

CIM USER GROUP MEETING – SACLAY, June 18-20

Abstract: “Using the CIM for energy data sharing to enhance interoperability in Europe”

The European Union set ambitious energy targets for the year 2020. This global move towards energy transition is particularly intense at consumption and production endpoints: enabled by new technologies, innovative applications emerge, related to Smart Homes, Smart Buildings, EV charging, smart offers from suppliers, aggregators, etc. These applications require customers to be able to share their energy data with third parties that can be very diverse. Our intervention will present Enedis’ work on a standardized energy data format, from the first developments in 2015 to the standardization work until 2019.

Enedis has been working on a standardized data exchange model for energy since 2015. At this time, Enedis’ Data Governance Committee decided to work on a dedicated “French Green Button” format, based on the CIM standard and inspired from the US Green Button, which was launched a few years ago and was not 100% CIM compatible.

Enedis data format propositions were presented in a French strategic committee reporting to the French government (COSEI) in 2015. It triggered a work in 2016 by European experts reporting to the Smart Grid Task Force (set up by the European commission in 2009 to advise on issues related to smart grids). The first report in 2016, “My Energy Data”, drew general recommendations for energy data access and data sharing, among them using existing standards like the IEC CIM. From 2017 to 2019, while the European parliament discussed and finally voted the new dispositions related to the “Clean Energy Package for all Europeans”, the expert group EG1 drafted a second report “Towards interoperability within the EU for electricity and gas data access and exchange”. This last reports mentions explicitly business use cases that were drafted in UML for data exchange with consent management, using the standardised IEC methodology [IEC 62559 standard series and IEC 62913-1 Generic Business Requirements Methodology], and a CIM based data format published in the IEC TC57 for comments end of 2018 (status: CD1).

During the expert group work at European level, Enedis could put into practice several recommendations and “pre-standardized” data exchange model based on CIM metering: a first data exchange model specification and implementation for Flexiciency European H2020 project [grant agreement No 646482]; then another implementation of this model to be used when sending daily energy consumption to local French authorities; early 2018 a third implementation in JSON for SmarterTogether EU H2020 project, and lastly (end 2018) the CIM data exchange implemented on JSON/XML format for energy data access through the standardized API service “Enedis data connect”.

As a perspective, the already used CIM based data formats should be discussed in IEC appropriate instances as there are at least contextual CIM models to modelise the data exchange and messages from the CIM : one way is related to the “CIM market” branch (using time series representation), the other way to “CIM Metering” branch (using interval blocks representations). Both approaches may have specific applications, depending on the associated business cases – e.g. “market”: energy data for balancing management, program scheduling and outages, ... vs “metering”: aggregated energy data, substation data, ...

Presenters: Jeff Montagne (below), Fabien Coutant (Data Project Manager), Juan Pareja (IT Project Manager)

Jeff Montagne is working as Chief Data Governance Officer for Enedis ; his major concern is to develop data sharing for the customer and for all energy transition contributors. He contributed to the EG1 report dedicated to data format & procedures interoperability, to be released in 2019.

With 20 years of experience in IT systems and Controlling for utilities, Jeff has been successively working on SCADA communication protocols and market exchange platforms for the French TSO, on modernizing security and architecture policies for EDF IS Group, then on digitalisation for Enedis. He also spent several years in finance within EDF Group. He graduated as Engineer from Telecom ParisTech / Stuttgart university and holds an MBA from ESCP Europe.

Juan Pareja: with more 20 years of experience in IT, Juan is currently working as IT Project Manager for Enedis SmartGrid & SmartCities projects. He has been involved in projects like SmartGrid Vendee, Greenlys, EvolvDSO and Interflex where DSO and partners are experimenting the new uses cases could be developed in the Distribution Grid: Demand Reponse Flexibilitiess, operational planning and scheduling, and congestion management. By the past Juan worked in EDF's Balance Responsible unit as contract manager and in RTE as project manager in the international interconnections area and for the Central West European electricity market coupling. Juan is graduated IT engineer by the Universitat Politecnica de Catalunya in Barcelona.

Fabien Coutant: after 8 years in consulting firms with energy and telecommunication customers, Fabien Coutant joined Enedis, one of the largest electricity distribution system operator in Europe. Now part of the Data Gouvernance team, he is in charge of various projects, from Open to Closed Data, from field experimentation to mid term data strategy. Fabien is particularly involved with experiments and strategic projects regarding the handling of smart meter data. Fabien graduated from Telecom ParisTech and Polytechnique Montreal.

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