
NC RfG

Technical discussion on stirling based micro CHP

Date: 20 December 2012

Time: 17h00 – 18h30 CET

Place: conference call

MINUTES

Participants:

COGEN Europe	Fiona Riddoch
COGEN Europe (MEC)	Adam Green
COGEN Europe (MEC)	Dave Clark
EHI	Eckhard Schwendemann
ENTSO-E	Ralph Pfeiffer
ENTSO-E	Helge Urdal
ENTSO-E	Edwin Haesen

1. Meeting objective

COGEN Europe and EHI wish to provide more technical background information on the uniqueness of Free piston linear Stirling engines and the technical difficulty in complying with the Network Code on Requirements for Generators (NC RfG). ENTSO-E welcomes this opportunity for discussion and is open to provide more clarification on the impact of exempting generation from the requirements on frequency ranges to the need for other ancillary services and the TSO's system defence plan.

On 17 December 2012, ENTSO-E sent a briefing note to all RfG User Group members with proposals on how to address the four areas of further improvement expressed in ACER's Opinion. The views of COGEN Europe and EHI on this note are not discussed in this conference call, but will be on the agenda of the next User Group meeting of 16 January 2013.

2. Linear Free Piston Stirling Engine Generator

(see slides)

MEC explains the technical characteristics of linear free piston Stirling engine generators, the uniqueness of this technology and the long development cycle to come to this state of the product.

MEC claims that the use of an off-the-shelf grid tied inverter is not a feasible option as one does not exist at this time.

MEC asks for a period of opportunity to first see if the market for this type of technology will expand and if so, to look for an effective design solution in a next phase.

3. NC RfG requirement on frequency ranges in the context of system defence plan and ancillary services.

ENTSO-E gives a short explanation of how load frequency control takes place at synchronous area level, how generation unable to comply with the NC RfG frequency ranges has to be covered by other contracted ancillary services, and how the requirement relates to the system technical defence plan.