



BECKER BÜTTNER HELD

The Legal Helpdesk

Rules on grid access and priority dispatch for renewable energy in Europe

Dr. Dörte Fouquet, Rechtsanwältin, Partner, BBH
Jana Viktoria Nysten, LL.M., Advocaat, Attorney at law, BBH

I. Introduction

1. What does guaranteed transmission and distribution mean?

Guaranteed transmission safeguards that generated electricity is fed from a power plant into the grid system and transferred on the extra high-voltage and high-voltage interconnected system with a view to its delivery to final consumer or to the Distribution System Operator (DSO). Transmission does not include supply of the electricity. Managing of the transmission is one of the responsibilities of the Transmission System Operator (TSO). Furthermore, the TSO is also obliged to ensure long-term ability of the system to meet demands for electricity transmission and to manage energy flows of the system. The TSO is thus responsible for keeping the system secure, reliable and efficient. Similarly, guaranteed distribution secures that the electricity is transported on high-voltage, medium-voltage and low-voltage systems with a view to its delivery to final customers. Distribution neither includes supply of the electricity.

2. What is grid access?

Grid access means the admittance of an electricity generating installation to the transmission and distribution systems, i.e. the installation gets the permission to build a connection to the grid allowing to actually feed the electricity produced into it. In terms of priority access, an assurance is given to connected generators that they will be able to sell and transmit their electricity in accordance with connection rules at all times, whenever the source becomes available. Furthermore, in the event that the electricity from renewable energy sources is integrated into the spot market, guaranteed access ensures that all electricity sold and supported obtains access to the grid, allowing the use of a maximum amount of electricity from renewable energy sources from installations connected to the grid.

3. What is meant by priority dispatch?

Electricity dispatch means that the electricity produced is actually used by the TSO and DSO to guarantee the grid and system stability, i.e. the electricity used as a result of balancing of supply and demand. If there is too little electricity, the TSO or DSO will have to signal to producers to increase production, if there is too much, some produc-



BECKER BÜTTNER HELD

ers may be deregulated. Priority dispatch in this regard means not being deregulated in case this becomes necessary, i.e. the TSO and DSO will have to consider those installations with priority dispatch first when doing the balancing exercise of supply and demand. The rules on dispatch thus relate to the core of system stability and shall guarantee the secure operation of the electricity system.. However, such rules, including the rules on the use of interconnectors, shall be determined on the basis of non-discriminatory criteria.

II. The Renewable Energy Directive

The Renewable Energy Directive, Directive 2009/28/EC, aims at the promotion of energy from renewable energy sources. Among others, it sets mandatory national targets to be fulfilled by Member States, rules regulating statistical transfers and joint projects between Member States, guarantees of origin, and also access to and use of the electricity grid for energy from renewable sources.

In terms of access to and use of the electricity grid, the Renewable Energy Directive lays down that Member States shall ensure that , priority access or guaranteed access to the grid-system of electricity produced from renewable energy sources shall be safeguarded. In terms of dispatching to the system, Member States shall require system operators to ensure that when dispatching renewable energy electricity installation to the system, they have priority over other installations. Similarly, Member States may also require the system operator to give priority when dispatching generating installations producing combined heat and power. Moreover, TSOs and DSOs shall guarantee the transmission and distribution of renewable electricity in their area.

It should be stressed that when dispatching renewable electricity installations, under the Renewable Energy Directive, the priority is subject to the secure operation of the national electricity system permits, as described by the Internal Electricity Market Directive. Thus the safety of the system needs to be guaranteed under all circumstances and even if that may detriment the priority for electricity from renewable sources.

III. The Internal Electricity Market Directive

The Internal Electricity Market Directive, Directive 2009/72/EC, lays down common rules for generation, transmission, distribution and supply of electricity on the Internal



Co-funded by the Intelligent Energy Europe
Programme of the European Union



BECKER BÜTTNER HELD

Market. It establishes rules related to the organization and functioning of the electricity sector, open access to the market, dispatching to the grid etc.

The Internal Electricity Market Directive, as regards dispatch of renewable electricity mirrors the Renewable Energy Directive: In terms of dispatching an installation to the grid system, the TSO, where it has such a function, is responsible for dispatching the electricity generating installations in its area and for determining the use of interconnectors with other systems. When dispatching generating installations using renewable energy sources, TSOs shall follow the rules laid by the Renewable Energy Directive, as described above, subject to the guarantee of the system security. Member States may also require TSOs to give priority when dispatching generating installations producing combined heat and power. The same applies for DSOs, i.e. a Member State may require the DSO, when dispatching generating installations, to give priority to generating installations using renewable energy sources or waste or producing combined heat and power.

In terms of security of supply, it needs to be underlined that, a Member State may direct that priority is given to the dispatch of generating installations using indigenous primary energy fuel sources. This may reach up to 15 % in any calendar year of the overall primary energy necessary to generate the electricity consumed in the Member State concerned. What counts as "indigenous resource" differs from Member State to Member State, though, based on the availability of the source in each area. Thus, as the term is not defined on EU level, it could be solid fuels, gas, oil and also renewable energy sources. Some Member States even seem to consider uranium as an indigenous resource.

IV. The Energy Efficiency Directive

The Energy Efficiency Directive, Directive 2004/8/EC, targets to increased energy efficiency by establishing a framework for promotion and development of cogeneration of heat and power.

In terms of rules on transmission and distribution and access and dispatch to the grid, the Energy Efficiency Directive refers to the rules laid in the Renewable Energy Directive and Internal Electricity Market Directive. In Article 15(5) of the Energy Directive, a complex system is described:



Co-funded by the Intelligent Energy Europe Programme of the European Union

"Without prejudice to Article 16(2) of Directive 2009/28/EC and taking into account Article 15 of Directive 2009/72/EC and the need to ensure continuity in heat supply, Member States shall ensure that, subject to requirements relating to the maintenance of the reliability and safety of the grid, based on transparent and non-discriminatory criteria set by the competent national authorities, transmission system operators and distribution system operators when they are in charge of dispatching the generating installations in their territory:

(a) guarantee the transmission and distribution of electricity from high-efficiency cogeneration;

(b) provide priority or guaranteed access to the grid of electricity from high-efficiency cogeneration;

(c) when dispatching electricity generating installations, provide priority dispatch of electricity from high-efficiency cogeneration in so far as the secure operation of the national electricity system permits.

Member States shall ensure that rules relating to the ranking of the different access and dispatch priorities granted in their electricity systems are clearly explained in detail and published. When providing priority access or dispatch for high-efficiency cogeneration, Member States may set rankings as between, and within different types of, renewable energy and high-efficiency cogeneration and shall in any case ensure that priority access or dispatch for energy from variable renewable energy sources is not hampered."

Thus, Member States must ensure that TSOs and DSOs guarantee transmission and distribution, provide priority or guaranteed access and priority dispatch to electricity produced in cogeneration plants. However, this is subject to the priority created by the Renewable Energy Directive for renewable energy, which again is subject to the stability of the system. Still, in case of problems with ensuring the continuity of heat supply (as the cogeneration plants in question also produce heat, and may be driven based on the demand for such heat), cogeneration may prevail over renewable energy even. For heat driven cogeneration plants, thus those which are operated to respond to a current heat demand, this therefore means that they will have the "first" priority,



Co-funded by the Intelligent Energy Europe
Programme of the European Union



BECKER BÜTTNER HELD

followed by renewable energy, followed by all other cogeneration plants, provided the stability of the system remains ensured.

The last paragraph then makes it the task of the Member States to rank the different technologies, which however may be very difficult task, as it may not only depend on the technology but also on the occasion (i.e. time, availability etc.). This is even more the case as the last part of the last sentence asks that "*priority access or dispatch for energy from variable renewable energy sources is not hampered*", thus seems to create another "super" priority.

V. Conclusions

Based on the applied rules, the electricity generated from renewable energy sources has guaranteed access and dispatch to the grid and guaranteed transmission and distribution. Hence, the power generators are ensured that all electricity sold and supported obtains access to the grid, allowing the use of a maximum amount of electricity from renewable energy sources from installations connected to the grid, as set by the Renewable Energy Directive.

However, in certain circumstances it is not possible fully to ensure transmission and distribution of electricity produced from renewable energy sources without affecting the reliability or safety of the grid system. Due to the dependence on the environmental conditions of some renewable energy sources, which may vary from one day to another, system operators may sometimes have difficulties in relying that a certain amount of renewable electricity is generated every day. Too much as well as too little generation threaten the stability, so that thus, the "volatile" nature of some renewable energy sources may indeed pose an obstacle to ensuring system security. As a result, the electricity from renewable energy sources may be rejected. This poses an immense problem to the renewable energy producers who need to be able to sell when they produce and who – for the financing of the projects – need some guarantee of a stable income.

According to the Renewable Energy Directive, requirements relating to the maintenance of the reliability and safety of the grid and to the dispatching may differ according to the characteristics of the national grid and its secure operation. Thus, for examples, in the Czech Republic, the renewable electricity producers get a compensation for the electricity generated from solar and wind energy which was not dispatched by



Co-funded by the Intelligent Energy Europe Programme of the European Union



BECKER BÜTTNER HELD

the system operator. In Germany, similar rules apply. However, implementation of such provision is not required by the Renewable Energy Directive. Therefore, the issue of dispatching renewable electricity installations to the grid system and the guarantee of the profit remains uncertain as the dispatch is subject to security of the system.



Co-funded by the Intelligent Energy Europe Programme of the European Union