## Secondary benefits of payback times of energy transition implementations

Beril Alpagut – Demir Enerji

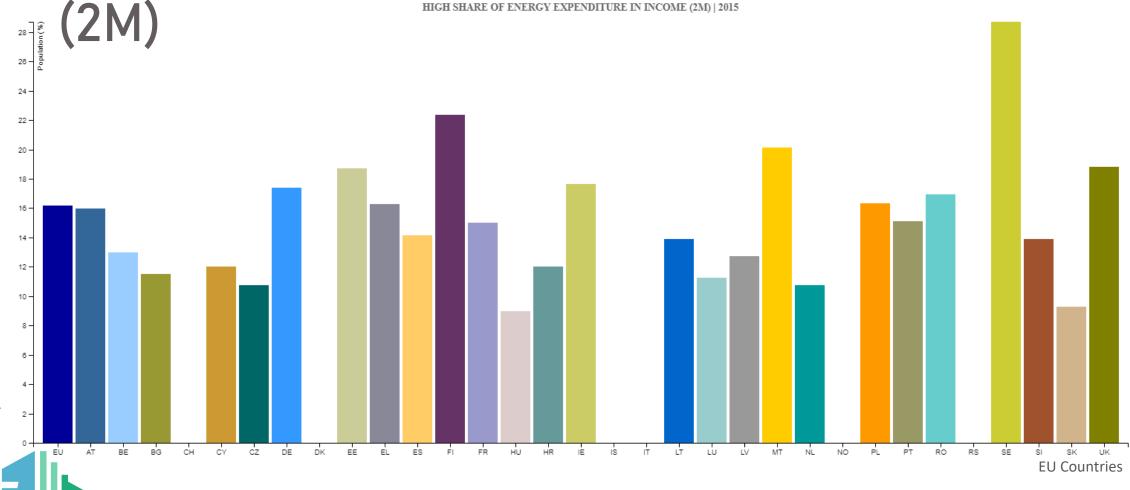
Sustainable Places Conference, 2020 SCC and PEDs Workshop







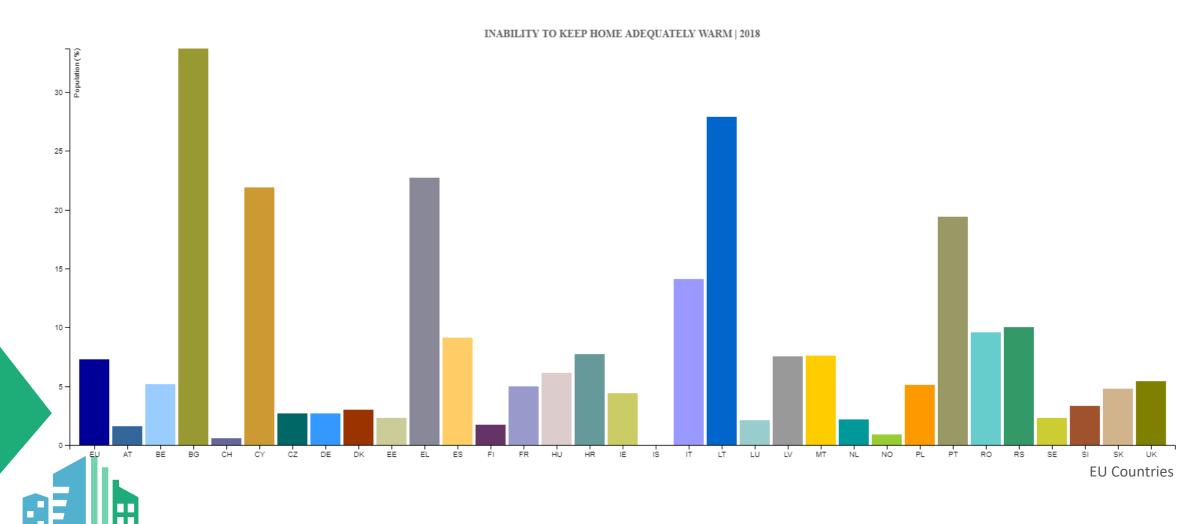
### High share of energy expenditure in income



The 2M indicator presents the proportion of households whose share of energy expenditure in income is more than twice the national median share.

Making City

### Inability to keep homes adequately warm



Share of (sub)population not able to keep their home adequately warm.

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# What do you think of the secondary benefits of pay-back times?

For public authorities,

- reduced social and health expenditures
- cleaner and safer environment,
- reduced fossil fuel dependency & energy poverty,
- local employment in the green economy
- a higher quality of life for all citizens
- increased social trust
- increased community attachment and belonging
- increased awareness causing less energy consumptionincreased revenues for local governments





# What do you think of the secondary benefits of pay-back time?

#### For economic actors,

- increased productivity of employees
- cleaner and safer working environment,
- reduced costs for time lost in traffic jams
- decreased costs of sick leaves
- decreased productivity losses related to poor working environments
- increased awareness causing less energy consumption



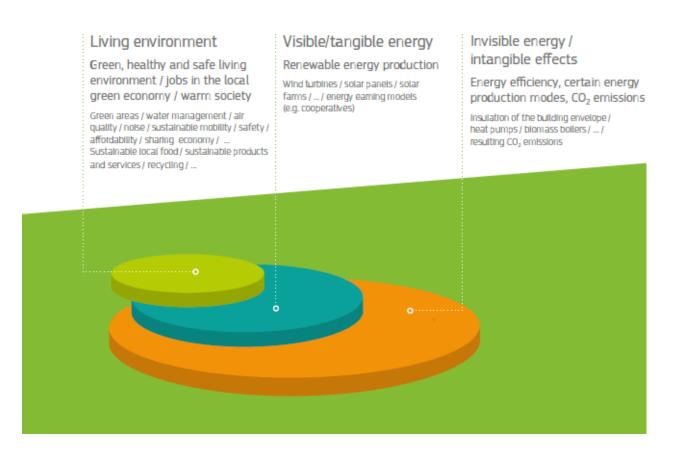


Value Driven – not just profit driven

### Visible / Invisible aspects

Spheres of involvement and relation with motivational power and willingness to pay

Spheres of concern: citizens tend to pay more attention, and attach more value, to aspects affect that their living environment directly and sensibly. (Renewable and/or own) energy production may approach these focus areas of attention, but energy use and carbon emissions are both invisible and not directly sensed/felt, hence more difficult to incentivize.





Smart City Information System, Why may replication (not) be happening - Recommendations on EU R&I and regulatory policies, SCIS, 2018, https://smartcities-infosystem.eu/library/publications

### How to promote secondary benefits?

MOTIVATING AND SUPPORTING the economic actors - citizens TOWARDS WELL-INFORMED energy transition

Policies to encourage sustainable consumption



# Social and Policy Actions in MAKING-CITY

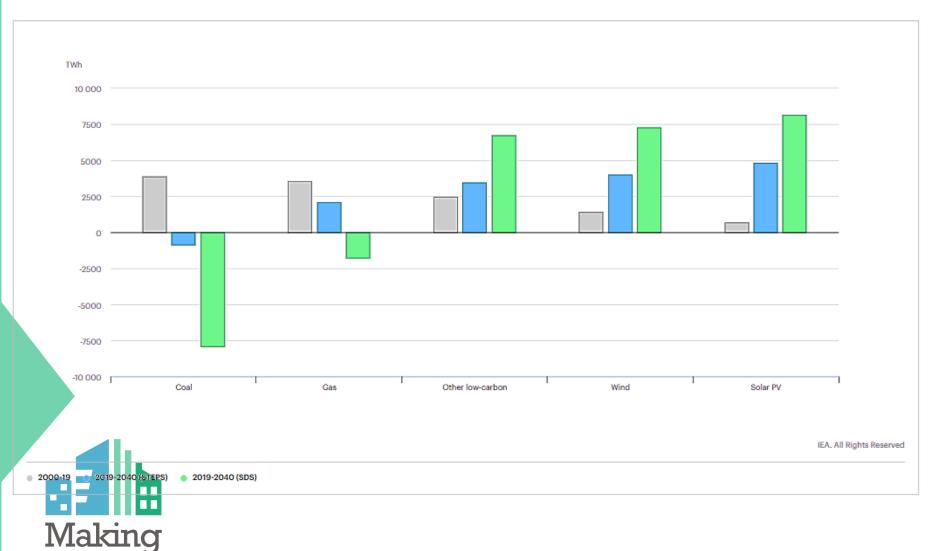
Social Cohesion & Inclusion at the core of the integration of smart city solutions

- Single window/desk for energy retrofitting
- Citizen and stakeholder engagement
- Education, Co-design and Co-creation in Oulu
- Blockchain in Groningen
- Energy communities as part of the district energy transition strategy in Groningen
- Policy forum on energy transition





#### Post-Covid Scenarios



# Solar becomes the new king of electricity...

- •The **Stated Policies Scenario** (STEPS), in which Covid-19 is gradually brought under control in 2021 and the global economy returns to pre-crisis levels the same year.
- •In the Sustainable Development
  Scenario (SDS), a surge in clean energy
  policies and investment puts the
  energy system on track to achieve
  sustainable energy objectives in full,
  including the Paris Agreement, energy
  access and air quality goals. The
  assumptions on public health and the
  economy are the same as in the STEPS.

IEA, Change in global electricity generation by source and scenario, 2000-2040, IEA, Paris https://www.iea.org/data-and-statistics/charts/change-in-global-electricity-generation-by-source-and-scenario-2000-2040-2

### More Policies Needed

#### ► IEA Sustainable Recovery Plan

A step-change in clean energy investment, in line with the IEA Sustainable Recovery Plan, offers a way to boost economic recovery, create jobs and reduce emissions.

full implementation of the <u>IEA Sustainable Recovery Plan</u>, published in June 2020 in co-operation with the International Monetary Fund, puts the global energy economy on a different post-crisis track. Additional investment of \$1 trillion a year between 2021 and 2023 in the SDS is directed towards improvements in efficiency, low-emissions power and electricity grids, and more sustainable fuels.

This makes 2019 the definitive peak for global CO<sub>2</sub> emissions. By 2030, emissions in the SDS are nearly 10 Gt lower than in the STEPS.



### Governments have a decisive role

- At a moment when Covid-19 has created extraordinary uncertainty, governments have unique capacities to act and to guide the actions of others. They can lead the way by providing
  - the strategic vision,
  - the spur to innovation,
  - the incentives for consumers,
  - the policy signals and the public finance that catalyses action by private actors, and
  - the support for communities where livelihoods are affected by rapid change.



# Thank you Get in touch for more information!





All the reports of the project will be available for download on the MAKING CITY website: www.makingcity.eu



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Contact us:

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