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HOW ACCEPTABILITY AND SUPPORT FOR CLIMATE SOLUTIONS ARE INTEGRATED INTO LONG-TERM ASSESSMENTS



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Motivations

Understand social acceptance of energy projects in order to include social acceptance in energy modelling

Concepts at stake

Acceptability vs Acceptance:

a priori vs a posteriori opinion of a project.

Three-dimensional assessment of acceptance:

socio-political, community and market acceptance.

Support vs Opposition:

active engagement for or against a project.

NIMBY:

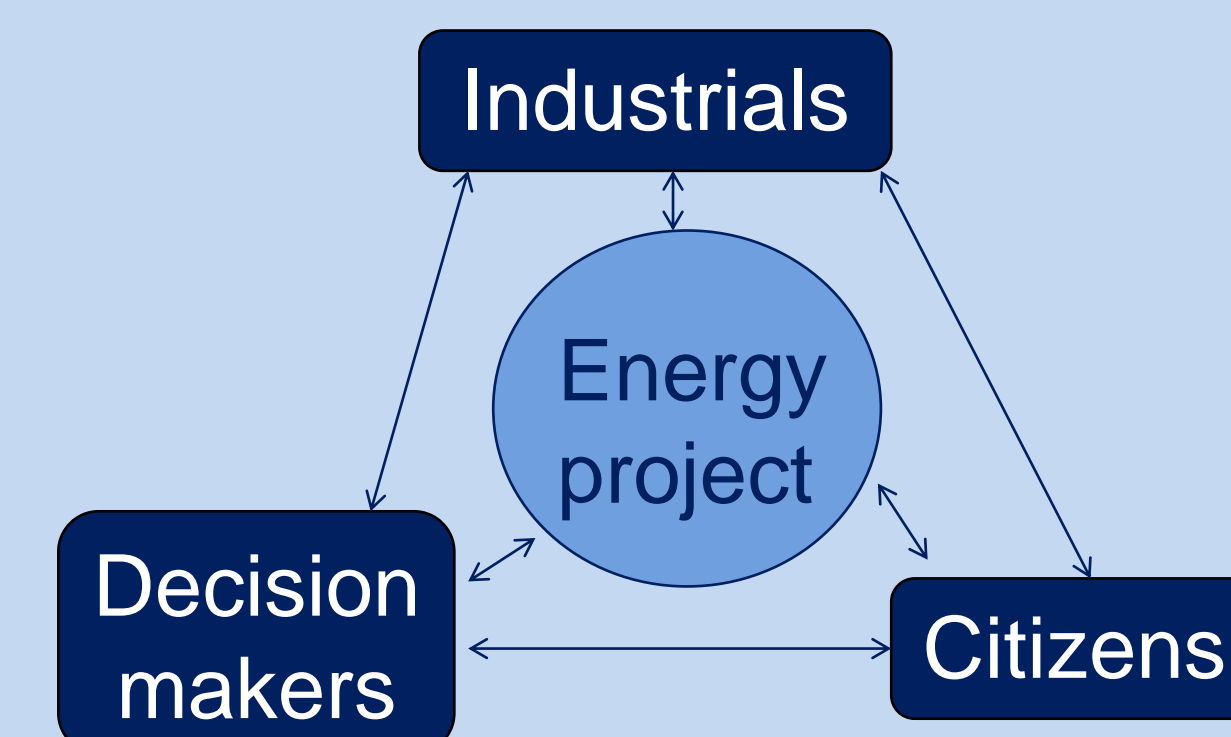
local opposition in a context of global acceptance.

Points of view

Citizens: people living near the project who might oppose or support it.

Industrials: companies locally or nationally involved in the design or the realization of the project.

Decision makers: local and national politicians who have an impact on location decisions, public investments, etc.



Addressing social acceptance in research



Social acceptance of energy projects: A geographical focus based on literature (based on the analysis of 96 papers)

Sorted by area

Most studied zones: Western Europe, Middle East, North America.

Average studied zones: South America and Oceania.

Least studied zones: Africa, Asia, former USSR.

Sorted by technology / policy

Nuclear mostly in Asia.

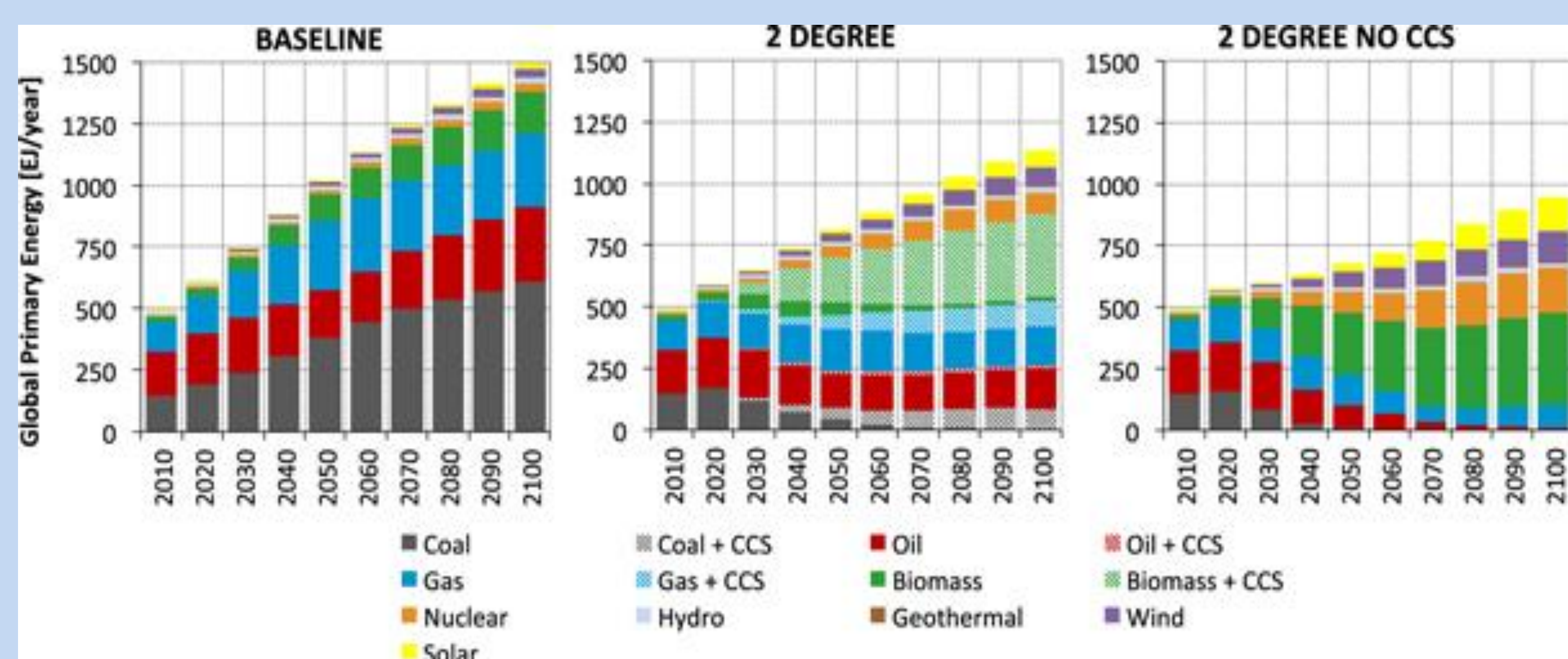
Wind power in Western Europe.

Solar power in developing countries.

Energy policy in developed countries.

North America: mostly oil & gas & bioenergies.

Lack of social aspects in energy models



Muratori et al. (2016) - <http://iopscience.iop.org/article/10.1088/1748-9326/11/9/095004>

- Technico-economic long-term scenarios.
- Regional and systemic coherence.
- But technology focused.

Extracting social acceptance characteristics to feed the energy model

The most important parameters:

- Specific events (Paris Agreement, Fukushima nuclear disaster).
- Personal backgrounds of every citizen in the community (gender, age, level of education, pre-conceived idea on the project).
- Characteristics of the project (technology, communication on the project, etc.).
- Local parameters (type of landscape, historical features, power sources already in operation, etc.).
- Stage of the project (pre-project, siting phase, project completion, etc.).

Difficulties:

- Great diversity of the literature.
- Not enough data.

Key issues

A risk to forget developing countries in our analysis:

- In developed countries: the transition is mainly electric, from big thermal power plants toward small renewable installations.
- In developing countries: the transition is mostly from firewood toward off-grid renewable power.

Too much focus on reducing of opposition:

Most articles focus on the ways to reduce opposition to a project. Our goal is to think of how to include this reluctance in our model.

Too much focus on citizens:

Articles often focus on citizens and not on the other stakeholders shaping projects, which can elude some of the important parameters.