# COGEN Europe response to Consultation on Pilot Framework Guidelines on Electricity Grid Connection

**Ref. E09-ENM-18-04**

***DRAFT: 21/10/10***

**1. Are there additional major problem areas or further policy issues that should be addressed within the Grid Connection Framework Guideline?**

COGEN Europe proposes that:

1) As the future electricity network will increasingly be asked to accept a range of different electricity generators of different size and status the framework guidelines should include a section on initial connection both at TSOs and DSOs level covering for example :

- TSOs and DSOs to hold Information relating to availability of new grid connection sites in a format which is transparent and available to potential new generators
- Standard process with timescales for information exchange and responses to new generators enquiries
- Requirement for open and transparent process for allocating connection costs and additional charges between generator and grid
- Open and transparent tariff system for services supplied to and delivered by the new generator.

2) An outline process for creation and revision of the detailed technical guidelines, including open and transparent consultation with all stakeholders should be included in the pilot framework guidelines.

**2. What timescale is needed to implement the provisions after the network code is adopted? Is 12 months appropriate or should it be shorter or longer?**

<u>New units:</u>

COGEN Europe highlights that when the guidelines are finally defined manufacturers will require a full development cycle to implement and test the changes and introduce the new designs. Hence 3-5 years. (If there is no harmonisation of the guidelines this phase will be proportionally longer and designs will tend to be sub-optimal introducing “bolt-on” solutions to cover all possibilities.)

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Existing units:

Design change requirements for existing cogeneration units is very hard to predict. The emerging proposals are particularly difficult for the small cogenerators. The issue is one of reasonable cost for the retrofit, in what may be customised installations. There are tens of thousands of CHP units installed across Europe today.

The full installed base should ideally be exempt from the changes. If this is not possible then it should be included selectively on a needs basis with technology being taken into account and compensation being offered.

**3. Should harmonisation of identified issues be across the EU or, perhaps as an interim, by synchronous area?**

Harmonisation should be across Europe to give scale to the manufacturers to invest in the new design requirements for cogeneration equipment.

**4. Should the requirements apply to existing grid users? How should it be decided? To which existing users should the requirements apply? How should timelines for transitional periods be set? Who should bear any costs of compliance?**

Ideally the legislation should be for new units only, where the risk to the network can be shown to be minimal. If this is not possible there should be a consultation period for classes of existing installations to be exempted.

There are tens of thousands of cogeneration units already installed in Europe saving Europe an estimated 35mtoe in primary fuel imports. Whether or not these can be modified to meet new requirements depends on the final published technical requirements and type of installed equipment.

Timelines for the transitional period should be set on a prioritised basis with the largest capacity units being asked to transition first.

The cost of compliance should logically be carried by the ones making the change. As this will ultimately come back to the EU citizens the new guidelines should seek (through setting reasonable demands and giving exemptions wherever this will not compromise the purpose) to keep these costs to a minimum. Cogenerators in fact save cost on the grid by contributing balancing services for intermittent supply and reducing the DSO transmission losses.

**5. The framework guideline identifies intermittent generation, distributed generation and responsive demand as requiring specific grid connection guidelines. Is it appropriate to target these different grid users? How should the requirements for intermittent generation, distributed generation and responsive demand differ**

**from the minimum requirements? Is there a need for more detailed definition / differentiation of grid users?**

COGEN Europe finds that "intermittent" and "distributed generation" do not work well as a categorisations. Intermittent generation can be connected as large centralised generation or distributed generation. Cogeneration plant can be large but is not intermittent.

A better categorisation would be to categorised generators as intermittent or continuous generation. The minimum requirements which apply to each should take into account the generating capacity of the site (hence its potential impact in failure) and the technology used. The implications of each type remaining on the grid or dropping off the grid, at TSO and DSO level are different in terms of recovery options, and this should be reflected in the detail of the grid connection guidelines applied. Continuous generation particularly the small cogenerators contribute substantially to grid balancing at the national level today as experience in Denmark shows. New guidelines should encourage growth in cogeneration with adequate support for existing cogenerators (perhaps a continuity bonus payment) to compensate for changes.

**6. Is it necessary to be more specific regarding verification, compliance and reinforcement?**

The grid has developed over the years procedures for reliable verification and compliance. Additional measures are not seen as necessary. Manufacturers will design and test their equipment for compliance in the products they bring to market.

**7. What are the key benefits and types of costs (possibly with quantification from your view) of compliance with these requirements?**

- Recognition of different technologies with different guidelines: Has the benefit of optimal costing for any changes required.
- Exemption of existing installed base (as appropriate): This will allow cogenerators to continue to operate without forcing some off the grid due to changes, which exclude the possibility of economic retrofit. By encouraging embedded electricity generation it also lowers energy losses in distributing electricity on the DSO grid (4%-6%)
- Harmonisation: more rapid optimal design of necessary new solutions. Cost optimal for cogenerators.

**8. How should significant generation and consumption units be defined?**

The grid operator should through reasonable modelling of the different types of supply technology in the grid identify different groupings of capacity and requirements should be set around these groupings.

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**9. For what real-time information is it essential to improve provisioning between grid users and system operators? Do you envisage any problems such greater transparency? What are the costs (or types of costs) and benefits you would see associated with this?**

Information which the system operator requires on: control of reactive power, the power factor, or general system information is available on cogeneration equipment. For cogenerators final information can be made available to the System Operator at machine interface level or plant interface level once a set of System Operator defined data requirements is in place.

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