



UiO : University of Oslo



How can the transformation to a low carbon society become socially inclusive?

Glimpses from Include

Tanja Winther, Prof. and Head of Include
Climate seminar, Oslo, 16th September 2024

INCLUDE THEMATIC OVERVIEW

WORK PACKAGE



Energy Systems
in Transition



Energy Spaces
and Flows



Municipalities as
Change Agents



Interventions



Learning
Across Borders



Synthesis,
Education and
Communication

Fair access to
energy

Urban and
regional
development

Institutionali-
sation of
climate
policies

Development
of practices
and tools

Transformative
policies at the
municipal level
in the UK

Synthesis and
working across

Energy
systems,
Electrification
and
Diversification

Planning,
Design, and
Housing

Involving the
local
community

Citizenship
and education
for sustainable
development

Education

Multi-level
governance
and Norwegian
EU integration

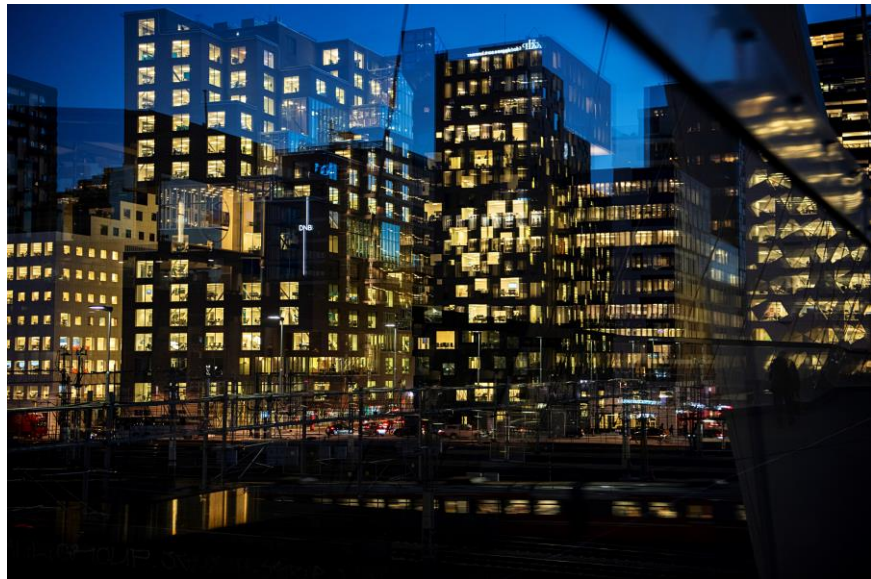
Consumption
and Re-use

Multi-level
governance

Communi-
cation

THEMES

Energy consumption matters



73%

of global emissions
come from energy
consumption

[World Resources Institute](#)

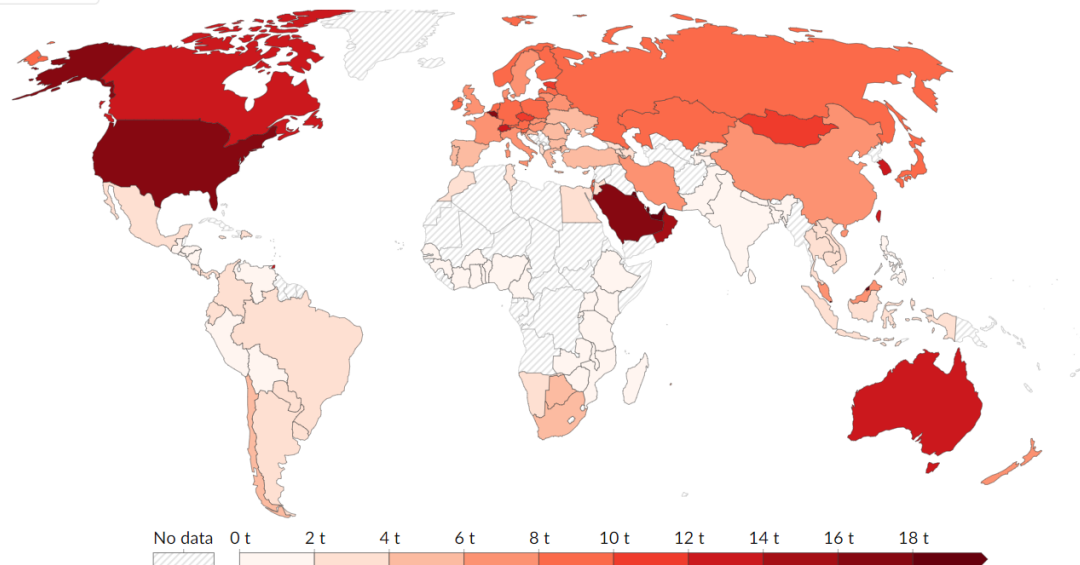
The global energy dilemma: a need for less and more



Per capita consumption-based CO₂ emissions, 2021

Consumption-based emissions are national emissions that have been adjusted for trade. It's production-based emissions minus emissions embedded in exports, plus emissions embedded in imports.

Table Map Chart



Play time-lapse

1990

Data source: Global Carbon Budget (2023); Population based on various sources (2023) - [Learn more about this data](#)
OurWorldInData.org/co2-and-greenhouse-gas-emissions | CC BY

Download

Share

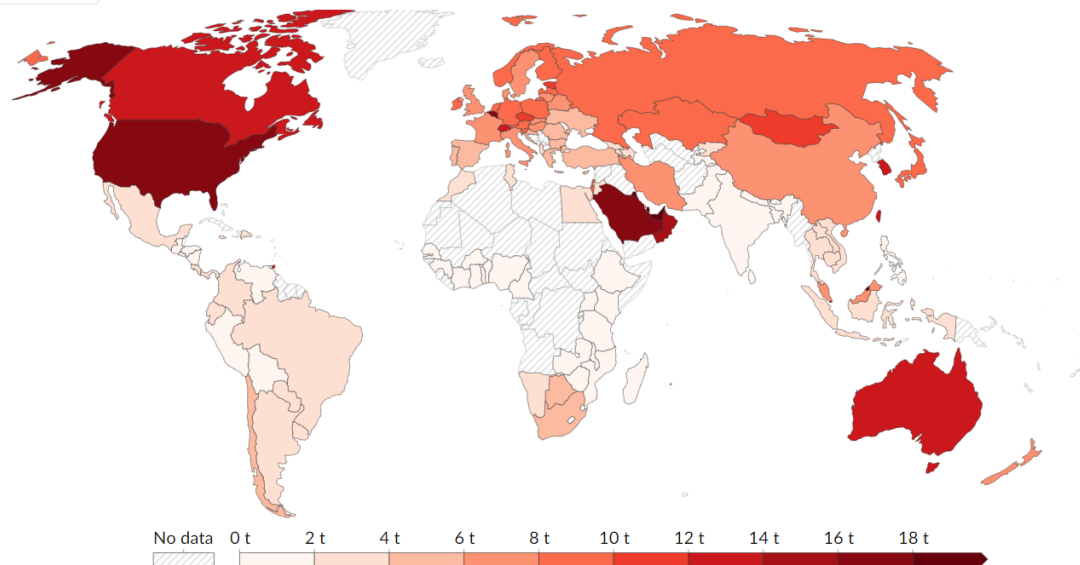
The double burden faced by indigenous groups etc



Per capita consumption-based CO₂ emissions, 2021

Consumption-based emissions are national emissions that have been adjusted for trade. It's production-based emissions minus emissions embedded in exports, plus emissions embedded in imports.

Table Map Chart



Play time-lapse

1990

Data source: Global Carbon Budget (2023); Population based on various sources (2023) - [Learn more about this data](#)
OurWorldInData.org/co2-and-greenhouse-gas-emissions | CC BY

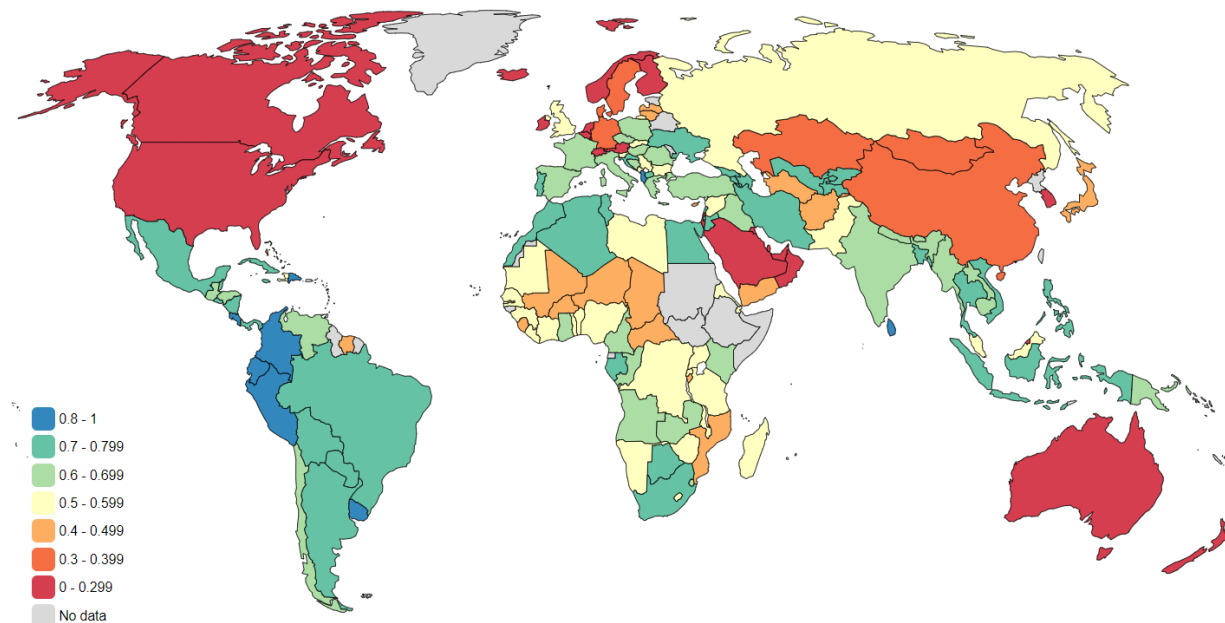
Download

Share

The Sustainable Development Index (SDI) measures the ecological efficiency of human development, recognizing that development must be achieved within planetary boundaries. It was created to update the Human Development Index (HDI) for the ecological realities of the Anthropocene.

The SDI starts with each nation's human development score (life expectancy, education and income) and divides it by their ecological overshoot: the extent to which consumption-based CO2 emissions and material footprint exceed fair shares of planetary boundaries. Countries that achieve relatively high human development while remaining within or near planetary boundaries rise to the top.

SDI results for 2022 can be found in the map and table below. While some countries score reasonably well, none reach over 0.9. Results for 1990-2022 can be found on the [time series page](#). Disaggregated data can be viewed on the [bubble charts page](#). To receive updates and new data releases as they become available, please [sign up here](#).



Rettferdighet avgjørende for vilje til klimaomstilling

Publisert 22. august 2023



Opplevd rettferdighet er en av de viktigste faktorene for folks aksept og vilje til å bidra i klimaomstillingen, ifølge FNs klimapanel. Vår gjennomgang viser at det er store forskjeller i klimafotavtrykkene til norske husholdninger.

<https://www.framtiden.no/artikler/rettferdighet-avgjoerende-for-vilje-til-klimaomstilling>

Outline



- Warm up exercise: What do we need energy for?
- Habits vs conscious choices
- Why socially inclusive energy transition?
- Empirical examples (energy poverty, flexible electricity consumers)



Warm up exercise



Join at menti.com | use code **2899 0969**



Social practices along a scale

Routinised behaviour (habits)

Brushing one's teeth
(part of personal hygiene practice,
consuming toothpaste and water
Indirect energy, fuel water pump)

HABIT - a particular form of practice

- not deploying cognition or reflexivity
- formed through the embodiment of knowledge through recurrent practices

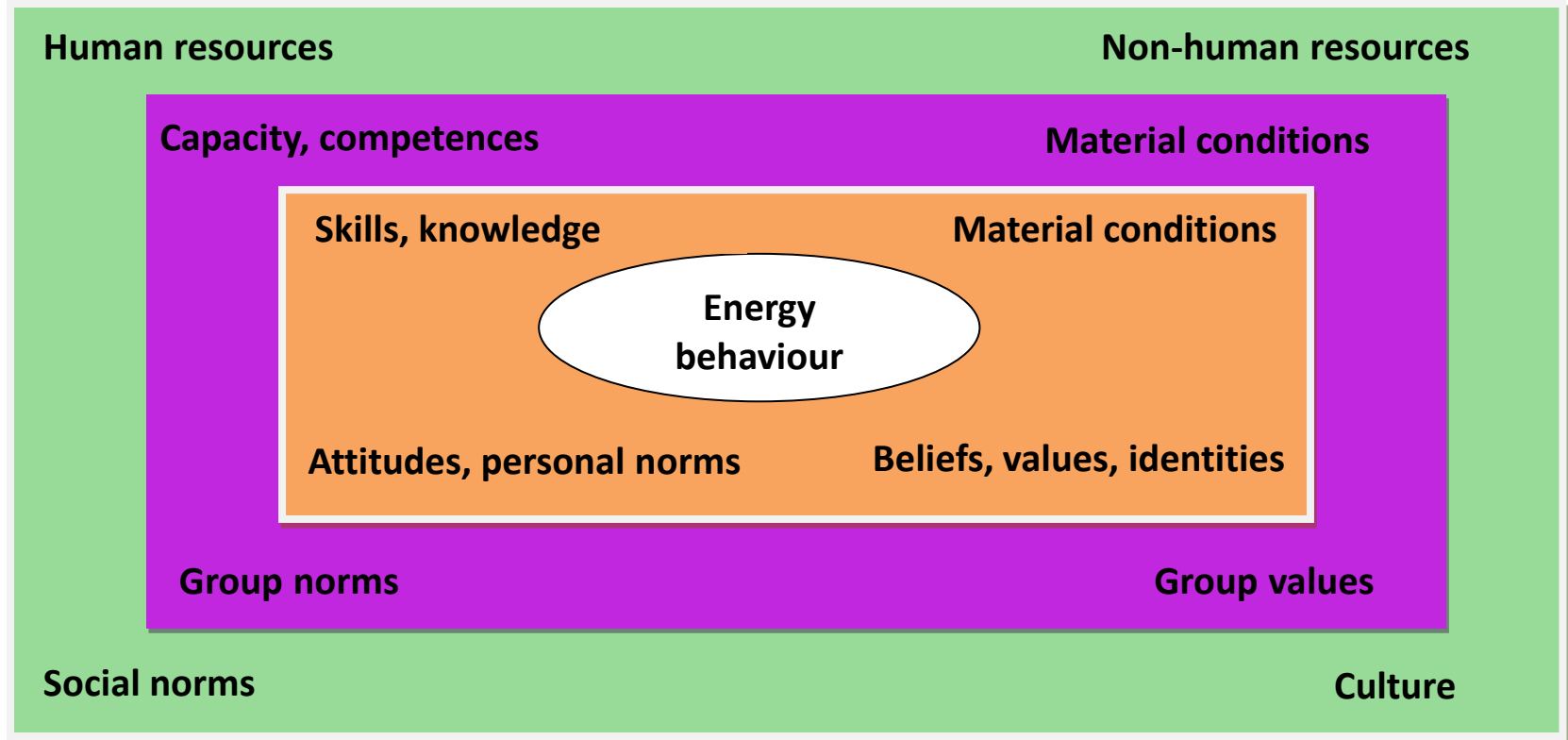
Intended actions

- Deciding to join a political party
- Acquiring solar panel on one's roof
- Acquiring electricity connection at home

Ortner 2006: Anthropology and Social Theory: Culture, Power, and the Acting Subject
Wilhite 2012: Towards a better accounting of the roles of body, things and routines in consumption, in Habits of consumption, Warde and Southerton

Addressing fields of rationality – a policy for reducing household energy consumption?

H. Westskog, T. Winther & E. Strumse: In Markandya, Galarraga and González-Eguino: Handbook of Sustainable Energy, 2011. Edward Elgar Publishing Ltd



Why focus on socially inclusive energy transition?



- Environmental urgencies
- Social movements/acceptance
- Energy justice
 - What? Distributional justice
 - Who? Recognitional justice
 - How? Procedural justice



Vi som krever billigere strøm

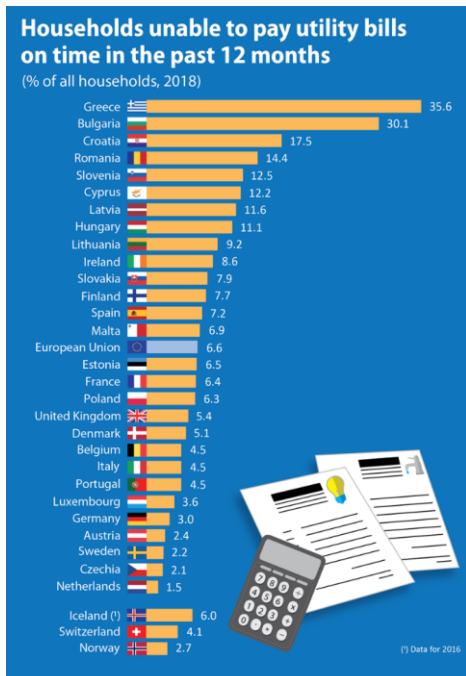
Offentlig gruppe · 617,8 k medlemmer

Bli medlem



Empirical example: energy poverty

- interconnections between health, energy and inequalities



ec.europa.eu/eurostat

<https://ec.europa.eu/eurostat/en/web/products-eurostat-news/-/ddn-20200120-1>

Energy poverty occurs when energy bills represent a high percentage of consumers' income, or when they must reduce their household's energy consumption to a degree that negatively impacts their health and well-being

Energy poverty not on the Norwegian policy agenda



**STORE
NORSKE
LEKSIKON**

Søk i Store norske leksikon

LOGG INN

energifattigdom

Store norske leksikon / Samfunn / Samfunnsfag / Samfunnsgeografi

Energifattigdom i utviklingsland

- Hvem rammes av energifattigdom?
- Konsekvenser av å leve i energifattigdom
- Hvordan måle energifattigdom?

Energifattigdom i rikere land

- Hvordan måle energifattigdom?
- Hvem rammes av energifattigdom?
- Utbredelse av energifattigdom i Europa
- Konsekvenser av å leve i energifattigdom

Les mer i Store norske leksikon

Energifattigdom er at mennesker ikke får dekket sine behov for energibruk i hverdagen. Dette kan være knyttet til å måtte leve med ukomfortable innnetemperaturer eller å bli hindret i å gjøre andre nødvendige aktiviteter som innebærer bruk av energi. Sosioøkonomiske forhold spiller en viktig rolle med hensyn til hvem som rammes av energifattigdom, men andre faktorer har også betydning. Energifattigdom er særlig viktig fordi energi er et grunnleggende behov for alle.

OGSÅ KJENT SOM engelsk *energy poverty*

Forskningen på energifattigdom i utviklingsland har pågått i flere tiår, for eksempel innen fagretningene statsvitenskap, samfunnsgeografi, utviklingsstudier og sosialantropologi. Her knyttes energifattigdom enten til at husholdninger mangler tilgang til elektrisk strøm eller at de ikke har mulighet til å lage mat ved hjelp av annen teknologi enn åpen ild. Fortsatt mangler 13 prosent av verdens befolkning tilgang til strøm, og FNs bærekraftsmål nummer 7 har som ambisjon å sikre tilgang for alle innen 2030.



Energifattigdom er det at en person ikke får dekket sine behov til energibruk. I Norge og andre rike land er dette først og fremst knyttet til å måtte leve med ukomfortabel innnetemperatur. Energifattigdom rammer i stor grad eldre mennesker.

Energifattigdom
Av Include-senteret.
Lisens: Begrenset gjenbruk

I buy less food. [...] I prioritise my spending, so as to [appear to] have a normal life, as a normally functioning person just like everyone else...

Female 38 years old



Energy poverty exists in Oslo



- Income: pension/social support
- Eat less food during winter months
- Inadequate heating, physical pain
- Chronic illness: extra vulnerable
- Stay in bed during daytime
- Don't receive visitors
- Social isolation, stigmatisation

Addressed by policy

- Social security sector
- (Not energy sector)

T.L. Bredvold & T.H.J. Inderberg(2022): Shockingly cold and electricity-dependent in a rich context: Energy poor households in Norway. Energy Research & Social Science

A closer look at electricity in Norway



- How do people perceive electricity?
- Who are the 'flexible' end-users?
- High electricity prices: a window of opportunity for more socially just pricing of electricity?



Group 1

Group 2



Electricity as a
commodity

Electricity as a
common good

M. Sagoff 1988: The economy of the earth

*Westskog H. and Winther T. 2014: Electricity consumption: should there be a limit?
Implications of people's attitudes for the forming of sustainable energy policies.
Consilience: The Journal of Sustainable Development*

Group 1

The market will handle scarcity and environmental costs



Moderator: Do you think that people can use as much electricity they like as long as they pay for it?

4|Lars: Yes, and if nature is harmed, the prices will increase. Then you can't afford it, and that's how the system works.

Moderator (to the whole group): Do you think the price will increase if the environment is harmed?

8|Helge: Yes

Others: Yes

2|Kenneth: I think that the price should encourage people to save.

Group 2

Scarcity triggers discussion about moral limit for consumption

I become a bit irritated when I see these people who build cabins of more than 500m², who keep on the heat everywhere. Am I supposed to save while they... I think it is almost a shame.
If everybody is to save, then everybody has to contribute.

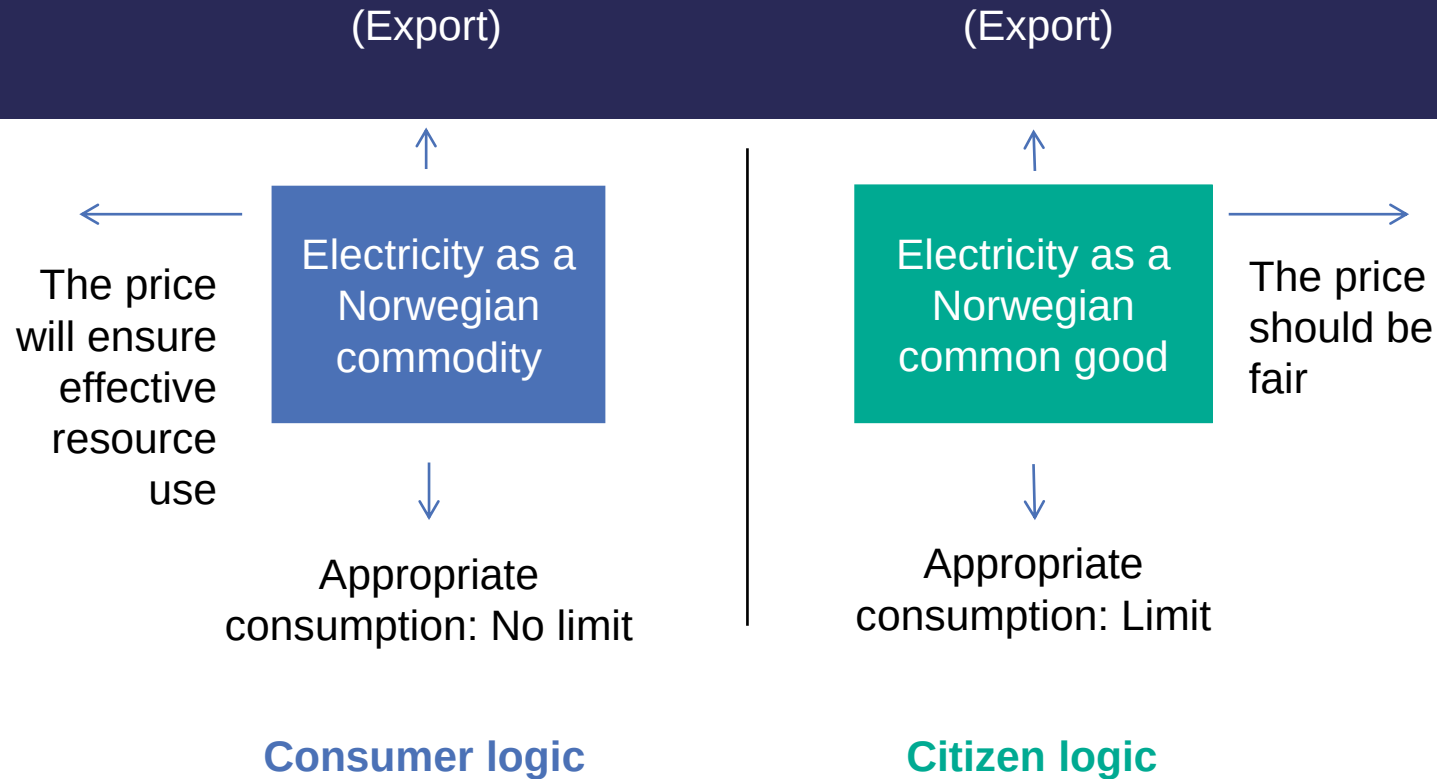


5/Inga, Focus group 5, Oslo

I am not a communist, but when it comes to electricity,
I am a kind of communist. This is a national matter in my
eyes. It is ours. The rivers that we destroyed are ours.
It was we who built the dams.



1/Nikolai, Focus group 8, Kirkenes, 2009



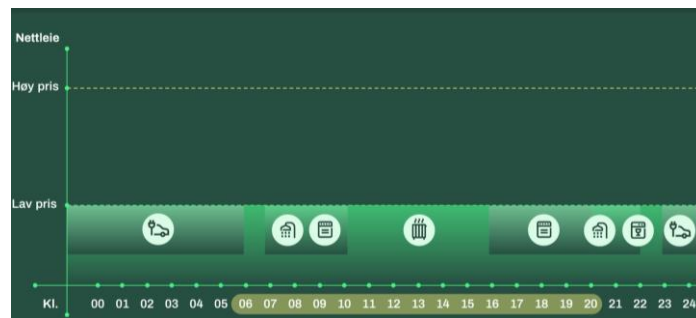
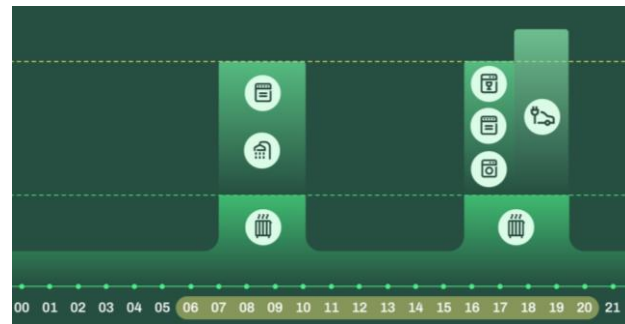
2020: Less than 20% of Norwegians think it is ok to consume as much electricity as you like as long as you pay for it. *Hanne Sæle and Marianne Aasen: Ny nettleiemodell for norske husholdninger, SINTEF Rapport 2021:01468*

Who are the 'flexible' electricity users?



Dynamic grid tariffs introduced 1st July 2022, Norway

- Monthly capacity fee based on max-hour consumption
- Consumption per unit, time-of-use prices



What kind of households can tap the benefits of changed grid tariffs (day-night prices)?



Interviewees

- 'The wealthy'
- 'People knowledgeable in smart technology'
- 'People with a flexible schedule'

Analysis

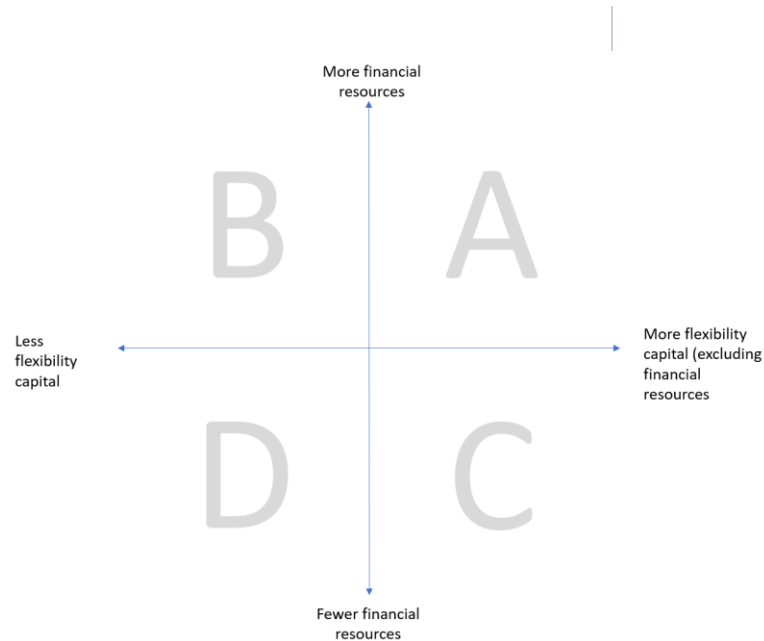
- People with financial resources
- Access to 'smart' technology
- Flexible time management
- Already have a habit of monitoring consumption
- Have the possibility/interest in modifying consumption



Who have flexibility capital? (Powells og Fell 2019)

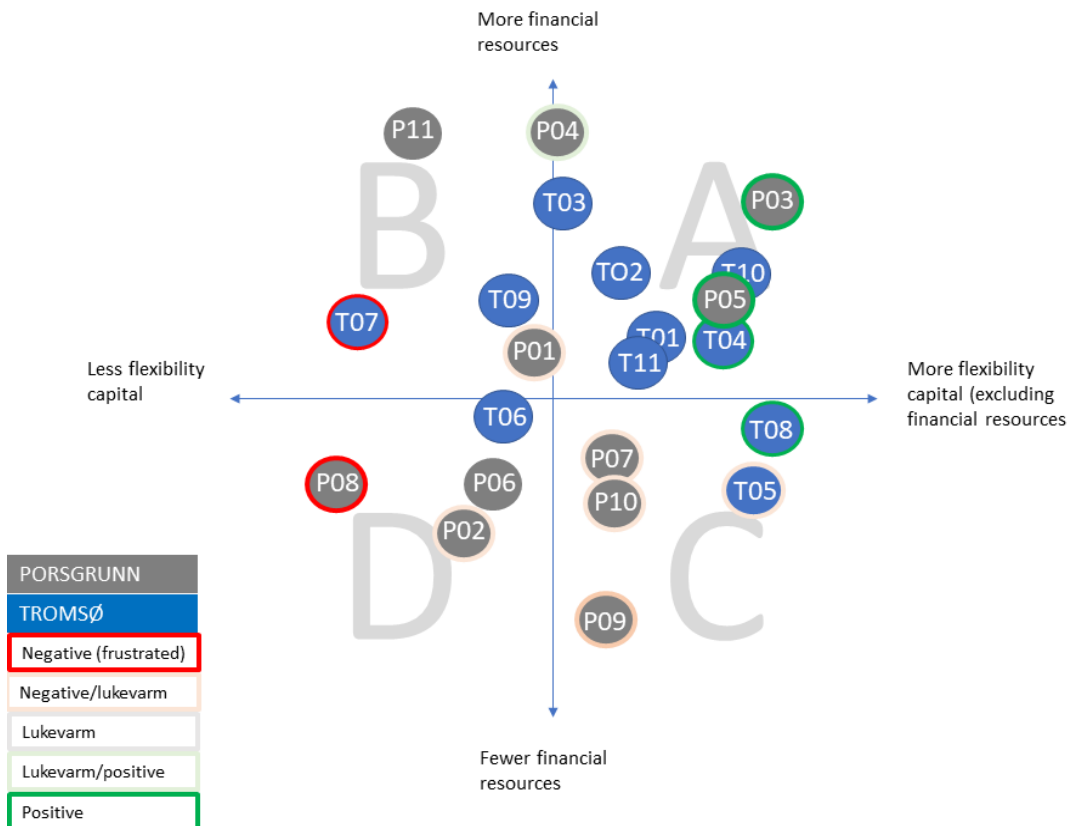


High access to financial resources



High flexibility capital

Distribution of flexibility capital in our qualitative material



High electricity prices: window of opportunity for more socially just transformation?



- Introduce a limit for 'normal' consumption
- Achieve a just system in line with most Norwegians' perceptions of what is fair
- Support schemes: flat distribution





Thank you!

tanja.winther@sum.uio.no

Flexibility for whom? Householder and stakeholder perspectives on justice regarding the introduction of dynamic grid tariffs in Norway. Winther and Sundet, *Energy Efficiency* 2023

Energy politics and gender. Standal, Winther and Danielsen, in Hancock & Allison (eds), *The Oxford Handbook of Energy* 2018

Like having an electric car on the roof: Domesticating PV solar panels in Norway. Winther, Westskog and Sæle, *Energy for Sust. Dev.* 2018

The effects of in-home displays — Revisiting the context. Westskog, Winther and Sæle, *Sustainability* 2015

Electricity consumption: should there be a limit? Implications of people's attitudes for the forming of sustainable energy policies, Westskog and Winther, *Consilience - The Journ. of Sust. Dev.* 2014





Introducing energy efficient devices in Swedish homes



Gender ideology

Equality: 'Men and women are the same'



Marianne Gullestad

Gender in practice



- Division of space in a home
Men: outside, garage, boiler/heater room
Women: kitchen, living room etc.
- Division of responsibilities
Men: heating, handymen
Women: decoration etc



Annette Henning 2005: Ambiguous artefacts

‘Energy devices should be useful’



1. Financially viable (men)
2. Environmentally friendly (women)
3. Play (men)

Men and women pursue specific identities when negotiating technologies

Standal et al. 2020: Also keep in mind their distinct positions in fields (capital)

The promotion of energy efficient devices in Sweden



Male space and responsibility:

Unproblematic



Heat pumps

Male space and responsibility, but socially visible:

Negotiations (women pushing)



Solar collectors

Male responsibility, female space:

Negotiations: not in my living room!



Pellet stoves

How are health, energy and inequalities linked



Arrival of electricity in Zanzibar

- Access to health care in the village (light, fridges, sterilising equipment, nurses)
- Access to clean, pumped water
- Saved work carrying water:
 - Women reduced workload
 - Girls to school
- Access to phones and computers, 'digital competency'



Key: functioning public services