COGEN Europe five priorities for the development of the NC RfG

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Development of harmonised European grid codes is an important aim for the operation and development of a truly European electricity grid. COGEN Europe supports ENTSO-E in its efforts to develop these codes and welcomes its inclusion in the stakeholder user group.

Background information:

COGEN Europe represents the interests of the manufacturers and operators of virtually all kind technology applying the cogeneration principle. CHP units are by design heat-led, they follow the local heat demand and consume on-site most of the electricity produced. The technologies available on the market range from 1 kWe capacity (micro-chp) to very large units (up to 100 MWe). The cogeneration market is mainly comprised of small and medium sized installations which export electricity, when it is the case, to the DSO. This allows cogeneration to be embedded in the distribution energy system.

In 2008, CHP units generated 370TWh of electricity with capacity of 100.2 GWe (12% of EU power plant Capacity). According to the European Commission, there is an economic potential of 655 TWh with 211 GWe, i.e. a doubling of the market in the long run.

As CHP units have been operating for decades, their impacts on the grid are well documented.

General remarks:

The starting point for the development of the network codes has been the aim to fix cross-border network issues and market integration issues. COGEN Europe does believe that this process shall primarily focus on large generating units, therefore it shall properly balance the establishment of requirements for smaller plants, in particular CHP plants embedded in local energy systems and in industries. In addition, most of the CHP units are own and/or operated by organizations or individuals who are not expert in electricity connection rules, therefore fixing of sensitive issues fits better in the NC or its associated FAQ document.

COGEN Europe top 5 main topics on the content of the code:

1) The relationship between the European network code and the national technical requirements should be clearly laid out. The role of this NC RfG with regard to TSO and DSO operation has to be clear to reassure all stakeholders of the final objectives and to allow for an orderly process. The possible required actions at national level deriving from the entry into force of the NC RfG must follow a timeline which allows adequate consultation and creates minimum uncertainty among stakeholders and investors. This process at national level should be done in a suitably transparent manner involving all stakeholders. If retro-active action is necessary for installed equipment and projects underway at the time of implementation, the details – including the cost sharing aspect- should be clearly spelt out. With regard to technical & administrative sensitive issues, notably the clarification that NC limit values should not be understood as the boundaries, the fixing should be done in the framework of the NC RfG.

2) Technologies power systems and electricity markets will continue to evolve as Europe moves towards its energy and climate goals, but the legal possibility to amend the technical provisions of the NC in a dynamic manner does not exist. Therefore, the NC shall not be over prescriptive, in particular for decentralized CHP units, in order not to prevent future technological solutions.

3) The network code must recognise the different roles and capabilities of different types of technology on the grid by adjusting the code where necessary to allow cost effective use of technologies. In that respect, the size of different plants and the mode of operation should also be taken into account. For example, the provisions related to inertia and ramp-up time should be adapted by technology.

4) All compulsory technical requirements should be fully justified by a thorough examination of the need to maintain the overall performance and safety of the grid. Most synchronous area in Europe can live with less stringent requirements than those set figures 5 & 6. Of notable concern for the CHP sector are the Low Voltage Ride Through provisions.

5) When setting technical requirements, NC RfG must take into account the cost benefit of different approaches and give preference to those which optimise the cost-benefit to the customer, by not unduly burdening the supplier or the network with cost. In addition, certification and route to installation of the units should be as simple as possible. In that respect, a one-size fits all approach must be avoided.