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ACER Workshop
3 September 2012

changing the way
Europe provides heat and electricity
for a sustainable future

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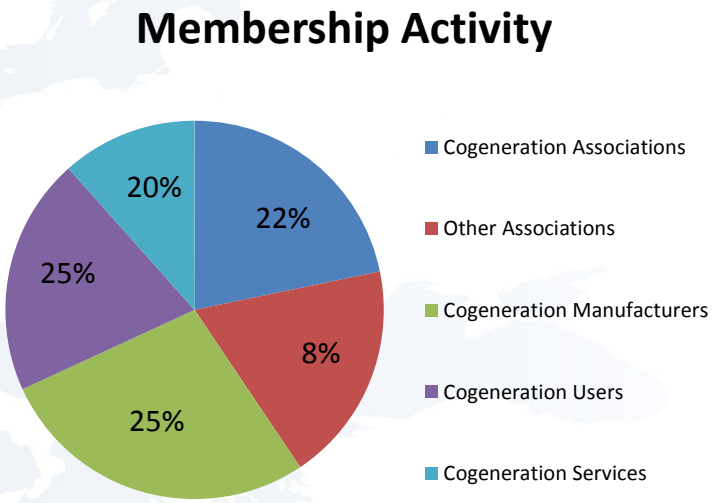
COGEN Europe, the European Association for the Promotion of Cogeneration, about 70 members in 23 countries:

- 15 National COGEN Associations
- 13 other associations
- **19 cogeneration manufacturers**
- **14 cogeneration users**
- 8 cogeneration services



Combined Heat and Power

- It is all about a heat demand to satisfy, not about the electricity stream
- CHP Manufacturers/users serve a primary heat demand and produce electricity as a secondary product
- Nevertheless extensive experience gathered on the impact of CHP on grid operation:
  - CHP units generated 392.6TWh of electricity in 2010 (potential for 655 TWh)
  - CHP installed electrical capacity of 104.9 GWe in 2010 – 11.6% share in total EU installed capacity (potential for 211 GWe)
  - On balance, electricity cogenerated is used onsite or exported to the grid
- CHPs are already important contributors to electricity systems and operators are keen to take a greater role in the future

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COGEN Europe position on NC RfG

COGEN Europe assessment is still negative

1. Specifics of HE CHP units have not properly been taken into account → continuity in heat supply must be ensured

2. Applying the NC RfG to certain classes of micro-CHP will put a disproportionately huge burden on this market segment

NC RfG: COGEN EUROPE requests

For whole CHP Sector

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General request for the whole CHP sector

- **Ask:** Expansion of CHP wording with the replacement of the words “steam” and “industrial processes” by “heat”
- **Justification:** Concern of the sector with the too narrow wording used in the specific provisions for cogeneration units producing steam intended to be used in industrial processes (Article 3.6.h))

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General request for the whole CHP sector

Amendment proposal to Article 3.6.h):

"Without prejudice to the general applicability of the requirements set forth in this Network Code, a requirement of this Network Code shall not apply to Power Generating Modules of facilities for combined heat and power production (CHP) ~~*embedded in the Networks of industrial sites*~~ in the following cumulative circumstances:

- the primary purpose of these facilities is to ~~*produce steam for production processes of this industrial site*~~ ***satisfy a heat demand***;
- the generation of ***heat*** ~~*steam*~~ and power are rigidly coupled to each other, i. e. any change of ***heat*** ~~*steam*~~ generation results inadvertently in a change of Active Power generation and vice versa;
- the Power Generating Modules are of Type A, B or C according to Article 3(6) (a) to (c); and
-the requirement is related to the capability maintain constant Active Power output or to modulate Active Power output other than Article 8(1) (c) and (e)."

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NC RfG: COGEN EUROPE requests

Transitional period for Micro-CHP segment

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Ask: Transitional period for the entry into force of the requirements of the NC for certain classes of micro-CHP technologies (below 3.68 kVA/phase)

Justification:

- Most of the requirements are particularly challenging and require significant design modification for Internal Combustion Engines -ICE- and Stirling Engines –SE- among the family of micro-CHP technologies
- All this at a time when these products are heavily invested and seeking to move into early stage volume deployment
- Such redesign cycle involves a full design, development and test process which will take at least minimum of 6 years (disregarding business environment)
- …

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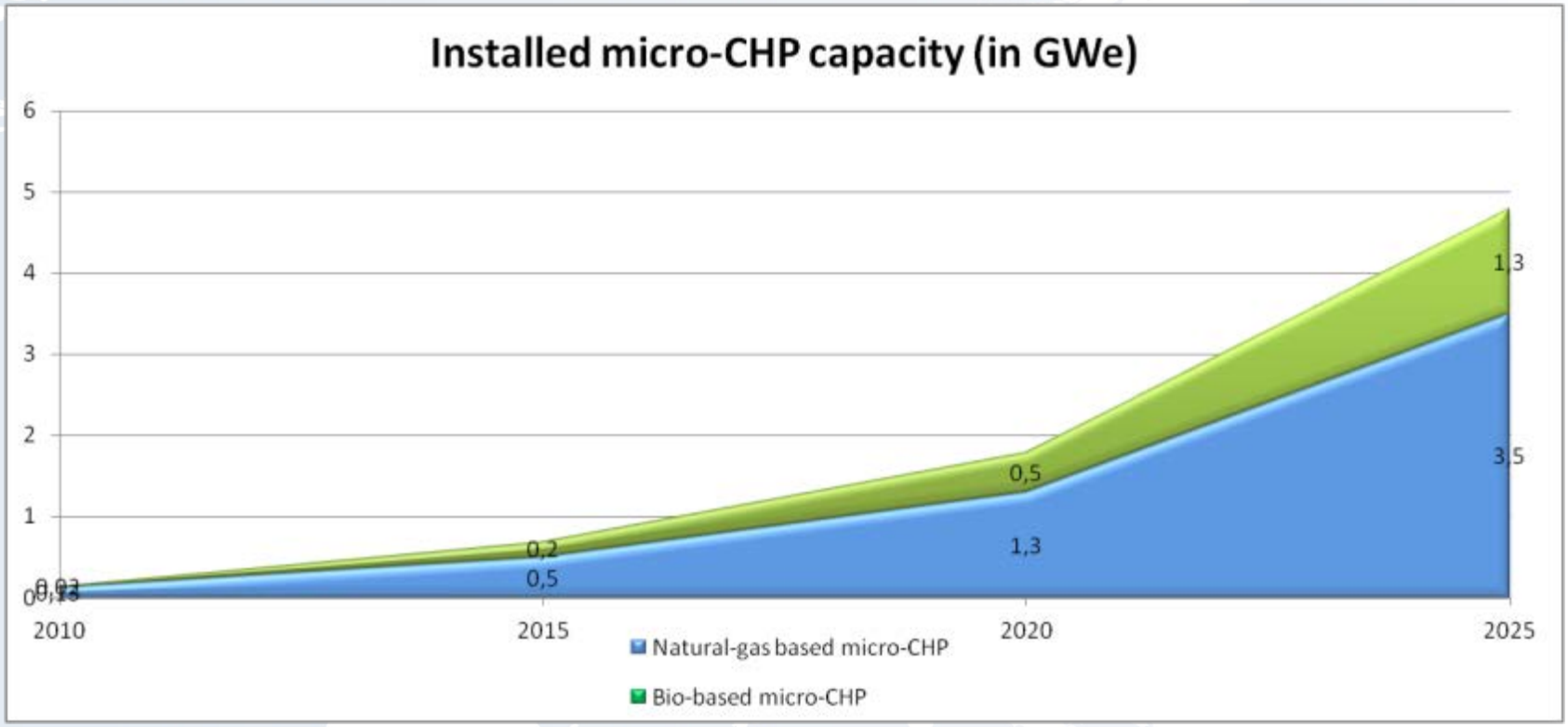
Transitional period for Micro-CHP segment

Justification (cont.):

- **Sector estimates that a minimum of 9 year transitional period is needed** to allow an orderly transition of this sector to meet the emerging needs of the new network while maintaining investor confidence
- Transitional period could allow for development European Standards aiming at achieving the same grid security objectives

Micro-chp market forecasts (Stirling/ICE/Fuel Cell):



Projections show **1.8 GWe cumulative capacity in the EU in 2020 (4.8 GWe in 2025)** to be compared to the installation of 3 GWe of variable RES in one month in 2011 in Germany (FAQ7)

Source: Extracted from "Cogeneration 2050, the role of cogeneration in a European decarbonised energy system" http://www.cogeneurope.eu/cogen-europe-report-cogeneration-2050_307.html.

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Micro-cogeneration case:

- Costs of meeting NC requirements may seem small in absolute terms but are huge for players involved in that nascent market (not to indicate costs/kW capacity or lifetime kWh production)
- What about the 800 W threshold for type A generating unit?
- What about the freedom of choice of end-users? (switching on/off of hot and space water production)

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Transitional period for Micro-CHP segment

Proposal for amendment to Article 52 (GENERAL PROVISIONS):

" […] ***New 2a. For a period of 9 years after the entry into force of this Network Code, the requirements set out in article 8 shall not apply to micro-cogeneration units using Internal Combustion Engine and Stirling engine technology of Type A rated up to and including 3.68 kVA per phase. If market development at TSO level of the above mentioned class of Power Generating Facilities is deemed to have a significant impact on the cross border system performance, the Relevant National Regulatory Authority may carry out a Cost-Benefit Analysis with a view to call to an end in the application of this transitional provision. Manufacturers of those Power Generating Facilities shall be involved in that process.***

3. The derogation process ***or the revocation of the transitional provisions presented in Article New 2a.*** shall be transparent, non-discriminatory, non-biased, well documented and based in particular on the Cost-Benefit Analysis performed, in the conditions set forth by Article 33(4) and (5), by the Relevant Network Operator in coordination with the Relevant TSO. Cost-Benefit Analysis does not need to be performed by the Relevant Network Operator if, on its reasoned request, an individual exemption is granted to the Relevant Network Operator by the National Regulatory Authority.

4. Criteria for assessing the request for derogation ***or for revoking the transitional provisions*** shall be set by the relevant National Regulatory Authority taking into account recommendation of the Relevant Network Operator in coordination with the Relevant TSO. The criteria set by the Relevant National Regulatory Authority shall be non-discriminatory, objective and shall be published by the National Regulatory Authority.**"**

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NC RfG: COGEN EUROPE requests

Clarification of the derogation procedure

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Ask: A clarification that derogations can be filed by manufacturers is needed

Justification:

- Particularly needed for manufacturers of micro and small CHPs (household products)
- Handing of derogation is going to be cumbersome and costly for all stakelholders
- Draft NC RfG dated 27 April 2012 was progressive in this field
- Current version is too unclear

Clarification of Derogation procedure

Proposal for amendment to Article 52 (GENERAL PROVISIONS):

1.The procedure for derogation defined in this Title applies to all Power Generating Facility Owners, both of Existing and New Power Generating Modules, to which the provisions of this Network Code are applicable pursuant to Article 3. Only the Power Generating Facility Owner shall have the right to apply for derogations for Power Generating Modules within its facility.

2. It shall apply as well to Network Operators when applying for derogations for classes of both existing and new Power Generating Modules connected to their Network. ***Such application for derogation may be appropriate to initiate following request by third parties including but not restricted to manufacturers.“***

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Thank you for your attention!

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