

BETTER ENERGY PLANNING: THIS IS HOW POLICY-MAKERS SHOULD FOSTER CITIZEN PARTICIPATION IN THE ENERGY TRANSITION

Bilbao/Frankfurt am Main, 18.01.2024. The groundbreaking research project "WHY," successfully delivered its policy recommendations in a collaborative effort, developing a revolutionary causal model to analyze individuals' day-to-day decisions when using energy at home. The project aims to enhance understanding and predict reactions to changes in the energy market, such as tariff adjustments, new taxes, rebates, and energy efficient buildings.



The WHY project, comprising a diverse team of researchers from across Europe, harnessed its innovative causal model and a newly developed Toolkit to improve various aspects of energy planning. The tools developed as part of this project have proven instrumental in advancing:

- **Assessment of Household Electricity Consumption Trends:** The project has provided a more accurate understanding of household electricity consumption trends, moving beyond standardized load profiles to embrace the diversity of real people's energy usage patterns.
- **Knowledge of User Behavior for Energy Planning:** The causal model has contributed significantly to advancing the knowledge of user behavior, enabling more realistic and applicable simulations.
- **Operation and Planning of the Energy Distribution System:** The project's tools have been implemented to enhance the operation and planning of the energy distribution system, leading to increased efficiency and a more sustainable energy landscape.

The WHY Project

why-h2020.eu



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Key Findings and Recommendations:

The WHY project has yielded insightful findings that challenge conventional wisdom in the energy sector. The project recommends the following key principles for a more effective and user-centric approach to energy management:

Embrace Diversity: Standardized load profiles do not accurately represent real people. The project advocates for a more nuanced understanding of individual energy usage patterns and changing planning routines from using standardised consumption values for residential consumers when assessing cities or municipalities. The German city of Maintal new neighbourhood concept is already built on our results. The use case indicated that standardised consumption behaviour overestimated the energy demand for heating by 7.5% over the entire district.

Simplicity and Clarity is Key: Time of use tariffs are easier for individuals to follow, allowing for better organization of tasks at home and a more significant impact on reducing energy consumption. The price differences between energy tariff periods should be substantial enough to provide a clear incentive for individuals to alter their behavior.

Social Values Should Be Prominent in Decision Making: Integrating social values into messaging, emphasizing the positive impact of technologies on community support and engagement, leads to improved living conditions. Special provisions in the tariff system should be implemented to assist families and individuals at risk of poverty, reducing the impact of energy-related changes on their lives. Actions to increase the competencies of all the stakeholders when designing policy measures to foster the adoption of certain technologies are absolutely necessary for a successful energy transition.

Our results also prove that providing messages that **relate the technologies with social values** like the support to the community will lead to the improvement of living conditions and community engagement.

These findings and more detailed recommendations for local and EU policy makers will be unveiled at the online final event on January 19th, marking the culmination of the WHY project's research efforts. The event promises to be a platform for sharing insights, fostering collaboration, and charting a new course for a more sustainable and user-friendly energy future.

For more information about the policy recommendations and to attend the online final event, please visit why-h2020.eu or contact:

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THE WHY PROJECT

The WHY project is a European research initiative funded by the European Union's Horizon 2020 programme. The project aims to revolutionize energy decision-making by developing a causal model to analyze individuals' day-to-day energy usage decisions and enhance understanding of reactions to



changes in the energy market. The project brings together a diverse team of experts from across Europe to contribute to the advancement of energy management and sustainability.. why-h2020.eu

