

# Working Group Report

## “Consumers as Energy Market Actors”

1. Mandate of the Working Group .....	2
2. Energy markets in 2015 .....	3
2.1 Consumption figures and trends.....	3
2.2 Retail prices.....	5
2.3 Market actors.....	6
3. Forms of active energy use and citizenship .....	7
3.1 Demand–side response (DSR) .....	7
3.1.1 Demand-side flexibility (DSF) .....	8
3.1.2 Micro-generation .....	8
3.2 Involving consumers in energy efficiency choices .....	9
3.3 Collective switching.....	10
3.4 Energy cooperatives .....	13
3.5 Community-based energy projects.....	14
3.6 Intermediaries.....	19
4. Recommendations.....	21
4.1 Competitive markets and EU policy design.....	21
4.2 Transparency, user-friendly information & trustworthy advice.....	21
4.3 Regulatory framework and governance .....	22
4.4 Support of innovation, energy efficiency at home, and demand response.....	23
4.5 Stock taking of market developments .....	23
Annex A: Input by Working Group members and invited speakers .....	25
1. Examples of cooperatives working on energy .....	25
2. Examples of collective switching campaigns .....	26
3. Examples of collective switching and community energy schemes in the UK .....	27
4. Input by BEUC on collective switching campaigns across Europe.....	28
5. Intermediaries – problems encountered or complaints received.....	30
Annex B: An example from Finland .....	33
Annex C: An example from the UK: repowering London.....	36
Annex D: An example from Sweden .....	37
Annex E: The potential of gas for more efficient heating.....	39
Annex F: Members of the Working Group: .....	41

## 1. Mandate of the Working Group

Following the mandate by the 6<sup>th</sup> and 7<sup>th</sup> Citizens' Energy Fora, 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 use 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.

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 individual actions, such as micro-generation, and collective bottom-up initiatives, such as collective switching or energy cooperatives.

The working method of the group consisted of:

- meeting eight times (on 19.2.2014, 3.4.2014, 12-13.6.2014, 16.12.2014, 2.3.2015, 19.10.2015, 8.12.2015 and 25.01.2016 );
- exchanging views by email and providing comments and input for the present report firstly in two successive rounds between December 2014 and March 2015, and, following the extension of its mandate by the Citizen's Energy Forum 2015, in another round between November 2015 and January 2016.

It is important to acknowledge in preamble that the practices presented in this report are only examples and that this report represents solely the views of the stakeholders present (see the list of WG Members in Annex).

---

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

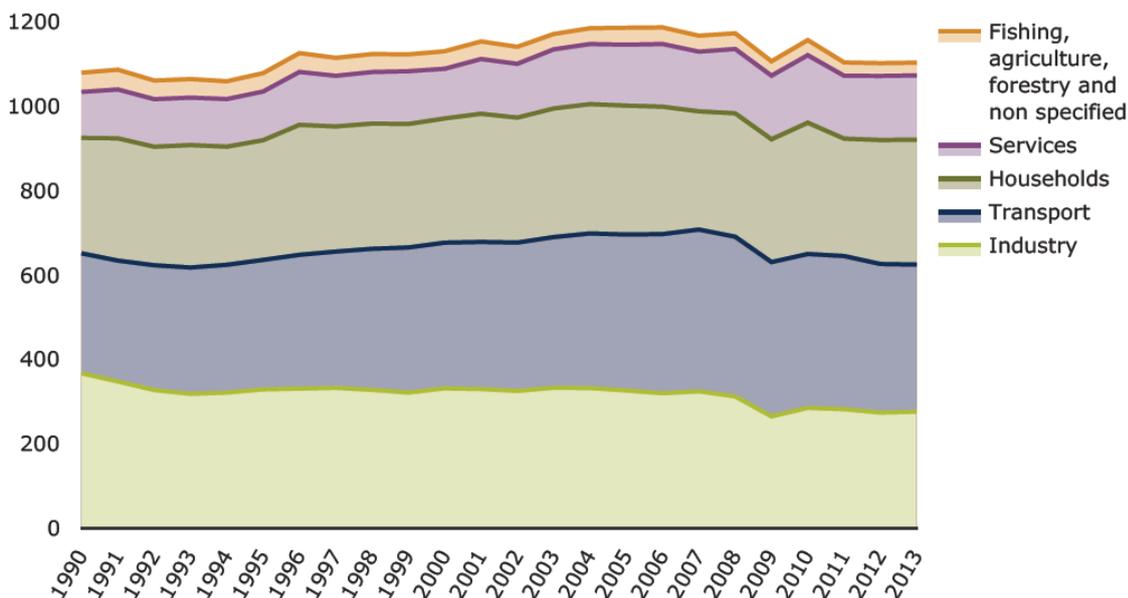
## 2. Energy markets in 2015

### 2.1 Consumption figures and trends

The energy policy of the European Union (EU) aims at ensuring good functioning of the energy market and the security of energy supply in the EU, and at promoting energy efficiency and energy savings, the development of new and renewable forms of energy, and the interconnection of energy networks.

As the main beneficiary of the EU strategy launched in February 2015<sup>2</sup>, European consumers stand to gain from this profound transition in terms of more affordable, secure, and sustainable energy. At the same time, considering around a quarter of all EU energy is consumed by households, the individual and collective choices of consumers also contribute to the success of this transition.

**Figure 1: Shares – EU final energy consumption by sector in MTOE<sup>3</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 necessary flexibility and price signals for the optimal allocation of resources.

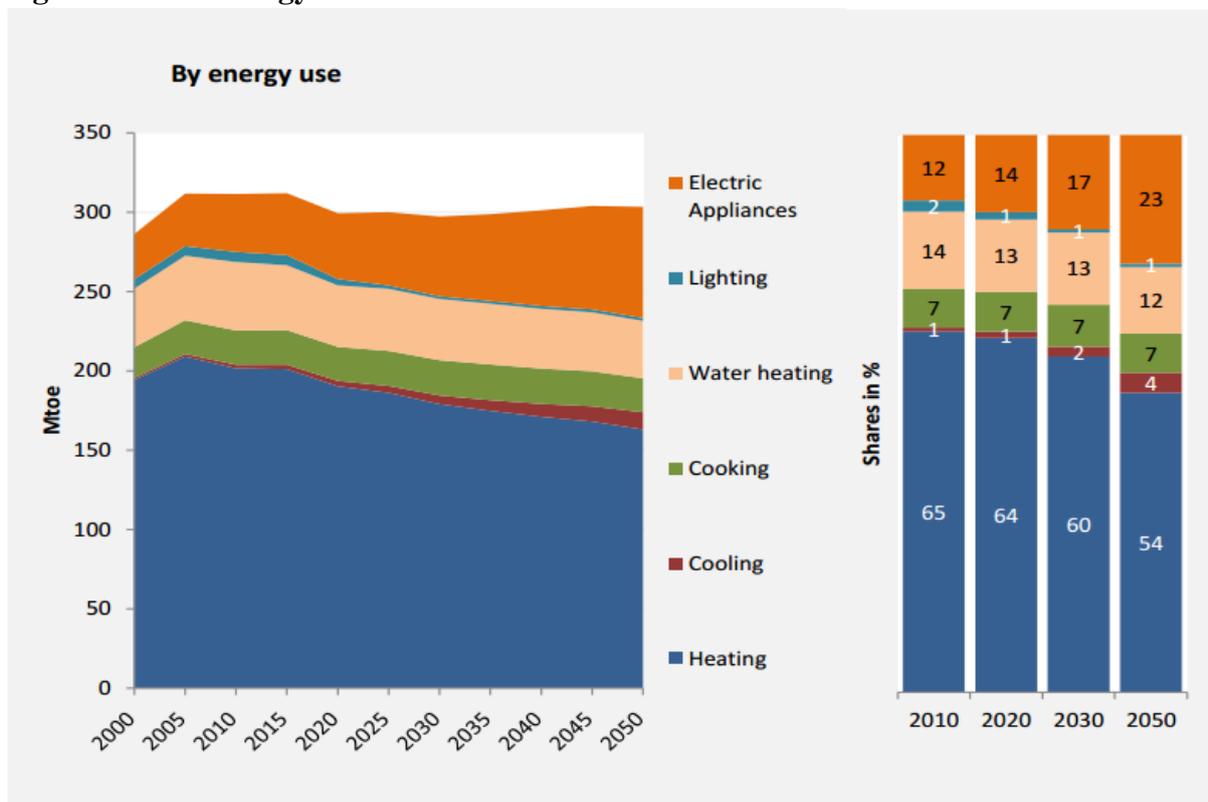
Energy efficiency improvements in buildings can save money for consumers. EU households spend between 3% (Cyprus) and 10% (Czech Republic) of their disposable income on home-

<sup>2</sup> “A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy”, COM(2015) 80 final.

<sup>3</sup> Million tonnes oil equivalent; Source: European Environment Agency, October 2015, <http://www.eea.europa.eu/data-and-maps/indicators/final-energy-consumption-by-sector-9/assessment>.

related energy use.<sup>4</sup> In 2014 a significant percentage of households in Bulgaria (40.5%), Greece (32.9%), Portugal (28.3%), Cyprus (27.5%), Lithuania (26.5%), Malta (22.1%), and Italy (17.8%) were unable to keep adequately warm.<sup>5</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 to a certain extent 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 the installed stock of central space heaters is still composed of inefficient gas and oil low-temperature boilers (in future to be labelled C and D)<sup>6</sup>, and 44% of windows are still single-glazed<sup>7</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>8</sup>**



<sup>4</sup> Share of electricity, gas and other household fuels in households disposable income, Eurostat, Household Budget Survey (HBS), 2010/2011.

<sup>5</sup> Eurostat, SILC, at <http://ec.europa.eu/eurostat/web/income-and-living-conditions/data/database>.

<sup>6</sup> European Heating Industry, data for 2012, EU28 excluding Cyprus, Luxembourg and Malta. EU Heating and Cooling Strategy Consultation Forum, Brussels, 9 September 2015, Issue Paper III, Heating and cooling technologies, at page 3.

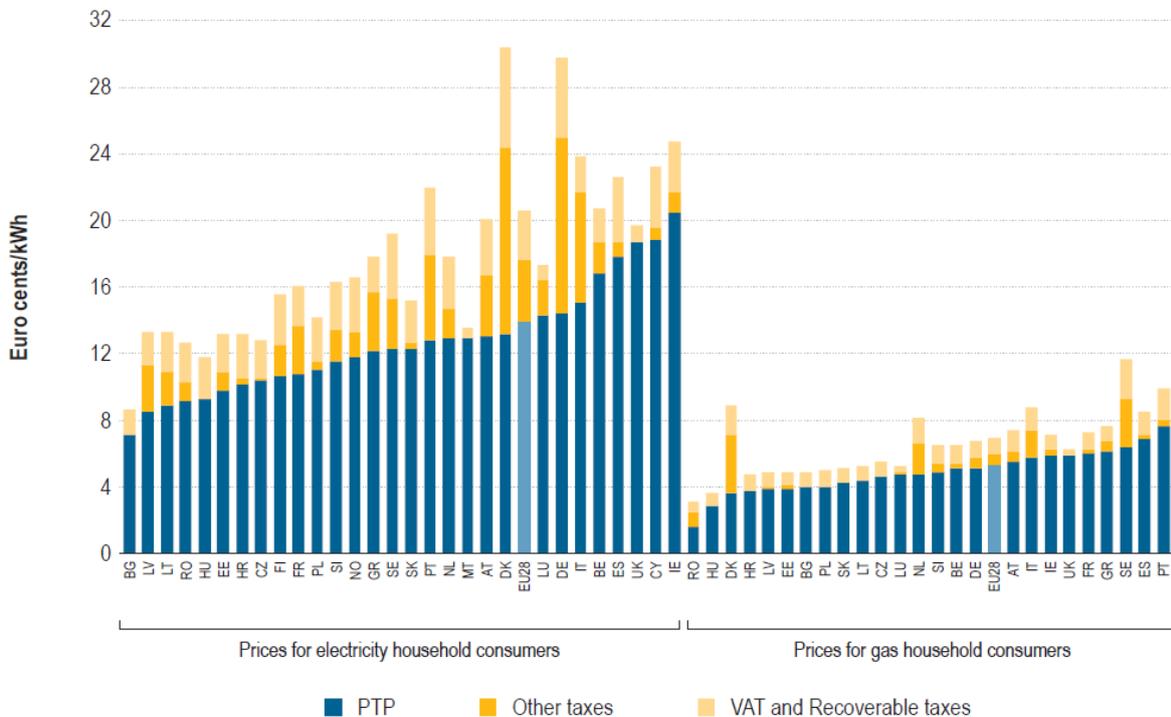
<sup>7</sup> Preparatory study under the Ecodesign Directive, VHK, draft results.

<sup>8</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).

## 2.2 Retail prices

The price that consumers pay for electricity and gas reflects various elements, influenced by 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 to the sale of energy to final consumers. For example, 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>9</sup>

**Figure 3: Electricity and gas POTP and PTP<sup>10</sup> for households in Europe – 2014 (euro cents/kWh)<sup>11</sup>**



These 2014 household post-tax prices (POTPs<sup>12</sup>) show an increase compared to 2013: 2.6% for electricity and 2.1% for gas household consumers

<sup>9</sup> Energy prices and costs in Europe, Brussels, 29.1.2014, COM (2014) 21 /2, p. 3.

<sup>10</sup> The average pre-tax price (PTP) is defined as the sum of the commodity price, regulated transmission and distribution charges, and retail components (billing, metering, customer services and a fair margin on such services), *ibid* at p. 25.

<sup>11</sup> *Ibid*, at p. 25.

<sup>12</sup> The post-tax total price (POTP) is defined as the sum of the commodity price, regulated transmission and distribution charges, and retail components (billing, metering, customer services and a fair margin on such services) plus VAT, levies (as applicable: local, national, environmental) and any surcharges (as applicable); Source: ACER/CEER Annual report on the results of monitoring the internal electricity and natural gas markets

## 2.3 Market actors

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 and services enabling consumers to, inter alia, control their energy costs. Furthermore, consumers expect retail energy markets to be easy to navigate, and to offer real choice and competitive prices. They need clear and accurate information on their energy consumption as well as easily accessible, understandable, transparent and comparable information about each offer so that they can choose the most suitable one. 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>13</sup>.

In addition, consumers have been increasingly interested in electricity produced from renewable energy sources (RES)<sup>14</sup>. 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. Innovation by consumers is also resulting in innovation *for* consumers by energy companies (smart metering infrastructure and information and communication technologies (ICT) to better manage their energy consumption at home).

Together with the presence of energy companies that are proposing innovative products, processes and services for their clients, new market actors are also emerging. Energy services companies (ESCOs), aggregators, data handling companies and other commercial entities are emerging and 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 addition, smaller ESCOs face challenges relate to a more restricted access to investment capital. All new market actors should be covered by an alternative dispute resolution (ADR) system.<sup>15</sup>

In this transition of the EU's energy 'system' and retail energy markets, consumer organisations have an important role to play on behalf of consumers. Consumer organisations 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 in view of the

---

in 2014, at p. 24;

[http://www.acer.europa.eu/Official\\_documents/Acts\\_of\\_the\\_Agency/Publication/ACER\\_Market\\_Monitoring\\_Report\\_2015.pdf](http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/ACER_Market_Monitoring_Report_2015.pdf)

<sup>13</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>14</sup> "Energy Consumer Trends 2010-2015", SWD(2015) 249 final, Green offer experiment, pp. 12-13, [http://ec.europa.eu/consumers/eu\\_consumer\\_policy/consumer\\_issues\\_in\\_other\\_policies/files/swd-energy-consumer-trends\\_en.pdf](http://ec.europa.eu/consumers/eu_consumer_policy/consumer_issues_in_other_policies/files/swd-energy-consumer-trends_en.pdf)

<sup>15</sup> Directive 2013/11/EU on consumer ADR, OJ L 165, 18.6.2013, p. 63.

<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).

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 of helping consumers get a better energy deal and become more engaged in energy markets.

Suppliers can also provide new products and services, and offer valuable feedback on customer demands. Furthermore, energy regulators and national consumer agencies together with other competent bodies with a public service mandate (e.g. energy ombudsmen in some Member States or other public advisory agencies) are essential ‘guardians’ of strong consumer rights and protection, and they can help ensure that there is competition in energy markets leading to innovation and greater choice of services for customers.

### **3. Forms of active energy use 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 energy markets. For example, they can modulate their consumption in response to price signals, generate energy to cover their energy needs or to sell it to other users over the grid, or improve the efficiency of buildings, heating systems and appliances. They can also organise themselves in energy communities to act as groups in buying or selling energy products and services both directly and through intermediaries. However, depending on their individual consumption patterns some households will find it difficult to participate in certain forms of active energy use.

#### **3.1 Demand–side response (DSR)**

Changes in consumption patterns occur, among others, when households moderate their consumption during times of system 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 system demand. Other DSR choices involve micro-generation<sup>17</sup> for own consumption or for sale of energy back to the grid.

Apart from the cost of the tariff-based<sup>18</sup> or incentive-based<sup>19</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, and the ratio of available generation capacity of the household to the total household requirements. Another factor is the degree of flexibility of the energy sources for micro-generation and 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.

---

<sup>17</sup> See §3.1.2 “Micro-generation” on page 13.

<sup>18</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>19</sup> Incentive-based DSR includes capacity and ancillary services programmes destined to large scale consumers (industry) but also “direct load” control schemes that can be applied to households, *ibid.*

The bigger the fixed part of taxes and levies is on the bill, the smaller becomes the part that customers are able to influence and often this is not enough to incentivise them to act according to DSR price signals.

### **3.1.1 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. In this scenario, demand response is expected to contribute to guaranteeing and enhancing network security, reducing the need for investment, increasing competition in the market, and ultimately benefiting consumers.

The Council of European Energy Regulators (CEER) has analysed DSF<sup>20</sup>, 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.

The development of DSF schemes could be facilitated by the increasing availability of user-friendly technologies, interoperable appliances, and smart devices. 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 for different consumer groups related to different market design options should be undertaken so that the benefits are shared appropriately and no one is adversely affected.

### **3.1.2 Micro-generation**

Micro-generation or self-generation (the two terms are used interchangeably in this report) is the generation of electricity or heat by households on a small scale, typically for domestic use and by methods that do not contribute to the depletion of natural resources, such as solar panels or heat pumps. These households are also known as “prosumers” (energy-producing consumers) and, even if their main purpose is to cover their own energy needs (be it in electricity or heating and cooling), they can in some circumstances already sell it to the grid. In most Member States where the legal framework allows for micro-generation, consumers can sell their electricity surplus on the market. However, it is worth noting that most

---

<sup>20</sup> See “CEER Advice on Ensuring Market and Regulatory Arrangements help deliver Demand Side Flexibility”, June 2014, at <http://bit.ly/1oUISJt>.

regulatory schemes currently in place mandate either suppliers or distributors to offtake the self-generated surplus energy.

A fundamental policy question that arises in the scenario of more widespread adoption of self-generation by households<sup>21</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-generation but still have to support the costs of the grid that will be spread among a smaller number of paying customers. Balance is needed in the renewable energy policies that ensure fair treatment for all consumers, including for consumer groups that do not have solar PV installations. Distributional impacts of deployment support as well as the transparency of network costs that are passed onto consumer groups that do not use such technologies should be further analysed. 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.<sup>22</sup> From the point of view of consumers, questions of market access and process simplicity are relevant.

*See Annex C for an example from Finland.*

### **3.2 Involving consumers in energy efficiency choices**

Consumers are concerned by energy efficiency questions in many 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, and the best ways to participate in local energy efficiency programmes.

The Working Group discussed the complexity surrounding the different ways of organising 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);
- Measures.

The socio-economic factors that affect a consumer's 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 a policy level when designing an overall programme to steer consumers towards more energy-efficient choices is the use of prices. Increasing prices, for instance, to encourage lower 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, programmes based on such

---

<sup>21</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.

<sup>22</sup> See also "Eastern Wind Integration and Transmission Study (EWITS)", NREL, February 2011, <http://www.nrel.gov/docs/fy11osti/47078.pdf>

price disincentives are accompanied by offsets in terms of tax reductions and subsidies for more vulnerable users.<sup>23</sup>

*See Annex D for an example from the UK.*

*See Annex E for an example from Sweden.*

*See Annex F for an example of the potential of gas for more efficient heating*

### 3.3 Collective switching

A number of collective switching campaigns across Europe were 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>24</sup> (e.g. a local authority, consumer organisation, housing 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 new market entrants specialising in collective switching. 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 vis-à-vis the public, and the other is responsible for providing the underlying platform/infrastructure, and managing 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, and responsibilities and financial payments. This includes disclosing fees charged by the intermediary directly to customers or to the participating suppliers in the scheme). This will need to be guaranteed through the organisers’ practices, and the quality of preparation and service once the switching is underway, and through the appropriate monitoring of activities by 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, the organiser often 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

---

<sup>23</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).

<sup>24</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.

result in a better offer for those who 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 not ‘personalised’ on the basis of a consumer’s consumption patterns. New intermediaries can be useful in simplifying the market for consumers. They can represent an important ‘*initiation procedure*’ for energy consumers who would not otherwise consider switching their energy supplier. Another important issue that emerged from the presentations and the ensuing discussion in the Working Group is the ‘*ripple effect*’ after campaigns on competition and energy prices. In several cases, the outcome of the reverse auction for the lowest price was matched by companies that had not participated in the bidding.

Collective switching campaigns have been initiated in several EU Member States in recent 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 to 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. According to BEUC<sup>25</sup>, campaigns organised by BEUC members helped strengthen energy customers’ interests in many European countries. More than 4 million consumers have signed up and around 830,000 households have switched. The total savings made by those who switched are estimated at €173 million. However, these campaigns prompted some energy companies to adjust their offers. Overall savings can be reasonably expected to be even higher.

In sum, collective switching has the potential to act as a catalyst for more competition and to deliver better prices for consumers. Collective switching campaigns are one way for European consumers to play a role in retail energy 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 energy markets. It is also the case that collective switching campaigns are facilitating the market entry of new suppliers who can quickly acquire a ‘foothold’ in a market by offering a competitive price. Supplier switching campaigns are not a panacea, but 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 has been highlighted during the discussions in the Working Group:

---

<sup>25</sup> The latest overview of collective switching campaigns organised by BEUC members is available at [http://www.beuc.eu/publications/beuc-x-2015-087\\_collective\\_energy\\_switch\\_factsheet.pdf](http://www.beuc.eu/publications/beuc-x-2015-087_collective_energy_switch_factsheet.pdf)

### 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 ensure full transparency of fees to be paid by subscribers. This also applies when 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 match the original offer, and the offer might not be the best anymore. A reference to the quality of the service provided by the new supplier and the 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 might be necessary once the initial contract period ends.
- *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 about collective switching may require 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, to other categories of users that could potentially profit from the switch, a multichannel approach using online and offline 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, and irregular/non-switchers and prepayment meter (PPM) users, to sign up. In order to reach this audience, collective switching schemes could be linked to 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. Any collective switching scheme should be linked to 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.* Consumers should have access to ADR. Intermediaries can play a role in centralising complaints to identify and track trends in the incidence and nature of problems experienced, and 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. Requirements going beyond existing legislation may act as a disincentive for certain suppliers to participate in these campaigns. Nationwide tenders have also created 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 often 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 perfectly competitive markets, collective switching prices can in theory only go below market-leading offers by setting short-term price offers at levels below profitability. As a result, prices could in theory increase considerably after the first year, possibly resulting in dissatisfaction and the need for customers to annually switch supplier.

### 3.4 Energy cooperatives

Energy cooperatives are decentralised, bottom-up organisations operating 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 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, and cooperatives can thus be very successful in responding to consumer needs as they are owned and managed by their own members.

RES cooperatives are decentralised medium and small-scale projects (mainly involving consumers engaged in production), which can be more or less successful depending on factors such as the legislative framework, support policy and market accessibility. This decentralised model diversifies the energy market. Such cooperatives are used to build photovoltaic facilities in local areas, and deploy the requisite financing, planning and construction efforts. Cooperatives are also involved in energy retail, energy production, district heating, energy grids, and energy efficiency.

Energy cooperatives should be monitored by energy regulators as problems with supply or the various administrative processes may arise. Energy cooperatives should consider the need for technical resources, and 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 invest in RES. Recently, energy cooperatives have also played an important role in western-European countries where consumers have been successfully involved in the energy transition. The Netherlands from 2011 to 2012 registered an increase of 300% in the creation of RES cooperatives. This figure doubled again from 2012 to 2013. During recent years, cooperatives working with energy (consumption, production, retailing, efficiency, etc.) have experienced exponential growth. In Germany, a high number 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>26</sup>. In the UK, from 2003 until 2013, community energy capacity has grown almost three times faster than the overall

<sup>26</sup> REN21, Renewables 2014 Global Status Report (page 27).

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, decentralised production and consumption will guarantee more autonomous energy markets benefitting consumers and increasing their involvement. REScoop 2020 best practice reports have shown that consumers who are members of cooperatives involved in energy generation use energy more rationally and efficiently<sup>27</sup>. In Belgium, Ecopower registered a 46% reduction in the energy consumption of its members over six years. These significant changes in consumers' consumption were also evident 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>28</sup>.

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

Decentralised energy production plays an increasingly important role in 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 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.

### 3.5 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 primarily received presentations from such projects in the United Kingdom, where the government has been considering their role very seriously. In fact, the UK government published (in early 2014) a Community Energy Strategy (CES). This part of the report focuses on the UK experience, but also acknowledges the potential of community-based energy

<sup>27</sup> Research project funded by the Intelligent Energy Europe programme. For more see <http://rescoop.eu/best-practices>

<sup>28</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)

projects in other EU Member States – particularly since there is ongoing work in the framework of the Covenant of Mayors<sup>29</sup>.

As with energy cooperatives, micro-grids and community-based energy initiatives may need to have in-house resources to solve problems that could happen at any time, especially during consumption peaks.

#### *Local public utilities*

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 ones - launch participatory citizens' 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. Some private companies also offer such participation, e.g. in Belgium the "CoGreen" cooperative offers the possibility for citizens to invest in local wind parks.

#### **Box 3: UK Community Energy (CE) projects**

Examples of the different projects in this area include:

**The Wadebridge Renewable Energy Network (WREN):** with all the profits returned to its community, the cooperative currently 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.

**Bath & West Community Energy:** this is a community benefit society funded by selling shares. The cooperative has raised over £1 million from share offers. By splitting the profits between returns for investors and 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 published the first ever UK CES. 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'.

<sup>29</sup> For more on the Covenant of Mayors see [http://www.covenantofmayors.eu/index\\_en.html](http://www.covenantofmayors.eu/index_en.html)

The strategy defines 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>30</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 in their local areas, to further social, economic, environmental and physical regeneration aims.

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

The UK Government’s CES 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 CES<sup>31</sup> uses a 4-category typology (reduce, manage, generate and purchase), most of the available quantitative data about the scale of the sector 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 one 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

<sup>30</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.

<sup>31</sup> <https://www.gov.uk/government/publications/community-energy-strategy>

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*

CE can contribute to a Member State's energy policy goals. CE 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 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 CES 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 CE activity in the UK". This applies at the level of an individual project (currently the UK government is developing a standardised evaluation tool for project 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 suggest that CE 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 in better understanding impacts in terms of costs and benefits to consumers: impact on bills, energy awareness and engagement, switching behaviour (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 CE initiatives, and to assess how the emergence of this sector impacts the country's energy system.

Ofgem's current approach to CE 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 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 has jurisdiction over –the East Village District Energy Scheme at Olympic Park, London - which is operated by East London Energy<sup>32</sup>. Furthermore, from 25 November 2015 onwards Ombudsman Services: Energy also became the ADR provider for Heat Trust<sup>33</sup>. This is a new industry-led customer protection scheme that sets standards in key areas including performance, reliability and customer service. There are over 15,000 customers that live on heat networks registered to this Scheme and they have the option to refer a complaint they may have with their supplier to Ombudsman Services: Energy for investigation.

### **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 CE 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. For example, 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 connection 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.

#### ***CE and supply licencing***

Many CE groups have aspirations to bypass the traditional route of selling energy via an intermediary, and sell electricity directly to their community at lower prices than traditional suppliers instead. 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.

<sup>32</sup> <http://www.ombudsman-services.org/ombudsman-services-to-provide-consumer-redress-for-the-east-village-at-the-olympic-park.html>.

<sup>33</sup> <http://www.heattrust.org/index.php/news-events/45-heat-trust-launches>.

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 it 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.

### 3.6 Intermediaries

The Working Group discussed the role of new intermediaries, an emerging service sector in energy. Intermediaries can be facilitators of choice for consumers. Their conduct is not confined to 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 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 claiming that they propose fair and neutral information on prices and price comparison tools. If their advice is not of good quality i.e. it is not objective, independent and correct, it can lead to sub-optimal choices. This in turn can compromise customers' trust.

An example worth mentioning is that, in relation 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, oversee the reverse auction (or other deal striking mechanism), and manage the market logistics of switching big numbers of customers between suppliers<sup>34</sup>.

The services provided by so-called “next generation intermediaries” (NGIs) facilitate the decision of consumers to get involved and take action as the intermediary “makes sense” of the market so the consumer does not have to. Intermediaries have the potential to rebalance power asymmetries within a market and create far greater demand-side impetus. NGIs do more than traditional intermediaries, e.g. they may provide price comparison websites that offer market scanning, comparison and recommendation services. Furthermore, they may 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

---

<sup>34</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>

persuading people to engage and switch based on rational choice arguments, which have faced significant challenges in recent years.<sup>35</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 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.

Annex A5 to this report contains a brief description of examples of actions taken against bad practices from an intermediary company in Sweden.

---

<sup>35</sup> Ibid.

## 4. Recommendations

The recommendations below are addressed to the European Commission and national regulators as well as policy makers and other relevant stakeholders; they identify key elements for delivering better outcomes for consumers.

### 4.1 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 all existing legislation, notably the Third Energy Package and the Energy Efficiency Directive. This is a key precondition to enable consumers to participate more actively in retail energy markets;
- *Making sure that* forms of active consumer involvement, 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) are covered by the regulatory framework;
- *Differentiating* between the various consumer types in impact assessments of any new policy proposal in order to adapt new regulatory and policy framework to these different categories of users and consumers and ensure a fair distribution of costs and benefits.

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

The Working Group acknowledges the *transformative* potential of 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 run, the Working Group strongly recommends to:

- *Give* consumers the possibility to make their own choices in the new competitive markets;
- *Provide* consumers with clear, transparent, credible and comparable information about services or products 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;
- *Provide* more consumers with real-time consumption information and easy access to their data consumption history.

The role of *trustworthy intermediaries*, such as consumer associations, local authorities, public advisory bodies, web-based services - and 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 that all the above parties:

- *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' 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);
- *Provide* consumers engaging in these activities with an adequate complaint handling, dispute resolution and redress framework;
- *Analyse* the role of a broader range of certain regulatory stakeholders (e.g. architects, construction companies, investors, etc.) who de-facto impose energy solutions on consumers through building design and technical choices.

### 4.3 Regulatory framework and governance

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

- *Enhancing* cooperation and information sharing among regulators about how CE schemes are treated across the EU;
- *Avoiding* 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 that may be to the disadvantage of consumers who cannot afford to become prosumers. Issues include simplified grid access, a reliable framework for selling surplus electricity, as well as the overall costs imposed on the energy system;
- *Considering* carefully the costs for those consumers who are not involved in micro-generation but contribute to the financing of support schemes for prosumers;
- Enabling collective switching campaigns, which *ensure a clear process and transparency in the presentation of the terms and conditions* of the offer, including all fees and *possible expected benefits* of the switch;
- *NRAs taking into careful consideration the role of intermediary companies* (including ESCOs and aggregators) to *ensure that the regulatory framework adequately protects the consumer and provides a level playing field for all market players*.
- *Ensuring* that an adequate framework is in place for the effective protection of consumer data and privacy, including in situations where consumer data are accessed

by intermediaries and DSOs for the purposes of aggregation and grid-related services respectively;

- *Encouraging* consumer engagement with the new markets by supporting effective information policies and providing easy access to products and services (e.g. the right incentives, and minimum standards and protections). Government and regulatory policies should be co-ordinated to promote consumer control of their energy consumption;
- *Ensuring* that *ADR bodies* and other public authorities with a mandate for dispute settlement in energy continue to register and handle complaints that mature to be admissible by them, and provide broader redress procedures irrespective of the nature of the energy provider (energy company, local community, energy cooperative, etc.). Furthermore, all stakeholders should ensure that issues are well covered by an independent ADR body, such as an energy ombudsman, and that all consumers have access to the information on the ADR body in charge.

#### **4.4 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. With the above in mind, the Working Group recommends to:

- *Build on the system introduced by the Energy Labelling Directive to develop* labels and other information in relation to more products and services for heating, housing insulation, appliances and all other types of final energy demand in the household. These should be in a format that is easy for consumers to understand, and clearly demonstrate the benefits of the more efficient systems and appliances;

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

- *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;
- *Consider* the potential of demand response to reduce non-fixed energy costs in policy development at national and EU level and in the design of future electricity markets;
- *Consider* the interdependencies between demand response and energy efficiency policies to open new opportunities for consumers to manage and reduce their consumption;
- *Consider* the households' flexibility in energy consumption and assess costs and benefits for different consumer groups;

## 4.5 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;*
- *Carry out regular studies of the impact of price regulation on competition;*
- *Monitor consumer complaints with the aim of addressing the underlying reasons;*
- *Carry out regular studies of the impact of policy instruments on consumer innovation (products and services) and on the interplay of energy with other sectors.*

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

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

Energy cooperatives are locally anchored companies producing, distributing, retailing and/or consuming energy for their own members. From energy distribution 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 can 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 of and benefits for their own consumers.

#### **Ecopower – Energy prosumers**

Ecopower is a Belgian energy cooperative based in Flanders, producing and supplying electricity for its own members. This RES cooperative is collectively producing and consuming its own electricity. Its members (consumers) have experienced a decrease in their energy consumption of 46% over six years. Ecopower believes that this is due to the greater awareness of their members stemming from their involvement with the installation of PV panels on their rooftops. In contrast to 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, thereby wasting less energy.

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

Cooperatives have a fundamental role to play in the area of residential heating. Heating often has 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 members' homes or to replace old, inefficient heating systems.

## 2. Examples of collective switching campaigns

### Portugal - DECO

Given the low percentage of satisfied customers (28%), growing prices and the liberalization of the market, the Electricity Auction tool 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 annual savings);
- many suppliers did not play the game of 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 and the free market there is often only "one player";
- the actual energy price only accounts for nearly 40% of the residential price. Taxes can vary between 31.8% and 43% of the final price;
- retailers are not really independent;
- the switch of operator is not independent.

These results reflect 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 the UK’s energy market, 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 run by local authorities. 31 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 increased consumer engagement, savings on 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 energy market are reflected in its approach towards collective switching.

Ofgem’s retail energy 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.

### **Other 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 was a deal to switch to energy 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 pledged to reinvest 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 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 been organised 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. 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 facing fuel poverty. In Norwich the plan was to use ‘profits’ to support other work to reduce fuel poverty in the city. In Rochdale any profits was also 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 three 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>36</sup>**

On 19 June 2014, BEUC reported that almost three 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

---

<sup>36</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)

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 include:

- Helping consumers get a better deal for energy supply through an easy and straightforward process;
- 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;
- Potentially useful for customers who have not switched before and who have access to less mature markets;
- Enabling offline access for consumers who have no online access or who do not use the internet for shopping around.

There is 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 does 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 concerning potential rewards and contract conditions*, it could prove a useful tool to engage consumers and raise levels of engagement, especially for vulnerable and previously inactive consumers.

It is therefore important to examine the opportunities collective switching might offer for people on lower incomes 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 abolition 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. 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 in 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. Although it is primarily web-based, iChoosr works with partners to offer face-to-face and

telephone registration and contact channels for consumers. It 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.

Apart from 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 for 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; it saw 34,000 consumers switch to the winning provider.

## **5. Intermediaries – problems encountered or complaints received**

### ***a) Sweden***

#### **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 on 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.

#### **Supply contract disputes – consumer and supplier**

There are different complaints regarding the supply contract concluded by the intermediary on behalf of the consumer. They are listed below but in no specific order in terms of frequency or number of complaints.

Consumers perceive that the intermediary will provide them with the 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.

Complaints about the complete lack of information regarding the conditions of the supply contract and the right of withdrawal are not uncommon in Sweden. 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 proved, 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 consumers to exercise this right, they have to be informed about the conditions of the supply contract and the right of withdrawal. If the consumer does not receive the information regarding 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 of the intermediary directed towards the specific consumer often result in the consumer having two supply contracts, and thus receiving 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 terms of complaints received.

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 for the time span to be 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 regarding the supply contract or information on the right to withdrawal directly to the consumer.

The provision in the annex has been implemented in the Swedish Electricity Act. It has to be clarified that the regulatory mandate also includes the obligation of the intermediary to inform the consumer on the conditions prior to the conclusion of the supply contract. If not, the regulatory gap creates a situation where the consumers are deprived of their right to information in cases where supply contracts are concluded via an intermediary.

In 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 receive 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.

### ***b) United Kingdom***

**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 does not 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 to build this information into its ongoing calculations of what would be the best deal for the user. This enables 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>37</sup>

---

<sup>37</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>

## Annex B: An example from Finland

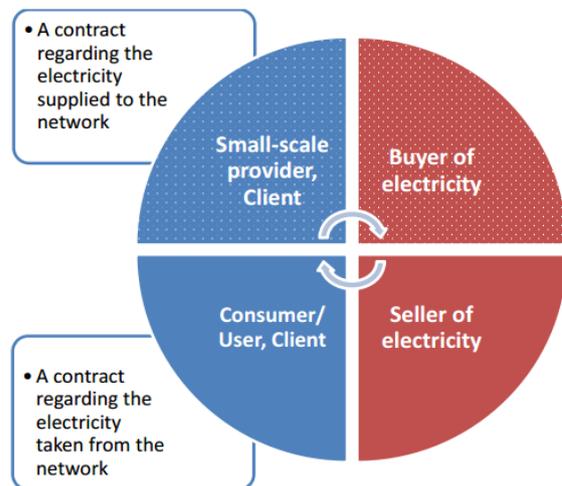
Among the examples for a regulatory framework for micro-generation is the one for market-based purchasing contracts for small-scale generation presented to the Working Group by the association of Finnish Energy. An interesting aspect of this framework is that it allows for the development of energy retail 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<sup>38</sup>. For such products, aspects linked to the transparency of information and the dispute resolution mechanism are important.

Finnish Energy’s guidelines for its members on 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”).



<sup>38</sup> The product is called “Farmivirta”, link: <https://www.pohjoistavoimaa.fi/sahkosopimus/farmivirta>  
In Finland several suppliers sell panels to their customers and also buy the surplus.

- Billing method

There are three options:

- The purchase and sale of electricity can be settled in the same invoice sent by the energy retailer;
- The purchase and sale 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 billing purposes, the buyer of electricity delivers to the small-scale producer, at agreed intervals, a report regarding the electricity supplied to the network, and in accordance with this report, the small-scale producer drafts an invoice to the buyer.

- 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>39</sup>

In cases of buying electricity from production plants below 1 MVA, it is worth mentioning 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 obtain - as a service - the 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

- Value added tax (VAT): when a client is buying electricity from a retailer, VAT 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 VAT.

- Electricity tax is exempted if the production plant is less than 100kVA.

---

<sup>39</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>.

- Specific terms in the purchase contract<sup>40</sup>

The 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 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.

- 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.

---

<sup>40</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).

## **Annex C: An example from the UK: repowering London**

Cooperatives Europe provided an example where consumers in a cooperative 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). Some of the profits of the solar projects are returned to a Community Energy Efficiency Fund (CEEF). This fund helps improve energy efficiency and energy savings in social housing where energy poverty is a real issue.

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

Cooperative members help their neighbours to implement simple changes. This starts with getting a better insight into their 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.

## Annex D: 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 (the country's energy regulator) has been 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 the 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 one of the 290 municipalities of Sweden. The energy and climate advisors provide information support to households that wish to learn more, and take action on changing their energy use. They are financed by the Swedish government. An advantage of using this type of advisor is that they have local and regional knowledge and 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 3,000) 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.

- The **district heating network** in Sweden makes it easy for consumers to receive heating from low-carbon sources. As a source of fuel, the use of oil has kept falling while the use of heat pumps of various kinds has been increasing. In establishing this network, the role of municipalities and municipally owned energy companies was very relevant. District heating 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, a large number of participants is needed.

- **Tax deductions** for energy efficiency renovations and reconstruction can play a direct role. Since 2008, households have received a tax deduction for renovations and reconstructions in the residential sector at a level of up to 50% of expenses with a ceiling of €11,000 per year and per person.<sup>41</sup> This is given by the Swedish tax agency, which is also

---

<sup>41</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.

responsible for information dissemination about the scheme. 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.

## Annex E: The potential of gas<sup>42</sup> for more efficient heating

Heating and cooling<sup>43</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>44</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>45</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.

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

Gas heating systems nowadays are very different:

- *traditional gas boilers*: burning gas whereby 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 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;

---

<sup>42</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>43</sup> <http://ec.europa.eu/energy/en/news/heating-and-cooling-conference-26-27-february>.

<sup>44</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>45</sup> 79% together with water heating, see Figure ?? above

- *gas-heat pump condensing technology* with green energy, which 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;
- *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>46</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.

---

<sup>46</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.

## Annex F: Members of the Working Group:

NAME	SURNAME	ORGANISATION	EU/COUNTRY
Martin	BENGTSSON	KONSUMENTERNAS	SE
Marine	CORNELIS	NEON	EU
Coralie	DELIRE	EDF/EURELECTRIC	FR/EU
Patricia	DE-SUZZONI	CRE/CEER	FR/EU
Sébastien	DOLIGÉ	EURELECTRIC	EU
Kateřina	FIRLOVÁ	ERU/CEER	CZ/EU
Ludovica Sara	FONDI	CEDEC	EU
Saraine	IFILL	EUROGAS	EU
Stew	HORNE	OFGEM	UK
Eric	HOUTMAN	OMBUDSMAN ENERGIE	BE
Roel	KALJEE	Energie- NL/EURELECTRIC	NL/EU
Eva	LACHER	E-CONTROL/CEER	AT/EU
Paolo	LANDI	F.C.S.	IT
Giuseppe	LORUBIO	EURELECTRIC	EU
Margot	LOUDON	EUROGAS	EU
Thomas	LOWE	EUROGAS	EU
James	LUGER	OFGEM	UK
Vitor	MACHADO	DECO PROTESTE	PT
Agnès	MATHIS	COOPSEUROPE	EU
Consuelo	PACCHIOLI	OFGEM	UK
Heidi	RANSCOMBE	CITIZENS ADVICE	UK
Noel	REGAN	EUROGAS	EU
Alexandre	ROESCH	SOLAR POWER EUROPE	EU
Ann-Katrin	SCHENK	CEDEC	EU
Bart	SCHOONBAERT	OFGEM	UK
Monika	STAJNAROVA	BEUC	EU

Dirk	VAN EVERCOOREN	VREG	BE
Johannes	VOLLMER	GEODE	EU
Rimantas	ZABARAUSKAS	LNVF	LT