



Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

**Secondary Fuelling Obligations on Licensed
Generation Capacity in the Republic of
Ireland**

Consultation Paper

CER/07/161

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1. Introduction

This consultation paper proposes policies to apply to existing and new generation capacity licensed by the Commission for Energy Regulation ('the Commission') regarding secondary (or dual) fuelling obligations.

The paper is structured as follows:

- the current requirements with respect to the secondary fuel capability of generation plant presently authorised and licensed by the Commission are outlined; and,
- a number of proposals on the policy going forward are presented.

The purpose of this consultation paper is:

- to present the Commission's views on the issues surrounding current secondary fuelling policy for generation capacity; and,
- to obtain views on the policy proposals presented in this paper from market participants and other interested parties.

2. Background

As set out in the *Electricity Regulation Act 1999*, one of the key legislative duties of the Commission in the Irish electricity market is to encourage and facilitate competition in the generation and supply of electricity by authorising the construction of new generating plants and licensing companies to generate and supply electricity. Applicants who wish to generate electricity must apply to the Commission for an Authorisation to Construct or Reconstruct a Generating Station (“an Authorisation”) and a Generation Licence (“a Licence”).

In performing this role, the Commission must take account of all existing legislative obligations in relation to electricity and gas regulation. These include, but are not limited to, the primary duty to protect electricity customers and the duty not to discriminate unfairly between industry players. The Commission must also have due regard to such issues as the promotion of competition, customer demands, efficiency and environmental matters, together with energy system capacity and, most significantly in the context of this paper, security of supply, when undertaking these duties.

Under the *European Communities (Internal Market in Electricity) Regulations 2005* (Statutory Instrument No. 60 of 2005 or “SI 60”), the role and functions of the Commission with respect to security of supply were further expanded. Regulations 28(5) – (10) of SI 60 deal with the Commission’s role with regard to necessary measures to be taken to protect security of supply. In particular, Section 5 states that “*the Commission shall take such measures as it considers necessary to protect security of supply*”.

The Commission has introduced a number of measures to protect security of supply, as set out in its report published in September 2006 entitled “*Report on Ireland’s Security of Supply of Electricity*” (CER/06/187). These measures include regular reporting and monitoring of generation adequacy, which are carried out in cooperation with EirGrid. When potential shortages in generation adequacy have been identified, the Commission has had to facilitate the procurement of peaking capacity and contracts for generation capacity. The Commission has also introduced incentives, such as capacity payments for available plant, to improve the performance of generation plant in the SEM.

This report also identified that there is significant and increasing reliance on natural gas as a generation fuel. Currently approximately 60% of electricity generation in Ireland is produced using natural gas. Furthermore, as indigenous gas supplies have depleted over the years, 87% of gas is now imported from Great Britain via two sub-sea Interconnectors.

This reliance on natural gas for electricity generation has considerable implications for the electricity system in Ireland in the event of a natural gas supply shortage or physical interruption. Therefore, natural gas emergencies are of particular concern when endeavoring to ensure the secure supply of electricity. The current secondary fuelling obligations on generators, through the licensing regime, are one measure of addressing this risk.

3. Current Secondary Fuelling Obligations on Licensed Generation Capacity

This section details the obligations in relation to secondary fuel which are contained in the existing licensing process.

Section 16 (3) of the Electricity Regulation Act 1999 (as amended) specifies that the Commission may grant an Authorisation, subject to the terms and conditions as may be specified, including terms and conditions as to generating capacity of the proposed generating station.

Under Statutory Instrument 309 of 1999¹ (the Minister's order on criteria for assessment of authorisations), the Commission is required, in considering applications for an authorisation, to be:

"...satisfied that the generating station to which the application relates will be capable of generating electricity for any minimum continuous period which is specified by the Commission in the authorisation using a primary fuel source of a nature other than that proposed to be used predominantly".

The standard technical assessment of an application for an Authorisation, as carried out by the Commission, therefore considers the secondary fuel issue. More specifically, the Commission's application form for an Authorisation asks the applicant to provide details concerning the technical aspects of the project, including *"a description of how the generating station will be fuelled or driven, including both primary and back-up fuel sources"*.

The standard Authorisation to Construct ("Authorisation"), issued by the Commission under Section 16 of the Electricity Regulation Act 1999 (as amended), states the following:

"Condition 6 – Alternative Fuel Source

The generating station to be constructed or reconstructed shall be capable of storing and using a fuel source, other than that proposed to be used predominantly by the generating station, to generate electricity for a minimum continuous period of [specified]."

This condition is in place to protect security of electricity supply by providing alternative arrangements for electricity generation in the event of primary fuel supply interruptions. Generators should have the infrastructure on-site to store the required level of secondary fuel. EirGrid can then call on generators to run on the secondary fuel at short notice for a specified period of time, in the event of a disruption or shortage of supply of the primary fuel.

Each Authorisation issued by the Commission to date for thermal generation contains a five day requirement for alternative fuel storage. All recent Authorisation applications for large scale thermal generation have been for gas

¹ S.I. 309 of 1999 is included in full in Appendix 1

units. In the instance of renewable generation and peat generating units, the Commission does not impose a back-up fuel obligation. In the case of wind, it would not be a practical requirement and is therefore not imposed. Peat stations are exempt from the requirement as they have extensive backup of stocks of milled peat, as well as their fuel being an indigenous source.

The application form for a Generation Licence requires the applicant to provide “*a description of how those stations will, in each case, be fuelled or driven, including both primary and back-up fuel sources*”.

The Generation Licence states that:

“Condition 6: Security arrangements

Where requested by the Commission, the Licensee shall co-operate with the Commission in strategic contingency planning in respect of fuel stocks and procedures under the Grid Code during periods when the Commission deems necessary for reasons of security of supply.”

The EirGrid Grid Code does not specifically provide for the requirement to run on a secondary fuel. EirGrid, however, assumes and expects that any generator that can operate (and has been commissioned) on more than one fuel will meet all the Grid Code requirements for each fuel when requested to operate. Any changes in Commission policy in relation to secondary fuelling requirements for generators will be reflected in changes to the Grid Code, if deemed necessary.

4. Policy Proposals

The Commission is of the view that now is an appropriate time to review the policy on secondary fuel requirements and ensure that they are adequate to address potential security of supply concerns. This is based upon:

- The significant growth in electricity² and gas demand, combined with the increased reliance on gas (and uncertainty over gas supplies at points over recent years), since the current licensing arrangements were introduced in 1999;
- The Commission's ongoing legal requirement to review the measures to protect security of supply;
- Requests from parties seeking to construct new generating units. These parties are seeking clarification on the Commission's policy on secondary fuelling obligations imposed on certain categories of generation capacity, in particular peaking and mid-merit plant; and,
- The recommendations arising from the work of the Task Force on Emergency Procedures. This group was established by the Commission in April 2005 to examine and report on the procedures to be followed in the event of an emergency on the electricity and/or gas networks. In particular the Task Force is assigned with looking at these procedures in light of the increasing interdependencies between the two systems.

The Commission sets out below three proposals regarding secondary fuelling requirements:

1. Secondary Fuelling Requirements depending on Fuel Type

The Commission's first proposal is to amend the secondary fuel requirements on the basis of primary fuel risk. Under this scenario, a new plant would have specific secondary fuel obligations placed on it depending on its proposed primary fuel.

Natural Gas Plant

For a Natural Gas plant, the secondary fuel requirement will apply in the same manner as is currently in place – that is the unit must be in a position to operate, when requested by EirGrid, on an alternative fuel for a specified number of days and that the requisite storage for same is provided.

The Commission is also considering implementing a minimum generation capacity requirement on the unit's alternative fuel, relative to the unit's capacity on the primary fuel. The proposed minimum is 90%. If implemented, this criterion would be applied to all applications made subsequent to a decision on this policy.

Renewables/Peat

For this category of generating unit, the proposal is for the current arrangements to continue (these units do not have a secondary fuel requirement).

² Total Electricity Requirement Electricity demand has increased by 3% year-on-year from 2001-2005.

Non-Natural Gas Plant (excluding renewables and peat)

For a non-Natural Gas plant, as an alternative to dual fuelling, a requirement is proposed whereby the plant is required to maintain storage of its primary fuel only, to provide for operation over a minimum specified period. If implemented, this proposal would apply to existing and future plants.

2. Quantity of Storage Required

The Commission is of the view that a policy providing for the operation of a plant for five days of its reserve fuel is considered appropriate. If implemented, these proposals would apply to existing and future plants.

Baseload

A plant intended to operate as a baseload plant would be required to store fuel to provide for *continuous* operation for five days at full output.

Mid-merit/Peaking

In the case of a mid-merit or peaking unit, it might be considered unreasonable that the unit be required to have the requisite fuel storage arrangements to provide for five days of *continuous* operation, despite the plant only normally expecting to operate for less hours than baseload units. It is proposed that peaking and mid-merit units will be required to provide storage for 60 hours of operation. This is based on a typical running time of a mid-merit plant (7am-7pm each day).

The necessary fuel stocks (of primary fuel in the case of non-natural gas plants and secondary fuel in the case of gas plants) are required to be stored on the generating station site. These storage facilities should contain enough fuel at all times to provide for five days running, as described above. These stocks may be examined by the Commission. As stocks deplete, plans must be in place to replenish stocks to required levels. Views are sought on the practicalities of replenishing stocks to these levels on a continuous basis.

3. Testing Obligations

In order to support the implementation and compliance with any changes to the secondary fuelling obligations placed on plant, the Commission proposes the following measures (to be facilitated through changes in the Grid Code / licences / authorisations as deemed appropriate):

- the requirement for an annual declaration from the licensee of compliance with their fuel obligations;
- the power for EirGrid/CER to inspect the arrangements in place (including levels of secondary fuel on site) by a generator to assess its compliance with the secondary fuel obligations policy; and,
- the power for EirGrid to test the fuel changeover arrangements and the existence of secondary fuelling arrangements by dispatching a dual-fuelled unit on its secondary fuel. In this event, the generator will bid into the market based on its secondary fuel, and in compliance with its licence obligations.

5. Next Steps

The Commission seeks views on the proposals outlined above and whether they are sufficient to address the security of supply concerns raised in this paper.

Responses should be addressed to Dana Kelleher at the Commission (dkelleher@cer.ie) and should be received by close of business on Friday 2nd November 2007.

It is intended that upon receipt and consideration of any comments, the Commission may publish a draft Decision on any proposed amendments to the current fuelling obligations imposed on generators and proposals for the implementation of such measures.

Appendix 1

S.I. No. 309 of 1999.

1. This Order may be cited as the Electricity Regulation Act, 1999 (Criteria for Determination of Authorisations) Order, 1999.

2. An application for an authorisation may be determined by the Commission for Electricity Regulation in accordance with the following criteria:

(a) that the Commission is satisfied that, if it grants the authorisation, no activity carried out under it will adversely affect the safety and security of the electricity system;

(b) that the Commission is satisfied that, if it grants the authorisation, energy will be used efficiently in the course of any activities carried out under the authorisation;

(c) that the Commission is satisfied that the applicant will comply with any grid code or distribution code in so far as it is applicable to the applicant and, at the relevant times, will have the capability of doing so;

(d) that the Commission is satisfied that the applicant has commenced or will at the appropriate time commence, to apply for all applicable statutory consents related to the matters referred to in section 18(2) of the Electricity Regulation Act, 1999 , necessary for the construction of the plant to which the application relates;

(e) that the Commission is satisfied that the generating station to which the application relates will be constructed and commissioned within a period which the Commission shall specify in relation to each application;

(f) that the Commission is satisfied that the generating station to which the application relates will be capable of providing an appropriate level of ancillary services being the services necessary to ensure the stable and secure operation of the electricity system, including the provision of spinning reserve, reactive power, frequency control or black start capability, as specified by the Commission in the authorisation;

(g) that the Commission is satisfied that the generating station to which the application relates will be capable of generating electricity for any minimum continuous period which is specified by the Commission in the authorisation using a primary fuel source of a nature other than that proposed to be used predominantly;

(h) that the Commission is satisfied that the applicant is a fit and proper person to be granted an authorisation and has the financial capacity and technical skills to carry out the activities to which the application relates and to comply with the authorisation, if granted;

(i) that the Commission is satisfied that the applicant will be capable of complying with any order made by the Minister under section 39 of the Electricity Regulation Act, 1999.