

IrBEA Response to the CER consultation on High Efficiency Combined Heat and Power (HECHP), CER 11/189.

Submitted to the CER on the 14th of December 2011

General Observations

1. IrBEA would like to point out that HE-CHP will have a particular bearing on the pending Renewable Energy Feed in Tarriffs (commonly referred to as REFIT III). The rules governing REFIT III have yet to be published and it is therefore difficult to comment on the above consultation without knowing how it will effect REFIT III applicants – we are therefore calling for a review of the rules surrounding HE-CHP (rules that will be decided on by the CER following this consultation) after a period of 18 months.
Given the nature of some of the proposals put forward in the consultation, and the level of administration proposed in meeting the requirements of HECHP it is IrBEA's concern that these proposals if implemented could unintentionally be a barrier to those seeking to avail of REFIT III.
The proposed rules if coupled with the net export rule, (in the earlier biomass REFIT proposal), the tariff offered and the difficulties with grid connection will make it extremely difficult for any biomass generating plant to operate on a commercial basis.
However IrBEA also understand that the implementation of the HE CHP rules may be pivotal to introducing the REFIT III scheme currently with the Minister.
2. IrBEA stress that the rules governing HE CHP should be made as simple as possible to ensure it does not impede financial viability assessments conducted by financial institutions. We also emphasize the importance of ensuring that HE-CHP certification does not become another barrier to development of bioenergy projects, it is vital the certification process is kept simple and transparent for all stakeholders.
3. IrBEA are aware that financial backing to projects is scarce in the current environment. Projects are always subject to financial viability assessments, however with the scarcity of funding projects that are reliant on meeting onerous regulation are at a distinct disadvantage. IrBEA ask the CER to ensure the regulations surrounding HE-CHP are kept as simple as possible to ensure the maximum investment is attracted to the Irish economy.
4. IrBEA request that applicants are issued with their certificate (verified by audit or not) in a maximum period of 2 months, by doing so the CER will ensure that certification is not a barrier to development. In the current environment projects need to be assisted as much as possible by state agencies and

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with a rapid and certain turnaround time projects and their financiers can have confidence in the system.

5. The current consultation is broad and it is felt will need further refining before proper rules around HE-CHP can be drawn up. IrBEA request that the CER continue with open consultation with respondents, or that a second round of consultation is opened for respondents once details have been further refined. It is stressed that any such consultation must not push back the delivery date of opening for HE-CHP applications.

Response to Specific Consultation sections

3.3 Classification of Useful heat

IrBEA opt for Approach 1. In particular the inclusion of any heat that is recycled back into the CHP itself.

Justification of heat use in the CHP plant

IrBEA note that most biomass fuels are basically unrefined, they may require filtering, screening, and moisture removal, much the same way as oil or gas is refined. Biomass in the main is a bulky fuel with a relatively low calorific value from diverse origins, therefore unlike oil and gas refining the fuel lends itself to de-centralized facilities. Many biomass installations whether AD or thermal are expected to refine their own raw fuel, this is economically justifiable as the fuel would be worthless without refining. If using heat to pre dry fuel was to be included then the full energy costs for all other reference fossil fuels (e.g. fractional distillation, thermal cracking, transport etc..etc..) should be included in comparison calculations.

Further to the above it is noted that many AD plants operate without utilizing heat generated by the resultant biogas. Biogas plants that produce bio-methane for either vehicle use or grid injection utilize other fuel sources to heat the digesters. Therefore co-produced heat from AD CHP that is used to heat the associated digester does in fact replace the need to use other fuels.

On the basis that both biomass fuel and its fossil alternatives must be refined we argue that the refining of biomass fuel on site should be a justifiable heat use. We therefore call for Approach 1 to be adopted.

Justification of economic heat use

In Approach 2 there is concern expressed that classifying recycled heat as useful heat would lead to electricity production only, IrBEA disagree with this notion because Biomass CHP currently in most cases is uneconomic to marginal, that is why there is a REFIT tariff proposed for Biomass CHP, however even at the rates being proposed the business model will not work by dumping the surplus heat, the heat from the CHP must be put to

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use to make the model work. Furthermore developers will not get projects financed by banks on electricity alone, there must also be a return on the heat.

It must also be noted that directive 2004/8/EC the driver behind this consultation paper is primarily concerned with efficiency not the ratio of heat to electricity.

3.4 Required Information for Assessing Useful Heat

In response to Criteria (a) we would point that there may be no economically viable alternative to CHP for some business models and that the heat from CHP is the enabler for some projects to proceed. For example a business drying wood fuel or grain or district heating may not be economically viable at market prices for oil or gas or refined wood fuel, however if the operator is receiving a fair price for the electricity production then the heat produced is less expensive and the business case becomes feasible.

In 3.4 Required Information or Assessing Useful Heat it is proposed point "a" and "b" (page 15) that the alternative to cogeneration be assessed, in this regard IrBEA refer to previous points. It must be noted that a REFIT rate for biomass CHP is proposed by the DCENR on the basis that without support few if any further Biomass CHP plants will be built in Ireland. IrBEA put forward the view that the subsidized REFIT is the market. Adapting the interpretation "at market conditions" put forward in the consultation would be counter productive. IrBEA would go so far as to state that assessing the alternative to CHP is a pointless exercise.

In assessing the business case the CER must note that contrary to the proposal for district heating applications (page 17) the CHP plant operator may have a close relationship with the principle heat users. For instance it may be necessary for financing reasons that the principle heat user become a shareholder in the CHP plant to secure the off take, it must also be noted that trade between neighbouring companies is very common and a necessary part of maintaining competitiveness; it would not be acceptable for a state body to forbid such activities and it could prevent further innovation.

The consultation proposals on accessing business plans takes no account of time lines; most new businesses are rarely profitable in year one so where should the cut off be? For instance in the case of a biomass district heating scheme, it may take a developer 5 years or more to develop a distribution network and fuel supply network, the developers objective may be to establish the district heating network and then sell out taking the profit at the end, how would this be viewed under the proposals.

IrBEA propose that technology is classed along the lines of CER 09/099 and that audit and assessment procedures reflect the technology, its stage of development and its scale. As with the case of generators wishing to be licensed CER made the decision that generators up to 1 MW were duly licensed once notification was made. IrBEA proposed the following bands for certification.

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< 500 Kwh Certification on manufactures stated efficiency. Automatic re-certification on application each year.

< 1000 kwh Certification on, manufactures stated efficiency, and on business plan submitted. Annual re-certification on audited accounts, analysis of fuel by classification and on sample flue gas analysis by independent company. Heat & Electricity metering, site visit.

< 5 MW Certification on, manufactures stated efficiency, and on business plan submitted. Annual re-certification on audited accounts and on sample flue gas, fuel sampling, fuel weighing, electricity and heat metering , fuel and flue analysis by an independent company.

5.3 Operational Data and Measurement

The regime for auditing must reflect the cost and complexity that may apply to the size and technology used. The CER must take into account the financial costs of metering and monitoring equipment when specifying the performance criteria of said equipment and justify the requirement for high accuracy meters when alternative means to measure outputs are available.

In relation to fuel input for both AD and biomass CHP plants IrBEA would point out that the quality and range of material used in these plants is extensive. Accurate testing of these materials is not feasible on an ongoing basis. IrBEA propose the following solution.

To assess the overall calorific input for a given period.

- a. In the case of smaller plants the manufacturer stated conversion efficiency is used, In the case of AD and gassification plants the gas offtake is measured, and in the case of thermal plants the steam outlet(s) are measured.
- b. In the case of larger plants either a certified reference conversion efficiency value from a similar plant or an actual once off test of the plants efficiency can be utilized. Outlet points to be measured as in a. above.
- c. Using the stated efficiency of a. and b. above the reverse calculation can be made to indicate fuel calorific input for a given period.

This will reduce the need for extensive sampling, metering, weighting and analysis; it will also negate the need for complex auditing of fuel analysis and inputs.

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IrBEA remain committed to assisting the CER in whatever means possible in drawing up proper HE CHP certification procedures. With a membership of over 180 companies and individuals in the business we offer to make the collective expertise available to the CER if required.

For any queries or clarifications on the above consultation please contact:

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