

Visualizing Energy Data for Diverse Energy Citizenship

This GRETA policy brief seeks to guide local policymakers in creating tailored energy information that addresses individuals' and communities' unique needs regarding energy transition actions. Understanding how our highly intricate energy systems work allows citizens to make informed decisions about their energy usage. Well-designed energy information can shape individual and community perspectives, fostering a greater willingness to embrace energy-saving practices and support policies for sustainable energy use. Visualizing energy data can play a crucial role in this regard. **By introducing eight different energy personas and highlighting corresponding design principles, this policy brief seeks to encourage policymakers to offer audience-specific, visualized energy information empowering diverse groups of people to become more engaged in sustainable energy practices.**



A deeper understanding of intricate energy systems can empower individuals and communities by enabling them to grasp their energy bills, decipher various energy labels and ratings, and make informed decisions regarding energy-efficient appliances, green energy providers, and tariff options. This understanding can also inspire participation in, for example, demand response programs. Informed citizens are more likely to advocate for sustainability policies that resonate with their energy system knowledge and are inclined to actively engage in energy communities.

Energy citizens represent a diverse spectrum of individuals and communities, making it crucial to recognize this heterogeneity. Visualizing energy information by using personas and tailored design principles to convey energy information through mediums like printouts or digital interfaces (e.g., mobile or web-based applications) can prove invaluable. This approach not only helps local policymakers effectively target specific audiences but also fosters inclusive communication, ultimately enhancing energy system comprehension among energy citizens.

This policy brief introduces **eight energy personas and corresponding design principles** to promote diverse and inclusive energy citizenship.¹

THREE CORE PRINCIPLES FOR EFFECTIVE ENERGY COMMUNICATION

1. Energy information should enable easy recognition of the economic, environmental, and social benefits and interconnections associated with green initiatives.
2. Present energy information professionally, allowing users to authenticate information sources to build trust.
3. Facilitate collaboration and information sharing in energy communication, while also illustrating the cumulative impact of actions across various scales: individual, local, national, and global.

1. The GRETA personas were developed based on two small pilot studies and a clustering approach using data from the project's multinational survey (n=10.000) across 16 EU countries.

RECOMMENDATION

Use visualized energy data specifically tailored to the distinct needs of communities to encourage diverse participation in energy transition measures.

FURTHER READING

Kumar, A., Rahman, S. M. T., Wolff, A., Kuronen, T. (2022). Design Principles for Energy Interfaces. D2.4 of the Horizon 2020 project GRETA, EC grant agreement no.101022317, Lappeenranta, Finland. https://projectgreta.eu/wp-content/uploads/2023/09/GRETA_D2.4_Energy-citizen-empowerment-through-energy-data-interactions.pdf

Energy Campaign Quiz
<https://projectgreta.shinyapps.io/greta-analytics/?tab=persona>



1. The Energy Indifferent Audience

Individuals in this demographic don't pay much attention to climate issues and consequently do not place a high priority on climate- and energy related activities in their own life. However, their motivation can be effectively spurred by the dual prospect of cost savings while contributing to the green energy transition.

DESIGN PRINCIPLES

- Clearly identify financial burdens or savings
- Clearly identify environmental benefits or harms
- Clearly identify dependencies between economic, social and environmental aspects of sustainability



2. The Energy Information Sceptics

People aligning with this persona are aware of climate- and energy debates, yet they exhibit scepticism toward public information sources and the perceived impact of their own daily actions on the broader climate and energy landscape.

DESIGN PRINCIPLES

- Only use trusted sources and allow audience to verify information to enhance trust
- Allow space for audience to enter open debate on the energy information presented
- Present data and information in a professional manner
- Show the cumulative effects of actions at different scales – individual, local, national, global



3. The Resource Constrained Audience

People in this group are aware of energy and climate issues but tend to minimize their own impact and rely on science to solve the problem. This demographic likely consists of older individuals living in (rented) apartments with limited disposable income. They hold the belief that their personal contributions are confined to the practice of energy conservation.

DESIGN PRINCIPLES

- Provide citizens with tailored tips on how to support the energy transition without additional financial costs to them
- Provide information about relevant financial subsidies or monetary saving options



4. The Young & Mindful Audience

People in this group are aware of and concerned about energy and climate issues but tend to minimize their own impact due to resource constraints. This demographic likely consists of young individuals living in (rented) apartments with limited disposable income. However, they exhibit environmental concerns and acknowledge the need for energy transition actions. They like to discuss climate and energy issues with friends and family and have the potential to become advocates.

DESIGN PRINCIPLES

- Allow people to share their energy transition experiences through spaces, such as events and initiatives, to inform and motivate others
- Provide information about relevant financial subsidies or monetary saving options



5. The Socially Motivated Audience

People falling within this classification generally display limited environmental awareness, and they tend to hold pessimistic views regarding both institutional and personal engagement in the energy transition. Nonetheless, they may exhibit some interest in joining energy communities, primarily driven by social motivations rather than environmental considerations.

DESIGN PRINCIPLES

- Provide information on collaborative activities emphasizing social and inclusive aspects of green energy transition initiatives
- Emphasize social and environmental benefits of green energy transition actions



6. The High-Income Investors

People in this group have a heightened environmental awareness and are receptive to taking positive actions to contribute to energy transition efforts. However, they tend to place greater emphasis on financial investments rather than dedicating time and effort. They recognize the potential impact of collective efforts and are inclined to participate in energy communities, although they may harbour reservations about the degree of commitment required of them.

DESIGN PRINCIPLES

- Provide actionable insights to contribute to green energy transition actions (in addition to general information)
- Clearly outline different roles people can play in the energy transition according to personal situation, knowledge, skills and resources



7. The Practical Advocates

People within this cluster grasp the importance of embracing climate-friendly and energy-saving practices and are eager to converse about energy-related topics within their social circles. Nevertheless, they tend to exercise caution when considering actions that necessitate substantial financial investments.

DESIGN PRINCIPLES

- Offer information about relevant financial subsidy or monetary savings
- Provide citizens with personalized tips on how to support the energy transition without incurring additional financial costs



8. The Tech-Savvy Advocates

People in this group demonstrate a profound understanding of environmental and climate issues and proactively work towards conserving energy. They trust public information sources and exhibit a heightened interest in exploring emerging sustainable technologies. Their dedication to the energy transition is grounded in a deep sense of justice and equal participation.

DESIGN PRINCIPLES

- Support information sharing and knowledge dissemination through the use of different information & interactive modes of communication
- Allow individuals to participate by directly getting involved in identifying and defining democratic energy transition policies or interventions
- Clearly identify societal benefits or negative impacts of the transition and how these are (equally or unequally) distributed

ABOUT THE PROJECT GRETA

GRETA aims to foster energy citizenship emergence by enhancing awareness and removing policy barriers within the European Union. Its primary objective is to comprehensively investigate the conditions and challenges associated with energy citizenship to derive policy recommendations and policy tools to implement a just and green energy transition, ensuring inclusivity for all. The project focuses on the relationship between energy citizenship behavior and the socio-political context, in which people engage in Green Energy Transition Actions. GRETA particularly highlights the crucial role of policies in facilitating and empowering these activities.

Based on empirical research, the project offers various policy recommendations in a set of six policy briefs to facilitate the engagement of citizens in current energy transition efforts. The empirical research draws on data from a multinational survey with approximately 10,000 participants across 16 EU countries, as well as six case studies conducted in Italy, Spain, Portugal, Germany, and the Netherlands.

FURTHER INFORMATION
projectgreta.eu

