

EU: ENISA calls for national and EU legislation on privacy in smart grids

By Asta Puraite



The European Network and Information Security Agency (ENISA) published - on 10 July 2012 - a study on Smart Grids Security (the Study), which calls on 'the European Commission (EC) and Member States'(MS) competent authorities [to] take the lead and develop specific policy documents and regulations on cyber security and privacy of the smart grid in order to improve the current regulatory and policy framework'. ENISA's recommendation comes after the Study found that a clear, regulatory and policy framework on smart grid cyber security at the national and EU level 'is presently missing'.

A smart grid is an upgraded electricity network with two-way digital communication between supplier and consumer, which makes energy distribution more efficient. Smart grids give rise to new information security challenges since information systems' vulnerabilities may be exploited for financial or political motivation in cyber-attacks.

"Our study shows that the two 'separate worlds' of the energy sector versus the IT security sector must be aligned on security for smart grids", said the Executive Director of ENISA, Professor Udo Helmbrecht. "We estimate that without taking cyber security into serious consideration, smart grids may evolve in an uncoordinated manner. I would therefore suggest that smart grids' security be made part of the EU's forthcoming Internet Security Strategy."

ENISA recommends that policies and regulations should, as a minimum, look for considering privacy and cyber security as two 'intrinsically interdependent' topics, and regulations should also define security measures to be considered in current smart grid deployments (e.g. smart meter roll-outs) and demand grid operators for mandatory risk assessments. ENISA recommends that regulations should impose obligation on manufacturers, integrators, services providers and grid operators to comply with specific security certifications and should establish fines for non-compliance, as well as making their compliance results public. Finally, the regulations should stipulate mandatory obligation on operators to report on cyber security related incidents to a national or supranational entity.

ENISA's study, which aims to identify the main concerns regarding the security of smart grids, states that 'cyber security and privacy are not being addressed appropriately since in many cases it has been considered as an overlay more than a very integral part of the design phase'. ENISA's study experts also consider that cyber security and privacy should be addressed at the design phase so as to minimise costs and maximise security. 'Data protection (i.e. confidentiality, integrity and privacy) and secure data handling, of consumer data as well as control and automation readings and commands processed by automated decision-making systems (e.g. distribution balancing) will be of paramount importance', read ENISA's study.

ENISA recommends that the EC, in collaboration with ENISA, the MS and the private sector, should develop a minimum set of security measures. ENISA also urges both the EC and the MS authorities to promote security certification schemes for the entire value chain of smart grids components, including organisational security.

'The smart grid has to follow a privacy and security by design approach', read ENISA's study. 'Additionally, a defence in depth strategy is considered also a must. In any case, robustness and reliability of the whole grid have to be the guiding principles both from a physical and an ICT point of view'.

The Commissioner for the Digital Agenda for Europe, Neelie Kroes, announced - in March this year - that the European Internet Security Strategy is being developed in close cooperation with Commissioners Malmstrom (home affairs) and Ashton (foreign affairs & security policy). The Strategy is due in autumn of 2012.

Additionally, Peter Hustinx, the European Data Protection Supervisor (EDPS), released - on 8 June 2012 - his opinion on the European Commission's Recommendation on the deployment of smart metering systems. "The EDPS calls on the Commission to assess whether further legislative action is necessary at EU level to ensure adequate protection of personal data for the roll-out of smart metering systems and - in his Opinion - provides pragmatic recommendations for such legislative action", said Giovanni Buttarelli, the Assistant EDPS. "Some of these recommendations can already be implemented via an amendment to the Energy Efficiency Directive, which is currently before the Council and Parliament."

Asta Puraite is an Associate Editor at DataGuidance, the global solution for data protection and privacy compliance

Email: asta.puraite@dataguidance.com

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