairs to the SMO for dispatch in the same way as any other generator. This allows the renewable generator to set the locational marginal price. However, they run the risk of not being dispatched if the offer price is too high,

or;

- 2) Dispatchable renewable generators or ‘centrally controllable’ renewable generators will be permitted to have standing offers at the market floor price. This option ensures that renewable generators will always be dispatched, system security constraints permitting. However, under this option, renewables cannot set the market price.

Only renewable generators with confirmed dispatchable status can avail of option 1 or 2. Renewable generators with ‘centrally controllable’ status can only avail of option 2. A renewable generator must confirm in writing to the SMO on an annual basis whether it wishes to avail of option 1 or option 2 for priority access. The chosen option will be fixed for the following year.

## **2.3 Pricing for Generators**

The Commission is of the view that:

- At a size greater than or equal to 5MW, a plant will receive the Locational Marginal Price (LMP) at its node;
- At a size less than 5MW, a plant will receive the Uniform Wholesale Spot Market Price (UWSMP).

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<sup>6</sup> For clarity, priority dispatch will be facilitated for renewable plant under the MAE only, not for CHP plant.

## **2.4 Treatment of Negative Prices**

With regard to the treatment of negative pricing in relation to renewables and CHP the Commission considers that all generation should face negative pricing for settlement if appropriate. The Commission is minded that there should be no market floor price for renewables, aside from the overall market price floor of negative VoLL.

It is considered that negative prices will be infrequent. Furthermore, it is expected that if there are negative prices these are likely to be counterbalanced by higher prices during the day<sup>7</sup>.

The Commission is of the view that if support for renewables or CHP is required it should be addressed outside the market mechanism, such as through a renewable energy or CHP support mechanism.

## **3 CERTIFICATION**

### **3.1 Energy Tracking**

The Commission is of the view that the SMO should put in place the most cost-effective system to compute the contribution of each primary source of energy to overall consumption on an annual basis in line with Article 3(6) of the Electricity Directive (2003/54/EC). This system will take into account imports and exports.

### **3.2 Renewable/CHP Tagging**

With regard to renewables and CHP robust tracking arrangements will need to be put in place. The Renewables Directive (Article 5) requires the establishment of a Renewable Energy Guarantee of Origin (REGOs) system. A similar tracking system is proposed under the draft CHP Directive.

The Commission is of the view that the SMO will act as the issuing body for REGOs, which will likely be issued to renewable and CHP generators based on their exported quantities, aggregated on an annual basis. The SMO should also track the amount of energy supplied by each supplier.<sup>8</sup> The Commission will continue to play a role by requiring the surrender of REGOs by a supplier to the Commission on a periodic basis (e.g. yearly) in order to verify the percentage of green energy supplied to customers. However, there will be no requirement to achieve a percentage of green energy supply i.e. a 'balancing' regime will no longer apply. The Commission's certification process will serve to provide transparency to customers. In terms of tracking green energy across interconnection the decision by both the UK (Regulations 2003 no.470) and Northern Ireland (SI 2003 no. 2562) to establish a REGOs system may simplify the issue of tracking green energy across interconnection. The Commission considers that it is sufficient for REGOs to be provided for all green/CHP energy traded and it is not necessary for this energy to be physically transported across interconnection.

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<sup>7</sup> Large thermal plant may offer negative prices because it is cheaper to keep running rather than incur large shut down and start up costs

<sup>8</sup> This arrangement is for certification purposes only, it is not intended as a tradable certification scheme.