Energy producers in the 21st century: Digital technology at the service of consumers and the energy transition

Fabien Choné,
general manager, Direct Énergie

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***Abstract*:**
Direct Énergie, a major player in the energy industry in France and Belgium, has compelled recognition as a well-balanced operator in the production and supply of electricity and natural gas. Having made innovation one of its major axes of development, this firm has put digital technology at the service of the energy transition and consumer needs. As a supplier of "energy 4.0", it is seeking to position itself as a leader in "orchestrating" how its customers consume energy. Reinforcing its position as the single energy supplier to its customers entails modifying the regulatory framework for data transmission to make it compatible with the "single contract", which binds a customer to a firm that both supplies and transports energy.

At the service of customers and the energy transition

As a 21st-century operator, Direct Énergie has, from the very start, positioned itself as an actor at the customer's service.[1] This position is all the more justified in a totally new context at the junction of two trends: the digital revolution, whereby consumers benefit from arrangements for monitoring and controlling their consumption; and the energy transition with the development of renewable sources of energy and new uses (electric vehicles, self-production and -consumption of electricity, etc.).

In this context, Direct Énergie is betting on digital technology to reinforce its commitment to serving consumers through a strategy with two axes.

The FIRST AXIS is to develop multichannel relations with customers through a set of recent, now available innovations (telephony, electronic messaging, social media, etc.). In 2016, the company launched a new application, designed in collaboration with its customers and in response to their practices, that simplifies access to a series of key features for helping customers keep track of their consumption, read their own meters, etc. The firm has also set up Bot Messenger, which helps new customers with all the paperwork up till the finalization of their contract. Direct Énergie is also attentive to providing consumers with guidelines for analyzing and monitoring their consumption. For those equipped with Linky, a smart electricity meter, Direct Énergie provides a report on their consumption during the month, relates this information to the weather, and offers advice about how to curb consumption, etc. The firm also makes available to all its customers, via their on-line accounts, detailed data on their personal consumption. Under its standard offer, the company proposes a yearly appointment with a qualified advisor to review, update and optimize the

[1] This article has been translated from French by Noal Mellott (Omaha Beach, France). The translation into English has, with the editor's approval, completed a few references.

consumer's contract. During the freezing spell in the winter of 2016-2017, Direct Énergie launched an operation (Tous Au Courant) for warning consumers about the equilibrium of their electrical system and informed them about the environmentally friendly actions to undertake in case of congestion on the grid.

The SECOND AXIS in its strategy is an ambitious policy of innovation at the service of both the energy transition and consumers. For its customers with a multisite contract, Direct Énergie has an application for helping them follow up on their consumption and analyze the differences between locations. It can also help them control certain uses in order to improve energy efficiency. The firm has also announced several tools for monitoring, controlling and optimizing consumption. Maestro displays real-time electricity consumption in KWh and in euros; and OnOff can regulate how electricity is used through real-time monitoring and remote control over heating systems and water-heaters (with the possibility of load management). Certified by France's electricity transmission network (RTE: Réseau de Transport d'Électricité) in April 2017 for the management of the primary reserve capacity, OnOff will help customers oversee their consumption, save energy and maintain a real-time equilibrium on the grid via peak-shaving during periods of intense demand.

The need to reform the regulatory framework

Given its concern for efficient customer relations, Direct Énergie is fully committed to the pursuit of a digital strategy at the service of the energy transition. This strategy is currently hampered by a rigid regulatory framework that fosters confusion about the organization of the market, the roles assigned to various players and the means for fulfilling these assignments, all this to the detriment of consumers and the community.

Under a decision by France's Regulatory Commission on Energy (Commission de Régulation de l'Énergie, CRÉ),[2] an energy supplier has, as *"sole customer contact"*, the obligation to provide advice and assistance. Energy suppliers must, therefore, have at their disposal the information necessary for fully assuming this obligation. However current regulations do not allow for equal access to data by distribution network operators (henceforth DNOs) and energy suppliers.[3]

Under current regulations, DNOs are authorized by default — without the customer's prior consent — to have access to all the data coming, day after day, from connected meters whereas energy suppliers have access to this data only after having obtained the customer's express consent. These legal obligations are out of balance. They are a source of complications and confusion for consumers, who thus depend on two distinct operators for information about their consumption patterns. Consumers have access to their daily consumption data via the DNO's website, but have to ask their energy supplier to understand and analyze the information. Given this situation, how to ask

[2] Specifically by a decision of the CRÉ's Comité de Règlement des Différends et des Sanctions on 7 April 2008: Décision du comité de règlement des différends et des sanctions de la Commission de Régulation de l'Énergie en date du 7 avril 2008 sur les différends qui opposent respectivement les sociétés Direct Énergie, Gaz de France, Electrabel France et Poweo, à la société Electricité Réseau Distribution France (ERDF), relatifs à la signature d'un contrat GRD. Available via:
http://www.cre.fr/documents/reglements-de-differends/cordis-7-avril-2008-differends-qui-opposent-respectivement-les-societes-direct-energie-gaz-de-france-electrabel-france-et-poweo-a-la-societe-electricite-reseau-distribution-france-erdf-relatifs-a-la-signature-d-un-contrat-grd-f.

[3] In particular, two French decrees on making data about electricity and natural gas consumption available to consumers and energy suppliers:
Décret n°2017-948 du 10 mai 2017 relatif aux modalités de mise à disposition des consommateurs des données de consommation d'électricité et de gaz & décret n°2017-976 du 10 mai 2017 relatif aux modalités d'accès par les consommateurs aux données de consommation d'électricité ou de gaz naturel et à la mise à disposition de ces données par les fournisseurs are available respectively at:
https://www.legifrance.gouv.fr/eli/decret/2017/5/10/DEVR1706764D/jo
and https://www.legifrance.gouv.fr/eli/decret/2017/5/10/ECFC1711686D/jo/texte.

energy suppliers to provide advice and assistance to customers without opening to them the data necessary for doing so? These unbalanced arrangements must be modified to avoid confusing consumers and to avoid unjustified overcharges for the community.

The energy supplier's access to data about the state of the grid must also be improved, since, once again, the customer's single contract for energy entails a special customer relationship. The latter has advantages such as the rapidity of communications with customers when the grid is in a critical state: load-shedding, power cuts for maintenance, incidents, voltage surges, etc.

By using digital technology to reinforce the supplier's position in the energy transition, an opportunity arises that must be taken since it benefits both consumers and the community. As a consequence, we must improve data processing by guaranteeing to energy suppliers, in particular, the access to sufficiently detailed and relevant information. As for electricity consumption, the supplier's access to information on the load curve (at least hourly) would be sufficiently relevant for making proposals about how to adapt a contract to the customer's specific needs (the power foreseen under the contract, rates and routing options, etc.) and for developing new services and offers (monitoring and controlling consumption, advice on energy efficiency, home improvements, etc.). Unfortunately, the current system foreseen for the smart meter Linky does not always enable energy suppliers to provide customers with reliable advice about the options best suited to their consumption patterns (in particular, the alternative between a basic rate or a rate based on peak and off-peak hours), since the necessary data are not recorded by default in the meter. Energy suppliers need the (at least hourly) data on the load curve collected by the DNO and recorded in his information system if they are to play a full part in the energy transition while reassuring consumers that their personal data remain private.

For digital technology to be at the service of the energy transition, the legislative and regulatory framework on data transmission must be optimized so that energy suppliers can fully use the skills and qualifications they now have. Their knowledge of customer relations is an advantage that they must seize in behalf of both the community and consumers.