

CONSUMER SURVEY OF ENERGY CONSUMPTION IN THE HOUSEHOLD

By Kamilla Hjort Christensen, Kimmie Stigaard Hansen og Lærke Skov Jensen

Households' energy consumption is frequently discussed by the media and in politics worldwide. This is due to human influence on climate change. To investigate households' energy consumption the project research consumer behaviour and changes towards reducing energy consumption and the use of washing machines.

With 1157 respondents for an online questionnaire the similarities and differences between how the consumers identify themselves and their actual behaviour are analyzed. This is to test curtailment behavior theories. The analysis shows a difference between environmental values and actual behaviour, which indicates that there is a value action gap. To minimize the value action-gap the consumers' behaviour needs to change. To do so the consumers need to be motivated. According to the findings, one-third is mainly motivated by economic incentives, which makes monetary benefits the most motivating factor. To change consumer behaviour there is a need for clear communication. This is to gain knowledge for the consumers since they need to be aware of how and why to change their behaviour. Together with the right incentives, this can lead to change. The findings show that when motivating change in consumer behaviour, it is crucial to define what motivates the wanted segment to change. This way the change will happen easier and might lead to a crowd out or spillover effect.

NUCLEAR POWER AS A DANISH ENERGY ALTERNATIVE – *An inquiry into the implementation possibilities and barriers of nuclear power in the Danish energy industry*

By Lasse Lauridsen & Trine Schultz

The 2050 Danish energy plan for fossil fuel independence relies heavily on renewable energy from wind, which suffers from intermittency issues, limiting their production capabilities and necessitating a need for a supplementary energy source. The study explores how Danish youth, as of 2020, perceive nuclear energy, and how they might affect a future implementation of nuclear energy, with the aim of clarifying a potential alternative energy source that could address the challenges related to establishing a sustainable society. The study expands upon previously established research regarding social dimensions within nuclear implementation, by constructing an acceptability framework based on traditional acceptability measurements, while also accounting for relative attitudes with the intent of investigating nuclear energy as a conventional energy substitute. A deductive quantitative method is applied, in which a self-administered, Internet-mediated questionnaire was utilized. The study observes through empirical evidence that the main influencing elements on acceptability are the perceptions of risks and benefits. The significant identified risks all share the common characteristic of safety, wherefore the study identifies safety as a key element for the acceptability of nuclear energy implementation. The interpretation of the benefit dimension indicates that a narrative reframing of nuclear should have a foundation in the green energy transition and account for the environmental benefits of the technology, as well as the inherent stability of nuclear energy. The findings suggest that the Danish youth would not necessarily be opposed to nuclear power and a reframing strategy built upon technical factualities would be too simplistic. As such, introducing nuclear through open discussions and public engagement to enhance public trust and establishing foundations for nuclear considerations in the societal mindset is proposed. The study does not suppose to definitively conclude that other secondary backup sources cannot be functionally utilized, but the potential of a compact molten salt reactor should be included in strategic considerations. The implications of the nuclear supply chain concerning Danish nuclear energy implementation, poses an opportunity for further investigation.

AT FREMME BRUGEN AF KOLLEKETIV TRANSPORT

By Siw Ellen Nielsen, & Line Hummelshøj Christensen

This study examines the consumer preference for means of transportation when travel back and forth between home and work or education institutions in the municipality of Esbjerg, based on literature review, theory and a survey. The study also examines why a major part of the citizens of the municipality of Esbjerg use fossil fuel vehicles as their primary means of transportation, instead of using greener alternatives such as public transportation. The study concluded that the citizens of the municipality of Esbjerg finds travel time, reliability and safety unsatisfying when using public transportation, which means that the basic qualities according to the Pyramid of Customer Needs has not been met. Therefore, we suggest the municipality of Esbjerg focus on improving these conditions through e.g.: infrastructure

development, in order to improve travel time, and electronic information boards, in order to improve safety and reliability. Besides, the study finds that the probability of the citizens using public transportation in the future, amongst others, depends on: sustainability, safety, information accessibility regarding departures and delays, and investments in infrastructure. Moreover, there must be more frequent departures and more transverse connections in the form of e.g. a commuter train that passes through Ribe, Varde and Esbjerg. Additionally, the study shows a connection between distance to the nearest bus stop or train station and primary means of transport. Therefore, we suggest that the municipality of Esbjerg improve the infrastructure by creating more bus stops. Finally, the study shows that the citizens of the municipality of Esbjerg find the ticket prices too high, which is why lower ticket prices would likely have a significant effect on the use of public transportation. In addition to this, the study shows that parking fees for vehicles would increase the use of public transportation. The citizens seem to be very price sensitive in accordance to primary means of transport. Based on this price sensitiveness, implementation of price regulations is suggested, in order for the municipality to increase the use of public transportation.

SOCIAL ACCEPT AF VINDMØLLEPROJEKTET I TØNDER KOMMUNE

By Lea Melanie Nielsen & Rikke Schultz Sørensen

The purpose of this report is to investigate how to improve the social acceptability, of the onshore wind energy in Tønder Commune. This will be done by applying the VESPA frame work and the theory about the NIMBY-effect to a specific case. The report is exploring the problem through an online survey and an interview with one the main stakeholders of the development. From the survey and interview it can be concluded that all four aspects of the VESPA framework play an important role, when improving the social acceptance, both the visual/landscape, the environmental, the socioeconomic and also the procedural aspect. There are some important parameters to take into account when improving the social acceptability. It is especially important to inform the locals, it is important that the project is transparent and the locals have trust in the developers.

Furthermore, it is important to have substantial financial initiatives. The main conclusion is that it plays a major role to change the discourse so that it becomes clear to the locals that the wind turbine project is not necessarily established in need of green energy, but instead it is built because of the large capital injection it is creating in the local area.