



Smart Grids Task Force (SGTF) Workshop on experiences and conditions for successful deployment of Demand Response and Self-consumption

Organised by the SGTF Expert Group 3 – Regulatory Issues
Brussels, 2 March 2016

The Smart Grids Task Force (SGTF¹) was set up by European Commission's Directorate-General for Energy in January 2010. It brings together under joint ENER/CNECT's chairmanship seven other Commission DGs (CLIMA, ENTR, ENV, GROW, JUST, JRC and RTD) and about 30 European organisations representing all relevant stakeholders on the Smart Grid arena, from both the ICT and energy sectors. SGTF was built taking into account previous Commission's initiatives such as the European Electricity Grids Initiative (EEGI) and the European Technology Platform for Smart Grids.

The mission of the SGTF is to advise the Commission on policy and regulatory framework at European level to co-ordinate the first steps towards the implementation of Smart Grids under the provision of the Third Energy Package.

The SGTF's plan of work is focused on deliverables split among four Expert Groups (SGTF-EGs), chaired by the Commission, and following the key challenges described in the Commission's Communication "[Smart Grids: from innovation to deployment](#)" [COM/2011/202] of April 2011:

- EG1: standardisation and interoperability of smart grids;
- EG2: privacy and security issues (Data protection Impact Assessment template, energy-specific cyber security strategy, identification of minimum security requirements);
- EG3: regulatory issues and recommendations for Smart Grids deployment; and
- EG5: implementation of Smart Grid industrial policy.

The SGTF-EG3 is designed to provide a joint regulatory and commercial vision and recommendations for the deployment of Smart Grids taking into account accumulated experiences worldwide and the technological challenges to be faced mainly during next decade/s, so as to co-ordinate the first steps towards the implementation of Smart Grids under the provision of the Third Energy Package. The challenge ahead for the SGTF-EG3 is to jointly agree among governments, regulatory authorities, regulated companies and end users on key issues such as the estimated cost/benefits, potential business models, the associated risks and the incentives needed.

The aims of this Workshop is to sharing experiences and discuss the challenges faced by energy intensive industries and householders, National Regulatory Authorities, power generators, suppliers, grid aggregators and grid operators when using demand side management and self-consumption with RES and non-RES and their potential role in reducing their energy costs

The Workshop will take place on 2 March at
CEDEC, the European Federation of Local Energy Companies, see <http://www.cedec.com>
Rue Royale 55, Brussels - 1000 Belgium

¹ <http://ec.europa.eu/energy/en/topics/markets-and-consumers/smart-grids-and-meters>

9.30	<p>Welcome and introduction. Manuel Sánchez. EG3 Chairman. European Commission, DG ENER –Internal Market</p> <p>Opening speech: Smart grids for smart markets. Gert de Block, Secretary General CEDEC</p>
SESSION 1: Demand Response : Experiences and conditions for successful deployment	
10.00	<p>Background and setting the stage Kai Tullius, European Commission, DG ENER.</p> <ul style="list-style-type: none"> – Description of facts/figures of DR experiences/business in the EU – Main legislative experiences – Key issues expected to discuss today: dynamic prices, framework for the aggregation and flexibility, smart infrastructure, etc.
10.15	<p>Experiences, key challenges and reflections on possible solutions</p> <ul style="list-style-type: none"> – Christopher Webb. Head of Energy Management - Europe, Middle East & Africa Linde Group Procurement - Energy and Feedstocks Dept. – Andreas Flamm – Director Regulatory Affairs Europe, EnerNOC – Andy Burgess, Ofgem
11.00	<p>Panel discussion with speakers and additional panellists Moderator and rapporteur: European Commission, DG ENER</p> <ul style="list-style-type: none"> – Christopher Webb. Head of Energy Management - Europe, Middle East & Africa Linde Group Procurement - Energy and Feedstocks Dept. – Andreas Flamm – Director Regulatory Affairs Europe, EnerNOC , Germany – Andy Burgess, Ofgem, UK – Judith Ward, Director Sustainability First, UK – Heli Lummaa, Head of New Business at Fortum – Peter Hermans, Stedin , The Netherlands – Colas Chabanne, WG Market Design & RES Convenor, ENTSOE – Jean Yves Blanc, VP Utilities - Demand Side Management, Energy Business, Schneider Electric, France
13.00	Lunch break
SESSION 2: Self-consumption: Experiences and conditions for successful deployment	
14.00	<p>Background and setting the stage Giulio Volpi, European Commission, DG ENER</p> <ul style="list-style-type: none"> – Description of main trends in self-consumption schemes globally – Market share of self-consumption: reality check – Key issues expected to be discussed during the workshop: framework to facilitate self-consumption, enablers to make self-consumption smart, etc.
14.15	<p>Experiences, key challenges and reflections on possible solutions</p> <ul style="list-style-type: none"> – Richard Verhagen, Director Energy and Utilities at Huntsman, Belgium. – Rodolfo Martinez, Head of Infrastructure Regulation at Iberdrola, Spain – Annette Kroll, Regulatory Affairs Benelux, ENGIE
15.30	<p>Panel discussion with speakers and additional panellists Moderator and rapporteur: European Commission, DG ENER</p> <ul style="list-style-type: none"> – Richard Verhage, Director Energy and Utilities at Huntsman, Belgium. – Rodolfo Martinez, Head of Infrastructure Regulation at Iberdrola, Spain – Annette Kroll, Regulatory Affairs Benelux, ENGIE – Hendrik Sämisch, CEO Next-Kraftwerke, Germany – Artur Trindade, ERSE, Portugal – Jörg Mühlenhoff. Project Coordinator on Renewable Energy, BEUC
17.00 - 17.30	<p>Final Remarks and next steps Manuel Sánchez and Rapporteurs of panels 1 and 2</p>

Main conclusions

The aim of this Workshop was to share experiences and discuss the challenges faced by representatives from energy intensive industries and householders, National Regulatory Authorities, power generators, suppliers, grid aggregators and grid operators when using demand side management and self-consumption with RES and non-RES and their potential role in reducing their energy costs (see agenda).

The workshop was opened by the Commission followed by a number of presentations for steering the subsequent discussions, which were structured into two main streams: demand response and self-consumption. Conclusions are summarised below for each session.

1. Demand Response

In general, participants agreed that demand response needs to develop further to efficiently integrate the increasing share of variable renewables to the system and that a solid supporting legal framework has to be in place. The main conclusions from the workshop with a view on the Commission's upcoming market design initiative can be summarised as follows:

On technology

The availability of smart metering systems is key for the implementation of demand response. Their technical capabilities and interoperability determines which demand response services can be offered on the market. As such compliance with common minimum functionalities and interoperability requirements set up at EU level can be considered essential for the development of a wide range of flexibility services.

Changes in future market design are likely to have an impact on smart meters and the evolution of their functionalities. Therefore, the architecture of the next generation of smart meters should be flexible and capable to easily follow future changes in the electricity system and market design.

On consumers

Different consumer groups (residential, commercial, and industrial) have different possibilities and preferences to engage in the market. This is also reflected in the different services offered to them by demand service providers. These differences may also require explicit distinction between those consumer groups in regulation.

The development of demand response services may lead to higher costs for those consumers that are not able or willing to shift their consumption and continue to consume at times of low supply and/or high demand when wholesale prices are high. Regulation needs to make sure that vulnerable consumers are not exposed to such cost increases.

On markets

There was wide consensus that demand response shall develop as a competitive service and that there is no need for subsidies. There was equally consensus for the need for demand response service providers that can either be independent third parties or part of an established market player (e.g. supplier). Market rules need to ensure the neutrality of the DSOs and a fair, non-discriminatory and competitive environment for all of those players.

However, different views were expressed on how this fair competition can be ensured. While some participants considered that Member States are best placed to develop the regulatory framework in their jurisdiction other participants favoured a clear European legislative framework that explicitly addresses the roles and responsibilities of independent aggregators, their relation to BRPs and that ensures fair market access for them.

2. Self-consumption

There was a broad consensus about the potential for prosumers to support the energy transition. In particular to achieve the 2030 targets, promote system flexibility, spur innovation, and avoid grid investments over the medium term. In this context, consumers should have possibility to produce and store their own renewable electricity and participate in all relevant energy markets in a non-discriminatory and simple way, including through aggregators.

Enablers for such consumers' empowerment include smart meters, smart appliances and systems, local storage (thermal or electric), and aggregators. The right price signals should drive consumers to better match their consumption with production profiles for the system benefits.

However, opinions differed on the speed to which prosumers, particularly residential consumers, should be exposed to short term markets. Many DSO participants argued for phase out of support schemes towards valuing excess electricity at the wholesale market price. On the other hand, the RES generators and consumer representatives highlighted that market-based support schemes are still needed to support small scale renewable energy systems during the transition to new market design which is fully fit for renewables and where carbon emissions are correctly priced.

The large majority of participants highlighted that tariffs should be increasingly reflecting the impact of the consumer on the electricity grid, while being simple and transparent and ensuring the support of EU policy objectives on energy efficiency and renewable energy. Overall, given the large variety of tariff structure models across the EU and given the differing local conditions, there may not be one-size-fits-all solution. There were divergent views on the need for specific tariffs for prosumers; however, it was highlighted that the introduction of time of use tariffs was considered useful. The Commission could however define better the EU principles overseeing tariff setting at national level.

NOTE: The information and opinions contained in these conclusions do not necessarily reflect the position of the European Commission. The European Commission is not responsible for the use made of the information contained therein.

**EG3 2016-Workshop on
Demand Response and Self-consumption
2nd March 2016
Participant list**

SPEAKERS

Organisation	Name
European Commission	Manuel Sánchez
CEDEC	Gert de Block
European Commission	Kai Tullius
Linde	Christopher Webb
EnerNOC	Andreas Flamm
Ofgem	Andy Burgess
Sustainability First	Judith Ward
Fortum	Heli Lummaa
Stedin	Peter Hermans
ENTSO-E	Colas Chabanne
Schneider Electric	Jean Yves Blanc
European Commission	Giulio Volpi
Huntsman	Richard Verhagen
Iberdrola	Rodolfo Martinez
ENGIE	Annette Kroll
Next-Kraftwerke	Hendrik Sämisch
ERSE	Artur Trindade
BEUC	Jörg Mühlenhoff

COMMISSION and CEER

Organisation	Name
Kostas Stamatis	European Commission
Michaela Kollau	
Dina Filiou	
Patricia Arsene	
Nicolas Kuen	
Patrick Van Hove	
Valérie Lorgé	
Anna Colucci	
Jan Papsch	
Karin Widgren	
Stefan Voegel	
Jose Antonio Castro	
Stian Henriksen	
Marie Helene Briant	
Liana Cozigou	
Pauline Ottoy	
Sejal Mahida	
Darryl Abelscroft	
Friedl Werner	

Stakeholders

Organisation	Name
CECED	Christophe Arnaud
CEDEC	Falk Engelmann Paul De Wit
COGEN	Alexandra Tudoroiu Simon Minett
Consumer Futures	Heidi Ranscombe
ECOS	Thomas Willson
EDSO	Olivier Chatillon
ENTSO-E	Alexander Dusolt
ETNO	Lorenzo Pupillo
Eurelectric	Pavla Mandatova Alain Taccoen Philip Thies
EUROGAS	Eva Hennig Hartwig Ziegler
EUTC	Miguel A. Sánchez Fornié
ESMIG	John Harris Willem Strabbing
IFIEC	Peter Claes
GEODE	Carmen Gimeno Hans Taus
ORGALIME	Ulrich Fikar Sigrid Linhe
RAP	Phil Baker
SEDC	Frauke Thies Fabien Bricault Pierre Bivas
T&D	Jochen Kreusel