

Smart energy Denmark. A consistent and detailed strategy for a fully decarbonized society- ScienceDirect Smart energy Denmark. A consistent and detailed strategy for a fully decarbonized society A strategy for a fully decarbonized Danish society in 2045. The inclusion of international shipping and aviation in a country strategy.

What is smart energy Denmark 2045?

The making of Smart Energy Denmark 2045 was based on a similar but more limited working process involving experts in different technical areas in a back-and-forth dialogue with energy systems modelling of the role of individual technologies into an overall solution.

What is smart energy systems?

As explained in Ref. ,the core idea of the Smart Energy Systems approach is to identify potential synergies between sub-sectors. The hypothesis is that the most effective and least-costly solutions are to be found in combining the sub-sectors with one another,utilising not only electricity grids,but also heating,cooling and gas grids.

Should biomass emissions be included in Smart Energy Denmark 2045?

Biomass emissions are part of the LULUCF sector,i.e.,Land Use,Land Use Change and Forestry. In the Smart Energy Denmark 2045 scenario,not only domestic transport should be included. To achieve a fully decarbonized society,Denmark would have to include the Danish share of international shipping and aviation.

Can Denmark achieve a fully decarbonized energy system in 2045?

A Smart Energy Systems approach modelled by EnergyPLAN. Detailed calculations of different elements of the strategy in 2030 and 2045. This paper presents a strategy for achieving a fully decarbonized Danish energy system (including transport and industry) in 2045. The strategy could also be relevant for most countries at a global level.

Will Denmark exchange electricity with neighbouring countries in 2045?

In both 2030 and 2045, the Smart Energy Denmark scenario will exchange electricity with neighbouring

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countries based on the principle of mutual benefits, e.g., by providing electricity from wind power to Norway to reduce the use of water in the relatively large dammed hydro power capacity in Norway.



We look forward to welcoming researchers and experts from industry and business to the 11th International Conference on Smart Energy Systems in Copenhagen in 2025. The Call for abstracts will be announced in January 2025.



Smart home technology adoption in Denmark: Diusion, social dierences, and energy consumption Anders Rhiger Hansen? Gianluca Trotta? Kirsten Gram???Hanssen Received: 5 October 2023 / ???



The energy system analysis includes hour-by-hour computer simulations leading to the design of a Smart Energy System with the ability to balance all sectors of the complete energy system. In ???

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. grids in Denmark DTU Orbit (10/03/2019) Smart homes in transition Investigating the role of households in the development of smart grids in Denmark Increasingly over the last decade, the "smart grid" has been highlighted in ???



Thank you for attending SESAAU2024 ??? the 10th edition of the Smart Energy Systems Conference in Aalborg and online. We look forward to welcoming researchers and experts from industry and business to the 11th International ???

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energy sector states that "flexible electricity consumption" is the main purpose of the smart grid in Denmark (Schick and Gad 2015). Denmark has invested considerably in the Smart Grid: a ???