

Submission on the Public Service Obligation Levy 2017/18

Proposed Decision Paper CER/17/115

Submission of John Callaghan

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Submission

The proposed PSO Levy increase should be refused for the following reasons:

1. The rate of State Aid per kWh is being increased to support both renewable electricity production and to support peat powered electricity generation.
2. The CO₂ intensity per kWh of peat power based on an efficiency of 36.6% and 420 grams of CO₂ per kWh of heat generated equates to a CO₂ intensity for peat power of 1147 grams of CO₂ per kWh. If approximately 12.5% of powered generated is used in self consumption, transmission distribution etc then the CO₂ intensity of Peat Power per kWh is approximately 1311 grams per kWh of peat power.
3. In the context of the CO₂ intensity of Gas Powered CCGT generated electricity in the region of 341 grams of CO₂ per kWh (204.7grams /0.6). Supercritical CO₂ Cycle plant can deliver efficiencies of 65% plus. The UK uses a 187 gram of CO₂ per kWh emission factor for Natural Gas. *Advanced Combustion Turbines for Combined Cycle Applications area is focused on components and combustion systems for advanced combustion turbines in combined cycle operation that can achieve greater than 65 % combined cycle efficiency (LHV, natural gas benchmark) and support load following capabilities to meet the demand*

of a modern grid. <https://www.netl.doe.gov/research/coal/energy-systems/turbines/advanced-combustion-turbines>

4. Combined Heat and Power can deliver substantial energy efficiency returns in terms of utilising the thermal conversion losses of power generation, and it is appropriate that this alternative be considered as an alternative to peat power generation.
5. Article 7 of the Third Electricity Directive 2009/72/EC sets out objective, transparent and non-discriminatory criteria for power generation capacity. Increasing the PSO levy acts as a further disincentive to efficient generation, in circumstances where intensive CO₂ producers are aided rather than made to pay the costs of polluting in accordance with the polluter pays principle of EU Law.
6. There is a lack of transparency in terms of the emissions intensity of peat powered electricity and of the Aid /Subsidy allocated to supporting it's production. Similarly there is no transparency in the efficiency of power production according to each particular fuel source. This is inappropriate having regard to the CER's Functions under Section 5. (a) of the 1999 Act, under our obligations under the Energy and Climate Package and associated directives to reduce emissions, increase energy efficiency, and improve resource efficiency.
7. The use of State Aid to support Peat Power production has the secondary impact of raising the average CO₂ intensity per kWh of all electricity produced, which then tends to exaggerate artificially the CO₂ savings achieved with wind power.
8. The CO₂ emission factor of Peat is 205% that of Gas (as a fuel) Peat 420 grams CO₂ per kWh Gas 204.7 grams CO₂ / kWh. When conversion efficiencies are taken into account with 36.6 Typical for Peat and 60% possible for CCGT Technology the extraordinary high emissions of peat generation become evident.
9. Producing 79,179 Toe of electricity from Peat generates **1,056,221 tonnes** of CO₂ plus NO_x. The best CCGT Gas Technology can produce the same 79,179 Toe of electricity for a CO₂ emission of **314,000 tonnes**.

There is a need to move from solid fuels to liquid fuels to improve air quality. Supporting polluting Peat Power with larger subsidies is inappropriate.

10. The State Aid clearance for REFIT was based on the 2008 State Aid Guidelines. The REFIT Scheme has now had its deadlines twice extended without reference to State Aid Clearance. The 2014 State Aid guidelines require competitive bidding, and this type of competition is absent from the Irish Market. Cumulative State Aid is accruing in the form of various investment tax reliefs alongside the Aid under the REFIT Scheme.
11. The REFIT Scheme actually increases payments annually for Renewable Electricity even though the Generation Asset would typically have its borrowings paid down alongside its own depreciation. This is in stark contrast to the German Scheme which imposes **Degression of the Aid** on a Year on year basis following the logic that the operator's costs are reducing as loans are paid down and the asset is depreciated. There is no clear case that Wind Generators or other Zero Marginal Cost Type Generator need increased subsidies to support their activities.
12. A Degression Model would typically see payments per kWh reduced on a year on year basis in respect of costs that are Capex Related.
13. The Principle of Proportionality requires that any State Aid supporting the achievement of an Environmental Benefit is achieved at the least cost necessary.
14. The level of State Aid now being proposed under this PSO Levy increase is substantially above the level of Aid foreseen when State Aid Clearance was obtained.
15. The fact that Ireland's emissions of CO₂ are substantially behind the target set out under the Energy and Climate Target with a CO₂ reduction by 2020 being of the order of a 6% reduction rather than a 20% reduction as required under the 2020 Energy and Climate Package.
16. Were electricity emissions from fossil fuel generators reduced to the order of 350 grams of CO₂ per kWh using CCGT technology (and if the

Interconnectors were used to export surplus fossil fuelled generation) then there would be a possibility of wind power having a real impact on CO2 emission intensity levels rather than the current scenario of Aid payments for peat power, wind power, capacity payments, DS3 payments approaching near €1 billion a year and Emissions actually rising to near 492 grams of CO2 /kWh.

17. The Context of the Scale of Aid to Electricity without Environmental Benefit must be viewed in the context of the necessity to reduce Capital Spending on Health by 50% to €390 million for want of funds.

18. The JUDGMENT OF THE GENERAL COURT (Third Chamber) In Case T-47/15, held that:

“ It has already been stated that the funds at issue must be classified from the outset as State funds, in particular because final consumers are required to pay a price supplement that can be assimilated to a levy for implementation of a policy set by the State. Also, it has been pointed out that the TSOs act, so far as concerns performance of the tasks falling to them, within a framework clearly defined by the German legislature. They are, moreover, strictly monitored by the competent German administrative bodies. Funds financed through compulsory contributions imposed by the legislation of the Member State, administered and apportioned in accordance with that legislation, may be regarded as State resources within the meaning of Article 107(1) TFEU even if they are administered by entities separate from the public authorities. ”

http://curia.europa.eu/juris/document/document_print.jsf?doclang=EN&text=&pageIndex=0&part=1&mode=req&docid=177881&occ=first&dir=&cid=422066

Yours Sincerely

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