

Smart Grids Task Force

Terms of Reference for Working Group on

Electricity and Gas Data Format and Procedures

Following the decision of the 17/02/2017 Steering Committee meeting of the Smart Grids Task Force, a Working Group on Electricity and Gas Data Format and Procedures (hereafter "the Working Group") is to be formed with the overall task to collect information and investigate how best to proceed with setting up a common framework concerning format and procedures for electricity and gas data access and exchange in the EU-28. There have been some initial reflections on this issue captured in the recent interim report on "My Energy Data"¹ drafted by an ad-hoc group of the Expert Group 1 (EG1) of the Smart Grids Task Force.

1. Scope and Objectives

The main objective of this Working Group is to continue the preliminary work undertaken under EG1 towards a common (electricity and gas) data framework and the converging of procedures at European level. This is to be done bearing in mind that consumers, and other parties on their behalf, should have easy access to their energy data.

The aim is to ultimately achieve consensus among key stakeholders on best practices, and propose what should be the scope and coverage of further and more specific secondary EU legislation (i.e. implementing act(s)) to set up such common arrangements ensuring interoperability.

The Working Group is expected to (i) map existing national practices, as well as existing European and international standards and role models and initiatives, on data access and data management (including conditions for the use and re-use of data) in EU Member States in the field of electricity and gas market; (ii) identify current and anticipated obstacles (at national and/or EU level) for data access and data management, with due regards to the impact of a more harmonised framework, bearing in mind potential future developments in technology and markets; (iii) work towards framing a common framework for electricity and gas data handling, access and interchange.

The Working Group will investigate the extent to which consolidating the respective national set-ups into a common framework at EU level can help break silos and bring together currently diverging practices in Member States, facilitate interoperability and the uptake of new services, increase the internal market competition, and contribute to keeping administrative costs under control.

2. Background

2.1 Context

In line with the current legislation² consumers are entitled to receive their consumption data from electricity and gas undertakings, and allow access to it to a third party of their choice, free of charge. It is the task of the national regulatory authority to provide an easily understandable and harmonised

¹ "My Energy Data" Interim Report, Smart Grids Task Force (November 2016)

https://ec.europa.eu/energy/sites/ener/files/documents/report_final_eg1_my_energy_data_15_november_2016.pdf

² Directive 2009/72/EC and Directive 2009/73/EC; point Annex I.1(h)

framework for the respective data³. These provisions, taken together, are designed to make it easier for consumers to access and understand their own consumption, and use this information to compare offers from energy suppliers or other service parties. Moreover, with the introduction of smart meters, this data is further enriched⁴ and could be used by service providers to create, and offer to consumers, broader value propositions beyond energy supply.

To facilitate this, and ensure that the required access and data exchanges among eligible parties happen via trusted mechanisms, in a transparent and non-discriminatory manner, standardised arrangements need to be in place. These should cover a semantic model of the data to be exchanged, the content of data, the format in which data is provided to parties, and the systems and procedures used for control, access and the exchange of this data.

The harmonisation of energy data exchange to ensure interoperability is an important dimension of the European liberalised electricity and gas markets.

2.2 The issue

In practice, when it comes to defining and implementing an extensible, single data model (structure and semantics), a serialisation format (the “envelope”)⁵ and a procedure at national level, Member States are progressing at different speeds, and diverging practices are emerging usually reflecting domestic needs and realities. This requirement becomes even more topical with the wider use of smart metering⁶ and the digitalisation of the energy services which are expected to dramatically increase not only the volumes and granularity of data generated and exchanged within the (power or gas) system, but also their commercial value. Diverging national practices and differences in national regulation do not facilitate interoperability and cross-border trading of energy services and products, and do not help achieve a truly competitive internal energy market. This is of relevance to quite a number of stakeholders (such as end-users, DSOs, TSOs, suppliers, aggregators and service providers).

Given its value, it is important that data is managed appropriately and that all eligible market actors have access to it in a transparent and non-discriminatory way according to their specific role and purpose, while having due regard to the consumer’s privacy and security and to national legislation in the different Member States.

³ Article 37(p) of the Electricity Directive, Article 41(q) of the Gas Directive.

⁴ Cf. also Articles 9(2) and 10(2) of Directive 2012/27/EU (the Energy Efficiency Directive)

⁵ By defining an information model for an application or system, the structure of the data is decoupled from its serialisation format. This has the benefit of making it easier to understand the data within the system as abstract entities, rather than being a particular line or column of text within a file or as one or more columns and tables in a database. This also allows the same data to be serialised in multiple different formats without impacting its structure and definition.

⁶ 17 EU Member States are proceeding with a wide-scale smart metering roll-out (at least 80% penetration rate by 2020) for electricity and 2 Member States with a selective (up to 23% penetration rate) roll-out. For gas, 7 Member States intend to roll-out by 2020 in total 45 million gas smart meters [Ref. Commission Report COM(2014) 356, as recently updated in the Smart Grids Task Force EG1 Report: “*Status report based on a survey regarding Interoperability, Standards and Functionalities applied in the large scale roll-out of smart metering in EU Member States*”, October 2015]

2.3 Relevant legal basis & instruments

The current national legal order in Member States as well as the existing and envisaged EU legislation shall be the main framework of the work. The following EU legislation is of relevance:

- Electricity Directive 2009/72/EC and Gas Directive 2009/73/EC
- Energy Efficiency Directive 2012/27/EU
- Measuring Instruments Directive 2014/32/EU
- NIS Directive 2016/1148/EU on security of network and information systems
- General Data Protection Regulation (EU) 2016/679
- Proposal for a Recast Electricity Directive 2016/0380 (COD) (Article 24, 23(1), 68)
- Proposal for a Regulation on Privacy and Electronic Communications

Also related standardisation work:

- Smart Grid Mandate M/490; "Standardisation mandate to European Standardisation Organisations to support European smart grid deployment"
- Smart Meter Mandate M/441; "Standardisation mandate to CEN, CENELEC AND ETSI in the field of measuring instruments for development of an open architecture for utility meters involving communication protocols enabling interoperability".

The work of this group is mainly based on data issues raised in the "Proposal for a Recast Electricity Directive 2016/0380 (COD) (Article 24, 23(1), 68)". If the respective articles are amended during the legislative procedure, a review and reassessment of these terms of reference will be carried out.

3. Description of Work

3.1. Definition of the scope

To respond to the aforesaid objectives, the first task of the Working Group will be to define the scope of data to work on. The Working Group should clearly define the type, purpose and relevance (citizen and consumer interest, business interest, public interest) content and coverage, of the data concerned– e.g. metering data, consumption data, supplier switching data, prosumer data; for electricity and gas; see also the task of the investigation in section 1 of the present document.

3.2. Issues to be tackled

Then, the Working Group should cover the following issues:

Issue 1 – role model relevant to the scope tackled

Issue 2 – framework for access and exchange to these data

Issue 3 – semantic model for the data to be exchanged

Issue 4 – investigation of a data framework focusing on achieving and maintaining interoperability

Issue 5 – investigation into the cost and benefit drivers of the harmonization proposed and recommendation on advantages and disadvantages of possible legislative act.

3.3. Methodology

For each of the issues to be addressed, the general methodology to follow should be based on these steps:

- Identify what is available
 - o Undertake a thorough review of current practices in the EU-28 Member States, while also mapping and collecting data and best practices at international level; this work will build upon available information, starting from the CEER⁷ related publication^{8,9} on data management and the "My Energy Data"¹⁰ interim report of the ad-hoc group under Expert Group 1;
- Find common features and differences
- Identify the gap to be covered to ensure interoperability
 - o Carefully consider the impact on this work (to be performed by this Working Group) from any new developments, or changes in the legislative environment, as they might arise during the execution of the different tasks, for instance the adoption of the Clean Energy for All Europeans Package.
- Investigate the level of convergence that can be achieved under current conditions.
- Propose how best to bridge the gap
- Investigate the cost and benefit drivers of the harmonisation proposed.

The specific tasks that this Working Group will undertake will need to be defined in detail, and a roadmap for their execution must be developed – the latter will be compiled within the first month of the activity (see Milestone 1). The detailed methodology to be followed in this analysis will be agreed by the experts participating in the Working Group who will need, amongst others, to consider whether some of these tasks will be handled in parallel by sub-group(s) of experts or sequentially by the whole assembly.

3.4. Deliverables

The Working Group will have to conclude its work and deliver the final results by the end of 2018. The findings will be summarised in two deliverables (reports) which will be submitted for approval to the Steering Committee of the Smart Grids Task Force at the end of 2017 and 2018, respectively.

To keep the programme of work on schedule, the following milestones and deliverables are defined:

⁷ CEER: Council of European Energy Regulators

⁸ CEER publication (March 2015) "CEER Advice on Customer Data Management for Better Retail Market Functioning Electricity and Gas";

⁹ CEER publication (December 2016) "Review of Current and Future Data Management Models";

¹⁰ Report by Smart Grids Task Force ad-hoc group of the Expert Group 1 – Standards and Interoperability (November 2016) "My Energy Data"

- Milestone 1 - Terms of Reference including agreement on general approach and roadmap: within first month of the launch of the Working Group
- Deliverable 1 – 1st Interim Report: by 12/2017
- Milestone 2 – 2nd Interim Report: by 06/2018
- Deliverable 2 – Final Report: by 12/2018

The Working Group's activity will kick-start with the approval of the Terms of Reference and the detailing of the work items, as well as the definition of the outline of each deliverable; this is scheduled within the first month of the work (1st milestone).

Consensus among all actors involved is essential in all steps of the process and especially for the Final Report.

The Final Report shall *inter alia* propose the areas and topics that should be covered by a potential future EU (secondary) legislation to set-up a common energy data framework ensuring interoperability, standardisation and harmonised procedures at European level. In this context, these concrete issues should be analysed with the aim to establish a framework that facilitates energy data access and exchange and regulates the interactions of the various actors in the market.

3.5 Reporting

The Working Group should provide all deliverables as described above and complete its mandate by end of December 2018. The Working Group is expected to periodically report on its progress at scheduled meetings of the Smart Grids Task Force Steering Committee.

4. Organisation and Membership of the Working Group

The Working Group will consist of 17 external experts as those have been nominated by the Smart Grids Task Force Steering Committee participating organisations, and will undertake its work by means of its own resources. The Commission will chair the Working Group and organise the necessary meetings.

In its first meeting, the Working Group will nominate an Editorial Team which will consist of no more than 5 members of the Working Group. The Editorial Team will be responsible for drafting the report based on the input and comments formulated by the Working Group. The members of the Editorial Team may decide on any further working arrangements and allocation of work upon formation of the Team.

It is foreseen that the Working Group will meet on average once every quarter (4 meetings per annum), while the Editorial Team can arrange separate, more frequent, meetings.

The Working Group members should be high level experts in the field, holding strategic positions in their organisations and market domain, thus being capable to influence stakeholders, to foster partnerships and to leverage resources. They should also demonstrate a high degree of commitment to the Working Group and the ability to devote sufficient time to its activities. The Commission will inform the Smart Grids Task Force Steering Committee on the final Group composition and of any subsequent changes.

The table below shows the proposed composition of this Working Group:

Smart Grids Task Force - Working group "Electricity and Gas Data Format and Procedures"
Chaired by the European Commission

EC	DG ENER	Manuel Sánchez Jiménez Constantina Filiou Niels Ladefoged Remy Denos	
	DG CNECT	Patricia Arsene	
	DG GROW	Daniel Hanekuyk	
	DG JRC	Ioulia Papaioannou Nikoleta Andreadou Igor Nai Fovino	
	DG JUST	Georgios Kiriazis	
	DG RTD	Patrick van Hove	
	INEA	Mariana Stantcheva	
	Association	Expert	Alternate
Nomination of one expert and one alternate (1) no alternate (2) Multiple functional player (3) Covering also the role of supplier (4) 2 experts and 2 alternates (5) EC ask BEUC case by case, according with the issue to discuss	CEER	Ulrika Bäärnhielm - SE NRA	Deniz Erdem – DE NRA
	CEDEC(1) (2)	Christian Richter – vku (DE)	-
	EDSO (1)	Jean-François Montagne -Enedis-	-
	Eurelectric (1) (3)	DSO issues: Paul de Wit – Alliander Supply issues: Kajsa Lilius – Öresundskraft	-
	GEODE (1)	Franz Fischer – Energie AG	-
	ENTSO-E (4)	Olivier Aine – ENTSO-E Milos Bunda – BUNDA	Norela Constantinescu – ENTSO-E Marcos Olmos – ENTSO-E
	Orgalime/T&D	Rodolphe de Beaufort – GE	Sigrid Linher – ORGALIME
	ESMIG	Miguel Gaspar – SAP	Willem Strabbing –ESMIG
	ANEC/BEUC (5)	Neil Avery – ANEC	Katrin Behnke – ANEC
	SEDC	Frauke Thies – SEDC	Chris King – Siemens Digital Grid
	ENTSO-G (4)	Jackie Manning – ENTSG Jef de Keyser – ENTSG	
	Eurogas (1)	Julien Quainon – DSO GRDF	
	MARCOGAZ	Jos Dehaeseleer – Marcogaz	
	ETNO/GSMA		
BEREC			
ebIX	Kees Sparreboom – TenneT	Vlatka Cordes - Westnetz	