



*Generally Accepted Reliability Principle with Uncertainty modelling
and through probabilistic Risk assessment*

First GARPUR workshop towards electricity stakeholders

7 October 2014 – Brussels (ENTSO-E premises)

What is GARPUR?

The aim of the GARPUR project is to design and evaluate new power system reliability criteria. If successful, these criteria could be progressively implemented at the pan-European level, optimally balancing reliability and costs. Indeed, the increasing uncertainty caused by (among others) the massive integration of intermittent generation calls for the use of probabilistic reliability criteria to supplement and enhance the pure preventive N-1 criterion.

Several alternatives for reliability management at the pan-European level will be studied to propose new criteria based on a probabilistic approach. A particular innovation of GARPUR is a comprehensive application of the same probabilistic approach within the key activities of TSOs at different time scales: system development, asset management and power system operation.

A Quantification Platform will be developed to compare the impact of the novel reliability criteria on social welfare and power system reliability. This will be realized through the development of numerical models linking reliability and socio-economic costs. Pilot tests of several criteria are planned, as close as possible to a real-life context, in order to validate the feasibility of incorporating these criteria into the decision-making processes of TSOs.

An implementation roadmap for the deployment of the resulting technical and regulatory solutions will be delivered at the end of the project. It will show the way towards a future European power system with high reliability at acceptable costs.

Who will be impacted by the expected GARPUR results?

The whole electricity value chain will be impacted by GARPUR.

Obviously TSOs are the first electricity market players impacted by GARPUR and, as such, directly involved in the project at different levels (7 TSOs partners in GARPUR, Reference Group of TSOs advising GARPUR partners, dedicated workshops to interact with other TSOs).

Stakeholders who will be invited for this workshop:

- **Distribution System Operators (DSOs)**, because of the growing cooperation needed between distribution and transmission levels to ensure the reliability of the whole power system,
- **Power generators, including both thermal and renewable producers**, because of the impact of reliability management on their production and their potential involvement in corrective control,
- **Technology providers**, because the data they can provide and the type of sensors and software they may design are crucial to determine probabilities of contingencies and failure of corrective control. The possible new reliability criteria and methods might require new products in the future.

Why participating to the first GARPUR workshop towards electricity market stakeholders?

By participating in the 7 October workshop, representatives of DSOs, power generators and technology providers will have the opportunity to get an overview of the GARPUR project and to assess how their organizations will be impacted by the GARPUR activities and expected results.

GARPUR is an R&D project supported by the European Commission under the FP7 Grant Agreement N° 608540



More information on <http://www.garpur-project.eu/>



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AGENDA

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7 October 2014

ENTSO-E premises, room AMPERE
Avenue de Cortenbergh 100 - 1000 Brussels - Belgium

13:30	<i>Welcome of attendees</i>
SESSION 1 INSIGHTS FROM THE GARPUR PROJECT	
13:45	Introduction to GARPUR and objectives of the workshop <i>Sophie Dourlens-Quaranta, Technofi</i>
14:00	Vision from TSOs: purpose of the GARPUR project <i>Gerard Doorman, Statnett (Chair of GARPUR General Assembly)</i>
14:30	Probabilistic reliability management: comparison with the N-1 approach <i>Louis Wehenkel, University of Liège (GARPUR Scientific Advisor)</i>
15:00	State of the art in reliability assessment and management <i>Gerd Kjølle, SINTEF Energy Research</i>
15:30	<i>Coffee break</i>
SESSION 2 VISION FROM IMPACTED ELECTRICITY STAKEHOLDERS (NON GARPUR PARTNERS)	
16:00	Reliability management from the DSOs' perspective <i>Jacques Merley, Head of Network Planning Department, ErDF</i>
16:20	Reliability management from the Power Generators' perspective <i>Paul Giesbertz, Vice President Regulatory Affairs, Statkraft</i>
16:40	Reliability management from the Technology Providers' perspective <i>Jean-Louis Coullon, Asset Management Director, Alstom Grid</i>
SESSION 3 ROUNDTABLE DISCUSSION	
17:00	Probabilistic reliability management: pros and cons from the electricity system players <i>Animated by Sophie Dourlens-Quaranta, Technofi</i>
18:00	<i>End of workshop</i>

Registration: Mrs. Sylvie Vaugelade - svaugelade@symple.eu - 00 33 4 93 65 34 44
When registering please mention your name, contact details, organization and type of impacted stakeholders (DSO, Power Generator or Technology provider)

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