



**SteuerBoard
Energie**

Governance Mechanisms
in a Future Polycentric
Energy System

FINANCIAL PARTICIPATION

Jan Wiesenthal & Steven Salecki

Importance and options

29TH AUGUST 2023

PROJECTPARTNERS



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AGENDA

- 1. Definitions and examples for financing and refinancing (Jan)**
- 2. Financial participation: A boost for RE acceptance!? (Steven)**
- 3. World Café**



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Definitions and examples for
financing and refinancing

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INSTITUTE FOR ECOLOGICAL ECONOMY RESEARCH (IÖW)

- _ Founded in 1985 by concerned scientists
- _ A leading scientific institute in the field of sustainability research
- _ Objective: to devise concepts and strategies for a transition towards a more sustainable future, with special focus on economy
- _ Private, independent and non-for-profit
- _ 100 % project-related third-party funds, no institutional funding
- _ About 600 completed research projects



Employees IÖW

Revenue



A leading scientific institute in the field of sustainability research

- Digital transformation
- Sustainable Corporate Governance
- Environmental Policy and Governance
- Climate and Energy
- Products and Consumption
- Post-growth

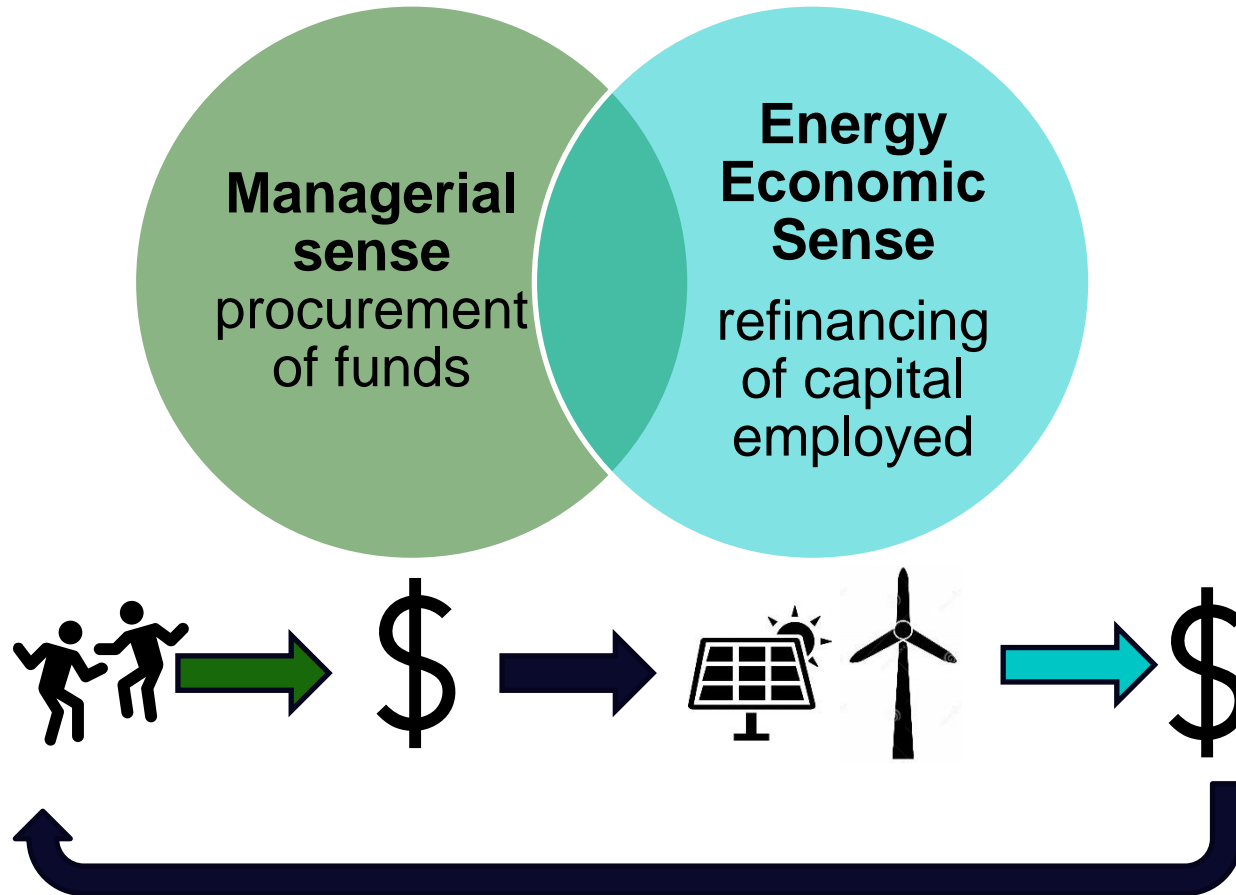
TOPIC OF IÖW

- Water and land management
- Innovation and technologies
- Evaluation and assessment
- Participation and communication
- Community value creation and employment through renewable energie





DEFINITION



FINANCING IN A MANAGERIAL SENSE

_Legal framework: financial sector regulations

_Actors: public and private financiers possible

_Form of capital: equity, mezzanine or debt capital

equity

- shareholders in the company
- ownership with according decision-making, voting rights and rights to information

mezzanine

- Not clearly equity or debt
- reference shares, profit participation certificates, convertible loans and subordinated loans

debt

- Often Fixed interest rate
- No decision-making rights
- Control rights: typically limited to information
- e.g. bank loans, promissory note loans and crowdlending

FINANCING IN A ENERGY RELATED SENSE

_Legal framework: Energy sector regulations

Public instruments

- Energy market design (e.g. capacity market, EOM, net metering, FIT)
- Environmental policies (e.g. ETS, CO2 tax, bans quota)

Private instruments

- Contracts (e.g. PPA, renewable energy certificates)

PUBLIC INSTRUMENTS – ENERGY MARKET DESIGN

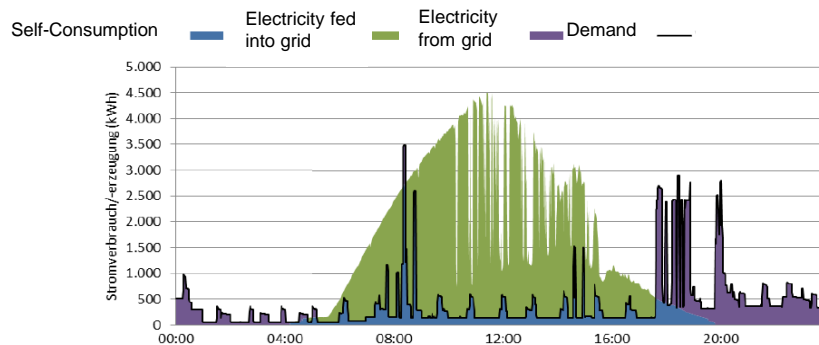
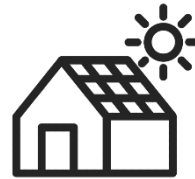
_Net metering :

_Consumption: 3000 KWh

_Production: 2000 KWh

_Buys from the grid: 1000 KWh

⇒ Household saves buying 2000 KWh from the grid



_Feed-in tariff:

_Consumption: 3000 KWh

_Production: 2000 KWh

_Self Consumption: 600 KWh

_Fed into grid: 1400 KWh

_Buys from the grid: 2.400 KWh

⇒ Household earns FIT * 1400 KWh fed into grid

⇒ Household saves buying 600 KWh from the grid

PUBLIC INSTRUMENTS - ENVIRONMENTAL POLICIES

ETS & CO2 tax: *Polluter pays principal*

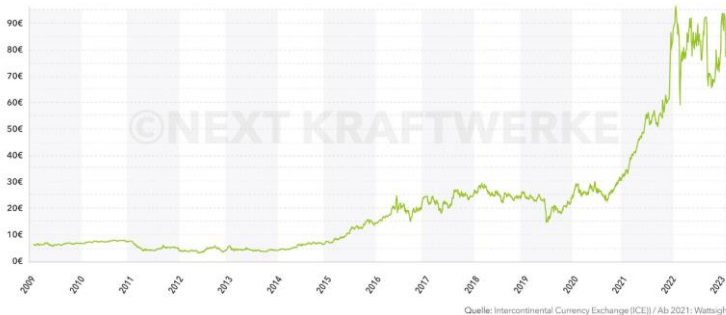
_Emission Trading System (ETS):

- _ Limited number of certificates allowing pollution
- _ Advantage high environmental accuracy

_CO2 Tax

- _ Levy on produced CO2
- _ Advantage: Lower transaction costs for implementation, control and sanctioning

€/T CO2 in EU ETS



Next Kraftwerk

Conclusion

- _ increases the costs for carbon-intensive forms of electricity generation and heating and makes renewable energy projects more competitive

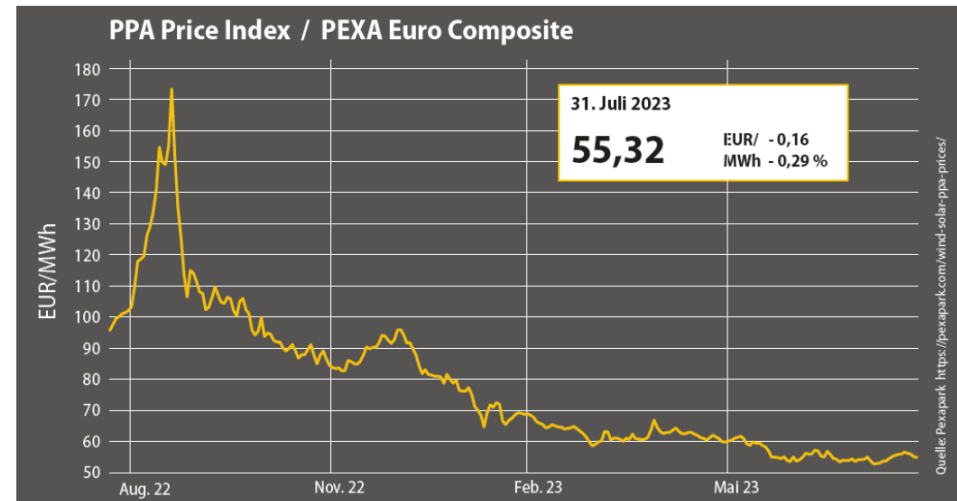
PRIVATE INSTRUMENTS - CONTRACTS

_PPA:

_Negotiating prices of
producer's future production
prior to construction

Renewable energy certificates:

_Trading certain
characteristics of the
electricity generated
_Customer can meet
quotas or offer customers
certain characteristics of
the electricity



ContextCrew *NEUE ENERGIE*



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Thank you.

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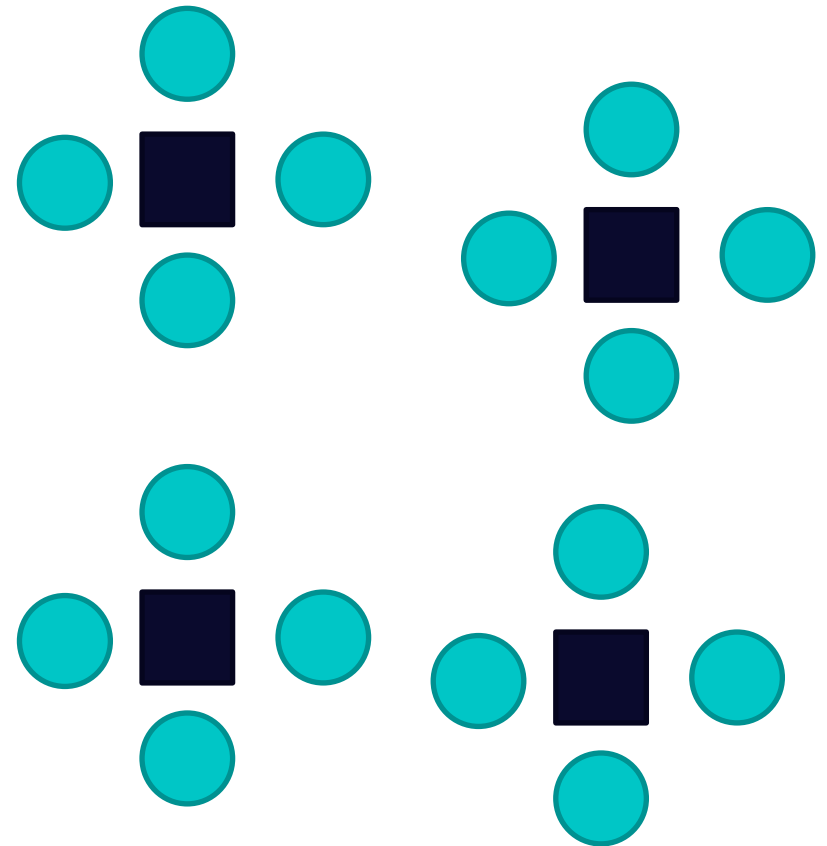


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- _Groups of 4-6 people
- _Each group discussing one specific question
- _Groups take notes/visualize what they discuss
- _After approx. 10 minutes groups rotate and continue the discussion based on results of previous group

WORLD CAFÉ



(Brown, J. & David, I. (2007): Das World Café - Kreative Zukunftsgestaltung in Organisationen und Gesellschaft. Heidelberg: Carl-Auer.

QUESTIONS

1. What are the challenges of financial participation?
2. How can citizens benefit from financial participation and acceptance be created/strengthened?
3. How to achieve financial participation and which stakeholders should be involved?
4. For what should value added be used for?