

## EUR24\_02 - Voltage restraint frequency relay for active users of the italian grid

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### Abstract:

In industrial facilities, like for example Oil & Gas plants, there is often the need to supply the plant both from internal self-generation (with gas or steam turbogenerators) and also from the National Grid. Although this type of plant is not really a power generation station because it never exports power to the National Grid, it is considered anyway an Active User by the Regulation of the Italian Distribution Company, due to the fact that the power turbogenerators can work also connected to the Grid: as a consequence, a frequency relay is required by the Distribution Company at the point of interface between the National Grid and the industrial facility.

Transient Stability simulations are carried out to understand the behavior of this interface frequency relay in case of short circuit faults occurring internally to the distribution of the industrial Facility and a fine tuning of the frequency relay setting is suggested.