

The Consumer Voice in Europe

# THE PARIS PROTOCOL: EXPECTATIONS ON INTERNATIONAL CLIMATE CHANGE POLICIES FROM AN EU CONSUMER PERSPECTIVE

The need for a global, ambitious, binding and fair UN treaty to prevent devastating climate change



**Contact:** Sylvia Maurer – sustainability@beuc.eu

BUREAU EUROPÉEN DES UNIONS DE CONSOMMATEURS AISBL | DER EUROPÄISCHE VERBRAUCHERVERBAND

Rue d'Arlon 80, B-1040 Brussels • Tel. +32 (0)2 743 15 90 • www.twitter.com/beuc • consumers@beuc.eu • www.beuc.eu EC register for interest representatives: identification number 9505781573-45



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### Summary

State leaders of 195 governments will be meeting at the climate summit in Paris in December 2015 with the overall objective to obtain a global treaty which will prevent devastating climate change.

While much attention is given to the questions of who has to cut how much in emissions by when, very little attention is given in these international negotiations to the question of the impact that such an agreement will have on the every-day life of consumers. Moreover, the strategic role of consumer organisations as well as of individual consumers for a successful implementation of an international climate agreement will barely feature in the negotiations. However, believing that the upcoming changes can be imposed "top down" rather than based on broad support from citizens is a false assumption which negatively impacts our chances for success. Consumers are already affected by and will increasingly suffer from the impact of a changing climate in their daily lives such as for instance being faced with increasing prices for food and energy. There is a therefore a very prominent interest for consumers and consumer organisations to fight further global warming. However, they need support through the right framework conditions and support to change towards more sustainable lifestyles.

This paper seeks to make concrete recommendations on what governments and businesses should do to prevent further climate change.

First, we outline consumer expectations with regard to the upcoming UN Climate Summit (COP-21). We call for:

- An ambitious and binding agreement which will avoid further global warming;
- The EU to stay credible at international level and lead by good example;
- A reform of Kyoto Protocol mechanisms such as the Emissions Trading scheme to become effective and resistant to fraud;
- The need to raise funds, public and private for sustainable investments;
- A better involvement of consumer organisations.

Second, we make concrete suggestions on how to remove current market barriers which prevent consumers from taking up more sustainable lifestyles.

Third, we link this paper to other key recommendations of BEUC that already exist or are currently under development on sector policies which can make a considerable contribution to cutting greenhouse gases such as energy, food, transport, product policies and the sharing economy.

Finally, we give a set of concrete recommendations addressed to governments and the industry on what should be done to prevent further global warming and how the consumer perspective should be taken into account.



### 1. Introduction

In December 2015, state leaders of 195 countries will gather in Paris to tackle one of the biggest challenges of our time: global warming, a planetary sickness that triggers dangerous and destructive climate change.

While policy makers have focused on the amount of greenhouse gas (GHG) emissions that need to be cut per nation and by when, in advance of this important conference, very little attention has been given to the practical implications of such an agreement in the every-day life of consumers in the short, middle and long run<sup>1</sup>. Governments are not only failing to explain to individual consumers what climate change means in terms of access to basic goods and services such as water, energy, food and transport but they are also failing to involve consumers and consumer organisations in a meaningful way.

It is important not only to explain the necessary changes in current lifestyles, but also to design consumer friendly climate change policies, so that consumers are not penalized by policies which haven't been well thought through.

What does slowing down climate change mean to European consumers? How will it affect households? How can consumers act to reduce further pressure on the climate? How can the EU and national governments help citizens to adapt? These questions are largely left out of international negotiations. This is a severe shortcoming as consumer action is a significant direct and indirect contributor to GHG emissions through the food we eat, the way we use energy, run our homes and how we travel around. Thus, understanding and changing consumer behaviour worldwide is a crucial task in responding to climate change.

In this paper, BEUC outlines suggestions and proposals to EU policy makers on the design and content of a future climate change agreement, on its subsequent implementation and on what preconditions have to be met to enable consumers to contribute to achieving global climate change targets in a European context while not penalizing vulnerable consumers.

Understanding better and taking into account consumers' motivations and needs with regard to climate change can help policy makers and businesses to design more effective policies and practices that trigger more sustainable consumption patterns<sup>2</sup>.

To be successful, solutions to climate change must be consumer driven and consumer-facing. They must be based on an ambitious, binding and fair global treaty which will be adequately enforced and monitored. They also need to be accompanied by ambitious EU action to bring down emissions from key consumption areas such as food, transport, products, housing and energy use.

Hence, the EU Commission must continue to take a lead role in the international climate change negotiations. It must also ensure massive GHG emission reductions through a consumer-centric Energy Union that facilitates the transition to renewable energy sources and an ambitious agenda on resource efficiency and circular economy with the ultimate goal to establish more sustainable production and consumption patterns which will not overly contribute to dangerous global warming.



## 2. How does climate change affect consumers and what interest do consumers have to combat climate change?

Europe is warming faster than many other parts of the world. While the global average temperature increase is 0.8°C, the European land temperature over the last decade has been on average 1.3°C higher than in pre-industrial levels<sup>3</sup>. This means that consumers are affected by and will increasingly suffer from the impact of a changing climate in their daily lives with negative consequences such as:

- Higher living costs related to increasing prices for food, energy, transport and for insurance premiums to protect properties against environmental disasters such as storms and floods;
- Endangered food security and impaired richness of our diets due to a loss of biodiversity such as shrinking fish stocks and lack of fresh water;
- Lower health standards due to increased amounts of exhaust gases in the atmosphere and negative impacts from extended heat waves as well as new diseases in Europe such as malaria and dengue fever;
- Depletion of natural resources which put the welfare of entire societies at risk;
- Increasing injustice at global scale due to unequal access to basic resources which triggers increasing geopolitical tensions and political instability;
- Inconvenience and frustration when having paid for holidays for instance to go skiing but there is no snow or to go to the beach but there is heavy rain.

At first sight it may look like as if measures which are needed to keep the climate on track may negatively affect short term consumer interests such as increasing energy prices due to promotion of renewable energies. However, as CO2 and other greenhouse gases accumulate in the atmosphere and stay for centuries, the climate will continue to change even if we manage to cut emissions drastically and will expose future generations to unexplored risks. This means that a broad, systemic approach to human development is needed<sup>4</sup>. Hence, there is a very prominent interest for consumers and consumer organisations to fight further global warming. However, they need support through the right framework conditions and support to change towards more sustainable lifestyles.

### 3. The need for a global binding, ambitious and fair Paris Protocol

The forthcoming United National Climate Change conference, to be held in Paris in December 2015 ("COP-21"), pursues the goal to conclude a binding agreement which will apply as of 2020 to all participating countries and which will ensure that global warming remains below temperature increases of 2°C compared to pre-industrial levels. Such an agreement would be a major achievement considering that the only binding agreement which had been attained in the past, the Kyoto protocol, covered only some countries, was modest with its reduction targets and becomes obsolete in 2020.

Despite the large number of signatories to the Convention and repeated oral commitments from governments to take action, to date climate mitigation measures fall back far below what is needed to limit dangerous temperature rises<sup>5</sup>.



BEUC together with Consumers International and joint by several national members have been advocating for an ambitious and binding climate change agreement in 2009. It was with great disappointment that the negotiations in Copenhagen had not delivered a binding follow up treaty to the Kyoto Protocol. In the meantime, precious time has been lost to tackle climate change at global level and emissions are rising further.

We therefore re-iterate that we have to move away from an economy driven by fossil fuels and to manage a transition towards a low carbon economy based on energy efficiency and using renewable energy sources. To ensure that the climate and the environment will not completely derail, enormous changes have to be undertaken: by businesses in the way they produce goods; by policy makers on how they develop and implement climate friendly legislation; and by consumers on how we run our homes, how we get around on a daily basis and on our holidays and the food we eat. Therefore, an ambitious and binding Paris agreement is a matter of urgency.

We agree with the European Commission that a mechanism has to be agreed for the regular review and strengthening of targets every five years, thereby ensuring that commitments and contributions will be sufficient to achieve the below 2°C objective.

### 4. The EU must stay credible at international level

The EU Commission emphasises that the EU accounts for 9% of global emissions and that its proportion is falling. However, with this statement the EU Commission severely downplays the real contribution of the EU to global climate change<sup>6</sup>. The methods how greenhouse gas emissions are currently attributed to countries are flawed as only emissions that occur in a specific territory are recorded. The emissions related to imported products which occur in other parts of the world are left out of the calculation. This means that while many European countries demonstrate a positive trend with regard to reducing their domestic emissions, the achievements would look a lot darker if CO2 emissions would not be attributed to the countries in which they are produced but to those countries in which the products are used / consumed.

The EU also needs to ensure that it remains credible at the international level on passenger car transport emissions. Official report on EU car  $\mathrm{CO}_2$  emissions indicates the automobile sector has continued to improve on fuel efficiency. However, there is evidence that monitoring methods are being manipulated which brings into doubt the real emissions reductions of car makers.

These embellishments of the actual records give a wrong impression to consumers about their individual per capita contributions to global warming.

As the Paris Protocol is seeking to achieve an agreement to which all countries contribute, exact and fair measurements at global level as in the EU will become more and more important.

In the run-up to the Paris summit, it is also a severe shortcoming that the EU has not managed in its 2030 climate and energy package to establish clear national obligations for each Member State and to set binding targets for all three relevant aspects, i.e. greenhouse gas emissions, renewable energies and energy savings<sup>7</sup>. Without such transparent accountability and fair burden sharing, it is more difficult for the EU to be credible at international level. Moreover, only announcing Intended Nationally Determined Contributions (INDCs) as a collective EU target without specifying what will be the share of each Member State and how it will be achieved is insufficient<sup>8</sup>.



### **5. The need to overhaul Kyoto Protocol Mechanisms**

### 5.1. The need for a reformed European Emission Trading Scheme

Consumer organisations have criticised the bad functioning of the EU Emissions Trading Scheme<sup>9</sup> in particular with regard to its failure to result in significant emission reductions because caps have been set too high and emission permits over-allocated as a result of undue influence from the industry lobby.

In addition, consumers who massively have invested in renewable heating and electricity generation, have no effect on the overall pool of permits. As the number of permits is not reduced but the price per permit drops, this leads to the absurd situation that environmentally aware consumers who take proactive action and to some extent are ready to pay a price-premium are subsidizing the country's largest emitters<sup>10</sup>.

From the point of view of allowing consumers to make shifts away from carbon-intensive lifestyles, a carbon tax at global level may be preferable to an emissions trading scheme. However, as any CO2 taxation proposal does not have realistic chances to be adopted, a solution for the problems of low CO2 prices has to be found within the existing scheme<sup>11</sup>, primarily through setting a meaningful carbon price.

The EU ETS is in its third phase, running from 2013-2020. Despite some changes<sup>12</sup>, the system is still flooded with cheap allowances to the extent that the ETS will almost not make any contributions to emission reductions in the coming years<sup>13</sup>. To this end, BEUC welcomes that the EU published on 15 July 2015 a draft Directive to reform the EU ETS<sup>14</sup> to re-define the rules that will apply as of 2021. This reform is urgently needed to set a meaningful carbon price.

Due to the limited success of the EU ETS scheme, we do not support including new sectors such as the transport sector into the ETS as we see neither overwhelming benefits for the environment, for motorists nor for investment into the energy efficiency of new vehicles. Additional price increases on the fuel used by motorists will not drive forward the sorts of fuel efficiency reductions that are necessary in the automobile sector. We would rather propose that efforts should be focused on developing post 2021 CO2 targets for new cars and improving consumer information about the real fuel consumption of cars through the introduction of a new test cycle and the revision of the EU car labelling scheme<sup>15</sup>.

### 5.2. Making Kyoto instruments fraud-proof

Latest research reveals a worrying malfunctioning of offsetting schemes under the Kyoto Protocol<sup>16</sup> which led to massive additional CO2 emissions creation: emissions have been about 600 million tons of CO2 higher than they should have been due to companies in Ukraine and Russia abusing the offsetting system<sup>17</sup>.



The researchers also revealed the perverse effects of Joint Implementation projects aiming to reduce waste gas emissions<sup>6</sup>: In Russia, the production has been increased at unprecedented levels just to destroy them and thereby earn credits that can be sold, hence intentionally destroying the climate just to make profit<sup>18</sup>.

This fraud undermines the effectiveness of the EU ETS as the credits have been used mainly in the EU's scheme. If the EU is taking its climate targets seriously at least 400 million ETS certificates would have to be deleted to counter that fraud<sup>19</sup>.

The COP-21 negotiations need to ensure that a future climate treaty will effectively prevent such perverse incentives which lead to additional pollution rather than climate change mitigation through ensuring truly ambitious reduction goals, international accounting rules and robust oversight of international transfers of carbon units<sup>20</sup>.

### 6. Sustainable investments

Climate finance, i.e. the flow of financial support for mitigation and adaptation to developing countries is the Achilles' heel to get a deal in Paris. With regard to sustainable investments there is action needed in several areas: 1) mobilising additional public funding for investments into developing countries as well as for systemic changes in industrialised countries and 2) stopping unethical investments of the private sector.

### 6.1. Mobilising public funds for climate finance and help consumers to adapt

The EU finance ministers have declared their support to scale up funds from public and private sources but have not yet decided on precise commitments and how those resources should be activated<sup>21</sup>,<sup>22</sup>. Finding a common EU position ahead of the Paris talks will be a crucial task for the November meeting of EU finance ministers. There are two sources how major additional funds can be made available for climate finance.

First, G20 countries are still spending billions of euros on subsidising the fossil fuel industry while at the same time contributions to climate finance are insufficient. EU Member States should phase out such harmful subsidies and invest into technologies and solutions which will help the most vulnerable people to adapt.

Second, an additional possibility to raise funds could be through allocating a fixed proportion of the revenues from the EU Emissions Trading Scheme to climate finance. The EU ETS currently generates about &8 billion fiscal revenues for members states of which parts could be earmarked for climate finance<sup>23</sup>.

When deciding on where and how to invest such funds for climate change mitigation and adaptation, it is important for policy makers to understand who will be affected by climate change and how. Certainly, the impacts will differ for different groups of consumers and in different regions in Europe and globally. Most importantly, different consumer groups have different possibilities to adapt to climate change with vulnerable consumers being in the least favourable position to respond to environmental changes.

Policy makers should not channel financial flows into projects where consumers at risk will be left behind or cross-subsidise wealthier consumers. Instead, climate finance should be invested in solutions that help all members of society to make a transition.



Investing into climate change mitigation is a "win-win situation": Self-generation of renewable electricity and heat does not solely reduce greenhouse gases. It also bears a huge potential to cut energy costs, especially for vulnerable households. To this end, policy makers need not only to activate funds but also to convince the relevant players such as landlords and house-owners to invest into energy efficiency and renewables.

### 6.2. Stopping unsustainable investments of the private sector

The financial sector finances countless projects and owns companies at global level. Their financial services and trading activities impact negatively societies and the environment about which consumers receive often too little transparent and credible information<sup>24</sup>. Despite the fact that many financial institutions state that they are committed to sustainability and social responsibility, reality often looks a lot darker<sup>25</sup>.

To stop unfair practices, a new international initiative, *Fair Finance Guide International* (FFGI), scores the performance of banks and raises awareness with bank clients and encourages them to demand accountability as well as more sustainable investments. FFGI studies have shown that bank investments of consumer deposits and savings often comply poorly with the sustainability principles that the banks' claim to follow according to their policies. Based on the findings from FFGI it is obvious that the financial system might need further regulatory initiatives and different supervisory structures to make sure sustainable and ethical investments will become the rule.

### 7. Better involvement of consumers and consumer organisations

The international climate governance system has a weakness which worryingly limits our chances to be successful in climate change mitigation and adaptation: decision-makers give little attention to the role of consumers and consumer organisations. While the EU's Energy Union strategy places the consumer at centre stage, the Commission's Communication on the Paris Protocol falls short to give the same attention to consumers despite their importance in this process. This has been pointed out by the European Economic and Social Committee rightly as a major shortcoming<sup>26</sup>:

"Unfortunately, the multiple roles played by civil society (...) will be discussed only on the outer fringes of the COP, and the EU has taken no evident steps to change this. (...). The new climate policy cannot and must not be imposed "from above", but needs to be based on broad support of a majority of citizens, through an active civic dialogue (...) including - all stakeholders and to be implemented "from below". (...) the EESC recommends that the Commission creates both the structural conditions and provides the necessary resources to allow civil society to engage with all stakeholders on the basis of equal recognition and inclusion."



Moreover, BEUC shares the view of the EESC:

"That it is not by the (hopefully) ambitious outcomes of COP 21 that our climate will be saved, but rather by their systematic implementation. And it is not politicians who will implement them, but citizens. Although they must create the right conditions, with not only environmental but also economic and social consequences in mind, it is civil society that will put them into practice. The decisions therefore need broad public approval and support from businesses, trade unions and all other elements of civil society."

A good example for a bottom-up implementation of civil society's efforts for climate protection is the Covenant of Mayors<sup>27</sup>: several hundreds of municipalities are committed to implement local GHG emission reductions through robust action. Another example are local renewable energy cooperatives that initiate investment in generation capacities starting from a democratic deliberation and taking a broader approach that links local identity with climate change and energy transition issues<sup>28</sup>.

We emphasise that governments should allocate the necessary time and resources to explain to consumers all government policies on climate change, help them understand the actions taken and involve consumers through structured dialogues and projects. Governments should bear in mind the needs of various consumer groups and inspire action by creating a common vision on a sustainable future with a good quality of life.

Governments should also interact with consumer organisations to learn more about consumer needs and possible solutions from a consumer perspective and integrate these findings and concerns into policy making.

### 8. The need to remove current market failures and barriers<sup>29</sup>

Many consumers have already engaged in some responsible action to reduce their negative impact on the environment, for example by switching light bulbs and sorting waste, yet most consumers feel neither empowered nor motivated to take action beyond the easy steps. This is partly because consumers do not see how their contribution matters in relation to the urgency and scale of the problem and because they receive too many contradicting messages on what they are expected to do<sup>30</sup>. In fact, many also feel that the actions available are insignificant in the light of government inaction<sup>31</sup>.

It is moreover difficult to motivate consumers to invest into more costly protective measures. For instance, few homeowners living in areas which could be affected from floods and storms in the US have voluntarily invested in measures that would be cost-effective to reduce future losses<sup>32</sup>. Reasons can be the belief not to be personally affected from climate change in the coming years, too high upfront costs as well as the trust that public disaster relief expenditures will cover for potential losses.

A fundamental reason for consumers failing to adapt concerns the fact that consumers are often "locked in" to certain pathways which do not easily allow them to change. Consumers can also become stuck to habits which make them repeat certain actions without reflecting upon the advantages and disadvantages of alternative approaches.

A range of market barriers which prevent a diffusion of already existing innovative solutions and technologies at a large scale throughout the EU can be identified:



Barrier	Consequence / Effect of the barrier
Lack of implementation of the polluter-pays principle	As a result, consumers often have to pay a much higher price for not polluting because most sustainable products are more expensive than conventional ones
Bounded rationality/ time inconsistency	Higher upfront investments often discourage consumers from investing into more environmentally friendly products such as energy saving technologies even when rewarded with lower running costs and reasonable payback times.
Imperfect information	Consumers are often not able to identify how resource efficient or inefficient a product is before they buy it
	<ul> <li>Consumers often do not have a good great level of understanding of new efficient and/ or smart technologies and their applicability</li> </ul>
	Many labelling schemes are currently not working effectively
	Retailers and sales personnel are often not trained sufficiently to act as consultants in advising consumers
Split incentives	• Tenants do not have incentives to invest in resource efficiency measures for a house as they do not own it and will lose their investment once the rental period is over.
	• Under the condition of a tense housing situation, landlords have little incentive to invest in resource efficiency measures of buildings since tenants would accept high rents even though dwellings have a poor energy performance.
	• Depending on the local socioeconomic context certain landlords might on the contrary be very interested to improve the energy performance of their properties in order to proportionally overincrease the rent and to push out the current residents.
Access to capital	Low income households often lack cash or access to credit
Credibility of information	Green claims are often unsubstantiated or misleading and cause uncertainty amongst consumers
Lack of interest in the environment	<ul> <li>Consumers not always receptive for environmental arguments</li> <li>Consumers often too used to certain standards of living, wary of anything that might produce (real or perceived) discomfort</li> </ul>
Habits	Consumers are often locked in habits or insisting on well-known products which makes them favouring for example incandescent light bulbs over LEDs
Lack of role models	Consumers are reluctant to act when governments do not set good examples



### 8.1. Market failure 1: sustainable products and services are more expensive

Currently the "polluter pays principle" does not work. The principle says that the one who pollutes should pay for it. However, it is often consumers who have to pay a much higher price for not polluting because most sustainable products and services are more expensive than conventional ones. However, higher upfront investments could often discourage consumers from investing into more environmentally friendly products such as energy saving technologies even when rewarded with lower running costs and reasonable pay back periods<sup>33</sup>.

In addition, even if consumers would take environmental reasons into account when buying products and services, such reasons would not be a sufficient motivator in themselves if the quality did not meet a certain standard. For a take-up of certain technologies, products and services not only need to be available but also need to be attractive and serve consumer needs and expectations beyond resource efficiency such as comfort and convenience<sup>34</sup>.

### **Recommendations**

The EU Commission and Members States should:

- Eliminate environmentally harmful subsidies
- Progress with green financial reforms such as lowering taxes on sustainable products and services and increasing the price for polluting ones.
- Offer public transport incentives and introduce road pricing schemes to alleviate urban congestion and reinvest revenues into improving mobility services.

### 8.2. Market failure 2: misleading information on sustainability of products

Consumers are often not able to identify the resource efficiency of a product before they buy it and often do not have a great level of understanding of new resource efficient technologies and their applicability such as passive housing or electric vehicles. While only providing information will not incentivise consumers to change their behaviour, clear, comparable and credible information and advice provided in a user-friendly way, in combination with regulatory instruments, is a pre-condition for consumers to reward the most environmentally friendly products and services. Today, many labelling schemes do not work effectively. In a similar vein, retailers and sales personnel often act as a major source of information but are not sufficiently trained to act as consultants in advising consumers. Another barrier is a growing number of "green" claims. Often messages about the sustainability of products are neither substantiated nor clear to consumers



### Recommendations

The EU Commission and Member States should:

- Take into account the **policy recommendations on labelling and climate change**, published by Consumers International and BEUC
- Improve the guidance document on the Unfair Commercial Practices Directive to set clear rules on misleading "green" claims. Member States urgently need a useful tool on how to act against greenwash.
- Strengthen and develop the EU Ecolabel scheme which provides consumers with comparable and trustful information about the environmental performance of products and services.
- Simplify the EU Energy Label and extend it to more product groups.
- Ensure that energy markets are transparent and that consumers have access to clear and comparable information including on green electricity offers
- Overhaul the car labelling scheme and implement a new associated testing procedure in order to allow for more accurate information
- Improve consumer information about the lifespan of products, about upgradeability, reparability and availability of spare parts.

### 8.3. Market failure 3: Consumers do not always receive value for money

Studies find that consumers are replacing products more frequently than in the past, leading to ever greater quantities of waste. Among the reasons for this, one can mention guarantee periods in Europe that are limited to two years with a reversal of the burden of proof after 6 months, implying that manufacturers have little incentives to design more durable products. As consumers are not informed about different lifetimes, they are prevented from choosing products with the best price-performance ratio.



In the context of the <u>EU's policy agenda on resource efficiency and a circular economy</u>, BEUC has made specific policy suggestions on how to address the above mentioned market failures<sup>35</sup>. It is crucial to improve the lifespan of products to cut considerable amounts of greenhouse gas emissions which are linked to the extraction of raw materials, the production phase, transport and the waste phase.

### Recommendations

The EU Commission and Member States should:

- Improve the implementation of existing legislation such as the Ecodesign Directive as criteria for durability, upgradeability and reparability should be set systematically for all product groups.
- Improve the consumer Sales Directive through making the rights it grants on legal guarantees better enforceable and to prolong the period within which these rights can be claimed.
- Take action to ensure that spare parts and digital support (software) will be available for a minimum period that reflects the normal life time of the product.

### 8.4. Market failure 4: Our economy is still based on owning products rather than using services

Considering that by and large, our current economic model is based on owning products rather than on using services, the resource savings' potential of a service economy is currently untapped, although more and more consumers seem to be interested in participating in collaborative consumption such as car sharing or swapping apartments for holidays<sup>36</sup>. The ideal that the sharing economy brings for a more sustainable society is promising: if not everyone purchases everything but shares, rents or exchanges products and services, this protects resources and offers a service to consumers who cannot afford purchasing certain expensive products. On the other hand, there might be a risk that there will be a tremendous rebound effect as those goods and services will be offered and used more frequently<sup>37</sup> adding up to more intensive use patterns.

Yet, frequent questions are currently unsolved for consumers such as who is the contractual partner, what are the responsibilities and obligations of the parties if something goes wrong, what information is disclosed about the platform and the service provider/seller and to whom can he/she turn in case of problems.



Whether the so-called Sharing Economy will truly develop this potential and convert it into benefits for consumers will depend on whether consumers will be able to trust new models of consumption and if consumers will be adequately protected.

#### Recommendations

The EU Commission and Member States should:

- Ensure that services are provided under fair conditions and can be used safely
- Revise existing legislation to ensure that obligations of the intermediaries are clarified and adopt new legislation where necessary to close loopholes.
- Analyse carefully the impact of new business models on supply and demand
- Establish a level-playing field between existing and new market actors which offer equivalent services.
- Set up regulatory schemes where consumer organisations play a key informational role to help consumers and prosumers navigate and use the collaborative economy.

# 9. The need to take lessons from behavioural economics into account when designing climate change policies

Behavioural economics research points out that well-designed measures can overcome individuals' cognitive and motivational barriers to adopting climate change prevention and mitigation measures while increasing consumer and collective welfare. One important point policy makers need to understand is that not everyone is interested in the environment; however a lot more people can be motivated when other interests such as economic and health benefits are emphasised<sup>38</sup>. The strategies explained below can be effective to help people make better choices:

### 9.1. Structuring economic incentives

Behavioral research found that high upfront costs for investments into climate change prevention and adaptations measures such as house insulation, installation of solar panels and storm protection measures present a market barrier which can be overcome by an intelligent framing of the economic incentives such as:

- ✓ Interest free loans ;
- ✓ Pay-as-you save schemes ;
- ✓ granting premiums in house insurance contracts.

Moreover, providing low-cost or free assistance to households who want to improve the energy-efficiency of their homes makes it more obvious and practical for consumers how they can achieve economic savings and improve energy efficiency.



Another concept is bonus-cards which combine benefits for a wide range of sustainable products and services such as car sharing, borrowing products from DIY-shops, city bikes and use of sustainable hotels and restaurants. Such bonus-cards could be offered jointly by manufacturers, retailers, service providers and local society initiatives with the support of regional or federal governments.

### 9.2. Using non-financial incentives

Taking actions which increase consumer convenience can be an important driver to achieve behavioural change. For instance if consumers should be "nudged" into insulating their roof, it can be quite powerful if the incentive scheme foresees free help of workers to empty the attic. As this approach is currently under-researched and underexploited, policy makers should work more with specialists on consumer behaviour, psychologists and behavioural economists to systematically think how to use non-financial benefits when designing policies on climate change. One area where several countries have implemented non-financial incentives concerns mobility and whereby actions have been devised in such a way that they encourage more sustainable modes of transport. Measures have included:

- ✓ granting access to bus and taxi lanes for electric vehicles;
- ✓ offering free charging and parking for electrical vehicles;
- ✓ exempting electric vehicles and cars with several passengers from extra-charges;
- √ offering free parking spaces for car sharing;
- ✓ extending park and ride services;
- √ offering city bicycle rental services;
- ✓ building bike lanes.

### 9.3. Using Choice Defaults

Making one particular choice the default option which will apply if no other option is actively selected has been shown effective in many research studies ranging from insurance contracts to organ donation<sup>39</sup>. Reasons are multi-fold but include the consumers' inertia and tendency to assess the pre-selected option more favourably. Moreover, most consumers do not want to take into account many additional factors in everyday decision making. Therefore, the EU, Member States and companies must go on with choice-editing policies, i.e. the voluntary and mandatory phasing out of the most environmentally harmful products while providing choice to consumers at different price levels for more sustainable goods.

The EU should in particular progress with implementing and further developing the EU Ecodesign Directive which sets mandatory energy efficiency and resource efficiency criteria for key products, phases out the worst performing ones and ensures a gradual evolution of the market towards more environmentally friendly products.



Policy instruments should be designed to ensure that sustainable choices will be available, affordable and easy; they should in the future become the "default" option when shopping for food, electric appliances, and energy contracts and when looking for house insulation options etc.

### 9.4. Establishing social norms

Following a social norm facilitates individual decision making ("I do what similar others do") as copying the observed behaviour of others is a widespread phenomenon which partly occurs unconsciously<sup>40</sup>.

If social norms that are beneficial for the environment can be established, it is likely that also manufacturers will be encouraged to provide the needed technical solutions.

Establishing social norms includes the need for policy makers and institutions to lead by example, e.g. through well-designed green public procurement policies, sustainable public buildings and credible personal commitments.

People also need reassurance that their contributions matter. Making them feel part of a town, a region or peer group is more promising than pointing out the need to act for each individual. In this context, individualised feedback on how households perform in comparison to their neighbours may trigger a certain beneficial behaviour as people often learn through observation and imitation, provided that data protection is ensured.

Furthermore, there is a role for workplace initiatives to steer behavioural change, ensuring that worker representatives are able to negotiate on environmental issues and that awareness raising programmes take place in the work place and consumers'homes.

Social marketing campaigns for climate friendly solutions using behavioural segmentation techniques and promoting the right messages to the right audiences can facilitate change and help establish social norms in the long term.

### 9.5. Better framing the problem

It is of utmost importance to give consistent and credible messages to consumers. The narrative related to climate change needs to be repeated constantly in the case of adverse events to make sure people link climate change to these happenings and have a learning effect. For instance, scientists found that people who had been affected by a flood in the US and in the UK acted differently following this disaster. While little affected people in the US took actions to prevent the negative impact of a possible future flood, people in the UK have taken action. One possible explanation could be the fact that the media in the US has linked the negative event to "weather" whereas journalists in the UK repeatedly emphasised the link between the flood and climate change<sup>41</sup>.

Research found in addition that the time horizon which is used to explain the likeliness of adverse events influences considerably consumers' notion of being potentially affected by climate change. Hence, the likeliness of adverse events such as storms and floods should be indicated in a time horizon of 25 years rather than on an annual basis when trying to convince for instance house owners to invest into climate adaptation measures<sup>42</sup>.

Making consumers feel guilty will not help to change behaviour and will not achieve future commitment. Required changes should be linked to positive messages on the benefits such as health, pleasure or fulfilment. Messages need to be simplified and action steps should be prioritised. People also need regular feedback to understand



whether we are on track and if there are successes. This is an important challenge for policy makers to highlight the contribution of consumers when engaging into future review and work programme processes.

### 10. The need to move on with sector specific polices: Energy, Food, Transport and Product Policies

If the EU wants successfully to cut greenhouse gas emissions and to be able to fulfil the commitments that it has made preceding the Paris Summit, it urgently needs to continue the implementation and further develop sector specific strategies which provide for structural changes in housing, transport, energy use, food production and product policy while securing consumer access to goods and services to satisfy basic needs.

### 10.1. The need for a consumer centric Energy Union

The Energy Union Strategy, in particular the measures related to energy efficiency and moderation of demand, decarbonising transport and becoming global leaders in renewables will – if implemented according to the recommendations of consumer organisations – make an important contribution to lowering harmful greenhouse gas emissions. BEUC has outlined its key recommendations in its recent position paper "Building a consumer-centric Energy Union" <sup>43</sup>.

### 10.2. The need for a transition towards sustainable food systems

Food contributes to up to one third of households' greenhouse gas emissions: Before reaching our plates, our food is produced, packaged, transported, prepared and served and at every stage greenhouse gases are released into the atmosphere<sup>44</sup>.

For specific recommendations on sustainable food systems see BEUC's recent policy paper<sup>45</sup>.

### 10.3. Sustainable mobility

Whether it is for a child's trip to school, a commuter's journey to work or a pensioner's visit to the bank, mobility is an essential right for citizens and is vital for quality of life. Our current transportation system has been developed largely on the availability of cheap fossil fuels and the transport sector is responsible for approximately a quarter of all EU greenhouse gas emissions. We urgently need to find ways to reduce our dependence on fossil fuels and ensure that everyone can afford to remain mobile in the future. For more information see BEUC's policy recommendations: Sustainable mobility: for consumers now and in the future.

### 10.4. Sustainable product policy

BEUC is committed to allow consumers to choose more sustainable products. In this sense we contribute to the development of EU Ecodesign, Energy Labelling and the EU Ecolabel which are crucial instruments to make sure that the sustainable choice will be the easy and affordable ones. For more information see our campaign pages:

http://www.beuc.eu/ecodesign-and-energy-labelling

http://www.beuc.eu/sustainability/ecolabel



### 11. Recommended actions

#### 11.1. Governments should

- As a matter of highest priority sign-up to a binding agreement in Paris with a fair burden sharing and regular strengthening of the targets. A legally binding agreement would:
  - send a clear message from governments to economic operators that there is political will for a transition to an economy based on energy efficiency and using renewable energy sources at global scale;
  - provide for a long-term and predictable framework which encourages investments into carbon reduction and climate change adaptation technologies;
  - form the basis for transparency and accountability of the commitments;
  - be the precondition for monitoring and verification if the commitments will be implemented.
- Design policies involving all stakeholders including consumer organisations in order to integrate and address consumer concerns in these policies.
- Reform emission trading and carbon offsetting mechanisms to ensure their effectiveness and to prevent misuse.
- Make climate change policies a top and horizontal priority of all EU and national policies. In this respect, it will be of particular importance to avoid contradictory and damaging policies. For instance, all environmentally harmful subsidies should be removed.
- Ensure monitoring, implementation and enforcement of the internationally agreed measures at national level. International obligations need to be regularly strengthened and translated into national emissions reductions.
- The EU and Member States should commit resources towards sharing best practice at the global level on national policies related to tackling climate change. Particularly this should involve sharing of best practices on national or regional initiatives designed to improve energy/fuel efficiency and related product labelling schemes.
- Start and/ or continue to make structural changes in housing, transport, energy use and agriculture while securing consumer access to goods and services to satisfy basic needs. This is a fundamental pre-condition for consumers to adopt more sustainable lifestyles while ensuring consumer acceptance for the changes.
- Apply choice editing while ensuring choice among sustainable products at different price levels. The sustainable choice must become the easy and affordable one.
- Allocate necessary time and resources to explain to consumers all government policies on climate change and help them understand the action taken.
- Proactively involve consumers into the preparation and implementation of the COP-21 agreement at all political levels through structured dialogues, active participation in decision making and through dedicated projects. A new climate policy should not be



imposed from "above" but needs to be based on broad support from stakeholders and to be implemented from "below". Governments can inspire consumer action by creating a common vision on a sustainable future with a good quality of life.

- Explain to consumers what areas of consumption matter most and how they can manage a transition towards an economy based on energy efficiency and renewable energy sources in their daily lives. It is important to prioritise and give simple and clear-cut messages that will be repeated consistently over time. Consumers also need to be motivated with positive messages and need reassurance that their contribution makes a difference and need regular feedback on progress to keep their interest high.
- Integrate knowledge into schooling on how consumers can lower their negative impact.
- Launch social marketing campaigns and develop programmes to accompany and encourage behavioural change processes.
- Lead by good example in implementing climate protecting measures through ambitious green public procurement policies and personal commitment.
- Interact with non-governmental organisations such as consumer organisations to learn more about consumer needs and possible solutions from a consumer perspective.
- Ensure that costs for climate change prevention and adaptation will be distributed in a fair manner across the population. This requires to internalize external costs and to apply the polluter-pays-principle. It is crucial that vulnerable consumers will not be left behind, e.g. through offering dedicated support schemes such as energy-saving programmes for low-income households and a tiered electricity and heating billing. Such an approach is fair and incentivises further energy savings. Likewise increased investments in energy performance of social housing are needed.
- Address common market failures which prevent consumers from becoming more sustainable with regulatory action. This requires to act against misleading and unsubstantiated "green" claims and to support the development of credible and independent labelling. This requires also removing administrative barriers to new climate-friendly technologies in consumers' hands (e.g. solar PV self-generation), and providing innovative finance models to ensure that high upfront investment costs will not be a barrier to change. Furthermore, this requires using economic instruments to make sustainable choices cheaper for consumers.
- Hold businesses accountable for climate damaging activities.
- Ensure that the development of so-called Sharing Economy platforms that enable new forms of consumption and production while maintaining high levels of consumer protection. The environmental impact and the economic sustainability of different Sharing Economy models must be carefully analysed.

### 11.2. Industry should

- Take all necessary steps to prepare for a shift to a low-carbon economy and bring sectorial emissions down.
- Adapt their business models to consumer needs and expectations.



- Engage with decision-makers to share information on innovation and technologies suitable to reduce emissions.
- Demonstrate commitment to develop and provide solutions for a resource efficient and climate friendly future which will ensure a good quality of life.
- Ensure availability and accessibility of sustainable and affordable products and services and provide consumers with clear and reliable information in a user-friendly format.
- Apply voluntary choice-editing of products to reduce and eliminate high impact consumer products and services.
- Refrain from misleading consumers through giving incomplete, incorrect, non-standardised, non-substantiated and non-verified information about products and services. Ensure instead that claims are clear, comparable and credible for example through ISO-Type I environmental labels such as the EU Ecolabel.
- Eco-design products in order to last, be easy to repair, upgrade recycle and re-use.
- Refrain from strategies which artificially reduce the life-time of products.
- Refrain from "sharewashing", or the claim that any Sharing Economy is automatically sustainable and beneficial to the environment.



### **ENDNOTES**

Pernille Schiellerup and Joana Chiavari (2009): Climate change mitigation and social justice in Europe. An exploration of potential conflicts and synergies, discussion paper, <a href="http://igeat.ulb.ac.be/fileadmin/media/publications/CEDD/Bauler-ClimateChangeAndSocialJustice-kbf.pdf">http://igeat.ulb.ac.be/fileadmin/media/publications/CEDD/Bauler-ClimateChangeAndSocialJustice-kbf.pdf</a>.

Victoria K. Wells, Cerys A. Ponting and Ken Peattie: Behavior and climate change: consumer perceptions and responsibility, Journal of Marketing Management, Vol. 27, Nos. 7-8 July 2011, 808-833

European Commission: The EU strategy on adaptation to climate change – Strengthening Europe's resilience to the impacts of climate change, <a href="http://ec.europa.eu/clima/publications/docs/eu strategy en.pdf">http://ec.europa.eu/clima/publications/docs/eu strategy en.pdf</a>

http://www.beuc.eu/publications/beuc-x-2014-

060 sma sustainable consumption and production.pdf

United Nations Environment Programme: The Emissions Gap Report 2014, <a href="http://www.unep.org/publications/ebooks/emissionsgapreport2014/portals/50268/pdf/EGR2014">http://www.unep.org/publications/ebooks/emissionsgapreport2014/portals/50268/pdf/EGR2014</a> EXECUTIVE SUMMARY.pdf

Communication from the European Commission: The Paris Protocol – A blueprint for tackling global climate change beyond 2020, Chapter 3.2 on p.7, <a href="http://ec.europa.eu/priorities/energy-union/docs/paris-en.pdf">http://ec.europa.eu/priorities/energy-union/docs/paris-en.pdf</a>

While the EU target of cutting greenhouse gas emissions 40% by 2030 compared to 1990 levels is binding, this target has to be delivered collectively with reductions in ETS sectors of 43% and in non-ETS sectors by 30%. To break down the target to Member State level, the methodology of the existing Effort Sharing Decision will be used until 2030. In addition, a binding target for the EU of at least 27% for the share of renewables has been decided which has to be achieved collectively without specifying which Member State has to contribute how much. Moreover an indicative target of at least 27% improvements in energy efficiency has been set. This target is only indicative and not binding, neither for the EU as a whole nor for individual Member States.

See European Council Conclusions, 23-24 October 2014, EUCO 169/14, http://www.consilium.europa.eu/uedocs/cms Data/docs/pressdata/en/ec/145397.pdf

POLITICO reports on 28 August 2015 that the Secretary General of the Commission has drafted a note to Member States to discuss in autumn 2015 the details on how to set up national energy and climate plans for 2030. The discussion is linked on how to set up the governance system for the EU's Energy Union. The document stated that the EU's governance system will not override each country's right to set up its own climate and energy policies according to their circumstances. POLITICO, ProMorning energy, <a href="http://www.politico.eu/newsletter/morning-energy-europe/politico-pros-morning-energy-governing-the-energy-union-building-balkan-bridges-uk-renewable-gloom/">http://www.politico.eu/newsletter/morning-energy-europe/politico-pros-morning-energy-governing-the-energy-union-building-balkan-bridges-uk-renewable-gloom/</a>

See Consumers International/ BEUC (2009): Policy Position on climate change and emissions trading scheme, <a href="http://www.consumersinternational.org/media/326657/emissionstrading-beuc.pdf">http://www.consumersinternational.org/media/326657/emissionstrading-beuc.pdf</a>.

Consumers International and BEUC: Policy position on climate change and emissions trading schemes, (2009): Policy Position on climate change and emissions trading scheme, <a href="http://www.consumersinternational.org/media/326657/emissionstrading-beuc.pdf">http://www.consumersinternational.org/media/326657/emissionstrading-beuc.pdf</a>.

Jorgen Knud Henningsen: The Emission Trading Scheme reform: will the Commission's proposal save the system?, : European Policy Center, Policy Brief, 29 May 2015, http://www.epc.eu/documents/uploads/pub 5625 the emission trading scheme reform.pdf

The 2009 reform provides for a more harmonised approach at EU level. The main changes are a single EU-wide cap rather than national ones. Free allocation of allowances has been replaced partly by a system of auctioning and for the remaining free allowances harmonised rules apply. Moreover, some more sectors and climate gases have been included and 300 million allowances have been set aside to fund the deployment of innovative renewalbe energy technologies as well as carbon capture and storage.

See: <a href="http://ec.europa.eu/clima/policies/ets/index\_en.htm">http://ec.europa.eu/clima/policies/ets/index\_en.htm</a>

- Jorgen Knud Henningsen: The Emission Trading Scheme reform: will the Commission's proposal save the system?, : European Policy Center, Policy Brief, 29 May 2015, <a href="http://www.epc.eu/documents/uploads/pub">http://www.epc.eu/documents/uploads/pub</a> 5625 the emission trading scheme reform.pdf
- Proposal for a Directive amending Directive 2003/87/EC to enhance cost-effective emission reductions and low-carbon investment.
- <sup>15</sup> For more information on BEUC's position against an including of transport into the ETS



see: <a href="http://www.beuc.eu/publications/beuc-x-2014-">http://www.beuc.eu/publications/beuc-x-2014-</a>

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- The Kyoto Protocol foresees two offsetting mechanisms: 1) Clean Development Mechanism (CDM) Projects that are implemented in developing countries which do not have commitments under the Kyoto Protocol and 2) Joint Implementation (JI) projects located in countries with commitments under the Kyoto Protocol. Both seeks to achieve emission reductions in the most cost efficient way as for the climate it is irrelevant in which geographic location reductions are achieved.
- Anja Kollmuss, Lambert Schneider and Vladyslav Zhezherin: Has Joint Implementation reduced GHG emissions? Lessons learned for the design of carbon market mechanisms, Stockholm Environment Institute, 24 August 2015, <a href="http://www.sei-international.org/news-and-media/3196">http://www.sei-international.org/news-and-media/3196</a>; Policy Brief: <a href="http://www.sei-international.org/mediamanager/documents/Publications/Climate/SEI-PB-2015-JI-environmental-integrity.pdf">http://www.sei-international.org/mediamanager/documents/Publications/Climate/SEI-WP-2015-07-JI-lessons-for-carbon-mechs.pdf</a>
- Lambert Schneider und Anja Kollmuss: Perverse effects of carbon markets on HFC-23 and SF<sub>6</sub> abatement projects in Russia. In: Nature Climate Change, published on 24 August 2015, <a href="http://www.nature.com/nclimate/journal/vaop/ncurrent/full/nclimate2772.html">http://www.nature.com/nclimate/journal/vaop/ncurrent/full/nclimate2772.html</a>
- Kalina Oroschakoff: Bogus carbon offsets increased emissions, POLITICO, 25 August 2015, <a href="http://www.politico.eu/article/bogus-carbon-offsets-emissions-greenhouse-gas-pollution/">http://www.politico.eu/article/bogus-carbon-offsets-emissions-greenhouse-gas-pollution/</a>

http://www.sei-international.org/news-and-media/3196;

- Guntram B. Wolff and Georg Zachmann (2015): European Climate Finance: Securing the best return, Bruegel Policy Brief, September 2015, http://bruegel.org/2015/09/european-climate-finance-securing-the-best-return/
- Leaked Council note "Draft Council conclusions on the preparations for the 21st session of the Conference of the Parties (COP 21) to the United Nations Framework Convention on Climate Change (UNFCCC) and the 11th session of the Meeting of the Parties to the Kyoto Protokoll (CMP 11)", Brussels, 14 September 2015, <a href="http://g8fip1kplyr33r3krz5b97d1.wpengine.netdna-cdn.com/wp-content/uploads/2015/09/09">http://g8fip1kplyr33r3krz5b97d1.wpengine.netdna-cdn.com/wp-content/uploads/2015/09/09</a> 15-ENVI-conclusions-.pdf.
- http://bruegel.org/2015/09/european-climate-finance-securing-the-best-return/

Fair Finance Guide International, <a href="http://fairfinanceguide.org">http://fairfinanceguide.org</a>.

Irresponsible investments - a study of Swedish banks' investments in companies linked to human rights abuses,

http://fairfinanceguide.org/media/60772/irresponsible-investments-report.pdf

- Opinion of the European Economic and Social Committee on The Paris Protocol A blueprint for tackling global climate change beyond 2020 COM(2015) 81 final, Adopted on 2 July 2015, rapporteur: Lutz Ribbe,
  - http://www.eesc.europa.eu/ceslink/resources/docs/eesc-2015-00580-00-00-ac-tra-en.pdf
- http://www.covenantofmayors.eu/index\_en.html

http://www.rescoop.eu

This chapter is largely based on input that BEUC has given in 2014 to the EU High Level Platform on Resource Efficiency which had a dedicated working group on giving incentives to consumers to adopt more resource efficient lifestyles. For more information on the work of the platform see:

http://ec.europa.eu/environment/resource efficiency/re platform/index en.htm

- AccountAbility & Consumers International (2007): What Assures Consumers on climate Change? Switching on Citizen Power. <a href="http://www.consumersinternational.org/media/179823/what%20assures%20consumers%20gfsr.pdf">http://www.consumersinternational.org/media/179823/what%20assures%20consumers%20gfsr.pdf</a>
- Consumers International and BEUC (2009): Policy Framework for Climate change. Climate change from a consumer perspective <a href="http://www.consumersinternational.org/media/397091/ci%20policy%20framework%20for%2">http://www.consumersinternational.org/media/397091/ci%20policy%20framework%20for%2</a> Oclimate%20change.pdf
- Howard Kunreuther & Elke U. Weber: Aiding Decision Making to Reduce the Impacts of Climate Change, Journal of Consumer Policy; Consumer Issues in Law, Economics and Behavioural Sciences, 2014, 37:397–411, see p. 398. Important note: this information based on a survey with 500 respondents relates to a US context.
- Csutora, Mária and Ágnes Zsóska (2011): Maximising the Efficiency of Greenhouse Gas Related Consumer Policy, in: Journal of Consumer Policy 34: 67-90.



- Zundel, Stefan and Immanuel Stieß (2011): Beyond Profitability of Energy-Saving Measures Attitudes Towards Energy Saving, in: Journal of Consumer Policy 34: 91-105.
- http://www.beuc.eu/publications/beuc-x-2015-

069 sma upa beuc position paper durable goods and better legal guarantees.pdf

- The European Economic and Social Committee organised a public hearing "Collaborative or participative consumption: a sustainable model for the 21st century" on 25 September 2013, http://www.eesc.europa.eu/?i=portal.en.events-and-activities-participative-consumption-21st
- One example could be for instance more private car rides with "Ueber" instead of using public transport.
- Howard Kunreuther & Elke U. Weber: Aiding Decision Making to Reduce the Impacts of Climate Change, Journal of Consumer Policy; Consumer Issues in Law, Economics and Behavioural Sciences, 2014, 37:397–411.
- Howard Kunreuther & Elke U. Weber: Aiding Decision Making to Reduce the Impacts of Climate Change, Journal of Consumer Policy; Consumer Issues in Law, Economics and Behavioural Sciences, 2014, 37:397–411, see p. 406.
- Howard Kunreuther & Elke U. Weber: Aiding Decision Making to Reduce the Impacts of Climate Change, Journal of Consumer Policy; Consumer Issues in Law, Economics and Behavioural Sciences, 2014, 37:397–411; see p. 407.
- Howard Kunreuther & Elke U. Weber: Aiding Decision Making to Reduce the Impacts of Climate Change, Journal of Consumer Policy; Consumer Issues in Law, Economics and Behavioural Sciences, 2014, 37:397–411.
- Howard Kunreuther & Elke U. Weber: Aiding Decision Making to Reduce the Impacts of Climate Change, Journal of Consumer Policy; Consumer Issues in Law, Economics and Behavioural Sciences, 2014, 37:397–411, p. 408.
- BEUC (2015): Building a consumer-centric Energy Union, <a href="http://www.beuc.eu/publications/beuc-x-2015-068">http://www.beuc.eu/publications/beuc-x-2015-068</a> mst building a consumer-centric energy union.pdf
- <sup>44</sup> European Environment Agency (2015): Living in a changing climate, http://www.eea.europa.eu/publications/signals-2015, p. 33.
- 45 Upcoming





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