Commission guidance on grid connections

CurrENT response to the EC's public consultation

The Commission is seeking input by stakeholders on its planned guidance on how to handle grid connections, in particular in situations with capacity constraints, and would like to give stakeholder the opportunity to present their views.

In addition to this questionnaire the Commission will hold a stakeholder workshop on 27 June, for which your organisation should have received an invitation.

The increase in decentralised renewable electricity installations and the electrification of end uses in transport, heating and cooling, and industry put strains on the grid. Already now grids are heavily congested in some areas leading to delays in grid connection and grid access for certain users. Long queues for grid connections are a major challenge.

The long-term solution to the challenge of the constraints on grid availability is the accelerated build out of the grids. Efficiency of the existing grids also needs to be improved. In the short-term, a transparent and adequate treatment of connection requests by grid operators, including the use of flexible connection agreements, is key for the energy transition.

In this context, in the *Industrial Action Plan for the European automotive sector* adopted on 5 March 2025 and in the *European Steel and Metals Action Plan* adopted on 19 March 2025 the Commission announced that it would issue guidance and recommendations on how to shorten waiting times for grid connections, how to better manage connection requests and how to handle connections in situation with grid capacity constraints.

The Commission is therefore launching this consultation of interested stakeholders to give them the possibility to provide their views and input on this topic. We kindly invite you to fill in the attached questionnaire by 25 July 2025. Where relevant, please include references to sources of information.

Efficient handling of grid connection requests

1. Treatment of speculative applications

The hoarding of grid connection capacity can be a significant issue when developers secure grid connection approvals but delay or never proceed with the project

construction, thereby blocking access for other users who may be ready to build the projects in a foreseeable future.

Q) Do you consider that there is a problem in the EU or certain Member States with speculative and immature requests?

Current's response: no reply

Q) Please specify the problems, the Member State(s) concerned and how it affects the connections.

Q) In your view, what would be the best approach to avoid that speculative and immature application create a bottleneck for processing connection requests?

Q) Can you provide a best practice from an EU Member State?

2. Treatment of delayed and stalled projects

In certain situations, projects that already have the right to connect may not proceed as initially envisaged. Such projects which are not maturing may thus lock capacity.

Q) Do you consider that there is a problem in the EU or certain Member States with non-maturing projects for which capacity is locked?

Current's response: no reply

Q) Please specify the problems, the Member State(s) concerned and how it affects connections

Q) In your view, what would be the best approach to avoid that projects which are not maturing lock capacity?

Q) Can you provide a best practice from an EU Member State?

3. Modification of existing grid connections

In some Member States, the modification of an existing grid connection requires the grid users to submit a new connection request, even in situations where the is no or only a limited increase in the contracted grid capacity.

Q) Do you encounter situations in which you are required to submit a new connection request for a limited modification of an existing connection?

Current's response: Yes

Q) Does this cause delays (several months or years) in proceeding with the modification?

Current's response: Yes

Q) Do you consider that the modification of an existing grid connection should be possible without having to fully re-apply?

Current's response: Yes

Q) Please elaborate the procedure you would envisage and for which kind of modifications, whether a differentiation between increase and decrease in connection capacity should be made, or which other aspects should be considered.

First, new connection requests for limited modifications can cause years long delays on some projects. Innovative Grid Technologies can optimize grid capacity and accelerate processes when there is a modification of an existing connection. Even for limited modifications, Innovative Grid Technologies can serve as a complement to address system changes and unlock additional grid capacity.

Optimally, when developers are making a request, they could propose solutions based on these technologies that can resolve the issues and maintain the timelines for other interconnected parties while increasing capacity.

Q) Can you provide a best practice from an EU Member State?

In Ireland, it is possible to modify an existing grid connection without having to fully reapply to a new connection request.

Non-discriminatory access to the grid in situations with insufficient grid capacity

1. Measures in case of lacking capacity

Lack of capacity is a new but spreading reality for European DSOs. There are several measures which Member States are starting to use to improve the handling of grid connection requests in such situations. These can be auctions and application windows but also the use of flexible connection agreements in line with Article 6a of the Electricity Directive, cable pooling (hybridisation) and others.

Q) Please describe the measures you would suggest as suitable for handling grid connection requests in situations with lacking capacity. Please specify why you chose this option / these options and explain the benefits (and potential disadvantages) of the respective options.

Current's response: According to our study conducted with Compass Lexecon, Innovative Grid Technologies can mitigate the capacity issue by adding more capacity with direct capacity improvements compared to conventional technologies. Innovative Grid Technologies can achieve significant capacity improvements more quickly compared to building new power lines at a lower TOTEX cost. This can be useful to anticipate the investment need if delivery is challenging for some reason or to bridge the time until the investment comes through. Thus, it can significantly reduce projects development lead time, often under a year without affecting the timelines or the other connected parties.

The developers should propose these technological solutions when applying to auctions and applications windows and deliver them.

Q) Please provide concrete example, if available, for the respective potential solutions.

Please see: https://www.currenteurope.eu/wp-content/uploads/2024/06/CL-CurrENT-BE-Prospects-for-Innovative-Grid-Technologies-final-report-20240617-2.pdf

2. Requests from grid users below a certain size

Q) In your view, should connection requests from projects below a certain size be treated differently?

Current's response: No

Q) Please provide details, if possible, provide a best practice from an EU Member State.

Current's response: If connection requests are treated based on their size, developers will break projects into smaller part, leading to suboptimal development. Furthermore, this will have impact of project development. Indeed, developers' capacities will diminish as the system operators will not be able to retain the capacity due to the smaller unit exemption that are fast tracked. Ultimately, this could hinder optimal development.

3. Deviation from the first-come, first-served approach in favour of a system with objective criteria

Although many Member States apply a first-come, first-served approach to connection requests, this is not required specifically by EU legislation (see Article 6 of the Electricity Directive 2019/944 on third-party access). Indeed, certain projects when connected to the grid can deliver benefits to the grid and the electricity system and alleviate congestion. Some projects contribute to the energy and climate transition.

Other projects relate to services are of general interest to the society. Such as public transport, postal services, and healthcare. These services can be economic (e.g. postal services), non-economic (e.g. police and justice) and social.

Q) Would you see any merit in setting up transparent criteria for treating connection requests based on their contribution to alleviating congestion in the electricity grid?

Current's response: Yes

Q) Would you see any merit in setting up transparent criteria for treating connection requests based on their potential contribution to the clean energy transition, or their contribution to services of general interest or any other?

Current's response: Yes

Q) What would be the criterion to determine which users should benefit from the deviation from the first-come-first-served queuing system (keeping in mind 6 of the Electricity Directive 2019/944 that provides for third party access to the grid on a transparent, objective and non-discriminatory basis).

Current's response: The Energy Efficiency First principle should be a key criterion, as innovative grid technologies can deliver faster, lower-cost, and more flexible solutions that integrate seamlessly into the grid. These technologies, which can be deployed rapidly and improve the performance of the existing network, must be part of the solution.

Transparent criteria for assessing connection requests based on their potential to alleviate congestion could support this, especially if projects can specify the use of innovative grid technologies. However, National Regulatory Authorities must ensure that such criteria do not inadvertently reduce the perceived need for reinforcement in ways that undermine the uptake of these technologies.

Transparency on grid hosting capacity

Transparency on grid hosting capacity in respective areas together with applicable connection charges can steer investment decisions into locations with less congestion or with expected grid development. In this context, the Grids Action Plan mandated the EU DSO entity and the ENTSO-E to come forward with harmonised definitions for available grid hosting capacity for system operators and to establish a pan-EU overview of grid hosting capacity maps and websites.

Q) Do you consider existing actions on grid hosting capacity on a EU level sufficient?

Current's response: No

Q) Please elaborate which elements should be improved.

Current's response: Action 6 of the EU Action Plan for Grids provides that ENTSO-E and the EU DSO Entity agree on harmonised definitions of available grid hosting capacity by system operators and to establish a pan-EU overview and work with the Commission towards harmonised definitions. But the Commission should also provide for a harmonised calculation method.

In addition, they should apply Innovative Grid Technologies to grid hosting, which can be achieved in a year, and then assess what the grid hosting capacity would be. This meets the objective to connect energy transition projects as early as possible toward decarbonisation and also to optimise the network before considering new linear reinforcement.

Further comments

Q) Do you have any other comments?

Current's response: The guidance should include potential scenarios for wide-scale connection of data-centres.