



Brussels, 15.7.2015  
COM(2015) 339 final

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL  
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

**Delivering a New Deal for Energy Consumers**

{SWD(2015) 141 final}

## 1. INTRODUCTION

The Energy Union Framework Strategy<sup>1</sup> sets out the vision of an Energy Union "*with citizens at its core, where citizens take ownership of the energy transition, benefit from new technologies to reduce their bills, participate actively in the market, and where vulnerable consumers are protected*".

While the past decade has transformed the energy sector in Europe, retail energy markets, which form the focus of this communication, have not kept up. Obstacles to consumers – households, businesses and industry - fully benefitting from the ongoing energy transition, meaningfully controlling their consumption, and lowering their bills include:

- The lack of appropriate information on costs and consumption, or limited transparency in offers, makes it difficult for consumers (or reliable intermediaries and energy service companies, such as aggregators, acting on their behalf) to assess the market situation and opportunities.
- Increasing proportion of network charges, taxes and particularly levies in the average final household electricity bill.
- Insufficient competition in many retail markets, a lack of reward for active participation, and difficulties in switching act as disincentives.
- Insufficiently developed markets for residential energy services and demand response narrow consumers' choices.
- Preventing consumers from self-generation and self-consumption reduces potential gains to them.
- Unequal access to information and high entry barriers for new competitors slow down the adoption of available advanced technologies and practices such as smart metering, smart appliances, distributed energy sources and energy efficiency improvements.

The Commission's vision for the new electricity market design aims to deliver a new deal for energy consumers, including by better linking wholesale and retail markets. Taking advantage of new technology, new and innovative energy service companies should enable all consumers to fully participate in the energy transition, managing their consumption to deliver energy efficient solutions which save them money and contribute to overall reduction of energy consumption.

## 2. A THREE-PILLAR STRATEGY TO DELIVER A NEW DEAL FOR ENERGY CONSUMERS

In extensive consultations with citizens, consumers and stakeholders, including a public consultation in the first half of 2014<sup>2</sup>, and in discussions in Commission-led expert groups<sup>3</sup>, the following three key points have been identified as core to delivering a new deal for

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<sup>1</sup> COM(2015) 80final

<sup>2</sup> <http://ec.europa.eu/energy/en/consultations/consultation-retail-energy-market>

<sup>3</sup> Smart Grids Task Force; Citizens' Energy Forum and its expert groups on Vulnerable Consumers and on Consumers as Energy Market Actors; Energy Sub-Group of the European Consumer Consultative Group.

consumers: consumer empowerment; smart homes and networks; data management and protection.

## **2.1. Empowering consumers to act**

### ***2.1.1. Saving money and energy through better information***

Consumers spend on average 6.4% of their total consumption on electricity, gas, heating and cooling – up by 15% compared to five years ago. Around 40% of energy used in the EU is consumed in buildings, of which 80% is used for heating and cooling.<sup>4</sup>

A more efficient use of energy is one key element in cutting consumer bills and therefore energy efficiency is considered in all decision-making on the Energy Union. While refurbishment of the building stock is key in this respect, installing simple tools such as heating controls and thermostats can already have a significant impact on energy consumption. Important energy savings can also be achieved with increasing the efficiency of products like boilers, TVs, fridges and washing machines. The revised proposal for energy labelling put forward as part of this package will provide further transparency, encourage manufacturers to innovate and help consumers in making informed choices towards the most efficient appliances.

The introduction of metering and billing of individual consumption in multi-apartment and multi-purpose buildings can trigger a reduction of the demand for heating/cooling by 10-30%.<sup>5</sup> Experience also shows that, thanks to ICT-based solutions, providing end-users with information on their consumption via internet, tenants are able to reduce their consumption by around 8% simply by changing their heating habits.<sup>6</sup>

The internal energy market legislation and the Energy Efficiency Directive have established consumer rights to accurate metering and consumption information. Transparent and up to date billing information increases consumer trust and engagement. However, the vast majority of Europeans receive this information once or twice a year at most, and disputes over metering are a frequent occurrence. To help consumers understand their energy bills, the Commission will, together with national regulators, assess how the clarity and comparability of the content of bills for consumers could be increased. This should lead also to better consumer awareness of the individual components of energy prices and bills, including through better transparency of network charges, taxes and levies.

All consumers, and reliable intermediaries and energy service companies contracted by consumers to act on their behalf, should have easy access to their real- or near- time consumption data to enable them to adapt consumption and save energy. Such real time data is not necessary for billing purposes and therefore could be accessible to consumers directly from the metering system via a standard interface.

Smart meters<sup>7</sup> play a key role in delivering free and frequent access to accurate consumption data, better billing and fewer metering disputes. Data from Member States show that 72% of

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<sup>4</sup> Sources: Energy prices and costs in Europe, COM(2014) 21 /2, 29.1.2014, Energy Efficiency and its contribution to energy security and the 2030 Framework for climate and energy policy, COM(2014) 520 final, 23.7.2014. These and other issues (like the synergies between electricity and heating & cooling networks) will be addressed in the up-coming European's Union Heating and Cooling Strategy and in the review of the Buildings Directive.

<sup>5</sup> Source: Annex to the Impact Assessment for the Energy Efficiency Directive, SEC(2011) 779 final, 22.6.2011

<sup>6</sup> Study on “Reducing energy consumption in buildings with ICT SMART 2013/0073”.

<sup>7</sup> Smart meter is an electronic system that can measure energy consumption, providing more information than a conventional meter, and can transmit and receive data using a form of electronic communication; cf. Art. 2.28 of the EED 2012/27/EU

European consumers are foreseen to have a smart electricity meter by 2020<sup>8</sup> as result of their wide-scale deployment, underway or planned as of today in 17 Member States.<sup>9</sup> The benefits and costs of such roll-outs must be fairly shared between industry and consumers, taking into account the cost-benefit analyses and views of business and consumer organisations.

While preparing the review of the energy efficiency legislation (Energy Efficiency Directive and Energy Performance in Buildings Directive) and the electricity market design initiative, the Commission will consider how consumers could benefit from easier and more frequent access to their consumption data including the possibility to request a smart meter if it is not systematically rolled out in their area.

### **2.1.2. Giving consumers a wide choice of action**

With an energy transition underway, new opportunities arise for consumers to benefit from playing an active role. Consumers across the Union should be free to choose their preferred form of active participation in energy markets, either directly or by delegating their energy decisions to reliable intermediaries and energy service companies, such as aggregators who will act on the consumer's behalf.

#### *a) Switching suppliers – benefiting from increased comparability*

Giving all consumers the right to shop around for the best energy deal and energy source of their choice is a key change brought in with the EU's internal energy market. Yet many citizens remain unaware of their right to switch supplier and energy contract. To boost consumer awareness of this and other rights, in 2014 the Commission prepared information setting out the key energy consumer rights established in EU legislation.<sup>10</sup>

Making the switch needs to be technically easy, quick and reliable. The initiatives of national regulatory authorities to shorten **switching times are welcome in this regard**.<sup>11</sup> Removing switching fees and penalties that limit consumer choice and competition overall could also be considered.

Most importantly, the switch needs to be based on easily accessible, transparent, trustworthy and readily comparable information covering price as well as contractual quality and customer satisfaction, e.g. through customer rating systems for all suppliers and offers in the market. Information on the share and type of energy sources used by suppliers<sup>12</sup> further enables consumers to make better informed choices.

The Commission will work with national regulatory authorities to develop transparency and reliability criteria for energy comparison tools and to ensure that each consumer has access to at least one independent and verified comparison tool to assess the current contract against all offers available from the market.

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<sup>8</sup> "Benchmarking smart metering deployment in the EU-27 with a focus on electricity" (COM(2014) 356): 16 Member States have committed themselves to installing 245 million smart meters worth some €45 billion by 2020.

<sup>9</sup> Sweden, Italy, Finland, Malta, Spain, Austria, Poland, UK, Estonia, Romania, Greece, France, Netherlands, Luxembourg, Denmark, Ireland, and Latvia

<sup>10</sup> [http://ec.europa.eu/consumers/consumer\\_evidence/consumer\\_scoreboards/10\\_edition/docs/consumer\\_market\\_brochure\\_14\\_1027\\_en.pdf](http://ec.europa.eu/consumers/consumer_evidence/consumer_scoreboards/10_edition/docs/consumer_market_brochure_14_1027_en.pdf) and

[http://www.acer.europa.eu/Official\\_documents/Acts\\_of\\_the\\_Agency/Publication/ACER\\_Market\\_Monitoring\\_Report\\_2014.pdf](http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/ACER_Market_Monitoring_Report_2014.pdf)

<sup>11</sup> Council of European Energy Regulators.

<sup>12</sup> e.g. such as already foreseen under Article 3.9(a) and (b) of Directive 2009/72/EC

Building on first efforts by industry and consumer organisations, and on good practices identified in the Citizen's Energy Forum<sup>13</sup>, the Commission will seek to identify in collaboration with national regulators minimum standards for key information in advertising and bills, especially as regards price comparison.

**Regulation of retail prices** can represent a particularly strong barrier to effective competition as the Energy Union communication points out. Member States often cite an under-performing retail market or social protection needs as justification for price regulation. Social policy objectives such as protecting vulnerable consumers with general regulated tariffs lack transparency and may actually increase energy costs for vulnerable and non-vulnerable consumers alike. Therefore, other more sustainable and precise measures should be explored to help Member States deregulate prices for end-users. The Commission is engaging with Member States in the phase-out of prices regulated below cost, as set out in the Energy Union strategy, making also sure that such phase-outs are complemented with targeted, effective protection of vulnerable consumers. Examples of successful phase-outs of regulated prices, such as in Ireland, present lessons for other Member States.

#### *b) Realising the value of flexibility through demand response*

The growth of variable renewable energy makes demand response ever more important. Energy efficiency and demand response are often better options for balancing supply and demand than building or keeping in operation more power plants or network lines. It is clear that the choice on participating in demand response must always stay with the consumer.

In some parts of Europe, retail demand response is already happening. Industrial and office buildings in the UK have made cost savings up to 24% and 10-36% reductions in electricity consumption thanks to flexible automated demand response programmes.<sup>14</sup>

A key enabler of demand response is consumers' access to **price signals that reward flexible consumption**. These can be offered in the form of supply contracts based on dynamic pricing, or contracts that involve load control responding to market or grid conditions. The impacts of such contracts would have to be well explained to consumers. A further incentive could be to lower network charges if consumption is reduced when the networks are congested. While consumers should be incentivised to participate in demand response, those unable to shift their demand must not be penalized.

Although still in their infancy, the initial experience with dynamic price contracts shows that they can deliver for consumers.<sup>15</sup> Where this is already reality – e.g. in Finland or Sweden – retail consumers increasingly opt for dynamically priced electricity contracts<sup>16</sup>, saving 15% to 30% on their electricity bills. The pending revision of the Energy Efficiency Directive and the development of legislative proposals implementing the new market design present an opportunity to assess how to increase the availability of time differentiated contracts.

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<sup>13</sup> [https://ec.europa.eu/energy/sites/ener/files/documents/2012111314\\_citizen\\_forum\\_meeting\\_working\\_group\\_report.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/2012111314_citizen_forum_meeting_working_group_report.pdf);  
[https://ec.europa.eu/energy/sites/ener/files/documents/20131219-e-billing\\_energy\\_data.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/20131219-e-billing_energy_data.pdf)

<sup>14</sup> Fortum 2014, SEAM group 2014 and Thames Valley Vision pilot scheme, Bracknell UK 2013.

<sup>15</sup> In Finland in 2014 household electricity prices declined 4% in continuous fixed price contracts and ca 10% on the spot-price linked contracts, the cheapest contract category since 2012; Source: Energiavirasto (NRA) 2015.

<sup>16</sup> In Sweden fixed price contracts still dominate (43% in 2012) but variable ones (27,5%) are gaining ground (+17% y-o-y). The total electricity cost for a customer with a default contract was 50% higher in 2012 compared to a flexible contract. Source: Energi Inspektion Annual report 2013.

*c) Reducing energy bills through self-generation and consumption*

The combination of decentralised generation and storage options with demand side flexibility can further enable consumers to become their own suppliers and managers for (a part of) their energy needs, becoming producers and consumers and reduce their energy bills

Decentralised renewable energy generation, whether used by consumers for their own use or supplied to the system, can usefully complement centralised generation sources. Where self-consumption exhibits a good match between production and load, it can help reducing grid losses and congestion, saving network costs in the long-term that would otherwise have to be paid by consumers

If consumers generate their own electricity from onsite renewable energy systems, they consume less electricity from the grid. This will affect how network tariffs are calculated. Network tariffs should be designed in a cost-reflective and fair manner while supporting energy efficiency and the renewable energy objectives and being simple and transparent for consumers.

Energy self-generation is discussed in more detail in the Staff working Document accompanying this Communication.

*d) Increasing consumer participation through intermediation and collective schemes*

Collective schemes and community initiatives have been emerging with increasing frequency in a number of Member States. More and more consumers engage in collective self-generation and cooperative schemes to better manage their energy consumption. This innovation *by* consumers is also resulting in innovation *for* consumers and opens up new business models. Energy services companies, aggregators, brokers, data handling companies, other intermediary companies and frequently also consumer organisations are emerging to help consumers achieve better energy deals while relieving them from administrative procedures and cumbersome research.

This also opens new opportunities for local communities and authorities whose regional and local energy initiatives can provide a valuable link between decision-makers, citizens and innovators at the local level.

The Covenant of Mayors with its more than 6000 signatory cities shows that local authorities are willing to play their part in the new energy system supporting innovative local energy, including solutions developed under the Smart Cities and Communities European Innovation Partnership.

The Commission will continue its work with the Covenant of Mayors to facilitate consumer participation in the energy market and in the effective governance for the Energy Union including through local energy initiatives. Furthermore, the revision of the Renewable Energy and Energy Efficiency Directives as well as the market design initiative will present an opportunity to assess how to facilitate effective access to innovative energy suppliers, including collective schemes.

### **2.1.3. *Maintaining full protection for consumers***

EU legislation already provides energy consumers with extensive rights, whose enforcement remains a priority. The Commission will assess the implementation of these rights and provide a more detailed guidance in collaboration with consumer organizations and regulators. Inclusion of energy specific laws in the Annex of the Consumer Protection Cooperation Regulation will be considered. The primary responsibility for enforcing energy consumers' rights and protection remains with Member States.

With more options and offers, consumers need even greater assurances that they enjoy effective protection from unfair commercial practices. Authorities investigating such practices and complaints in the energy sector could benefit from closer cooperation with their counterparts in other Member States.

Energy poverty is another important issue for Member State action, one where social and energy policy measures meet. Energy poverty must be tackled in the wider context of social security, yet without ignoring the need for targeted, effective assistance reflecting best practices in the energy field.<sup>17</sup>

Work on best practices undertaken with stakeholders in the Citizens' Energy Forum<sup>18</sup> has highlighted that energy efficiency improvements tend to be the best long-term solution to energy poverty. This should be reflected in Member States' actions to fulfil their obligations under EU legislation to reduce consumer vulnerability and to address energy poverty.<sup>19</sup> Here the Citizen's Energy Forum facilitates the exchange of best practice on the most effective assistance, first and foremost through energy efficiency.

To facilitate Member States to meet their obligations in this respect and to increase transparency, the Commission will consider how to improve EU-wide data collection and monitoring of energy poverty while ensuring the security, privacy and protection of personal data. Common minimum criteria could be considered for the identification of consumer vulnerability<sup>20</sup> and energy poverty.

## **2.2. Making smart homes and networks a reality**

Smart technologies for the grids and the home should simplify consumer involvement in the new retail market and not create burdens. Integrated automated solutions can enable and simplify consumer action by connecting smart metering systems with smart home energy management systems, and smart appliances which make it simple to manage consumption, participate in demand response, or match consumption with their micro-generation as closely as possible according to energy price information. Such smart technologies will also facilitate the introduction of electric vehicles.

For both consumers and the energy system to get the full benefit from these technologies, the smart metering systems to be installed must be fit for purpose in terms of the functionalities

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<sup>17</sup> These often include energy-specific actions, such as energy efficiency improvements which can minimise wasteful energy use and make vulnerable consumers' energy bills more affordable.

<sup>18</sup> See Guidance document on Vulnerable Consumers, November 2013:

[http://ec.europa.eu/energy/sites/ener/files/documents/20140106\\_vulnerable\\_consumer\\_report\\_0.pdf](http://ec.europa.eu/energy/sites/ener/files/documents/20140106_vulnerable_consumer_report_0.pdf)

<sup>19</sup> See 2015 study at <https://ec.europa.eu/energy/en/content/energy-poverty-may-affect-nearly-11-eu-population-study>

<sup>20</sup> Ongoing Commission study on Consumer vulnerability across key markets in the European Union:

[http://ec.europa.eu/chafea/consumers/tenders\\_2013\\_cons\\_08.html](http://ec.europa.eu/chafea/consumers/tenders_2013_cons_08.html)

they offer.<sup>21</sup> Furthermore, the deployment of the advanced metering infrastructure should guarantee technical interoperability as well as consumer access to their consumption data via an open standard non-proprietary interface.<sup>22</sup>

European standardisation bodies<sup>23</sup> have already delivered a complete set of standards for smart meters and for the overall architecture and individual components of smart grids, covering both technology and communication issues (i.e. protocols for exchange of information). The Commission will follow the implementation of these standards closely and will analyse whether the European standards for smart grids and smart metering systems, as well as the recommended functionalities for the latter, are consistently applied to ensure that they deliver the desired functionality and interoperability.

Standards and interoperability are important also for the in-home communication between a smart appliance and energy management systems so that demand-response-ready, in-home equipment can be easy to install and operate. Industry needs to finalise and apply such standards<sup>24</sup> quickly and should be supported in this. Synergies with other domestic systems (e.g. water supply) should also be sought to allow smart appliances optimise also their consumption.

EU funding and financing will continue to be used for research and demonstration into smart home and smart grid technologies, and their security, to boost the international competitiveness of EU firms in this high-value sector.

Furthermore, managing network investments and operations cost-effectively in the new circumstances will be crucial. Remuneration schemes for distribution system operators should be cost-reflective and also incentivise them to cost-effectively engage in innovative network development solutions and act as neutral market facilitators when responsible for data handling.

Member States and the industry should make full use of the European Structural and Investment Funds and the European Fund for Strategic Investments to co-finance smart technology deployment. Investments in the smart energy technology and research, including through the Horizon 2020 programme, will carry multiple parallel benefits by boosting European competitiveness in high-value industrial sectors as called for, *inter alia*, in the Digital Single Market.

The Commission will, through collaboration with the Council of European Energy Regulators and the Agency for the Cooperation of Energy Regulators ensure that national regulatory authorities' approaches to the regulation of distribution system operators incentivize innovation and cost-efficiency as well as transparency of the quality of energy distribution operations.

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<sup>21</sup> Commission Recommendation 2012/148/EU on preparations for the roll-out of smart metering systems, of 9 March 2012,

<sup>22</sup> E.g. a USB interface and data encoded using DSLM/COSEM.

<sup>23</sup> Comité Européen de Normalisation (CEN), Comité Européen de Normalisation Électrotechnique (CENELEC) and European Telecommunications Standards Institute (ETSI).

<sup>24</sup> E.g. ETSI/OneM2M, Ontology for Smart Appliances, Energy Labelling.



### **2.3. Special attention to data management and protection**

An important part of value in the future energy market will stem from large data flows and the wider integration of information and communication technology into energy systems. Therefore, the data collection and processing party in the context of smart metering systems or other services empowering consumers to act should provide direct access to these data to the customer and any third party designated by the consumer. Access should be effective and non-discriminatory.<sup>25</sup> This is essential where the metering or billing entity is also providing other services in the market. While data handling can follow different models<sup>26</sup>, the neutrality of the entities managing data access is of the utmost importance.

For value-added services, only third parties authorised by the consumer must have access to consumer's consumption and billing data. As part of the Digital Single Market Strategy, the Commission will propose in 2016 a European "Free flow of data initiative"<sup>27</sup> where ownership, interoperability, usability and access to data (including energy data) will be considered.

The energy sector must remain at the forefront of protecting data security as well as privacy and data protection of all consumers.

The Commission proposals for the Network and Information Security Directive and for a General Data Protection Regulation, both currently under discussion, address the emerging risks with data handling. In anticipation of such an evolution in the general regulatory framework on data security and privacy protection, the Commission has been working on the relevant sector-specific tools with stakeholders from the energy sector.

In October 2014, the Commission adopted a Recommendation<sup>28</sup> which provides guidance to Member States and industry on how to carry out an impact assessment of data protection, allowing them to anticipate potential impacts on the rights and freedoms of data subjects and implement stringent safeguards.<sup>29</sup> Following the Recommendation will allow the energy sector to be at the forefront of data protection in the most unbureaucratic and cost-effective manner.

### **3. CONCLUSION AND NEXT STEPS**

Delivering the New Deal set out in the Energy Union Strategy means putting consumers at the centre of a thriving and functioning energy system. The steps to achieve this can be summarised in the following ten points:

1. Providing consumers with frequent access, including in near real-time, to partially standardised, meaningful, accurate and understandable information on consumption and related costs as well as the types of energy sources.

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<sup>25</sup> Energy Efficiency Directive 2012/27/EU and Commission Recommendation 2012/148/EU on preparations for the roll-out of smart metering systems

<sup>26</sup> Report at [https://ec.europa.eu/energy/sites/ener/files/documents/xpert\\_group3\\_first\\_year\\_report.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/xpert_group3_first_year_report.pdf)

<sup>27</sup> <http://ec.europa.eu/priorities/digital-single-market/>

<sup>28</sup> Commission Recommendation 2014/724/EU on a DPIA Template for Smart Grids and Smart Metering Systems.

<sup>29</sup> The Recommendation promotes the testing and use of a Data Protection Impact Assessment Template developed jointly between the Commission and industry experts to serve as an evaluation and decision-making tool for entities planning or executing investments in the smart grids sector.

2. Making switching suppliers quick and simple, enabled by transparent and directly comparable offers from competitive suppliers and not hampered e.g. by switching fees.
3. Ensuring that consumers remain fully protected in the new energy market, including against unfair commercial practices.
4. Providing consumers with possibilities to become active energy players and gain from action, for example adjusting and reducing their consumption as prices evolve, helping balance out renewable energy variability by embracing demand response or producing or storing energy.
5. Keeping consumption/metering data under the consumers' control; where consumers grant other parties (suppliers and intermediaries) access to their data, their privacy, the protection and the security of their data must be guaranteed.
6. Providing consumers access to competitive and transparent market-based offers, while giving consumers in vulnerable situations and/or facing energy poverty targeted and effective assistance reflecting best practices and contributing to energy efficiency and savings.
7. Providing consumers the option of participating in the market through reliable intermediaries, collective or community schemes. These intermediaries need to have fair access to the markets and consumption data and be monitored in the same manner as suppliers.
8. Making sure smart home appliances and components are fully interoperable and easy to use and smart metering systems fit for purpose with the recommended functionalities to maximise their benefit to consumers.
9. Ensuring cost-effective and stable network operation; ensuring non-discriminatory handling of metering data with potential commercial value by Distribution System operators or any other responsible entity.
10. Strengthening the link between research, innovation and industry for developing international competitiveness in smart home and smart grid technologies, in cooperation with all market players.

Existing legislation at EU and national level, and effective regulatory oversight provide many of the tools to realise this. Action is needed at Member State level, and collaborative initiatives of the industry, consumer organisations and national regulators will also have an important role to play in the effective governance of the Energy Union. Upcoming reviews of existing legislation (the Energy Efficiency Directive, the Energy Performance of Buildings Directive, and the Renewable Energy Directive), the Network Codes and the planned new market design initiative, and their impact assessments, will provide the opportunity to identify where action is required at EU level in order to deliver a new deal for the consumers. The revision of the energy efficiency labelling directive is a first step to help consumers in making informed choices to reduce their energy bills.