

# Working Group Report

## “Consumers as Energy Market Actors”

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## 1. Mandate of the Working Group

Following the mandate by the 6th Citizens' Energy Forum, this Working Group has:

- reviewed the existing legislative framework to assess whether the conditions are in place for energy consumers<sup>1</sup> to participate actively in energy markets and for the energy industry and network to be able to provide them with the necessary services;
- looked into new forms of active energy **usership** by which consumers, individually and collectively, seek better deals and consume in a sustainable manner;
- highlighted relevant national practices and produced recommendations on the basis of submissions from Working Group members (see participants and invited speakers in annex).

The Working Group has focused more specifically on:

- the role of consumers and their potential gains from demand response, energy efficiency and other new innovative services;
- the presentation of some existing practices, including both individual actions, such as micro-generation, as well as collective bottom-up initiatives, such as collective switching or energy cooperatives.

The working method of the group consisted in:

- meeting four times (on 19.2.2014, 3.4.2014, 12-13.6.2014 and 16.12.2014);holding several conference calls;
- exchanging views per e-mail and providing comments and input for the present interim Report is two successive rounds between December 2014 and present.

It is important to acknowledge in preamble that the practices presented in this interim report are only examples and many energy consumers do not have the opportunity, resources or skills to engage in related projects.

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<sup>1</sup> For the rest of the report this term will refer to household consumers only (not to industrial end-users, or SMEs).

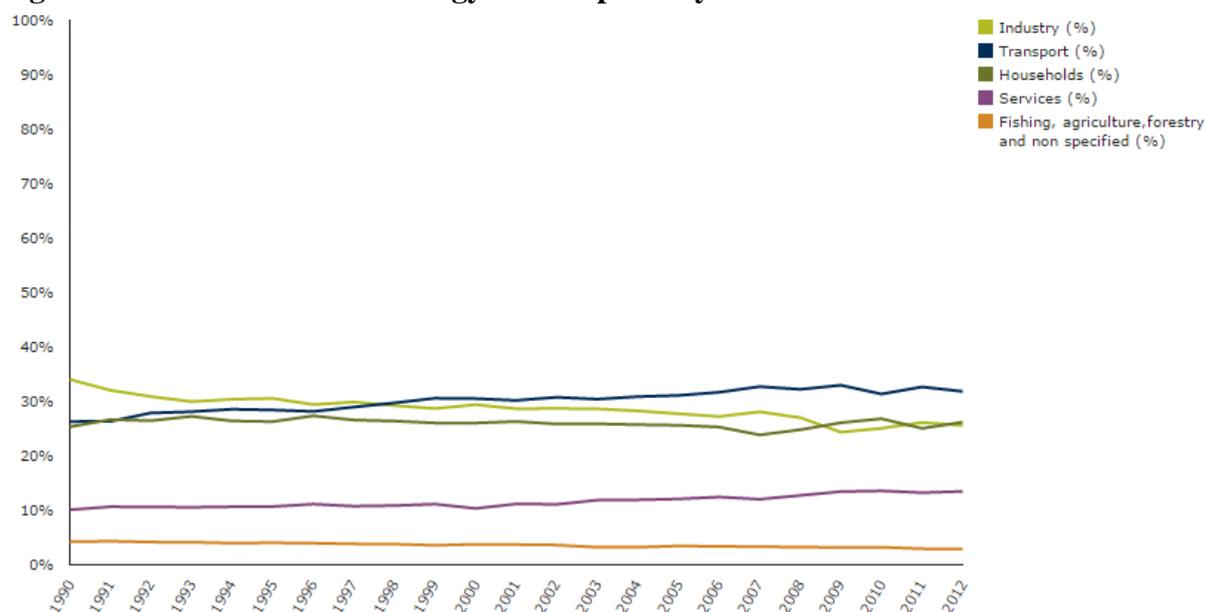
## 2. Energy markets in 2015

### 2.1 Consumption figures and trends

Energy policy in the European Union is **conditioned** by the targets for reducing greenhouse gas (GHG) emissions, increasing the use of renewable energy sources and improving energy efficiency for the near future (2020)<sup>2</sup> and in the mid-term (2030)<sup>3</sup>, coupled with long-term energy consumption and production pathways (the 2050 decarbonisation roadmap)<sup>4</sup>.

European consumers stand to gain from this profound transition in terms of quality of life, better air quality and security of supply. At the same time, considering that 26% of all EU energy is consumed by households, the individual and collective choices of consumers will also contribute towards the success of this transition.

**Figure 1: Shares – EU final energy consumption by sector<sup>5</sup>**



The EU is progressing towards these targets while at the same time opening up Member State energy markets, at wholesale and retail level, to competition. These two parallel activities are complementary as market competition is expected to provide the flexibility and price signals for the optimal allocation of resources.

Energy efficiency improvements in buildings can save money for consumers. **EU households spend on average 6.4% of their disposable income** on home-related energy use, about two thirds for heating and one-third for other purposes<sup>6</sup>. **In 2012 almost 11% of the population of**

<sup>2</sup> [http://ec.europa.eu/clima/policies/package/index\\_en.htm](http://ec.europa.eu/clima/policies/package/index_en.htm).

<sup>3</sup> [http://ec.europa.eu/clima/policies/2030/index\\_en.htm](http://ec.europa.eu/clima/policies/2030/index_en.htm).

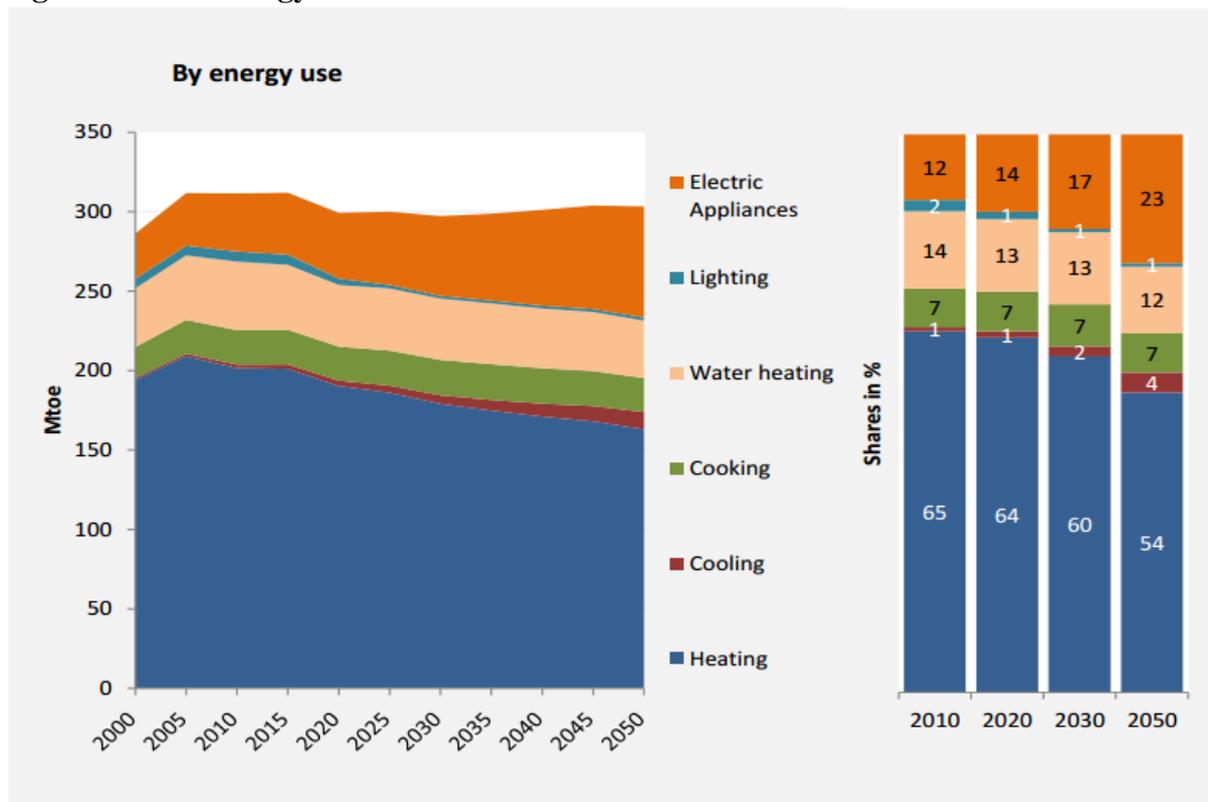
<sup>4</sup> [http://ec.europa.eu/clima/policies/roadmap/index\\_en.htm](http://ec.europa.eu/clima/policies/roadmap/index_en.htm).

<sup>5</sup> European Environment Agency, January 2015, [http://www.eea.europa.eu/data-and-maps/daviz/total-final-energy-consumption-by-sector-1#tab-chart\\_5](http://www.eea.europa.eu/data-and-maps/daviz/total-final-energy-consumption-by-sector-1#tab-chart_5).

<sup>6</sup> Energy Efficiency and its contribution to energy security and the 2030 Framework for climate and energy policy, Brussels, 23.7.2014, COM (2014) 520 final, p. 6-7.

the EU were unable to keep their homes adequately warm<sup>7</sup>. This is driven by rising energy prices – largely due to the sharp rise of taxes and levies on energy bills - whose effect has however been mitigated by increased competition in the internal energy market and by increased energy efficiency. Following the introduction of efficiency requirements in building codes, new buildings today consume only half as much as typical buildings from the 1980s. However, 64% of space heaters, for example, are still inefficient, at best low-temperature models<sup>8</sup>, and 44% of windows are still single glazed<sup>9</sup>. New efficiency and labelling standards for space and water heaters will soon start to impact the market. For electricity, more efficient appliances are expected to save consumers €100 billion annually by 2020 on their energy bills, equivalent to €465 per household.

**Figure 2: Final energy demand in the residential sector<sup>10</sup>**



## 2.2 Prices and costs

The price that consumers pay for electricity and gas reflects various elements, influenced by both market forces, regulatory decisions and government policy. The energy element of the bill consists of two parts. First, the wholesale element of prices normally reflects the costs of fuel purchase or production and shipping and processing, as well as the costs of constructing, operating and decommissioning power stations. Second, the retail element covers costs related

<sup>7</sup> Ibid. p. 6.

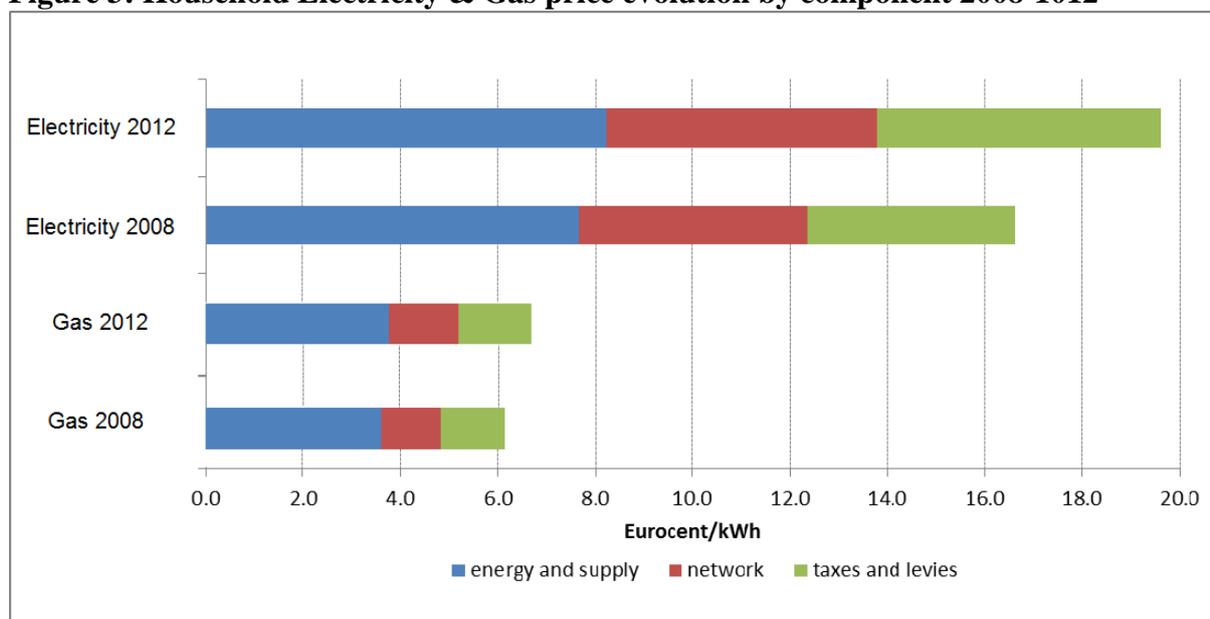
<sup>8</sup> European Heating Industry, data for 2012, EU28 excluding Cyprus, Luxembourg and Malta.

<sup>9</sup> Preparatory study under the Ecodesign Directive, VHK, draft results.

<sup>10</sup> EU Energy, Transport and GHG Emissions Trends to 2050 Reference Scenario 2013, December 2013, at page 37, [http://ec.europa.eu/energy/sites/ener/files/documents/trends\\_to\\_2050\\_update\\_2013.pdf](http://ec.europa.eu/energy/sites/ener/files/documents/trends_to_2050_update_2013.pdf).

to the sale of energy to final consumers. Network costs reflect transmission and distribution infrastructure costs related to the operation, maintenance and expansion of grids, system services and network losses. Charges are often added to network tariffs to cover other costs such as those related to public service obligations and technology support. Finally, taxes and levies are applied; these may be part of general taxation (VAT, excise duties) or specific levies to support targeted energy and/or climate policies.<sup>11</sup>

**Figure 3: Household Electricity & Gas price evolution by component 2008-1012<sup>12</sup>**



Source Electricity: Eurostat. Includes taxes.

Source Gas: EC, Metadata Member States. Includes taxes.

The relative share of the energy element in the retail price of electricity has generally diminished over time. This is because since 2008 it is the tax/levy component which has seen the greatest increase and energy cost elements have seen the smallest [increase/decrease]. Since 2008 electricity network costs went up by 18.5% for households while taxes and levies rose by 36% for households<sup>13</sup>. In the case of retail prices for natural gas, since 2008 the energy component has also stayed stable, while on average for the EU the network component has risen by 17%, and taxation went up by 12-14% for households<sup>14</sup>.

## 2.3 Market actors and factors

The challenge to decarbonise and secure energy supplies, along with the development of ICT, and consumer confidence in such technologies, means more energy products and services, more consumer choice, and greater pressure for energy retailers to compete for customers. For retail markets specifically consumer demand is one of the main drivers for the development of innovation among competing suppliers. Consumer engagement in competitive energy markets is conditioned by transparency, simplicity, affordability and the existence of relevant products

<sup>11</sup> Energy prices and costs in Europe, Brussels, 29.1.2014, COM (2014) 21 /2, p. 3.

<sup>12</sup> Ibid, p. 6-7.

<sup>13</sup> For households +36.5% for the EU weighted average electricity price, ibid p. 6

<sup>14</sup> Ibid, p. 7.

and services enabling consumers to **control their energy costs**. Furthermore, consumers expect retail energy markets to be easy to navigate, offer real choice and competitive prices. They need clear and accurate information on their energy consumption as well as easily accessible, understandable, transparent and **fully** comparable information about each offer so that they can choose the most suitable one for them. Finally, consumers need to be aware of their rights and be protected against unfair commercial practices and unfair contract terms. Despite the legislative framework in place, consumers often find energy markets unclear and non-transparent<sup>15</sup>.

In addition, **consumers have been increasingly interested in electricity produced from renewable energy sources (RES)**. However, when consumers choose electricity from RES, there is often confusion about what they are actually subscribing to, i.e. whether their choice **increases the production of renewable energy, helps to off-set the carbon dioxide produced or contributes to higher investments in environmental projects**. If the goal is to encourage consumers to engage with the energy market and be more sustainable, they need to be provided with clear, credible and comparable information so that they can make informed choices.

An increasing number of consumers are de facto engaging in individual and/or cooperative activities that extend beyond the mere consumption of energy, towards self-generation, cooperative consumption/production models, using smart metering infrastructure and Information and Communication Technologies (ICT) to better manage their energy consumption at home. This innovation *by* consumers is also resulting in innovation *for* consumers from energy companies.

Together with the presence of energy companies that are proposing innovative products, processes and services towards their clients, new market actors are also emerging. Energy Services Companies (ESCOs), aggregators, data handling companies and other commercial entities are becoming increasingly visible offering new and innovative services to consumers. Their presence increases the possibilities for positive outcomes for consumers but also makes the 'value chain' more complex and challenging to govern and regulate.

In this transition in the EU's energy 'system' and the retail energy markets, consumer organisations have an important role to play for consumers. Consumer organizations are increasingly intervening in the public debate<sup>16</sup> about aspects of the regulatory framework that have a direct impact on consumers (information, service, etc.). However, their involvement in all aspects of energy regulation entails a number of challenges for them in view of the complexity of many issues and the resources needed. On a practical level, several consumer organisations across Europe provide price comparison tools and organise collective energy switching campaigns with the aim to help consumers get a better energy deal and become more engaged in the energy market.

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<sup>15</sup> "European Energy Regulation: A Bridge to 2025 - BEUC response to ACER Consultation Paper", at p. 5, [http://www.beuc.org/publications/beuc-x-2014-047\\_mst\\_european\\_energy\\_regulation-a\\_bridge\\_to\\_2025.pdf](http://www.beuc.org/publications/beuc-x-2014-047_mst_european_energy_regulation-a_bridge_to_2025.pdf); "Consumer rights in electricity and gas markets – BEUC Position paper", at p. 6;

[http://www.beuc.org/publications/x2013\\_083\\_mst\\_consumer\\_rights\\_in\\_electricity\\_and\\_gas\\_markets.pdf](http://www.beuc.org/publications/x2013_083_mst_consumer_rights_in_electricity_and_gas_markets.pdf)

<sup>16</sup> Consumer input to the European Commission public consultation on retail energy market, 17 April 2014, [http://www.beuc.eu/publications/beuc-x-2014-026\\_mst\\_public\\_consultation\\_on\\_retail\\_energy\\_market.pdf](http://www.beuc.eu/publications/beuc-x-2014-026_mst_public_consultation_on_retail_energy_market.pdf).

As customers' main interface, suppliers can also provide new products and services, and valuable feedback on customer demands. Furthermore, energy regulators and national consumer agencies together with other competent bodies with a public service mandate, e.g. Public, Independent Energy Ombudsmen in some Member States or other public advisory agencies, are essential 'guardians' both of strong consumer rights and protection, and they ensure that there is competition in energy markets leading to innovation and greater choice of services for customers. All in all, regulators and decision makers should make sure new market actors' services are covered by an ADR system, such as an independent energy ombudsman.

## 3. Legislation

### 3.1 *European legislation*

#### *Third Energy Package*

The Electricity Directive (Dir. 2009/72/EC – hereafter “ED”)<sup>17</sup> introduces a set of rules and measures applying to energy markets in order to guarantee fair competition and appropriate consumer protection. For instance:

- there are references to the role of aggregation (Art. 3.3), where Member States are invited to strengthen the market position of households “... by promoting the possibilities of voluntary aggregation of representation for that class of consumers... .”;
- also Article 3.11 underlines the role of national energy regulatory authorities towards greater energy efficiency through more innovative pricing models: “... the regulatory authority shall strongly recommend that electricity undertakings optimise the use of electricity, for example by providing energy management services, developing innovative pricing formulas, or introducing intelligent metering systems or smart grids, where appropriate ...”;
- in relation to self-generation, Art. 36 (e) specifies that provisions for new generation capacity need to promote new entrants and electricity from renewables: “... facilitating access to the network for new generation capacity, in particular removing barriers that could prevent access for new market entrants and of electricity from renewable energy sources ... .”;
- there are also some references in the recitals of the Electricity Directive focusing on incentives for new power generation and measures for increasing energy efficiency (recital 6) as well as on the facilitation of customers and aggregators in reserve and balancing markets (recital 35).

#### *Energy Efficiency*

The Energy Efficiency Directive (2012/27/EU – hereafter EED) has extensive references on the necessary measures to support energy efficiency in the EU. Specifically:

- Member States are asked to assess by June 2015 the potential of their infrastructure to support energy efficiency measures (art. 15.2). This includes transmission, distribution, load management and interoperability, but also “ ... connection to energy generating installations, including access possibilities for micro energy generators ...”.

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<sup>17</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1424963120469&uri=URISERV:en0016>.

- National energy regulatory authorities are asked to encourage demand side resources, such as demand response, to participate alongside supply in wholesale and retail markets (art. 15.8).
- In what concerns information towards household consumers on available energy efficiency mechanisms and financial and legal frameworks, art. 17 asks for Member States to ensure “wide dissemination” and to “ ... establish appropriate conditions for market operators to provide adequate and targeted information and advice to energy consumers on energy efficiency ...”.
- In doing so, Member States should work together with all parties concerned to “ ... promote suitable information, awareness-raising and training initiatives to inform citizens of the benefits and practicalities of taking energy efficiency improvement measures. ...”.
- The role of the Commission is specified as the facilitator of best practice exchanges and information dissemination in the EU (art. 17 (5)).
- Art. 19 (1) stipulates that “...Member States shall evaluate and if necessary take appropriate measures to remove regulatory and non-regulatory barriers to energy efficiency ....”
- In recital 40, Member States are asked to take into consideration the nature of many cogeneration, district heating and cooling producers when designing administrative procedures for obtaining permission to construct cogeneration capacity or associated networks by applying the ‘Think Small First’ approach.
- Recital 44 underlines the importance of demand response, specifying that it “ ... significantly increases the opportunities for consumers or third parties nominated by them to take action on consumption and billing information ...”, which also reduces costs and shifts demand “ ... resulting in energy savings in both final consumption and, through the more optimal use of networks and generation assets, in energy generation, transmission and distribution. ...”.

### 3.2 **Consumer rights**<sup>18</sup>

Besides the general consumer law applying to the energy sector<sup>19</sup>, a specific set of rights for energy consumers were introduced in the 3<sup>rd</sup> Energy Package:

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<sup>18</sup> See “European energy consumers’ rights - What you gain as an energy consumer” from European legislation <https://ec.europa.eu/energy/sites/ener/files/documents/MJ0415029ENN.pdf>

- Access to a connection: a universal service obligation is defined for electricity so consumers have the right to be supplied with electricity of a specified quality within their territory at reasonable, easily and clearly comparable, transparent and non-discriminatory prices (Art 3.3 ED). However, such an obligation is not defined for gas<sup>20</sup>;
- A choice of supplier: consumers can choose their supplier and enter into contract with any EU electricity and/or gas supplier offering services to them. However, [regardless of the member state in which the supplier is registered, as long as the suppliers follows the applicable trading and balancing rules] [this applies only within the relevant geographic retail markets for energy which are often local markets with less competition (Art. 3.4 ED)].
- An easy and fast switch of supplier: consumers can change their electricity and/or gas supplier in an easy and quick way (within 3 weeks), [without extra charges/while respecting contractual conditions] (Art. 3.5 ED).
- Clear contract information and right of withdrawal: consumers receive clear information on their energy contract before signing, and an advance notice if any changes are made to the contract, with the possibility to end the contract if they do not accept the new conditions (Art. ?? ED). They also have the right to withdraw from a new contract within fourteen days if the contract was concluded outside the supplier's business premises or by distance means of communication (such as Internet or telephone) (Art. ?? CRD).
- Accurate information on consumption and billing based on it: consumers have access to accurate information on their consumption of electricity and/or gas in order to regulate their energy consumption, and be billed based on actual consumption (Art. ?? EED).
- Information on how to use energy more efficiently and on the benefits of using energy from renewable sources: consumers are properly informed on the benefits of using equipment and vehicles using renewable energy and also properly informed on how much energy they use and how to use energy more efficiently.
- [Specific consumer protection measures for 'vulnerable' customers: they receive adequate safeguards, if they are defined as a 'vulnerable customer' by relevant national rules/Member States shall take appropriate measures to protect final customers, and shall, in particular, ensure that there are adequate safeguards to protect vulnerable customers. In this context, each Member State shall define the concept of vulnerable customers which

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<sup>19</sup> Protecting consumers against unfair commercial practices ([http://ec.europa.eu/justice/consumer-marketing/unfair-trade/index\\_en.htm](http://ec.europa.eu/justice/consumer-marketing/unfair-trade/index_en.htm)) and contract terms ([http://ec.europa.eu/justice/consumer-marketing/rights-contracts/index\\_en.htm](http://ec.europa.eu/justice/consumer-marketing/rights-contracts/index_en.htm)).

<sup>20</sup> “Consumer Rights in Electricity and Gas Markets”, BEUC Position Paper, December 2013, at p. 5.

may refer to energy poverty and, inter alia, to the prohibition of disconnection of electricity to such customers in critical times (..) (Art. 3.7 ED].

- Easy resolution of complaints and disputes: consumers can file a complaint to their gas or electricity supplier and, in the event their complaint is not managed to their satisfaction, they can send it to an independent body for an inexpensive, prompt and fair out-of-court settlement. This mission is entrusted to energy ombudsmen and ADR providers who help consumers have their voices heard in situations where it could easily be drowned out by large energy companies.
- An energy performance certificate for their home: receive information about the energy efficiency of the property they wish to buy or rent.
- A national contact point for energy: consumers can contact a single point in their country where they can find more information on these rights.

### **3.3 [Implementation and enforcement]**

Consumer rights protect consumers to the extent that they are properly implemented and strictly enforced. Several organisations, including consumer associations, regulatory bodies and ombudsmen have pointed to the existing gaps in both implementation and enforcement. Specifically:

- In a position paper<sup>21</sup> issued in January 2015, NEON, the National Energy Ombudsmen Network, states that “the EU internal market for energy was supposed to be complete by the end of 2014 but there is still much to do on common market rules”. In particular, NEON suggests that the EU “considers a common legal framework to protect end consumers with minimum standards for prices and price comparison tools, sales, switches, moving, contractual terms, unified communications, information on real-time consumption with smart meters, easily understandable bills, and complaint procedures”.
- In their Joint Statement<sup>22</sup> updated in June 2014, CEER, the Council of European Energy Regulators, and BEUC, the European Consumer Organisation, state that “protection and empowerment” is one of the four principles of their common vision for the energy markets of the future together with reliability, affordability and simplicity. According to CEER and BEUC, it is essential to protect consumers “against unfair commercial practices and unsatisfactory outcomes” and empower them “to exercise their rights ... based on trust in and knowledge of how the energy sector operates”.

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<sup>21</sup> <http://www.neon-ombudsman.org/2015/01/neons-position-paper-on-energy-union.html>.

<sup>22</sup> <http://www.beuc.eu/publications/2012-00760-01-e.pdf>.

- In a Position Paper<sup>23</sup> on “Consumer Rights in Electricity and Gas Markets”, issued in December 2013, BEUC states that “even after the adoption of several EU legislative packages, European consumers have often difficulties to effectively exercise their rights and therefore essential characteristics of a well-functioning retail energy market are still missing. BEUC recommends specifically that “consumers should also be protected against misleading and aggressive marketing practices, in particular in off-premises contracts” and that “effective enforcement of the Unfair Commercial Practices Directive and the Consumer Rights Directive is urgently needed”.]

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<sup>23</sup> [http://www.beuc.org/publications/x2013\\_083\\_mst\\_consumer\\_rights\\_in\\_electricity\\_and\\_gas\\_markets.pdf](http://www.beuc.org/publications/x2013_083_mst_consumer_rights_in_electricity_and_gas_markets.pdf).

## 4. Forms of active energy usership and citizenship

This chapter presents some of the practices and views submitted by Working Group members and invited speakers that serve as good examples of recent developments in the ways households can participate actively in the energy market by modulating their consumption in response to price signals, generating energy to cover their energy needs or sell to other users over the grid, improving the efficiency of buildings, heating systems and appliances, and organizing themselves in energy communities to act as groups in buying or selling energy products and services both directly and through intermediaries.

### 4.1 Demand–side response (DSR)

Changes in consumption patterns occur, among others, when households moderate their consumption during times of peak demand by reducing their individual usage, or when, to the degree they are able to do so, shift some specific consumption to hours of more moderate demand. Other DSR choices involve micro-generation<sup>24</sup> for own consumption or for sale of energy back to the grid.

Apart from the cost of the tariff-based<sup>25</sup> or incentive-based<sup>26</sup> DSR schemes on offer, multiple other factors condition the ability of households to participate actively in DSR markets. These relate mainly to the cost of installation and maintenance of any necessary equipment, the availability and ease of use of smart energy metering and energy management technologies in the household, the level of expertise of the household members in using these technologies, the ratio of available generation capacity of the household to the total household requirements and, finally, the degree of flexibility of both the energy sources for the micro-generation as well as of the specific consumption needs these sources are designed to cover. [However, both DSR and energy efficiency build on a clear connection between retail prices and supply. Since, taxes and levies count for almost a third of the bill (as stated in chap 2.2) and are not linked to the supply of energy, the part that customers are able to influence becomes small and often not enough to incentivize customers to act according to DSR price signals].

#### 4.1.1 Demand-side flexibility (DSF)

Traditionally, the flexibility to maintain the balance between electric power supply and demand has mostly been provided by the generation side. Furthermore, efforts to de-carbonise electricity systems require a generation mix that is increasingly based on variable RES<sup>27</sup>. In this scenario, demand response is expected to contribute in guaranteeing and enhancing

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<sup>24</sup> See §4.1.2 “Micro-generation” on page 13.

<sup>25</sup> Tariff-based DSR schemes focus on the adaptation of tariffs to influence the consumption behaviour by means of applying different tariff zones during the day; see “Smart Grids – Fundamentals and Technologies in Electricity Networks”, Bernd M. Buchholz, Zbigniew Styczynski, Springer 2014, at p. 391.

<sup>26</sup> Incentive-based DSR includes capacity and ancillary services programs destined to large scale consumers (industry) but also “direct load” control schemes that can be applied to households, *ibid.*

<sup>27</sup> For a discussion of the “firmness” of RES – that is the degree to which output can change and be controlled by generators and/or system operators – see Eurelectric “Flexible Generation: Backing Up Renewables”, October 2011, at p. 13; see also “Reliable Electricity Grid Operation Possible in Future with 100% Renewable Energy”, Press Release, October 2013, at

[http://www.kombikraftwerk.de/fileadmin/Kombikraftwerk\\_2/English/AEE\\_Press\\_Release\\_Kombikraftwerk2\\_0kt13.pdf](http://www.kombikraftwerk.de/fileadmin/Kombikraftwerk_2/English/AEE_Press_Release_Kombikraftwerk2_0kt13.pdf).

network security, reducing the need for investment, increasing competition in the market and ultimately benefiting consumers.

The Council of European Energy Regulators has analysed demand-side flexibility<sup>28</sup> (DSF) which can be defined as the ability to change electricity usage by end-use customers from their normal or current consumption patterns in response to market signals. Demand response is being considered as an important tool to balance the future electricity grid so it is essential that consumers understand the implications of DSR schemes for their energy consumption and financial outlook. Home automation can facilitate demand response but it requires smart appliances and technology to be installed in the household and for those households to be confident that such systems are safe. Questions of affordability, cost/benefit ratio and depreciation are relevant for consumers. At the same time not every household is able or willing to shift its energy consumption to off-peak hours. Even when consumers are able to shift their consumption, they may not understand how to do so.

As highlighted in **previous Working Group reports**, the development of demand-side flexibility schemes [needs to go hand-in-hand with the development of user-friendly technology and interoperable appliances and smart devices/User-friendly technology, interoperable appliances and smart devices are best developed in efficient and fully functional competitive markets]. Specifically, this concerns domestic appliances and other domestic systems (e.g. heating) ensuring, for instance, that they may be switched on/off remotely without this resulting in any technical problems. When developing new flexibility services for different types of customers, a careful assessment of costs and benefits related to different market design options should be undertaken so that the benefits are shared appropriately and no one is adversely affected. It will be necessary to put in place additional protections for vulnerable customers<sup>29</sup>.

### 4.1.2 Micro-generation

Micro-generation or self-generation (the two terms are used interchangeably in this report) occurs when a household uses a locally installed **RES** to “produce” energy. These households are also known as “prosumers” (energy producing consumers) and, even if their main purpose is to cover their own energy needs, they can also sell it to the grid. [Where the legal framework allows for micro-generation, consumers can sell their electricity surplus on the market for a price that is either based on competition in the market or set by the competent regulator/Micro-generation based on RES is mostly supported by net metering and/or feed in tariffs. In both cases the electricity is not really sold to the market/ However, it is worth noting that most regulatory schemes currently in place mandate either suppliers or distributors to offtake the surplus energy self-generated].

A fundamental policy question that arises in the scenario of more wide-spread adoption of self-generation by households<sup>30</sup> centres around its effects on retail prices and the sharing of grid costs between such prosumers and the average households that do not participate in self-

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<sup>28</sup> See “CEER Advice on Ensuring Market and Regulatory Arrangements help deliver Demand Side Flexibility”, June 2014, at <http://bit.ly/1oUISJt>.

<sup>29</sup> Also see the Report of the Working Group on E-Billing and Personal Energy Data Management at [http://ec.europa.eu/energy/gas\\_electricity/doc/forum\\_citizen\\_energy/20131219-e-billing\\_energy\\_data.pdf](http://ec.europa.eu/energy/gas_electricity/doc/forum_citizen_energy/20131219-e-billing_energy_data.pdf)

<sup>30</sup> See Ruggero Schleicher-Tappeser, “How renewables will change electricity markets in the next five years”, in Energy Policy, Vol. 48, Elsevier, September 2012, Pages 64–75.

generation but still have to support the costs of that grid that will be spread among a smaller number of paying customers. Other issues increasingly relevant under this scenario involve its impact on investment for programmable load and backup capacity projects, and hence on security of supply, on balance and frequency management and on the national grid.

From the point of view of consumers, questions of market access and simplicity of the process are relevant. [A guaranteed priority of access to the grid on the basis of a reliable and clear framework exempt of complicated negotiations with retailers or traders preceding the purchase of surplus electricity from self-generation should encourage households to consider investing in their own generation capacity. Such a framework could be based initially on feed-in tariffs and, at a later stage, on market price setting mechanisms, as conditions of free competition replace regulated prices and subsidies are pulled back. The electricity should always be sold to a market party at market price. If a subsidy is necessary it can be paid as top up on the market price in form of a feed-in premium. However in principle subsidies should be phased-out and development of micro-gen should be driven by grid parity. Otherwise system costs will increase for everyone].

### 4.1.3 An example from Finland

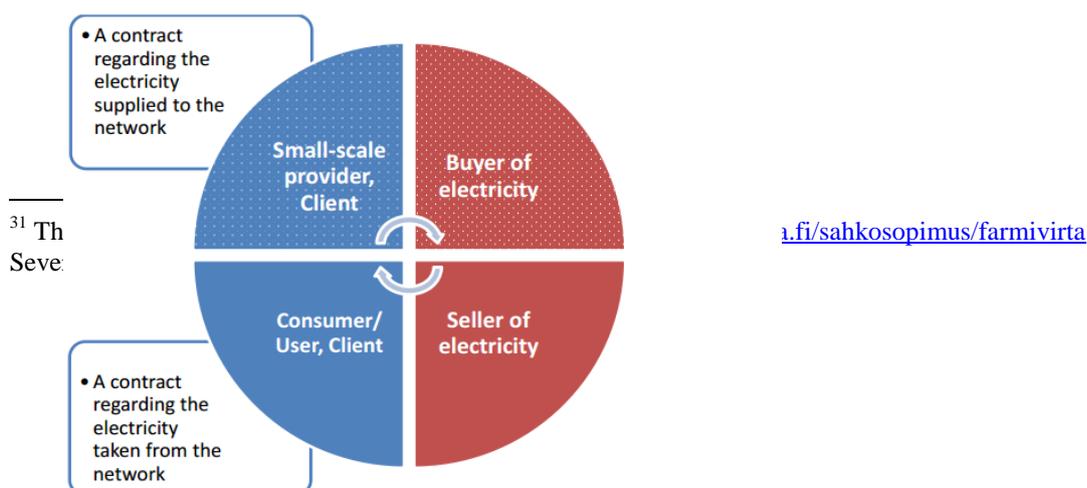
Among the possibilities for such a framework is the one presented to the Working Group by the association of Finnish Industries. An interesting aspect of this framework is that it allows for the development of energy retail products where the energy retailer works as an intermediary between two customers handling the balance responsibility, billing and other practicalities, thus making it possible for one end user customer to sell electricity to another end user (the ‘prosumer’ sets the price, not the energy retailer)<sup>31</sup>. For such products aspects linked to the transparency of information and the dispute resolution mechanism are important.

This basic example from Finland could be useful for drafting purchasing contracts for small-scale generation.

- Structure of the contract:

When agreeing on the purchase of small-scale production there are two options for the structure of the contract terms:

- two separate contracts: one for the sale of electricity taken from the grid and the other for the sale of electricity supplied to the grid, or
- a single contract covering both the sale of electricity by the retailer (called “the seller”) to the prosumer (called “the consumer” or “user”) as well as the purchase of electricity by the retailer (called “the buyer”) back from the prosumer in question (called “the small-



scale producer”).

- Billing method:

There are three options:

- The purchase and selling of electricity can be settled in the same invoice sent by the energy retailer;
- They purchase and selling of electricity can be invoiced in two separate invoices (the bill of sale by the energy retailer and a self-billing invoice by the small-scale producer);
- In the case of larger small-scale production, billing consists of an invoice sent by the small-scale producer according to the measurement data reported by the buyer of electricity to the small-scale producer. For the billing purposes, the buyer of electricity delivers to the small-scale producer, in agreed intervals, a report regarding the electricity supplied to the network, and in accordance to this report, the small-scale producer drafts an invoice to the buyer of electricity.

- Price

The tariff for the electricity sold by the small-scale producer is set independently between buyer and prosumer.

- Agreeing on the balancing service<sup>32</sup>

In cases of buying electricity from production plants below 1 MVA, it is worthwhile to mention in the contract that the buyer is responsible for balance responsibility and notifications on behalf of the small-scale producer.

For production plants of over 1 MVA balancing services must be agreed separately between the small-scale producer and the buyer.

- Handling the origin of electricity

The origin of the electricity is in principle always the property of the producer. With bigger production plants of at least 1 MVA, the producer owns the origin of the electricity, but the buyer can offer to provide as a service the obtaining of guarantees of origin and, if the parties reach an agreement, also buy the guarantees of origin. With plants of less than 1MVA usually it is not profitable to have guarantees of origin.

- Taxation of small-scale production

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<sup>32</sup> Balancing refers to the situation after markets have closed (gate closure) in which a TSO acts to ensure that demand is equal to supply, in and near real time; on balancing and ancillary services see for instance ENTSO-E at <https://www.entsoe.eu/about-entso-e/market/balancing-and-ancillary-services-markets/Pages/default.aspx>.

- VAT: When a client is buying electricity from a retailer, value added tax is added to the price. However, when a small-scale provider is selling surplus electricity to a retailer, the sale is tax free, unless the small-scale provider is liable to pay value added tax.

- Electricity tax: It is exempted if the production plant is less than 50kVA.

- Specific terms in the purchase contract<sup>33</sup>

Main issues to be noted when drafting a contract of purchase or the individual terms regarding purchase include (but are not limited to):

1. Particulars/Details of the Contracting Parties, including those of the production plant(s) (At the very least the type of production and the nominal output ought to be written down regarding the plant in question);
2. The small-scale producer's obligation to notify on changes in the details;
3. The purpose of the contract;
4. The entry into force of the contract and the beginning of its application;
5. Technical requirements: a small-scale producer is responsible for meeting the technical requirements before and during the purchase;
6. Liabilities;
7. Price;
8. Billing/billing period/billing details;
9. Handling the origin of electricity: in principle, certifying the origin of the electricity with a guarantee of origin is the responsibility of the small-scale provider;
10. The balance responsibility and the balance settlement liabilities;
11. Determining the amount of electricity provided to the distribution network;
12. The requirement of existing electricity sale and network contracts;
13. Remark on the inapplicability of the general terms of the sale of electricity to the purchase of electricity;
14. Changes in the contractual terms, prices and service charges;
15. Termination of the contract (e.g. the length of the term of notice to be applied to both parties);
16. Transfer of the contract;
17. Dispute resolution;

- Network service and connection contract

When a small-scale production plant is entitled to supply electricity to the general distribution network, the client needs to have an existing network service contract in force covering the network service of the production.

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<sup>33</sup> See more details at [http://energia.fi/sites/default/files/guidelines\\_for\\_suppliers\\_on\\_contracting\\_micro-generation.pdf](http://energia.fi/sites/default/files/guidelines_for_suppliers_on_contracting_micro-generation.pdf).

- Notification of the purchase contract to the network operator

The retailer has to notify the network operator of the beginning of the purchase contract via email. Thereafter the network will begin delivering separate metering data regarding the taking and supplying of electricity from and to the network.

## 4.2 Involving consumers in energy efficiency choices

Consumers are concerned by energy efficiency questions in multiple areas: the overall energy performance of their house and how they can improve it, the different options for appliances, lighting, heating and cooling that can lower the cost of their bill, the best ways to participate in local energy efficiency programs.

The Working Group discussed the complexity surrounding the different ways of organizing consumer involvement on the basis of a functional approach:

- Taking Control: the consumer journey (trigger, advice, decision-making/choice, installation, payment, benefit, complaints and redress);
- Objectives (use less, waste less, pay less) or
- Measures.

The socio-economic factors that affect a consumers' ability to get involved along one or several such functional approaches, means consumer engagement is more challenging than a review of successful programmes may suggest.

One of the main questions that must be considered at policy level when designing an overall program to steer consumers towards more energy efficient choices in the use of prices. Increasing prices, for instance, in order to decrease energy consumption ("use less" approaches) could have a disproportionate financial and social impact on the most vulnerable consumers and increase energy poverty. In some Member States programs based on such price disincentives are accompanied by offsets in terms of tax reductions and subsidies for the more vulnerable users.<sup>34</sup>

### 4.2.1 An example from the UK: repowering London

Cooperatives Europe provided an example where cooperative consumers are involved in the promotion and installation of energy efficient solutions.

Repowering London is a cooperative that works on the production of community-owned renewable energy and on an energy efficiency fund. The cooperative helps to set up cooperative projects for inner-city solar power stations (Brixton Energy Solar 1, 2 and 3). Part of the profits of the solar projects is returned in a Community Energy Efficiency Fund (CEEF). This fund helps improving energy efficiency and energy savings in social housing where energy poverty is a real issue.

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<sup>34</sup> In France, in order to decrease consumption, there is a tax reduction for energy efficiency renovation. Furthermore, specific subsidies exist for the most vulnerable consumers (objective of 50 000 renovations per year).

From every project 20% of the total net profits are set-aside for the Community Energy Efficiency Fund (CEEF). The CEEF is used for promotion and installation of relatively low cost energy efficiency measures including individual home energy audits, energy survey, energy advice sessions and community events.

Cooperative members help their neighbours to implement simple changes. This starts with getting a better insight in the own home performance (with an audit), and simple cost saving opportunities such as switching to another cheaper supplier (best prices), draught proofing, and changing the lighting.

## 4.2.2 An example from Sweden

The Working Group invited the Swedish Energy Efficiency Agency to present initiatives involving individual consumers in energy efficiency.

The Swedish national market for electricity, gas and district heating was deregulated in 1996, and since then the Swedish Energy Market Inspectorate (i.e. the country's energy regulator) is responsible for monitoring the functioning of the markets. Since the deregulation of energy markets in Sweden, average household electricity prices have increased by around 50%, mainly due to higher taxes since year 2000. This has pushed households to consider more energy efficient options and has contributed to lowering the residential/household energy use (20% lower than 15 years ago). On average, therefore, household energy expenditure has been stable, in the order of 8% of household expenditure.

Beyond the use of taxation, the main long term policies that have contributed to energy efficiency in Sweden are:

- The establishment of **energy and climate advisors** supporting energy efficiency among households. Since 1997, advisors have been instituted in every of the 290 municipalities of Sweden. The energy-and climate advisors serve as an information support to households that wish to learn more, and take action on changing their energy use. They are financed by the government of Sweden. An advantage of using this type of advisors is that they have a local and regional knowledge and that it is possible for consumers to get in touch with them by phone and even get an appointment locally. In parallel to this initiative, Sweden has invested in improved information dissemination on energy efficiency since 2010. Experience on energy efficiency in Sweden shows that collaboration between the national, regional, and local level is crucial, and that well-functioning institutions as well as financing mechanisms need to be in place. As a result of this scheme, among the households (more than 20.000) and the SMEs (approximately 3000) that have benefitted from advice, the average energy saving was 2 MWh for households, and 20-30 MWh for SMEs. Another long-term aspect of such schemes is that as awareness among consumers increases, it generates demand for new services and products that are more energy efficient.

- The **district heating network** in Sweden makes it easy for consumers to receive heating from low-carbon sources. As a source of fuel, oil has kept decreasing while the heat pumps of various kinds have been increasing. In establishing this network, the role of municipalities and municipally owned energy companies was very relevant. [District heating facilitates access of consumers to low-carbon heating/municipal regulation played a decisive role for the uptake of DH in Sweden through the obligation for consumers to connect to the DH network if this was available in their area.] and contributes to reducing the GHG

emissions from the residential sector in Sweden. The main challenge is represented by the cost. In fact, to be cost effective, it requires a great number of participants.

- **Tax deductions** for energy efficiency renovations and reconstruction can play a direct role. Since 2008, households receive a tax deduction for renovations and reconstructions in the residential sector at a level of up to 50% of expenses of up to 11000 Euros per year and person.<sup>35</sup> This is given by the Swedish tax agency, which is also responsible for information dissemination of it. In a poll, around 86 % of the population was positive to the tax deduction in 2010.

- **Web tools** for information on energy efficiency contribute to easy and user-friendly access to information. There are various information tools online that consumers can access. Among others, there is an “Energy calculator” where consumers can enter information on their residential energy use. While it is difficult to estimate the exact impact of those tools, they contribute in raising awareness.

### 4.2.3 Technological innovation: the potential in gas<sup>36</sup> for heating

Heating and cooling<sup>37</sup> in our buildings and industries accounts for nearly half of the EU's energy consumption, putting it ahead of transport and electricity which account for 32% and 22% respectively. Moreover, around 85% of heating and cooling is produced from natural gas, coal and oil products, and only 15% is generated from renewable energy.

Furthermore, as the cost of heating is an important element of household expenditure which can amount to up to 20% of a household's income, special attention should be paid to measures related to energy efficiency in heating and cooling systems along the entire energy chain. According to the Guidance Document on Vulnerable Consumers adopted by the Vulnerable Consumer Working Group of the Citizens Energy Forum in November 2013<sup>38</sup>, “*affordable and secure heat supply in the context of collective and social housing should be addressed by Member States while implementing the Energy Efficiency Directive*”.

Considering the impact of heating on Europe's final energy demand in the residential sector (65% in 2010<sup>39</sup>), there is a clear need, but also an important opportunity, to involve households more in this area. The Working Group understands the potential of technological innovation as a key contributor towards the development of ‘consumer-centric’ solutions and invited Eurogas to give a presentation on this area.

At present, the European regulatory framework includes provisions on energy labelling, energy efficiency, ecodesign and energy performance of buildings as drivers and it is involving a wide number of stakeholders. However according to Eurogas, heating

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<sup>35</sup> The tax deduction is for 50% of the cost of labour (not material) and is a fixed rate. The tax deduction is not for energy efficiency renovations exclusively but for renovations and reconstructions in general.

<sup>36</sup> Gas constitutes one of several opportunities for innovation in residential heating. Other opportunities, such as electric heating or other heating methods, should also be studied for their potential for innovation in the future and as sources of demand response.

<sup>37</sup> <http://ec.europa.eu/energy/en/news/heating-and-cooling-conference-26-27-february>.

<sup>38</sup> §5.6 at page 31;

[http://ec.europa.eu/energy/sites/ener/files/documents/20140106\\_vulnerable\\_consumer\\_report.pdf](http://ec.europa.eu/energy/sites/ener/files/documents/20140106_vulnerable_consumer_report.pdf).

<sup>39</sup> 79% together with water heating, see Figure ?? above

consumption is not only stimulated by policies, but mostly by factors defining consumers' choice. Choice will vary according to several parameters, such as affordability, climate, building type, access to fuels and historic policies.

Gas heating systems nowadays are very different:

- *traditional gas boilers*: burning gas and the hot gases produced are passed through a heat exchanger where much of their heat is transferred to water. It is considered efficient and is competitively priced;
- *gas-condensing boilers*: including an additional step where the waste heat in the flue gases is captured and used to pre-heat the cold water entering the boiler. It is more efficient than the first option and competitively priced as well. In the Netherlands, it is estimated that the Dutch homes have become 50% more efficient in terms of gas use since 1980 with 23% attributed to the replacement of traditional boilers by modern gas-condensing boilers.
- *gas-heat pump condensing technology* with environmental energy work by extracting heat from low temperature sources (air, water, ground) and upgrading it to a higher temperature and releasing it where it is required for space and water heating. The system is highly efficient and it extracts renewable heat;
- *combined heat and power unit*: a system that produces both heat and electricity for the user. High efficiency associated with flexibility;
- *gas hybrid*: the combination of a gas condensing boiler and an electric heat pump.<sup>40</sup>

However there are several challenges for the adoption of more efficient gas heating systems:

- Take up is very slow and the definition of appropriate incentives for faster introduction is an open question for policy;
- Information to support consumer choice is not always available;
- Many different stakeholders are involved; this complicates the design of policy measures, which must be specific and targeted.

### 4.3 Collective switching

A number of collective switching campaigns across Europe was presented to the Working Group. Collective switching can be defined as an activity involving a large number of consumers acting as a group to seek a better deal for their energy supply. The process is typically developed by third parties<sup>41</sup> (e.g. a local authority, consumer organisation, a housing

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<sup>40</sup> Depending on the geographical location, gas hybrid with solar thermal collectors are common. Solar thermal collectors can in many cases cover the heat demand for warm water over the summer period, substantially reducing the consumption of gas.

<sup>41</sup> To the extent that collective services are provided by so-called “next generation intermediaries” section 4.6 below is also relevant in this context.

association) and run by an expert service provider negotiating better prices and conditions with one or multiple suppliers.

At present most service providers are either existing price comparison services or specialist collective switching new market entrants. The intermediary plays a central role in the process. In reality this is often a partnership between at least two organisations where one acts as the ‘front face’ of the scheme towards the public and the other is responsible for providing the underlying platform/infrastructure and managing both the negotiations with participating suppliers and the switching process.

To ensure transparency and clarity of the process, contractual relations between the parties involved need to be put in place defining the scope of the process and the terms of agreements between the relevant parties, responsibilities and financial payments (including disclosing fees charged by the intermediary directly to customers or to the participating suppliers to take part in the scheme). This will need to be guaranteed both via the organisers’ practices and quality of preparation and service once the switching is underway, and through the appropriate monitoring of activities by the energy regulators in collaboration with consumer authorities. After all, group purchases are not new in other consumer goods, and currently consumer associations already involved in energy supplier switching campaigns are considering replicating this activity in other areas such as car insurance.

In practice often the organiser approaches different energy companies asking them for a better offer for the consumers who have signed up to the campaign. The more people register, the greater the economies of scale and the lower the customer acquisition costs. In turn, this allows participating suppliers to offer a better deal than for individual customers. However, signing up to the campaign does not result in the obligation to switch. Nor does it always result in a better offer for those that have signed up as they may already have the best offer. It is also the case that most collective switching offers are designed for a very broad audience and are, therefore, not ‘personalised’, i.e. on the basis of a consumer’s consumption patterns.

Collective switching campaigns and new intermediaries can be useful to simplify the market for consumers.. They can be an important ‘*initiation procedure*’ for energy consumers that would not otherwise consider switching their energy supplier due to the fact that they had not taken this action before. Another important issue that emerged from the presentations and the ensuing discussion in the Working Group is the ‘*ripple effect*’ after the campaign on competition and on energy prices. In several cases, the outcome of the reverse auction for the lowest price was matched by non-participating companies to the bidding.

Collective switching campaigns have been initiated in several EU Member States over the last years. In some cases these campaigns have led to large numbers of consumers switching their energy suppliers. In some Member States where competition is still weak and a very large dominating supplier maintains a high level of market share, this has led to more diversified and competitive retail markets for energy. At the same time, the existence of regulated prices in many EU Member States reduces any margin for manoeuvre among competing energy suppliers. Another important aspect is that there could be limits to the potential returns from collective switching. After a certain level, prices cannot be further reduced. This was demonstrated in the case of the Netherlands, where such campaigns have been taking place for some years now and prices have been pushed at the lowest level. This practice has gained momentum in the UK energy market in recent years. The first nationwide initiative led by consumer champion, Which?, in May 2012 achieved an average saving of over £220 for

37,000 people. Since then more than 65 local authorities have led or been partners in consortia for local and regional initiatives, which (according to the Local Government Association) have to date saved 100,000 households more than £10 million, with an average saving of £125.

In sum, collective switching has the potential to act as catalyst for more competition and deliver better prices for consumers. Collective switching campaigns are one way for European consumers to play a role in energy retail markets. By using their collective power to negotiate a better offer from energy suppliers, consumers can keep prices in check across the market, even though the offer may not necessarily be the cheapest option in the longer run. Collective switching can also prove to be a useful response to consumer disengagement in the energy market. It is also the case that collective switching campaigns are facilitating the market entry of newcomer suppliers who can quickly acquire a ‘foothold’ in a new market by offering a competitive price. Supplier switching campaigns are not a panacea; nevertheless, they can transform retail energy markets and the ways that energy consumers take part in them and exercise choice.

A set of general principles or best practices in collective switching campaigns have been highlighted during the discussions in the Working Group:

#### **Box 1: General principles or best practices in collective switching campaigns**

- *Ensure transparency throughout the whole process.* To avoid any conflicts of interest, all market players should respect the same transparency rules and be subject to regulatory oversight. Organisers of collective switching campaigns should make fully transparent whether any fee is due by subscribers. This also applies in case fees are incurred by participating suppliers (instead of subscribers).
- *Ensure clarity concerning the offer.* Organisations launching collective switching campaigns should warn the customer that the conditions at the end of the contract **might not be the same as the ones they signed up to**, and the offer not be the best anymore. A reference to the quality of the service provided and the resulting consumer’s satisfaction should be taken into account. Customers should be made aware that, in order to keep the best offer, a switch to another supplier or tariff after the initial contract period might be necessary.
- *Build consumer trust.* Intermediaries are likely to play an important role in instilling the necessary trust required for some consumers to register. Their identity and credibility is likely to be critical in attracting potential participants.
- *Ensure the right amount of information.* Communicating collective switching may require a selective dissemination of information at different stages of the process. It is important to get the balance right between providing too little and too much information.
- *Use all tools available to reach consumers.* In order to extend the reach of collective switching schemes beyond regular switchers a multichannel approach using online and off-line methods is needed. Intermediaries should target schemes at all consumers. However, specific activities should be focused on encouraging consumers on lower incomes, those who are fuel poor, irregular or non-switchers and prepayment meter (PPM) users to sign up. In order to reach this audience, collective switching schemes could be linked into other support programmes.

- *Combine switching with other actions when reaching out to consumers.* Intermediaries, particularly local authorities, housing associations and other community groups, should ensure that they provide a holistic service to participants by linking any collective switching scheme with other relevant advice/support that either they or referral partners provide (e.g. advice on benefit entitlements; debt management; budgeting advice; and energy efficiency grant support/programmes).
- *Ensure good redress and complaint handling before and after the campaign.* Intermediaries can play an important role in offering participating consumers a simple, convenient interface through which they can resolve problems with the winning provider. Offering to centralise complaints will enable the intermediary to identify and track trends in the incidence and nature of problems experienced and give the possibility to assess whether to exclude problematic providers from future auctions.
- Collective switching campaigns need to be based on a *level playing* field for all involved market players. Suppliers can be prevented from participating in collective switching by requirements going beyond existing legislation. Also nation-wide tenders have been barriers for local energy suppliers to participate, as these companies might only provide their services within certain regions of a country.
- *To ensure customer satisfaction and fairness* collective switching should be subject to strict quality controls. As the campaigns are based upon the cheapest price offered, the quality of services might suffer. In particular the long-term price development of the winning offer should be investigated. In competitive markets, collective switching prices can only go below market-leading offers by setting short-term price offers below profitability. As a result, prices could increase considerably after the first year, resulting in dissatisfaction and the need for customers to annually switch supplier.

## 4.4 Energy cooperatives

Energy cooperatives are decentralised bottom-up organisations producing energy delivered at the local and regional level. They can be completely self-sufficient or have “traditional” suppliers to back them up. Cooperatives are autonomous associations of persons, managed through democratic internal structures, which are directly controlled by their own members. This business model integrates not only economical profit making but also social and cultural values. Members are producers, workers or consumers, therefore cooperatives can reach great success in responding to consumer needs since they are owned and managed by their own members.

[From self-consumption to energy efficiency, energy cooperatives have generally shown to be consumer-centred business. Energy cooperatives focus on improving the conditions and benefits of their own members. They develop and evolve their business model depending on the needs of their own consumers, evolving from one sector (ex. Retailing RES) to another (ex. Energy efficiency)./ From self-consumption coupled with energy efficiency gains to self-production of renewable energy, energy cooperatives have proven to be consumer-centred businesses. Energy cooperatives focus on fulfilling the needs of their members by providing specific economic and social benefits, such as locally produced renewable energy at a competitive price. They develop and evolve their business model depending on the needs of their own consumers by integrating the different parts of the energy supply chain (from

retailing to producing RES to owning the local distribution networks to coupling RES with energy efficiency measures).]

Renewable energy cooperatives (RES cooperatives) are decentralized medium and small-scale projects (mainly involving consumers engaged in production), which can be more or less successful mainly depending on the legislative framework, support policy and market accessibility. This decentralized model diversifies the energy market. Such cooperatives are used to build photovoltaic facilities in local areas, but also in the case of wind turbines, which entail however more financing, planning and construction effort. Cooperatives are also involved in energy retail, energy production, district heating, energy grids and energy efficiency.

[Nevertheless, energy cooperatives should be strictly monitored by energy regulators, as problems with supply or the various administrative processes may arise. Energy cooperatives should be careful with the lack of technical resources. They may need to have in-house engineers or financial experts to solve problems that could happen at any time.] Alternatively they can decide to partner with utilities. In the Netherlands for instance, several suppliers support cooperatives in managing all administrative processes and financial flows. They provide them with knowledge and experience, they help them build their own green energy supply step by step (backing them up with 100% renewable electricity as long as needed); and once the cooperative is set up they help create local support and recruit members to strengthen the organisation.

Cooperatives generating renewable energy can provide support to private individuals, wishing to support and invest in renewable energy sources and offer a way to pool resources.

Energy cooperatives have played an important role mainly in western-European countries where consumers have been successfully involved in the energy transition. Netherlands from 2011 to 2012 registered an increase of 300% in the creation of RES cooperatives. This figure again doubled from 2012 to 2013. During the last few years, cooperatives working with energy (consumption, production, retailing, efficiency, etc.) had presented an exponential growth. In Germany, a great amount of energy cooperatives were founded between 2005 and 2012, supplying around 160.000 households. Almost 50% of Germany's renewable capacity comes from citizen-owned projects<sup>42</sup>. In the UK, from 2003 until 2013, community energy capacity has grown almost three times faster than the overall renewable capacity. These examples are a small part of what is currently happening in Western Europe.

As reflected in the examples submitted by Cooperatives Europe, decentralized production and consumption will guarantee more autonomous energy markets benefitting consumers and increasing their involvement. REScoop 2020 best practice reports have shown that cooperatives of consumers also involved in energy generation use energy more rationally and efficiently<sup>43</sup>.

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<sup>42</sup> REN21, Renewables 2014 Global Status Report (page 27).

<sup>43</sup> Research project funded by the Intelligent Energy Europe programme. For more see <http://rescoop.eu/best-practices>

In Belgium, Ecopower registered a 46% reduction on the energy consumption of its members in 6 years. These significant changes in consumers' consumption were also registered in other EU countries, such as Germany (EWS in Schonau).

Furthermore, energy cooperatives have shown that they are able to enhance acceptance and public support for renewable energy and reverse public objections to renewable infrastructure (REScoop 2020 best practice report II, pages 44-48)<sup>44</sup>.

**Box 2: Case study decentralised energy production – innovative solutions, Wien Energie**

Decentralised energy production plays an increasingly important role for a forward-looking energy supply policy. Local energy production facilities close to the place of consumption are of particular interest to customers with high energy consumption. In several instances, energy companies actively promote such models. For instance, Wien Energie makes a key contribution in this regard with innovative products and solutions. Decentralised and renewable product combinations were developed and presented in spring 2014.

Carrying the name “Green heat – solar heat” and “Green heat – geothermal energy” new, sustainable and decentralised energy products are offered to complement district heating. In both cases, customers benefit from low investment costs, short construction times, as well as an efficient and environmentally friendly source of energy. Wien Energie takes over responsibility and customers can rely on a permanent service, while increasing the value of their property.

In the case of “solar heat”, heat is generated locally through the combined use of solar energy and natural gas.

## 4.5 Community-based energy projects

Community projects are projects instigated by the community – which could be a community of place or of interest (e.g. collective switching, green tariffs). Many of these projects focus on energy generation and in terms of size are usually around 50kw. The Working Group received presentations primarily from such projects in the United Kingdom, where the government has been considering their role very seriously. In fact, the UK government has published (in early 2014) a Community Energy Strategy. This part of the report focuses on the UK experience, but also acknowledges the potential of community-based energy projects in other EU Member States – particularly since there is ongoing work in the framework of the Covenant of Mayors<sup>45</sup>.

Same as for energy cooperatives, micro-grids and community-based energy initiatives should have in-house resources to solve problems that could happen at any time, especially during consumption peaks.

### *Local public utilities*

<sup>44</sup> The full report is available at [http://rescoop.eu/sites/default/files/best\\_practices\\_report\\_low\\_resolution.pdf](http://rescoop.eu/sites/default/files/best_practices_report_low_resolution.pdf)

<sup>45</sup> For more on the Covenant of Mayors see [http://www.covenantofmayors.eu/index\\_en.html](http://www.covenantofmayors.eu/index_en.html)

In many Member States of the European Union, local public energy companies – owned (at least by majority) by local or regional authorities, have been operating for years and have been contributing to competition in national energy markets. They have been offering their services along the whole energy value chain (generation, supply and distribution) as well as other sectors (water supply, waste, sewage). Such entities operate close to the citizens, create local value through investments and employment and are dedicated to the protection of the local environment. Due to their specific ownership structures (citizens are shareholders) and local presence, they enjoy a very high degree of consumer trust and loyalty. Moreover, they offer a wide range of innovative products and services to their customers. Profiting from their public ownership to put in place collaborations with, for instance, social departments of municipal authorities they offer services targeted to vulnerable consumer groups.

Finally, many energy companies – including local companies - launch participatory citizen projects, in which citizens are shareholders of certain generation plants (PV or wind farms), leading to economic benefits and high social acceptance of projects by citizens in the area. This is not limited to local public utilities. Also private companies offer such participations, e.g. in Belgium the “CoGreen” cooperative offers the possibility for citizens to invest in local wind parks.

### **Box 3: UK Community Energy projects**

Examples of the different projects in this area include:

The **Wadebridge Renewable Energy Network (WREN)**: with all the profits returned to its community, currently the cooperative has 575 kW solar capacity and 850 kWth renewable heat installed. The project is aiming to provide 30% of energy from local sources by 2015 and 100% by 2020;

The **Bath & West Community Energy**: this is a community benefit society funded by selling shares. The cooperative have raised over £1 million from share offers. By splitting the profits between returns for investors and a community benefit, the main objective is to invest in local low carbon projects (e.g. 11 roof mounted solar projects on school and community buildings with a total capacity of 612 kW).

### *Community energy in the UK*

In January 2014 the UK Government released the first ever UK Community Energy Strategy. Its ambition is that ‘every community that wants to form an energy group or take forward an energy project should be able to do so, regardless of background or location’.

The strategy defines Community Energy (CE) as “community projects or initiatives focused on reducing energy use, managing it better, generating energy or purchasing it”. CE projects are characterised by community ownership, leadership or control, where the benefits of the project go back to the community.

Currently, the vast majority of known initiatives are place-based. These projects share an emphasis on community ownership, leadership and control with distinct community benefits, such as reinvestment in the community. Shared ownership/joint ventures with developers are

considered to be ‘community energy’, although initiatives wholly led/owned by local authorities, businesses or other intermediary organisations are currently not<sup>46</sup>.

CE in the UK is a relatively small, nascent sector. The sector is not homogeneous and is made up of a diverse range of organisations, with different needs and aspirations, operating with varying levels of ‘energy’ skills (technical, financial, business, etc). These organisations are often seeking to deliver against a range of social missions, utilising a range of organisational and legal models, including co-operatives, community benefit societies, development trusts, charities and voluntary groups. Despite their diverse forms, many share common goals and ambitions and seek to reinvest profits back in their local areas, to further social, economic, environmental and physical regeneration aims.

#### **Box 4: How big is Community Energy?**

The UK Government’s Community Energy Strategy states that since 2008 there have been at least 5,000 CE projects in the UK, although this number has grown rapidly in recent years (availability of timely data remains an issue). The UK is committed to carrying out a 2016 sector survey to see how the sector has developed since the Strategy’s launch.

While the UK Government’s Community Energy Strategy uses a 4-category typology (reduce, manage, generate and purchase), most of the available quantitative data about the sector’s scale relates to generation activity.

In terms of generation, community-owned schemes currently amount to around 0.3% of installed renewable generation capacity in the UK (66MW) and around 1% of installed feed-in-tariff capacity.

Independent modelling undertaken for the UK Government’s Department for Energy and Climate Change (DECC) shows that under some scenarios, by 2020, community electricity could provide between 0.5GW and 3GW of installed capacity (representing between 2.2% and 14% of the total capacity of these technologies) and generating between 0.3% and 1.4% of the UK’s entire electricity consumption in 2020, or enough to meet the electricity needs of 1 million homes. More recently, non-governmental organisations in the UK have argued that with the right package of support and enabling measures (building on the experiences of Germany and Denmark) the sector could produce up to 5.27GW by 2020.

DECC acknowledges that its scenarios do not represent additional generating capacity, but instead represent a shift in the ownership model of projected generating capacity from commercial developers to communities (at the large scale) and from individual household-level generation to community ownership models (at the small scale).

#### *The benefits of Community Energy*

Community energy can bring additional input towards the delivery of a Member State’s energy policy goals. Community energy schemes tend to be established with the purpose of providing community benefits, rather than as a purely commercial activity. They are often motivated by enabling communities to play a role in combating climate change, changing

<sup>46</sup> Despite sharing many similarities with CE, these projects are known as local energy. Other EU Member States sometimes include these local activities within a broader definition of community or civic energy.

attitudes and behaviours, creating social cohesion, empowering communities to manage their own energy supply, contributing to diversification of energy supply, tackling fuel poverty, developing community skills, creating local jobs and providing a new income stream for community projects.

While the UK Government's Community Energy Strategy provides case studies and details of evaluations undertaken of individual local projects, the Strategy concludes that the "limited available data on CE projects means it is difficult to produce a robust assessment of the impact and cost effectiveness of community energy activity in the UK". This applies at the level of an individual project (currently the UK government is developing a standardised evaluation tool for projects usage) and how this information can be aggregated to articulate sector-level impact and potentially utilised in policy development and decision making processes.

However, evaluations of a small number of schemes suggests that community energy projects can raise consumer engagement and trust, deliver economic value to communities, provide support to vulnerable consumers and promote behavioural change. Development of the evidence base and mechanisms for identifying and measuring the impact of CE schemes is a key priority of the UK Government's CE policy.

The British energy regulator, OFGEM, has welcomed this process and is interested to better understand impacts in terms of costs and benefits to consumers: impact on bills, energy awareness and engagement, switching behaviours (particularly amongst vulnerable and sticky consumers), trust, impacts on fuel poverty and so forth. It is important to understand whether the activities of CE schemes have discernible benefits not only for the consumers they are designed to benefit, but also for the energy system and the broader group of consumers.

#### *Considerations for regulators and independent Ombudsmen/ADR providers*

Regulators have a dual responsibility, both to consider the interests of consumers involved in or directly benefitting from community energy initiatives, and to assess how the emergence of this sector impacts the country's energy system.

OFGEM's current approach to community energy is threefold: improving the experience of this sector within the current regulatory framework, removing any undue regulatory barriers to the sector's development and understanding whether the sector's potential contribution(s) to consumers and to the energy system warrant particular consideration or further enabling support. OFGEM is also considering whether there are other 'non-traditional business models' that could be of benefit to future energy systems and to consumers. OFGEM is working on areas where the issues facing CE initiatives and the regulatory system interact, such as, for instance, grid connections and supply licensing.

Community projects, for instance district energy schemes, should be encouraged to join an independent redress scheme, such as an energy ombudsman. In the UK, the private District Energy schemes are not regulated and therefore there is no mandatory requirement to have a redress scheme. Ombudsman Services (Energy) currently has jurisdiction over one District

Energy Scheme – East Village at Olympic Park, London -, which is operated by East London Energy<sup>47</sup>. So far they have reviewed 1 complaint which fell within their Terms of Reference.

### **Box 5: How to regulate grid connections and licencing arrangements for CE projects**

#### ***Grid Connections***

The process of connecting to the distribution network / low-voltage grid is seen as an area of difficulty for community energy projects. While some of these issues are common to other parties seeking to connect to the grid, there are features particular to CE schemes which lead to additional challenges: the location of projects is fixed and they are unable to move to areas where the network is less constrained, they often lack funding for early stage development, they lack connections expertise and they operate under funding and governance arrangements which affect their ability to progress swiftly when grid capacity becomes available. OFGEM has worked closely with the sector and Distribution System Operators (DSOs) to determine areas in which connection experiences of community initiatives can be improved.

#### ***Community Energy and supply licencing***

Many community energy groups have aspirations to bypass the traditional route of selling energy via an intermediary and selling electricity directly to their community at lower prices than traditional suppliers. Any party seeking to supply electricity (outside of allowable exemptions) has to secure a licence from OFGEM; putting in place the necessary systems and procedures to comply with industry and regulatory requirements is a high-cost, high-competency undertaking.

Recognising the barriers experienced by new parties seeking to supply electricity in the UK, a regulatory provision (informally referred to as 'Licence Lite') exists, which aims to make it easier for smaller entities generating their own energy to enter the supply market. The Licence Lite arrangement allows a smaller, aspiring entrant to work with a third party (a fully licensed supplier) to deliver these more technically complex/costly responsibilities on their behalf. While it would be appropriate to a diverse range of supply models, it can offer generators, who would normally only be able to sell to the wholesale market, the opportunity to enter the retail supply market and interact with consumers. This may be challenging for some community groups to manage.

There has been a lot of interest in Licence Lite and a number of different applications of the model are in development by different parties. At the time of writing there is an expectation that the first Licence Lite arrangements may begin operating in the near future. However, the lack of uptake of Licence Lite has led some to consider that Licence Lite may not suit the smaller aspirations of some CE projects which are concerned with small levels of community generation and supply. The UK Government is currently considering the possibility for CE projects to undertake supply (including self-consumption which is outside the exempted undertaking and makes use of DSO facilities) and looking at how best this might be implemented.

<sup>47</sup> <http://www.ombudsman-services.org/ombudsman-services-to-provide-consumer-redress-for-the-east-village-at-the-olympic-park.html>.

## 4.6 Intermediaries

The Working Group discussed the role of new intermediaries, an emerging new service sector in energy. Intermediaries can be facilitators of choice for consumers. Their conduct is not confined in energy; in fact they have a long history in other sectors, such as financial markets – both for private investments and for mortgages, for example.

Some consumers might rely on taking advice from intermediaries to navigate through often complex markets and procedures. The activities of intermediaries need to be transparent and unambiguous. They should be able to provide information on their business model and also be accountable for the claiming that they propose fair and neutral information on prices and price comparison tools. If their advice is not of good quality, and this means it is not objective, independent and correct, then it can lead to sub-optimal choices. This in turn can compromise customers' trust.

An example worth mentioning is that, in relation for instance to collective switching, the intermediary role is undertaken by bodies who consumers trust to be impartial and act in their interests. These intermediaries are frequently acting in partnership with specialist entities that set up and manage the platform on a white label basis and oversee the reverse auction (or other deal striking mechanism) and manage the market logistics of switching big numbers of between suppliers<sup>48</sup>.

The services provided by so-called “Next Generation Intermediaries” facilitate the decision of consumers to get involved and act since the intermediary “makes sense” of the market so the consumer doesn't have to. Intermediaries have the potential to rebalance power asymmetries within a market and create a much more demanding demand side. Next Generation Intermediaries do more than traditional intermediaries such as price comparison websites that provide market scanning, comparison and recommendation services. For example, they can not only identify the best option for a consumer but also switch on their behalf, and offer an ongoing ‘power of attorney’ service to do so on a continuing basis. They work by collecting and compiling data from the market and about the market, alongside data from the consumer and about the consumer – using algorithms to match market offers to an individual consumer's consumption patterns, preferences and wider criteria. Such an automated service works with the actual behaviours and motivations of consumers and does not rely on persuading people to engage and switch based on rational choice arguments, which have faced significant challenges in recent years.<sup>49</sup>

NGI services rely on data being easily accessible by consumers and portable across organisations. For organisations offering such intermediary services, transparency will be a critical component of demonstrating they are trustworthy when it comes to using personal

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<sup>48</sup> Next Generation Intermediaries: examining a new approach to market engagement, Richard Bates, 2014  
<http://www.consumerfutures.org.uk/reports/next-generation-intermediaries-examining-a-new-approach-to-market-engagement-that-offers-consumers-better-outcomes-for-less-effort>

<sup>49</sup> Ibid.

data – their business model, security standards and who they are accountable to should be obvious to consumers so they can easily ascertain whether their trust criteria are met.

Considering that intermediation in energy is expected to become a more important and pronounced activity in the years to come, policy makers and regulators will need to ensure that the *regulatory framework is fit to address their role* and that these services are covered by an ADR system, such as an independent energy ombudsman.

In annex to this report, there is a detailed case study of actions taken against bad practices from an intermediary company in Sweden.

## 5. Recommendations

The recommendations below are addressed to the European Commission and National Regulators as well as energy companies and identify key elements for delivering better outcomes for consumers.

### 5.1 Competitive markets and EU policy design

The Working Group understands that energy markets open to competition are more favourable for innovation and growth. Efficient competitive markets can lead to better deals for consumers, a richer offer of customer oriented products and better services. This can in turn lead to more favourable conditions for various types of demand driven initiatives and next-generation intermediaries, if the customer finds them beneficial. Therefore, the Working Group recommends:

- *Stepping up* efforts to fully implement the Third Energy Package and the Energy Efficiency Directive. It is necessary to pursue retail market integration at the regional and European levels but also stimulate local involvement of energy companies that can enable consumers to participate more actively in the retail energy markets;
- *Taking into account* forms of active consumer involvement such as, for instance, energy cooperatives, collective switching, micro-generation and various other forms of collaborative energy activities (community-based energy initiatives and other energy efficiency/demand management services) in policy or legislative initiatives;
- *Differentiate* between the various consumer types in impact assessments of new market designs in order to *adapt* new regulatory and policy frameworks to these different categories of users and consumers and *ensure* a fair distribution of costs and benefits.

### 5.2 Transparency, user-friendly information & trustworthy advice

The Working Group acknowledges the *transformative* potential of the active consumer involvement of the type described in this report. At the same time, in order for consumers to become engaged in the first place and to stay involved in the long-term, the Working Group strongly recommends to:

- *Give* consumers the possibility to make their own choices in the new competitive markets and enable them to actively participate in the energy market;
- *Provide* consumers with clear, transparent, credible and comparable information about the service or product available on the market so that they can compare offers easily and make informed choices;
- *Support* consumers' willingness to foster sustainable business models and renewable energies through ambitious criteria for green energy offers.

- *Present* information related to potential savings in energy and in actual costs, as well as to other parameters of the new offers, in a *transparent, non-misleading, non-technical* and eventually *easy to understand* manner.
- [Provide consumers with, at least, a real-time monitoring display within the home, installed for free and showing consumption in kWh and in euros. There should be also a website showing the data consumption history/ Provide consumers with easy access to their consumption, e.g. by having a real-time consumption display monitor at home. This is important information that should be with no additional cost and display at least consumption in kWh and in euros. Access to historical data should be simple and easy for consumers as well.].

The role of *trustworthy intermediaries*, such as consumer associations, local authorities, **local DSOs**, public advisor bodies, web-based services but also energy companies that seek to build a long-term relationship with their clients on the basis of trust and mutual benefits, is key. In this sense, the Working Group recommends to all above parties to:

- *Work closer* with consumers paying attention to what matters to them and to what is required to foster consumer trust;
- *Investigate* how energy consumption can be connected to activities of consumers' daily lives, and what actions could *initiate* their closer engagement in the area of energy;
- *Ensure* a coherent framework for consumer advice on how to engage with these new products and services (from bodies they can trust), and provide a seamless integration between those services and the complaint handling, dispute resolution and redress framework;
- *Report* meaningful aggregations of consumer data on complaints and policy concerns to the body in charge of dispute resolution, such as an independent energy ombudsman.

### 5.3 Regulatory framework & governance

Many of the actions described in this report are taking place at national or even at regional/local level. This report is presenting interesting examples that can deliver good results for consumers and which merit to be considered in other Member States. Therefore, the Working Group recommends to:

- *Enhance* cooperation and information sharing among regulators about how community energy schemes are treated across the EU;
- *Avoid* regular revision of parameters affecting *costs and benefits of investments in self-generation* in order to avoid any regulatory risk for consumers. Retroactive changes in *taxation* should be avoided. Generation for *self-consumption* needs to be made possible, while also considering any technical issues in relation to it, e.g. simplified grid access as well as a reliable framework for selling surplus electricity,

- [as well as the overall costs imposed on the energy system, to avoid impairing those consumers that cannot afford to become prosumers];
- *Design* [European legislative or policy initiatives]/[appropriate regulatory framework] concerning individual and collective self-consumption in a way to create a level playing field for consumer-based actors, aiming to include them in the energy market. At the same time [counter-productive or damaging] national or regional regulation<sup>50</sup> should be discouraged;
  - *Facilitate* this new role of consumers with policies that tackle existing barriers and help bring about market transformation. Small scale and decentralised energy generation has become an opportunity for consumers to play an active role in the energy sector while gaining more control over their energy use, thereby cutting both their CO2 emissions and reducing their energy bill.
  - *Consider* carefully the costs for those consumers that are not involved in *micro-generation* but contribute to the financing of support schemes for prosumers.
  - Concerning collective switching campaigns, *ensuring transparency in the presentation of the terms and conditions, including fees*, of the offer together with a clear process and possible expected benefits of the switch, is necessary. Any hidden costs should be avoided.
  - *Facilitate*, in close cooperation between National Regulatory Authorities together with other relevant stakeholders, collective switching campaigns improving consumers' experience on the energy market and helping them to get a better deal;
  - *Enable* within the regulatory framework the set-up of local energy companies, local DSO's and energy cooperatives; [Energy cooperatives, and in particular those connected with renewable electricity, have a potential for direct consumer participation towards a 'greener' energy mix. Their model needs to be facilitated by policy, but always in line with EU legislation];
  - [*Encourage* support systems such as feed-in- tariffs for prosumers and consumer-based organisations;]
  - *Work together* for all forms of active energy usership of the types described in this Report in a complementary way between *energy regulators, national consumer authorities and local authorities*. For example, switching campaigns and other collaborative consumption initiatives in energy are not so different from other group purchase activities where consumer regulators have great experience that could be shared with their energy peers.
  - *Take into consideration* more closely as regulators the *role of intermediary companies* (including ESCOs, DSOs and aggregators) to *ensure that the regulatory framework adequately protects the consumer and provides a level playing field between all the market players*.
  - *Ensure* that their data is sufficiently and effectively protected and consumer privacy is enshrined in legislation.

<sup>50</sup> Such as the "Solar tax" in Germany or the "Peaje de respaldo" in Spain.

- *Encourage* consumer engagement with the new markets, by supporting effective information policies and providing easy access to products and services (e.g. the right incentives, minimum standards and protections etc). Government and regulatory policies should be co-ordinated to promote consumer control of their energy consumption;
- *Ensure* that *ADR bodies* and other public authorities with a mandate on dispute settlement in energy continue to register and handle complaints, **if the complainant receives no satisfaction from complaining first to the company**, and provide the broader redress procedures irrespective of the nature of the energy provider (i.e. energy company or a local community or energy cooperative or other). Furthermore, all stakeholders should ensure that issues are well covered by an independent ADR, such as an energy ombudsman and that all consumers have access to the information on the ADR mechanism in charge.

## 5.4 Support of innovation, energy efficiency at home and demand response

The Working Group recognises the great potential of innovation, energy efficiency-related savings at home and demand response as key factors for reducing peaks in demand and shifting loads to achieve balance between energy demand and supply. It is also evident from presentations and discussions in the Working Group that **consumers need incentives** and an appropriate market set up to become involved. With the above in mind, the Working Group recommends to:

- **Develop product and service labels** and other information in relation to heating for housing, but also all other types of final energy demand, in a format that is easy for consumers to understand, clearly demonstrates the benefits from the more efficient systems and appliances and allows consumers to identify the most efficient appliances across different technologies;
- **[Develop national support systems (via e.g. finance, taxation, etc.) supporting consumer choice of services and products that have an important energy efficiency ‘added value’.** Through these support schemes consumers should also receive information on the payback period, i.e. after what time they start saving in the use phase thanks to having invested into more efficient appliances compared to a more inefficient solution;]
- **[Promote]/[Give further consideration to the arguments for] district heating networks owned by their own consumers<sup>51</sup> as efficient solutions. Cooperative district heating makes consumers more autonomous from external fossil-fuel suppliers and provides lower and transparent heating costs for consumers.** Policy developments concerning district heating should support consumer-based initiatives such as cooperatives or other community initiatives.]

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<sup>51</sup> As seen in the Case study “Energieversorgung Honigsee eG” presented by Cooperatives Europe in the WG.

*Demand response* is equally important and indeed an area that is only now undergoing development. The Working Group recommends to:

- *Consider the potential of demand response to reduce energy bills, directly and indirectly, in policy development at national and EU level and in the design of future electricity markets;*
- [*Refocus demand response policies to give consumers greater control and choice according to their specific needs and interests, as well as greater transparency of the costs and opportunities for domestic consumers of such tariffs. Greater co-ordination between demand response and energy efficiency policies could open new opportunities for consumers to manage and reduce their consumption, if this is supported by a greater understanding of the potential of the respective consumer groups to engage;*]
- *Consider at the same time, the relative limited flexibility of demand by the majority of consumers when designing demand response systems.*

## 5.5 Stock taking of market developments

The Working Group members acknowledge the transformative potential of active consumer involvement in retail markets of the type described in this report. At the same time, consumer innovation is a ‘moving target’ and new developments may emerge with the potential of changing the energy value chain. Hence, the Working Group recommends to:

- *Carry out regular evaluations of the impacts of policy interventions on consumers in order to assess where and why policies have successfully driven change and where impact is less clear;*
- *Take stock of developments in energy markets regularly, in particular at the retail level, and use the evidence to inform policy orientations;*
- *Focus on price regulation, (nature of) complaints, consumer innovation (products and services) and the interplay of energy with other sectors.*

## 5.6 Extension of the Mandate of the Working Group

The Working Group Members acknowledge the importance of the new “Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy” adopted on 25.2.2015<sup>52</sup>. Among other important objectives, the European Commission proposes “doing more to ensure that Member States implement and enforce existing legislation” and “passing legislation to modernise the European energy market and reinforce the regulatory framework at regional and European level”<sup>53</sup>. In view of the important questions that remain open as

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<sup>52</sup> COM(2015) 80 final, [http://ec.europa.eu/priorities/energy-union/docs/energyunion\\_en.pdf](http://ec.europa.eu/priorities/energy-union/docs/energyunion_en.pdf).

<sup>53</sup> [http://ec.europa.eu/priorities/energy-union/docs/energyunion-citizens-summary\\_en.pdf](http://ec.europa.eu/priorities/energy-union/docs/energyunion-citizens-summary_en.pdf).

regards the role of consumers as active players in an integrated European energy market, the Working Group recommends that its Mandate be extended to:

- *Consider* the conditions and requirements that should be put in place to provide consumers with retail markets that are not only more competitive but also more transparent, fair and efficient;
- *Highlight* the requirements for effectively protecting end consumers in retail markets including with [minimum standards]/[suggested good practices] for sales, switches, moving, contractual terms, unified communications, easily understandable bills, complaint procedures and alternative methods of redress; Bills should include disclosure of the fuel mix and provisions that enable consumers to well estimate their product's environmental benefit.
- *Define* the parameters for a closer involvement of energy consumers and households in energy efficiency solutions in view of the upcoming review of energy labelling and energy efficiency legislation;
- *Discuss* the mechanisms of price formation in an integrated energy market and consider the sharing of costs of the new strategy among the various stakeholder groups, the effects of deregulated prices (including on vulnerable consumers) and the impact of taxes, feed-in tariffs and subsidies on retail price formation.

## **Annex A: Input by Working Group members and invited speakers**

### **1. Examples of cooperatives working on energy**

Energy cooperatives locally anchored companies producing, consuming and/or retailing energy for their own members. From self-delivery to energy efficiency and green energy, cooperatives have (historically) been successful in responding to consumer needs, as they are owned and managed by their own consumers.

Responding to the demand of their consumers (most of the time members), renewable energy cooperatives evolve from one business model (such as producing or retailing energy) to another (such as energy savings and performance). RES cooperatives are business models centred on improving the conditions and benefits of their own consumers.

#### **Ecopower – Energy prosumers**

Ecopower is a Belgian energy cooperative based in Flanders, producing and supplying electricity to their own members. This RES cooperative is collectively producing and consuming their own electricity. Their members (consumers) have experienced a decrease of their energy consumption of 46% in six years. Ecopower believes that this is due to the awareness of their members stemming from their involvement with the installation of solar panels in their rooftops. Contrary to the traditional electricity suppliers Ecopower does not base its business model on selling as much energy as possible, but stimulates the rational use of energy by its members causing less wastage of energy.

#### **Energieversorgung Honigsee eG - District heating network**

Cooperatives have a fundamental role to play in the area of residential heating. Heating has often a monopolistic nature as there is only one heat supplier. For this reason it is frequently preferable to directly involve consumers through a RES cooperative. Energieversorgung Honigsee is a district-heating cooperative in Germany. Its members are consumers and producers (prosumers). It is autonomous from external suppliers, using local renewable sources to produce its heat and benefiting from low and transparent heating costs. District heating cooperatives do not always distribute profits to their members. Some decide to use part of their profits to invest in energy efficiency for their member's homes or to replace old inefficient heating systems.

### **2. Examples of collective switching campaigns**

#### **Portugal - DECO**

Given the low percentage of customers satisfied (28%), growing prices and the liberalization of the market, the tool of Electricity Auction was introduced in Portugal (May 2013). It is open to all consumers and providers. Learnings from this approach:

- high awareness and good adhesion (10% of all households);
- winner contract without unfair terms or penalties and price stability for 12 months;
- economic advantages below consumer expectations (only €15-30 of yearly savings);
- many participants didn't play the game promoting their offers outside the auction;
- the switching process was too long and the winner faced difficulties as regards the volume of switching (>40k).

Main obstacles to the adoption of this instrument:

- in both the regulated as well as in the free market there often only "one player";
- the actual energy price accounts only for nearly 40% of the residential price. Moreover taxes can vary between 31,8% and 43% of the final price;
- retailers are not really independent;
- the switch of operator is not independent.

Those results were representing the fact that the auction price was the best deal on the market. In the future, one or two collective purchases will be done per year, while the possibility will be explored to extend this method to other products/services.

### **United Kingdom – Ofgem's views on collective switching**

Collective switching is a relatively new activity in UK's energy markets which has grown quickly. The first collective switching campaign was organised by consumer group Which? and by campaigners 38 Degrees in May 2012. Since then there have been regular collective switching schemes throughout GB including many schemes being run by local authorities. Thirty-one schemes received funding through DECC's Cheaper Energy Together competition. Although these schemes have been smaller than the Big Switch, there has been sustained participation from consumers.

It has been promoted by the government and by consumer groups as a way in which consumers can engage with the market and save money on their energy bills. Ofgem has welcomed collective switching as an innovation that could benefit consumers. The main consumer benefits are an increased consumer engagement, savings on the energy bills and reduced hassle of switching. Ofgem is making sure that reforms in other areas to protect consumers and inspire trust in the retail market are reflected in its approach towards collective switching.

Ofgem's retail market reforms to simplify tariffs, included specific rules which allowed suppliers to participate in collective switching schemes and create tariffs outside the tariff cap, if schemes met certain criteria. There have been several collective switching schemes that have used the tariff cap exemption to generate new tariffs for consumers.

### **UK Department of Energy and Climate Change**

“Collective Purchasing and Switching: What consumers need to know” –practical information

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/36699/5368-collective-purchasing--guidance-for-consumers.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/36699/5368-collective-purchasing--guidance-for-consumers.pdf)

### **3. Examples of collective switching and community energy schemes in the UK**

#### **Which?/ 38 Degrees ‘Big Switch’**

The first high profile collective switching scheme in the UK was undertaken by Which? and campaigning website 38 Degrees in early 2012. Their ‘Big Switch’ initiative, which ran between February and May of that year, attracted interest from over 287,000 people, with around 151,000 going on to provide full registration details. Following the reverse auction on 9 May, over 37,000 decided to switch suppliers and take up the winning offer provided by Co-operative Energy, with an average annual saving of around £220 on their energy bills.

#### **Others schemes led by price comparison sites**

Other smaller schemes have also been or are being developed by other price comparison websites. Energyhelpline.com ran their ‘Huge Switch’ campaign between April and June 2012 and over 8,500 people switched supplier.

*Cornwall Together* is a partnership collective switching project launched in July 2012. Cornwall Together Ltd is a subsidiary of Eden Project Ltd and they have joined forces with other organisations including Cornwall and the Isles of Scilly Councils, the local NHS, and Unison South West to promote the scheme, particularly among vulnerable and hard-to-reach members of the Cornish community. This scheme is being run by price comparison website uSwitch.com and ‘Energyshare’. At the end of the registration period over 9,000 people had signed up. According to the website, over 70% of participants were offered a better energy deal following the auction with an average saving of £133. Full details of the winning supplier(s) are unknown. The aim was to provide people with two energy offers, one of which will be a deal to switch to having energy provided from a more sustainable source. The scheme was open to customers across all payment methods, and included domestic and business energy users. There was also a time-limited offer for free loft and cavity wall insulation for everyone who signed up. Referral fees are unknown but the company has pledged it reinvested 10% of the money into a fund to help alleviate fuel poverty in Cornwall.

Following the success of Cornwall Together the people behind the project have since started ‘*UK Together*’. As well as providing collective switching schemes to individuals they are also looking to support local authorities and other organisations to set up schemes. Having secured funding through the DECC ‘Cheaper Energy Together’ fund, schemes with similar branding and infrastructure have recently run in Birmingham and Solihull (Birmingham and Solihull Together), Exeter (Exeter Together) and Scotland (Scots Together).

#### **iChoosr supported schemes**

Some of the initial collective switching schemes set-up by local authorities and others in GB have been supported by iChoosr<sup>47</sup>. IChoosr is the organisation behind collective switching schemes in the Netherlands and Belgium. Similar to the approach by UK Together, they provide ‘white label’ collective switching services to councils and community organisations i.e. the ‘public face’ of the scheme will be the local authority/ community group, while the infrastructure and expertise to negotiate with suppliers and manage the switch is provided by iChoosr. The first local authority to set up such a scheme was South Lakeland Council in

Cumbria - a relatively small scheme where just under 1,700 people registered to take part. Following the reverse auction on 18 September 2012, Ovo Energy provided the winning offer with average annual savings of £102.

The second iChoosr supported scheme joined together schemes set up by the Labour Party (*Switch Together*), *Unison*, *Oldham*, *Norwich* and *Rochdale Councils*. Across all five schemes almost 25,000 people registered (74% of registrations came via Unison and Oldham), with registration being available both online, via the phone or face-to-face (eg. at Council City Halls and libraries). The reverse auction took place on 26 November 2012 and there were two winning offers – Ovo Energy for online billing and Co-operative Energy for paper billing – with an average annual saving of £171. While registration was open to PPM users in the end the winning offers were only available to Direct Debit customers. All of the Council led schemes plan to use any surplus commission (once costs have been recovered) for social purposes. In Oldham a new Community Dividend Fund has been set-up with money being ring-fenced and used for projects which help support vulnerable residents in fuel poverty. In Norwich the plan is to use ‘profits’ to support other work to reduce fuel poverty in the City. In Rochdale any money will also be paid into a local community fund.

The third iChoosr supported scheme brought together the *Peterborough City Council ‘Ready to Switch’ Scheme* (a consortium of 12 local authorities) and the *Greater Manchester ‘Fair Energy’ Scheme* (a consortium of 15 Councils). Around 56,500 people registered across both schemes with two-thirds saying they had not switched within the last 3 years. Following the reverse auction on 29 January 2013 three suppliers, including Scottish Power, provided winning offers with average annual savings of £122. This was also the first iChoosr supported scheme to provide a winning offer to PPM users (approximately 2,500 of those who registered were PPM users).

#### **4. Input by BEUC on collective switching campaigns across Europe<sup>54</sup>**

On 19th June 2014, BEUC reported that almost 3 million consumers had signed up to one of the switching campaigns organised by BEUC members. The total savings made by those who switched were estimated at €135 million. However, according to BEUC, although these campaigns can provide consumers with a better deal, they are not a long term solution to market complexity.

Collective switching is indeed a growing practice. Successful initiatives in Europe have already demonstrated the benefits that collective switching can deliver for consumers. Some positive aspects of this practice consist in:

- Helping consumers get a better deal for energy supply through an easy and straightforward process;

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<sup>54</sup> BEUC factsheet is available at: [http://beuc.eu/publications/beuc-x-2014-042\\_jkl\\_collective\\_energy\\_switch\\_factsheet.pdf](http://beuc.eu/publications/beuc-x-2014-042_jkl_collective_energy_switch_factsheet.pdf)

- Encouraging consumers to leave the regulated market for the free market and engage more directly in the energy market;
- Improving competition by enabling smaller providers to overcome entry barriers and increase their customer base;
- Providing clear insight on consumers' perception of the market and their main concerns;
- Being potentially useful for customers who have not switched before and in less mature markets;
- Enabling off-line access for consumers who have no online access or who do not use internet for shopping around.

There is a widespread consumer support for the idea of collective switching due to its potential to save money on energy bills without investing the time and effort that is associated with switching individually, as the intermediary would be doing all the legwork.

The real potential for collective switching is where all consumers have a need for the service, but where engagement in the market is limited to an active minority. In this sense, provided that it is well *organised and transparent in what concerns potential rewards and contract conditions*, it could prove a useful tool to engage consumers and could raise levels of engagement especially for vulnerable and previously inactive consumers.

Therefore, it is important to examine the opportunities collective switching might provide for people on lower income and those who never or rarely switch energy suppliers to obtain greater savings on their energy bills. The most significant outcome can be seen in Belgium, where it led to the abolishment of the switching fee.

### **Intermediary platforms**

iChoosr is an intermediary platform that has pioneered collective switching for utility services in several Member states. Founded in Belgium in 2008, iChoosr has since extended its activities to the Netherlands and Germany. Compared to other intermediary platforms, iChoosr has made the greatest progress in establishing the collective switching model, successfully demonstrating it is a feasible approach that can deliver savings for consumers. iChoosr's approach is to work with and through trusted NGOs, local government bodies and civil society organisations, creating critical mass from their existing constituencies. The partner organisation adapts a white label iChoosr platform to offer a consumer facing portal into its collective switching service. Because the partner organisation enjoys a trusted status amongst its constituency, it provides a strong focal point around which consumers can group together. iChoosr itself sits behind the trusted organisation, aggregating the group's demand, leading the auction process and managing the logistics of mass switching on behalf of the partner organisation and participating consumers. It has worked with partners to tailor the service it offers to meet the distinct needs of their respective constituencies, for example by procuring better value green electricity for organisations with a sustainability focus. Although it is primarily web-based, iChoosr works with partners to offer face to face and telephone registration and contact channels for consumers. iChoosr leverages the aggregate demand of the group through a reverse auction process. Providers wishing to participate in the auction first need to agree to the terms and conditions set by iChoosr, which include clauses on customer service standards that the winning bidder will need to abide by.

The auction day is split into bidding rounds, with one round taking place every hour. Participating providers are notified of the lowest bid (but not bidder) at the end of each round. Once the auction closes and the winning provider is confirmed, iChoosr contacts participating consumers with a personalised offer, showing how much they stand to save by switching to that provider. The offer reflects a calculation based on pre-captured information around existing tariff details and historical consumption levels. If, after assessing the bid, the consumer wishes to accept the offer and make the switch, they signal that intent to iChoosr who then manage the switching process on their behalf. The winning provider pays iChoosr a predetermined per consumer fee for every customer gained through its collective switching process. Resultant revenues are split with the partner organisation in line with agreements made at the outset of the process.

2008 saw iChoosr launch its first group buying exercise for heating oil, which was run in partnership with a Belgian political party. This resulted in participating consumers achieving a better deal on more than 2 million litres of heating oil. It has since expanded its service to collective switching in gas and electricity markets. Figures provided directly to Consumer Focus by iChoosr, or taken from its website indicate that:

- More than half a million consumers in The Netherlands, Belgium and Germany have registered with its collective switching programmes for gas, electricity and heating oil.
- The registrant to switcher conversion rate is over 30%, depending on market circumstances and the partner organisation.
- The average savings per individual household is €200 to €250 for a dual fuel energy contract.
- The winning bid has represented an improvement on existing tariffs for 95% of participants.

Beyond iChoosr, the consumer body Consumentenbond has also offered a collective switching platform in the Netherlands. In 2011 it successfully completed two rounds of collective switching in the energy market. It worked in partnership with Prizewize (a price comparison service) to deliver this initiative. Consumentenbond undertook the marketing and acted as the focal point for interested consumers, while Prizewize applied its knowledge of the energy market. Revenue generated by the initiative was shared between both parties. This initiative also utilised a reverse auction process that focused on achieving a lower price per kilowatt of electricity and per cubic meter of gas. Bids from suppliers also included a retention offer to participating consumers, which provided them with a secondary route for reducing their bills. Participation in the auction was contingent on energy companies agreeing to a set of terms and conditions, with the auction itself taking place between specified hours on the set date. The bids placed were visible to all competing parties. The initial round was communicated mainly to Consumentenbond's members and resulted in around 23,000 consumers switching to a better deal. The later round was also communicated on radio and thus also attracted non-members and saw 34,000 consumers switch to the winning provider.

## **5. Intermediaries in Sweden – Problems encountered or complaints received**

### **Dispute regarding the contract – Consumer and Intermediary**

There are some complaints regarding the contract between the consumer and the intermediary. Usually they are linked to marketing by cold calling. Sometimes consumers deny ever having concluded a contract with the intermediary. In these situations the intermediary of course has the burden of proof. The intermediary either has a written contract (unusual) or a recording of an oral contract concluded by telephone.

However, the most common complaint with regard to the contract between the consumer and the intermediary is disputes on the content of the contract and to what extent the intermediary has been given a mandate (power of attorney) to end the current supply contract, conclude a supply contract with another supplier, order the switch and to do so at a specific date.

There are some complaints about the right of withdrawal from the contract or the lack of information about the right of withdrawal, although according to the contract the termination notice takes immediate effect. This is not a big problem at the moment.

### **Dispute regarding the supply contract – Consumer and Supplier**

There are different complaints regarding the supply contract concluded by the intermediary on behalf of the consumer. They are listed below without any specific order in terms of frequency or number of complaints.

Consumers perceive that the intermediary will provide them with best supply contract (lowest price) available on the market by examining all offers on the market. However, intermediaries only cooperate with a limited number of suppliers and sometimes the intermediary in practice acts as a representative of the supplier. In some cases the cooperation with a limited number of suppliers will result in a complaint from the consumer regarding the fact that the supply contract presented to the consumer is not the best available on the market at the time. This does not, however, make the supply contract void.

It is not uncommon that Sweden receives complaints about the complete lack of information regarding the conditions of the supply contract and the right of withdrawal. From the consumer's perspective the first information or indication regarding the switch and the new supply contract is via the previous supplier's final bill, sometimes with a redemption fee. The intermediaries assert they have sent the required information to the consumer. The entire situation ends up in a discussion about what can be proven, which is rarely to the advantage of the consumer.

A common complaint concerns problems related to the application of the provisions on the right of withdrawal from the supply contract. In order for the consumer to exercise the right of withdrawal, the consumer has to be informed about the conditions of the supply contract and the information of the right of withdrawal. If the consumer does not receive the information of the right of withdrawal, or if the intermediary cannot prove that the consumer has received the information, the cooling-off period does not start. In cases where the intermediary can only fulfil the burden of proof by referring to operating procedures, the intermediaries either deny the consumer the right of withdrawal or unilaterally declare when the cooling-off period starts/ends to the disadvantage of the consumer.

### **Redemption fee**

The marketing activities by the intermediary directed towards the specific consumer often results in the consumer having two supply contracts and thus receives a claim for a redemption fee from one of the suppliers. Sweden has no information on the application of redemption fees in other member countries, but it is a frequent and regular problem in the complaints that is receives.

One particular explanation of the “two contract situation” is the time span between the conclusion of the contract between the intermediary and the consumer and the subsequent conclusion of the supply contract. It is not uncommon that the time span is between one and two years. The consumer forgets about the contract with the intermediary (often concluded by telephone) and concludes a supply contract with a supplier of his own choice.

### **Electricity Markets Directive Annex I 1 a**

According to the abovementioned provision of the annex “Conditions shall be fair and well-known in advance. In any case, this information should be provided prior to the conclusion or confirmation of the contract. Where contracts are concluded through intermediaries, the information relating to the matters set out in this point shall also be provided prior to the conclusion of the contract.”

According to the procedure described by the intermediaries, either directly or via their websites, the consumer does not receive information regarding the supply contract prior to the conclusion of the supply contract. The intermediary presents the new supply contract to the consumer, after the conclusion of the supply contract. The supplier does not send any information directly to the consumer regarding the supply contract or information on the right to withdrawal.

The provision in the annex has been implemented in the Swedish Electricity Act. It is not clear enough, according to the regulator, whether or not the regulatory mandate of the regulator includes also the obligation of the intermediary, or only the obligation of the supplier to inform the consumer on the conditions prior to the conclusion of the supply contract. Sweden is of the opinion that due to its wording neither the provision in the annex nor the provision in the Swedish electricity act makes such a distinction. Otherwise the suppliers can deprive the consumer its right to information by concluding supply contracts via an intermediary.

In the complaints involving intermediaries the consumer has two counterparts, the intermediary and the supplier. Often one party refers the consumer to the other regarding consumer complaints on e.g. the right of withdrawal. It is important that consumers receives the required information in order for them to be in a position to protect their rights.

### **Other information**

The Swedish Consumer protection agency has a pending court case with one of the more active intermediaries on the Swedish market. This intermediary is also active in Finland.

**Intermediary in UK : Money Saving Expert’s (MSE) Cheap Energy Club** is establishing a system of parameter-driven delegation, where the service is given powers to act for the

consumer within certain agreed limits. The consumer registers for Cheap Energy Club using details of their current energy tariffs and usage. They then declare their 'strike price' in terms of how much they expect to save in order to consider switching. The service then engages with the market, hunting down an offer that meets the consumer's requirements, so that the consumer doesn't have to. It then contacts the consumer with an option to switch only if and when the service finds a deal that meets the consumer's strike price and other criteria. Cheap Energy Club is also designed to capture and analyse data on a consumer's past and current consumption patterns, so as to build this information into its ongoing calculations of what would be the best deal for the user. This will enable MSE to offer an 'always on' perpetual service.

It should also be noted that MSE is one of the highest profile, most trusted consumer interest brands in the country. In relation to the discussion on who will offer NGI services, it is, perhaps, telling that a first generation intermediary, Money Supermarket, now owns MSE and that Cheap Energy Club is one of the first fruits of that alliance.<sup>55</sup>

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<sup>55</sup> Next Generation Intermediaries: examining a new approach to market engagement, Richard Bates, 2014 <http://www.consumerfutures.org.uk/reports/next-generation-intermediaries-examining-a-new-approach-to-market-engagement-that-offers-consumers-better-outcomes-for-less-effort>



