



Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

SUBMISSION

**Consultation on “Ireland’s Draft National Allocation
Plan 2005-2007”**

CER/04/106

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Introduction

The Commission for Energy Regulation ('the Commission') welcomes the opportunity to input into the Environmental Protection Agency's Consultation on "Ireland's Draft National Allocation Plan 2005-2007" under the Emissions Trading Directive (2003/87/EC).

At the outset it should be stated that the Commission fully appreciates the importance of working towards and ultimately achieving stated environmental and sustainability objectives, in particular, the commitment to reduce national greenhouse gas emissions by the period 2008-2012 to 13% above 1990 levels (Decision 2002/358/EC).

The Commission's submission briefly discusses the following key issues regarding the proposed design of the National Allocation Plan (NAP), 2005-2007:

- Equitable sectoral allocation to powergen within the trading sector;
- Projections for the level of renewables;
- The requirement to consider security of supply and system stability, in particular, associated with the impact of intermittent energy sources;
- The treatment of new entrants and generation adequacy;
- Concern at the combined cost impact on final customers of the proposed measures (due to the low percentage of requirements allocated to the powergen sector), together with other measures in the environmental area.

I. Proposed Allocation to the Powergen Sector

A fundamental principle in the design of the NAP under the EU Emissions Trading Scheme is non-discrimination between companies or sectors 'in such a way as to unduly favour certain undertakings or activities in accordance with the requirements of the Treaty, in particular Article 87 and 88 thereof' (Annex III, Criteria 5 of the Directive).

Allocations for the powergen sector within the trading sector are presented in the consultation paper as 93.5% of ICF/BOC projections for this period (p.12). However, this level is eroded by the deduction of the requirements of Planned Known Developments (PKD) (i.e. Aughinish Alumina, Tynagh Energy), the CHP set-aside (150,000 t/a, 30-60 MW per annum) and the adjustment of the allocation based on projected renewable development. This leaves the powergen sector with a de facto allocation of around 77% of installations' requirements on a historical basis (base years 2002/2003).

In terms of discrimination between sectors it is notable that with regard to the sectoral allocation it is stated in the consultation paper, 'For powergen an Adjusted Sectoral Total (AST) is calculated from the sector total (ST) in line with changes to reflect national energy policy. For all other sectors AST equals ST' (p.11). This adjustment represents a loss of 825,491 allowances from the powergen sector (p.12), which will have an impact on both costs to consumers and potentially security of supply

It terms of the PKD in the powergen sector the Commission wishes to underline that this conventional generation capacity is required to meet a growth in electricity demand and is not replacing plant in existence during the benchmark period (2002-2003). At present, the Irish electricity system has a very thin capacity margin between available plant and peak demand throughout the year, meaning that even the required Generation Adequacy standard is not met from time to time. This situation will be eased by the construction of this plant. Therefore, it is discriminatory to the powergen sector to deduct the allocation for this PND from the overall sectoral allocation, thereby reducing the allocation for all powergen installations.

The Commission is of the view that the allocation to the Tynagh and Aughinish Alumina stations should be additional to the powergen sectoral allocation.

The assumptions regarding projected level of renewables and the treatment of the CHP set-aside are discussed further below.

II. Renewable Energy Projections

The NAP uses forecast emission levels based on an assumption of the achievement of a 13.2% level of electricity production from renewable energy sources by 2010 in line with Ireland's target under the RES-E Directive (2001/77/EC). In particular, it is assumed that a contribution of 11.39% will be achieved during the period 2005-2007.

The Commission wishes to highlight that the impact of the increased penetration of renewables was already taken into account in determining the energy sector emission projections in the ICF/BOC Study (p.22). The Commission considers that the further deduction of allowances from the powergen sectoral allocation represents double counting of the impact of increased renewable penetration on emissions levels. Importantly, there is a need to take into account the difficulties with these assumptions in light of the impact of high levels of wind on system security and stability.

Under the Renewables Directive 'renewable energy sources' are defined as 'wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases'. In Ireland renewable development has been focussed to date on on-shore wind energy since it is the most cost-effective renewable technology at present. In this context the Commission wishes to highlight the present system security and stability issues with accommodating high levels of wind on the system, which remain to be resolved.

On the 3rd December 2003 ESB National Grid requested an interim pause on wind connections to the end of the year. This arose from a dramatic increase in wind connections. Presently, there is 166MW of wind operating on the system, 775MW of wind has connection offers and there is a further 500MW in the process, totalling some 1,275MW. The impact of this volume of wind is untested on a small, isolated system such as ours. In particular, the technical characteristics of wind present a number of well-documented difficulties for the security and stability of the grid, along with significant costs as outlined in a recent ESB National Grid report ('Impact of Wind

Power Generation in Ireland on the Operation of Conventional Plant and the Economic Implications', March 2004).

Further interconnection will not resolve the technical or security of supply issues. For example, the CER/Ofreg commissioned Garrad Hassan report ('The Impact of Increased Levels of Wind Penetration on the Electricity System of the Republic of Ireland and Northern Ireland', February 2003) found a positive correlation between the weather systems of the UK and Ireland, thereby there may be no wind generation in either country at times of high system demand.

The Generation Adequacy Report, 2003-2010 projects that the target under the RES-E Directive would require 985MW of wind (in addition to hydro and biomass) under a median demand forecast (p.38). Thereby, the NAP assumes some 850MW of wind on the system by 2005-2007. The Commission is of the view that this is not a realistic assumption. Indications are that 650MW of wind may be in operation on the system by mid 2006, however there is considerable uncertainty over whether even this level may be realised.

The Commission considers that there is a need to take account of the present difficulties with accommodating large volumes of wind on the system in the design of the NAP. The uncertainty surrounding this issue needs to be taken account of in the allocation to the powergen sector. The failure to reach the assumed level of renewable penetration would mean greater output from conventional plant, with associated emissions. This would require conventional plant to purchase additional permits, further raising costs to consumers.

The Commission recommends in light of the double counting of the impact of renewables on emission levels in the powergen sector and the need for more realistic assumptions on the contribution of renewables during this period that the projected level of renewables should be adjusted and the resultant allowances distributed to the powergen sector.

III. Treatment of New Entrants

The Commission considers that it is critical for system security and continued generation adequacy that the NAP does not present a barrier to new entry in the electricity sector. This is significant in the context of the Generation Adequacy Report 2003-2010, which indicated a potential shortfall of 669MW by 2007 (p.4).¹

The NAP includes the proposal to set aside 1.5% (1,025,000 tonnes) of total allowances for new entrants. The new entrant reserve will be split into annual allocations for each year. In years one and two no individual permit holder will be entitled to more than 25% of the annual set aside for that year. In year three a higher allocation may be permitted. The consultation paper only allows for the partial operation of a third large power station in 2007 (emitting 325,000 tonnes of CO₂) in determining the new entrant reserve (p.20). A 400MW Best Available Technology CCGT plant would emit

¹ This is based on a high demand/78% plant availability scenario and assumes that the 531MW from the CER Capacity 2005 Competition is delivered by 2006.

in the region of 1.3kt of CO₂ per annum. Equitable treatment of new entrants would require an equivalent grandfathered allocation of allowances as market incumbents received. This will not be the case under the proposed arrangement.

To assess the impact of the proposed measures it is salient to consider the intended approach in the UK (which will also cover Northern Ireland): the UK Draft NAP indicates that a New Entrant Reserve (NER) of 5.7% of total allowances will be put aside for new entrants. It is intended that allowances from closed installations will be transferred to the NER. In addition, although part of the allocation will be ring-fenced for CHP plant, any residuals from this will be added back to the general NER pool on an annual basis.

The rationale for the UK approach includes the reduction of barriers to new electricity generation, ensuring that new entrants are treated on an equal playing field with market incumbents who were allocated allowances for free. In addition, in terms of overall environmental objectives such an approach would encourage the closure of more polluting plants and a move towards cleaner technology. It is understood by the Commission that gratis new entrant reserves are likely to be adopted in a number of other EU countries.

The Commission considers the proposed treatment of new entrants in Ireland under the NAP is inadequate and poses serious problems. Failure to provide an attractive investment environment for new entrants compared to other jurisdictions may discourage required new conventional generation to locate here. The Commission is concerned that this may have serious implications for continued security of supply.

Although the Commission welcomes the decision to incentivise high efficiency CHP generation it is strongly of the view that this allocation should be returned to the new entrant pool if it is not fully exploited in the given year. In addition, the Commission recommends that permits from closed installations should be allocated to the new entrant pool on an annual basis.² These measures may help to offset the risks to continued security of supply identified above. In addition, new entry may help to minimise the cost impact to customers in the long-term since new plants will replace carbon intensive generation.

IV. Costs to Consumers

In line with its duty to protect the interests of final customers under the Electricity Regulation Act, 1999, the Commission wishes to highlight the impact of the proposed NAP on electricity prices.

A study carried out by ILEX on behalf of the CER (‘Impact of the EU ETS on the Irish Electricity Market, CER/03/284) found that emissions trading will lead to a wholesale electricity price increase by 2006 in the order of 7.6%, 16.9% or 26.5%, assuming allocation on the basis of historical emissions, a carbon price of \$10, \$20 and \$30 per tonne respectively and a 100% pass

² For example, Bellacorick Power Station has received an allocation of 179,345 for each of the three years of the NAP although it will close at the end of February 2005. This allocation should be made available to new entrants.

through of the cost of permits.³ The Commission is of the view that the windfall gains which may accrue to the powergen sector from the full pass through of the cost of grandfathered allowances should be recycled to reduce network charges, thereby minimising the cost impact on consumers. The proposed grandfathering of on average 77% of requirements to the powergen sector serves to reduce the potential benefits of revenue recycling to consumers.

In particular, the impact on the level of the Public Service Obligation (PSO) is a cause of concern. The proposed allocation to the powergen sector will lead to a significant impact on the PSO. The PSO serves to promote fuel diversity, security of supply and the promotion of renewable energy. The Order requires the ESB in its capacity as Public Electricity Supplier (ESB PES) to purchase electricity generated from peat and other renewable, sustainable or alternative forms of energy. The Commission calculates the Levy based on S.I. 217 of 2002 as the excess of the Board's allowed costs for bought-in and owned peat fired generation and alternative energy requirements (AER) over the market price for generation and any other revenue accruing to ESB associated directly with that generation.⁴

To date a significant increase in the PSO has resulted from renewable support: the total costs for the 2003 PSO for AER was €6.568m and in 2004 €16m, an increase of €9.518m or over 150%. The impact of this on the average electricity tariff was in the region of 5%.

The PSO will include the extra costs of emissions trading for peat stations. Based on the proposed allocation under the NAP, Edenderry Power Ltd. has indicated that the cost of PSO support required will increase by €2.42m in 2005. Increases in the order of \$5.7m would be anticipated from the two new ESB peat stations (West Offaly Power, Lough Ree Power). These increases will have serious tariff implications for all customers. The PSO levy erodes the competitive margin for new entrants in the supply of electricity as it is paid by all customers regardless of supplier.

In addition, it is anticipated that the National Emissions Ceiling Directive will result in a 2% tariff increase. Higher electricity prices adversely impact on overall national competitiveness. In terms of broader societal effects, increased electricity prices have a disproportionate impact on the poorest members of society.

The recommendations summarised below may serve to reduce the cost impact of emissions trading on electricity consumers.

³ The wholesale electricity price represents on average 50% of the retail tariff. The impact varies by customer category.

⁴ At present, the difference between the Best New Entrant (BNE) price and the AER bid price or the peat price is recouped through the PSO. Similarly, under the Market Arrangements for Electricity (MAE) from 2006 the difference between the Uniform Wholesale Spot Market Price (UWSMP) and these prices will be passed through the PSO.

V. Recommendations

The Commission recommends that the NAP be amended as follows:

- The allocation to the Tynagh and Aughinish Alumina stations should be additional to the powergen sectoral allocation (rather than deducted from it) since these plants are required to meet additional demand and are not replacing plant in operation during the benchmark period (2002-2003);
- The projections regarding the levels of renewable penetration on the system should be adjusted to reflect both the double-counting of the impact and taking a realistic view of the contribution of wind during the period (650MW rather than 850MW). The resulting allowances from this reassessment should be distributed to the powergen sector;
- Unused permits from the CHP set-aside and closures should be allocated to the new entrant pool on an annual basis, rather than auctioned.⁵ This may serve to counter the risks to continued security of supply and may help to minimise the cost impact to customers.

⁵As proposed, auctions of 0.75% of total allowances and surplus allowances held after allocation to relevant operators on February 28th 2007 may still be used to meet the EPA's costs of administering the emissions trading scheme (subject to the maximum auction of 1% total) and thereafter benefit the Exchequer (p.19-20).