

ERGEG's CONSULTATION
DRAFT GUIDELINES FOR GOOD PRACTICE
ON ELECTRICITY GRID CONNECTION AND ACCESS

ERDF's POSITION

ERDF is the main Distribution Network Operator in France, supplying electricity to 33 million customers (95% of French distribution network).
ERDF supports the achievement of the internal energy market in Europe and the initiatives leading to this target, and particularly the present consultation launched by ERGEG for grid connections and access.
ERDF thinks that the overall guidelines described in this consultation can be accepted, but makes some remarks in order to clarify and simplify some key points.

Broadly speaking, the recommendations of the ERGEG document are relevant and we think that they do cover all aspects relating to access to the electrical grid for users, consumers and generation units alike.

However, a number of wide-range recommendations, are too general, which may give the impression that they apply identically to all users; We believe they should be adapted to the different categories of users, producer or consumer, according to their power and connection voltage level. It is not conceivable to deal in an identical manner with low voltage private consumers, representing several tens of millions of users, and major consumers connected to the MV or HV grid.

- LV consumers or LV producers must be dealt with by simple and standardised connection procedures, keeping in mind the user interest.
- Furthermore, they do not need to be managed individually in real time, even if the smart meters that are being installed could facilitate this provision.
- Consumers and producers connected to the MV grid (from 250 kVA on MV, often several MW) can be dealt with on an individual basis.

Focusing on each point individually of this consultation document, ERDF submits the following comments:

Sections 3.4.1, 4.1.1 and 4.1.3:

ERGEG proposes that the regulator approves the different connection procedures beforehand.

This proposal presents a problem in some Member States such as France. The connection procedures include criteria and provisions that are not resulting from the energy market but come within the scope of the public authorities (urban planning regulations, building permits, environmental protection, etc.). For this reason, in France the technical principles and prescriptions for connections are a matter for the State regulation. Under these conditions, it would be difficult to make the regulator responsible for approving a series of provisions which are not within its scope.

Section 3.4.3:

“The DSOs shall deliver a proposition to any grid user requesting a connection to the grid.”

This drafting cannot be accepted as it stands.

This sentence must be amended in order to take into account external constraints like security of supply requirements, legal and statutory obligations (urban planning law, environmental law, etc.).

Sections 3.4.4, 4.2.1 and 4.2.3: Checking the installation features

The general principle concerns the compliance of the installation with the connection requirements that should be checked by the DSO.

However, these requirements have to be adjusted to the type of users, according to:

1. Its power and voltage level. The type and frequency of the checks must depend on the user's characteristics as it is stated in the general introduction. Furthermore, a systematic check through regular tests on all installations cannot be considered on account of the number of users (several millions).
2. Its risks on the electrical network. These checks must be targeted and not carried out systematically, and only concern cases in which risks are identified as regards to grid safety.

To sum up, the checks that the distributor is requested to carry out must be defined according to user category; they must take into account risks that might disturb the grid.

Sections 4.2.3: Calling on an independent expert

In case of dispute between DSO and user, it is proposed to call on an independent expert.

This proposal must be examined carefully and, if it gets the go-ahead, must be clearly defined.

If the expert intervenes through simple amicable conciliation between the parties, it is not actually necessary to define the powers of the expert; however, correspondingly, the parties cannot be obliged to refer the matter to the expert, nor to follow his advice.

If, on the other hand, this provision grants powers to the expert, such powers must be examined carefully and take into account national legislations, which, in the case in point, probably differ enormously from one country to another and, in general, are sufficiently comprehensive to resolve this type of dispute without introducing a new official player.

ERDF's position is therefore strictly reserved on a possible obligation of this kind.

Section 5.1.3.3: Installations protections

This section requires all generation and consumption units to be equipped with a protection back-up device.

It is advisable to define more clearly the meaning of this concept of “back-up”.

Whatever the circumstances, we do not feel that the generalised implementation of such a provision for all users is realistic, especially for LV generation and consumption units.

Technical appendix

In addition to the general remarks made above, the following comments should be made on several of the technical recommendations proposed by ERGEG:

4.2 Connection requirements

§4.2.1 and 4.2.3

ERDF is in favour of the check by the DSO of the compliance of the installation features with the requirements for the connection to the grid. Currently this check is not systematic and is generally carried out following complaints. A statutory development in this direction is planned for generation installations of more than 5 MW. However, we feel that a systematic check for all installations through regular tests is difficult to implement on a distribution network, regarding the number of users connected.

5.2 Generation units

§5.2.1.2

For generation units, it is recommended to limit generator reactance. It seems reasonable, as the supply of short-circuit current will help the operation of the protection devices. However, we do not feel that it is possible to generalise this type of prescription for all units. This prescription cannot be applied to generation units with electronic power inverters: their reactance is regarded as very high during a fault.

§5.2.2.1

Concerning needs in terms of managing reactive power and voltage, the French approach considers that all generators connected to the distribution grid on the same voltage level must comply with the same rules. These rules must be applicable at the delivery point for a given voltage level and are independent of the generator's technology, contrary to the recommendations of this guide.

Black start capability

§5.2.5.1

Following a generalised fault during a storm, implementing a black start capability and then a partial re-energising of the distribution network on house load operation has been studied. This operation mode is not currently adopted as it is too complex to introduce on the distribution network and especially given its low occurrence probability.

5.3.2 Requirements for reactive power

§5.3.2.1 and 5.3.2.2

It is recommended to allow the supply or consumption of reactive power for consumption installations. As grid manager, ERDF considers this to be a sensible idea, as it allows equal treatment between producers and consumers. However, it is difficult to introduce such a service because consumption installations cannot manage reactive power with the same flexibility as a generator and the implementation cost will be significant for these users. Furthermore, the present real need of incorporating such a device into the distribution network has to be confirmed..

5.3.3 Interference and electromagnetic disturbance/emission

§5.3.3.6

Furthermore, it is stated that the system operator must be able to quantify the contribution of the disturbance level for each grid user, and take the appropriate actions in case of non-compliance, like disconnecting. This is actually an objective that we wish to achieve, although existing methods do not make this possible, particularly for harmonics (difficulty in measuring the direction of the harmonics).

If these disturbances, and their origin, should be proven, this guide recommends disconnecting the installation responsible for the disturbance. We feel that this instruction is difficult to implement, particularly taking into account measurement issues.