

EURELECTRIC paper calls for a rethink of distribution grid design and operation

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Europe's traditional 'fit and forget approach' approach to grid design alone may no longer be fit for purpose, European power distribution grid operators have said.

In a paper published today EURELECTRIC argues that in the context of growing generation from decentralised and intermittent renewables - most of which will be connected to distribution grids - designing grids for peak load is no longer necessarily the most cost-effective option.

The EU-wide network codes currently being drafted by ENTSO-E, ACER and the Commission should facilitate alternative solutions, allowing for a flexible approach towards diverse European distribution networks. Proper implementation of existing EU legislation, namely the new Energy Efficiency Directive and the Second and the Third Energy Packages, should allow DSOs to act more actively, the paper concludes.

*'People tend to assume that distributed generation, because it is mostly located close to consumption, reduces peak load and congestion and therefore the need for network investment. In reality, distributed generation represents a huge network integration challenge. Network costs do not necessarily drop - in fact, they may even increase, while system operation becomes more complex. That is where active system management could come in,'*said David Trebolle from Gas Natural Fenosa, presenting the technical content of the report in the workshop organised in cooperation with CIRED.

Active distribution system management gives room to more flexibility both on the supply side (generation) and the demand side (consumption), including a greater role for 'flexibility services'. The paper argues that such active system management could optimise the use of the existing distribution network and limit costly grid extensions.

Policymakers will need to take decisive action in creating a regulatory framework that allows network solutions beyond the approach of 'investing in copper'. Flexibility can also be encouraged through better designed operational rules and by adapting connection and access rules, including priority access rules that currently prevent grid and market operators from implementing cost-effective solutions.

*'DSOs should be free to implement either the traditional investment solution or the flexibility service-based solution - or a combination of the two. Adequate grid fees must be set to ensure that DSOs are rewarded for choosing the most cost-effective option,'*said Per Hallberg, Chairman of the EURELECTRIC Working Group Smart Grids.

Main findings and recommendations are available [here](#).

The full report is available [here](#).

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