Policy to help citizens improve the energy efficiency of their homes

Policies on energy and climate change should focus much more on how to support responsible behaviour among citizens, since behaviour has to change if Europe is going to become climate-neutral by 2050. Areas for policy include: much higher levels of information and training for citizens'; revisiting the subsidy schemes for energy renovation of houses; creating local energy communities to help citizens change behaviour and to create collective action, and, to use not only carrots but also the whip to motivate the unwilling to take their part of the work of transition.

Introduction to the topic

Reducing the consumption of energy is crucial for the pace of creating net zero emission societies, since the lower the energy demand the earlier the sustainable energy production will be able to cope with it.

Energy renovation of private, collective, and rented housing is key to lowering the total energy demand and to shift away from fossil-based fuels. Eurostat (2021[i]) estimated that in 2019 26% of the final energy consumption in Europe stems from energy use of households, of which only 20% were covered by sustainable energy.

Thus, there is a potential for increased energy efficiency in households, and a very large proportion of this relates to the energy standard of especially older houses.

This potential will not materialise without effective policies. Energy poverty, low level of knowledge and know-how among citizens, and confusing signals, missing feeling of urgency and willingness to implement energy and climate related policies from the side of politicians stand in the way.

This Policy Brief focuses on the policy aspect of energy renovation of houses in Europe. It provides ideas for policy-makers about what they can do to increase the pace and impact of energy renovation of houses in Europe.

Identified challenges

The ECO2 policy seminars in Bulgaria, Denmark, Italy and Greece that were held in May – June 2021 had a special focus on the topic "Improve the home". The following challenges were identified as being urgent.

Citizens may whole-heartedly want to act and to live in a more energy- and climate-compliant fashion. They are, however, hindered **by lack of concrete knowledge** about what to do and what not to do. This seems to especially apply to renovation of houses, since taking the wrong decisions – and even the right decision – may be very costly. This even seems to be a problem for administrators of large apartment buildings.

The **economic ability to renovate is low** among those citizens living in the least energy efficient houses. Energy poverty is already a serious challenge in Europe and this becomes even more challenging when house renovations are called for. This understanding is supported by a mini-survey among 27 users of the ACT4ECO.eu platform, in which only 4 users stated that they could pay for the renovations if they were economically efficient over time. The rest would need economic support.

Citizens seem to feel alone or isolated with their individual challenges. There are many strong indications that creation of local

This project has received funding from European Union's Horizon 2020 research and innovation programme under grant agreement No 784988.

collaboration, for example "energy communities", increases the action level of single citizens considerably. The widespread political tendency to announce the market as the main driver for change unfortunately worsens this challenge, since it ignores the effect of good social connections and local collaboration.

Subsidy systems are seldom designed to embrace the diversity of houses, households, and geographic differences. Furthermore, they are **seldomly targeted to help where the help is mostly needed** and where it provides the largest effect. To this comes the fact that applications often are **complicated** to understand.

The incentives used are most often positive, which leaves it **open for the least willing to not act at all**. The lack of 'the whip' leaves a risk that even the willing ones are discouraged because they seem to have to carry the whole burden.

Policy insights

Across the four countries it was emphasised that there is a **massive need for information, training, professional support, and of awareness creation** for house owners and administrators.

- **Public Service** channels could be forced to provide "less cake-backing competitions and more solid climate know-how to citizens" as it was stated at one seminar.
- **Massive awareness campaigns** should be set up, which focus on providing concrete advice, tools and know-how to the populations.
- **Specialised web-platforms** like ACT4ECO.eu should be invested in, so that all European citizens have easy access to validated, unbiased, non-commercial know-how.
- **Training for building managers** in apartment buildings should be set up. The potential of energy renovation and good management is very big in this sector.
- **Energy action plans of family houses could be delivered for free**. This would result in private renovation investments that pay back, both for the family and for society.
- Provide **direct communication to owners of low-efficiency houses** with information about advisory and economic subsidy options.

Economic subsidies for climate and energy renovation of buildings should be much more targeted to where the need is highest.

- **Abandon first-come-first-served subsidy schemes**. These schemes tend to favour the most resourceful citizens. They do not invest where the gain of the renovation is biggest.
- **Provide specialised subsidy systems for the most inefficient buildings**. This could be done in the form of cheap loans that are paid back when the building is sold. And based upon the energy class of the house and an updated action plan.
- **Design subsidies for apartment buildings**, which relate to the energy standard of the buildings and consider the often-complicated decision processes in e.g. coops.

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- **Base subsidies on a solidarity principle** of giving priority to families suffering from energy poverty or in other ways not being able to finance their house renovation.

Establish programmes that support the **creation of local energy communities**. The effect is well documented, although it may be difficult to measure the performance of the single community. Therefore, programmes should focus on cheap but effective community building and help.

- Provide **local 'green agents'** to support local groups and citizens, and which should also have a community building role.
- Give **mini-funding for local energy communities**, relieving the costs for the most active citizens who take responsibility, invite local citizens etc. Provide them with templates, workflows and professional support to develop local action plans.
- Establish **support secretaries at municipalities** that have the role to help local energy communities to be established and ease the work burden for them – not to steer them.
- Make use of **local citizen participation in decision-making** processes, for example vision workshops, citizen assemblies and participatory budgeting. Understand citizens as political and local collaborators.
- Use **regional development funds** to back up initiatives from local energy communities.

Go beyond the positive incentives and **make use of negative incentives as well**.

- Establish options for **public utilities organisations to manage energy and climate systems in apartment buildings** over a certain size. Such buildings need very high-level management that most often is not possible for building administrators to acquire.
- **Prohibit renting out inefficient houses and apartments** if the house has an energy tag below a certain threshold.
- Make use of policies that **put pressure on the unwilling ones** and spread out the responsibility of action to all.

Methodology for collecting results

The challenges and policy insights presented in this policy brief were collected during national-level policy seminars that were held by each ECO2 partner in May-June 2021. The seminars gathered policy-makers, academia, NGOs (incl. consumer organisations) and businesses and looked into EU level, as well as national and local level policy interventions for improving the impact of policy on consumers' behavior towards increased energy efficiency.

The ECO2 project in a nutshell

ECO2 (Energy Conscious Consumers) is a Horizon2020 funded project. Its main objective is to increase the awareness of EU consumers regarding their energy consumption and ways to improve the energy efficiency of their homes. Since consumers play a key role in the transition towards more sustainable energy use, the project both engages and empowers them by enhancing their knowledge on how to

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consume energy more consciously in their everyday lives.

The main outcome of the ECO2 project is **ACT4ECO,** an interactive online platform available at www.act4eco.eu. It is aimed at motivating energy consumers to explore various solutions in terms of home improvements and implementation of energy-saving best practices.

ECO2 also aims at establishing a dialogue with policy-makers and innovators at national and EU level through policy seminars, to discuss energy efficiency measures available to households and their impact on consumer behaviour.

Project partners

Fonden Teknologirådet – Danish Board of Technology Foundation (DBT), Denmark – Project coordinator

Hebes Intelligence Single Member Private Company (HEBES), Greece

Sinergie Società Consortile a Responsabilità Limitata (SINERGIE), Italy

Helsingin Yliopisto – University of Helsinki (UH), Finland

Associação Portuguesa para a Defesa do Consumidor (DECO), Portugal

Strategic Design Scenarios (SDS), Belgium

Applied Research and Communications Fund (ARC Fund), Bulgaria

Asociacija Žinių Ekonomikos Forumas (KEF), Lithuania

University College Cork, National University of Ireland, Cork (UCC), Ireland

[i] https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Energy_consumption_in_households

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