COGEN EUROPE

The European Association for the Promotion of Cogeneration

COGEN Europe Response to

The European Commission's Targeted Consultation for the Evaluation of the Guidelines on State aid for Environmental protection and Energy 2014-2020 (EEAG)

Brussels, 19 July 2019

COGEN Europe welcomes the European Commission's initiative to evaluate the State aid Guidelines for environmental protection and energy, with a view to check whether the rules are fit for purpose and identify potential gaps, overlaps or excessive regulatory burden.

Cogeneration generates today 11.3% of EU's electricity and around 15% of its heat, contributing significantly towards EU's energy efficiency, decarbonisation and renewable energy objectives in 2020 and beyond. Because cogeneration is subject to higher operational and capital costs than less efficient and more polluting modes of generation, support is needed to correct for various market failures/barriers to energy efficiency. Most EU countries recognise this and support CHP through different schemes, depending on the size, fuel used, operation and application.

Nevertheless, in some cases the state aid rules are not flexible enough to account for the specifics of cogeneration, thus hindering the adequate allocation of support to these technologies. COGEN Europe recommends tackling the following key issues to more adequately provide aid to cogeneration:

1) Lengthy and unpredictable processes to set up, notify and approve support schemes
2) Instability of support schemes for cogeneration
3) Focus on support for electricity and insufficient attention provided to CHP heat support
4) Tendering schemes, while appropriate for some renewable solutions, not flexible enough to account for the specific project development and operation, business models, technical characteristics and market barriers to cogeneration
5) Methodology for eligible costs under GBER not adequate for cogeneration, due to the unrealistic counterfactual assessment against a heat-only boiler of the same installed capacity as the cogeneration system

COGEN Europe • The European Association for the Promotion of Cogeneration
Avenue des Arts 3-4-5, 1210 Brussels, Belgium • T +32 (0)2 772 82 90 • F +32 (0)2 772 50 44
info@cogeneurope.eu • www.cogeneurope.eu

Introduction

The EEAG and GBER are absolute key to ensure stable and coherent principles for cogeneration support schemes. However, the guidelines seem not to have facilitated the cost-effective uptake of energy efficiency and cogeneration in particular, in line with the objectives of the Energy Efficiency Directive. In particular, the EED Article 14.2 requires that the identified potential for cogeneration is associated with adequate supportive policies.

COGEN Europe's latest National Snapshot Survey indicates that, despite almost all countries in Europe support cogeneration (see annex), fewer than half consider the policy framework for cogeneration as favourable. Even if potential for cogeneration was identified, in many countries support schemes were not proposed. In other countries where support was proposed, it was insufficient to unlock potential at a larger scale.

Key issues that might account for this result are:

1) Lengthy and unpredictable processes to set up, notify and approve support schemes

In some countries the lengthy process to have support schemes developed, notified and eventually approved by the European Commission led to significant uncertainty for the industry, with large projects being stalled or even cancelled.

Important delays were experienced in 2016. According to COGEN Europe's assessment in June 2016, 7 member states surveyed, representing 50% of total EU CHP capacity, had CHP support schemes pending DG Competition approval for longer than half a year. At that time, those delays put 30 GWe of CHP at risk in the EU, which would have amounted to 30 million CO_2 emissions at risk of not being abated.

Recommendations: The state aid rules should provide a better framework and clearer timeline for national governments to have support schemes approved, as part of a transparent process that involves industry at all stages.

2) Instability of support schemes for cogeneration

Once approved, the predictability and stability of support are key for the industry to reach its potential and continue contributing towards EU's environmental and energy objectives. In several EU countries, support for cogeneration has been withdrawn (e.g. Spain) or conditions retroactively changed (e.g. Greece), putting significant capacities at risk of decommissioning.

Recommendations: The EEAG should be amended to reflect the principles in Article 6 of the revised Renewable Energy Directive ((EU) 2018/2001) for both renewable energy and cogeneration. This would ensure security of investments in energy efficiency technologies across different applications (i.e. residential, industrial and DHC).

3) Characteristics of cogeneration not fully accounted in the EEAG and GBER

The cogeneration principle greatly enhances the efficiency of the primary energy use (up to 90% efficiency can be reached) and therefore its adoption reduces the negative externalities associated with centrally generated power (whose operating efficiency ranges in the 40--45%). However, it entails more capital expenses and it is more complicated to operate that in the counterfactual case of relying on two separate supplies for power and heat.

In the running of a plant, the economic viability of cogeneration is influenced by the differential between its fuel input and the output it generates, electricity and heat. Under the current market conditions at national level, weak wholesale electricity prices and the absence of a holistic approach in the framing the energy sector have been negatively impacting the sustainability of the cogeneration infrastructure. Putting in place a coherent and holistic framework at macro level is a challenging task as it involves: dealing with fuel taxation, factoring in externalities (pollution, GHG…), valuating security of energy supply, addressing social issues, designing sustainable grid tariffs, funding the energy transition, to name but a few. It is important to recall that the Energy Efficiency Directive 2012/27/EU requires member states to devise such an approach through the implementation of article 14.

3.1 Focus on support for electricity and insufficient attention provided to potential support schemes for cogenerated heat

In most cases, cogeneration is designed to supply efficient useful heat to a heat consumer (i.e. an industrial site, a district, a hospital). Meanwhile, most cogeneration support schemes have adopted the same principles/framework as schemes designed for renewable electricity. This is to some extent determined by the EEAG State Aid Rules applying the same principles to RES electricity and cogeneration.

Recommendations: The EEAG and GBER should be better adapted to the business case for cogeneration, which is inherently linked to the supply of efficient heat to a customer alongside electricity. Extension of potential operating aid for heat from produced from cogeneration - for the moment CHP support is only defined for electricity part and not for heat (renewable heat part). This should be changed. For heat, the implicit assumption is that it would be covered by section, 3.3.2.2. “Aid for energy from renewable sources other than electricity, where operational aid is justified but not beyond the depreciation period”. The support for cogenerated heat should be made more explicit and extended beyond depreciation period.

3.2 Tendering schemes not flexible enough to account for the specific project development and operation, business models, technical characteristics and market barriers to cogeneration

Under the same reasoning as for point 3.1, there is growing evidence that very rigid tendering schemes for cogeneration are not adequate for cogeneration technologies, while they may be suited for large RES-electricity projects. This is for the following reasons:

- Unlike variable RES projects (also subject to bidding procedure) where operating costs are negligible, they remain very important in case of CHP plants (mainly because of significant and fluctuating fuels costs). Operating costs of CHP plants can change significantly over the time (because of fluctuating spark spreads - the ratio between gas and electricity

prices); and it is not possible to estimate such changes at the time investment decision is made and bidding procedure is launched. There are also no tools available to hedge risk of operating cost changes during the lifetime of CHP plant. Because of this cost variability competitive bidding is not the right tool for granting support. The level of support should be rather based on benchmarking from the data obtained from completed projects;

- CHP plants are tied to demand for useful heat. That demand is typically time constrained (e.g. new factory needs heat supply) and cannot be postponed. However, tendering procedure takes place only 1 to 2 times per year, which creates uncertainty for investors who have to conclude contract for heat delivery before they know the result of tendering procedure;
- The number of CHP projects especially in smaller member states is very limited. It means that achieving efficient competition is difficult, which leads to limited number of rounds for tendering which further exacerbates the problem with matching time constraints of heat demand;
- There is also substantial cost connected to organization of competitive bidding process, which in case that only small number of projects is covered exceeds potential savings achieved on the level of support granted;

Recommendation: The guidelines should be revised accordingly, in order to make sure that the "energy efficiency first" principle enshrined in the Clean Energy Package can be materialised and can also successfully guide new investment decisions:

- Conditions of competitive bidding process for CHP plants therefore needs to be substantially relaxed in EEAG. It would also make sense to establish upper threshold above which exemption from bidding process would apply;
- Extension of operating aid after depreciation period - article 3.3.2.3 of EEAG provides for aid for existing biomass plants after depreciation. Similar provision should be considered also for CHP plants. From the cost efficiency perspective keeping existing CHP plants in operation can be reasonable even after they have been depreciated. In some cases this requires operating aid, even though much lower than for new plants. These CHP plants will support the transition to a low-carbon heating and power sectors and also play a vital role for grid stability;

3.3 Methodology for eligible costs under GBER not adequate for cogeneration

Article 40 of the GBER defines eligible costs for investment aid for cogeneration as the *extra investment costs for the equipment needed for the installation to operate as a high-efficiency cogeneration installation, compared to conventional electricity or heating installations of the same capacity*.

The counterfactual assessment comparing a cogeneration plant against a heat-only boiler of the same installed capacity as the cogeneration system does not reflect the way cogeneration projects are designed and operated. When a cogeneration system is proposed to a customer, the installation will be sized to optimally and efficiently cover the electricity and heat demand of the user. In most cases this entails that the cogeneration system will have a lower capacity than the peak load of the customer and it will have to be equipped with an additional peaking boiler to ensure security of heat supply.

Recommendation: Develop a framework for eligible investment costs to be calculated on the basis of how cogeneration systems are generally sized and optimised to bring the most value to the consumer, which often requires an investment in both a CHP and a supplementary boiler.

4) Ensure that surcharges for renewable and cogeneration support are reduced for energy intensive industries to ensure that these companies can compete against non-EU industries and re-invest in sustainable energy technologies

5) EEAG and GBER should be better aligned with latest legislative and market developments in renewable and efficient energy technologies

Definitions used in the GBER should be updated to reflect the recent market developments. In particular, the 2014 regulation should be aligned with the revised Renewable Energy Directive, including developements in renewable and decarbonised gases and energy systems integration (i.e. linking electricity, heat and gas for higher energy efficiency, more renewable enegry and better market integration of variation renewable electricity).

About COGEN Europe:

COGEN Europe, the European Association for the Promotion of Cogeneration, is the cross-sectoral voice of the cogeneration industry. Its mission is to work with EU institutions and stakeholders to shape better policies and eliminate administrative, regulatory and market barriers to the wider use of cogeneration in Europe.

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Contact peson:

Alexandra Tudoroiu-Lakavice, Senior Policy Manager
alexandra.tudoroiu@cogeneurope.eu

Annex: Overview of cogeneration support schemes (2017-2018)

	Feed-in Tariff	Feed-in Premium	Quota Obligation & Certificates	Capital grant	Tender scheme	Tax incentives	Other support	No support
Austria	✓			✓				
Belgium - Flanders			✓	✓		✓		
Bulgaria								✗
Czechia		✓		✓				
Germany	✓	✓		✓	✓	✓		
Finland		✓		✓	✓	✓		
France	✓	✓	✓				✓	
Greece		✓						
Hungary							✓	
Italy			✓					
Netherlands	✓					✓		
Poland			✓	✓				
Portugal	✓							
Romania		✓						
Slovenia	✓	✓			✓			
Spain	✓							
Sweden			✓			✓		
Turkey							✓	
United Kingdom	✓		✓	✓	✓	✓		

Source: COGEN Europe, 2018