

**24th REFORM Group Meeting August 24-28, 2020 – Raitenhaslach  
How to reach Carbon Neutrality/Climate Neutrality?**

# **Discursive struggles about renewable energy development in Finland**

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## Contents of the presentation

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- **Storylines in energy policy discussion**
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## Energy policy discourses and discursive struggles

- To understand the drivers of the change it is important to analyze
  - ✓ dominant discourses that constitute and justify
  - ✓ technologies and institutions
  - ✓ that affect the transformation
- Role of prominent incumbents and other stakeholders of energy systems
- How they discursively frame the energy transition



## Energy policy discourses and discursive struggles

- **The starting point of the analysis here is contextual constructivism**
- **The reality is constructed within the different discourses in the arena**
- **The argumentative approach focuses on constructive role of discourse in political processes**
- (Hajer 1995, *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process*. Oxford University Press, New York)



## Energy policy discourses and discursive struggles

- The approach conceives politics as a struggle for discursive hegemony
- Actors try to secure support for their definition of reality
- Different actors operate in the discursive field and interpret the perceived reality in different ways
- We can speak of discourse structuration if
  - the credibility of actors in a given domain requires them to draw on
    - ✓ the ideas,
    - ✓ concepts, and
    - ✓ categories of a given discourse



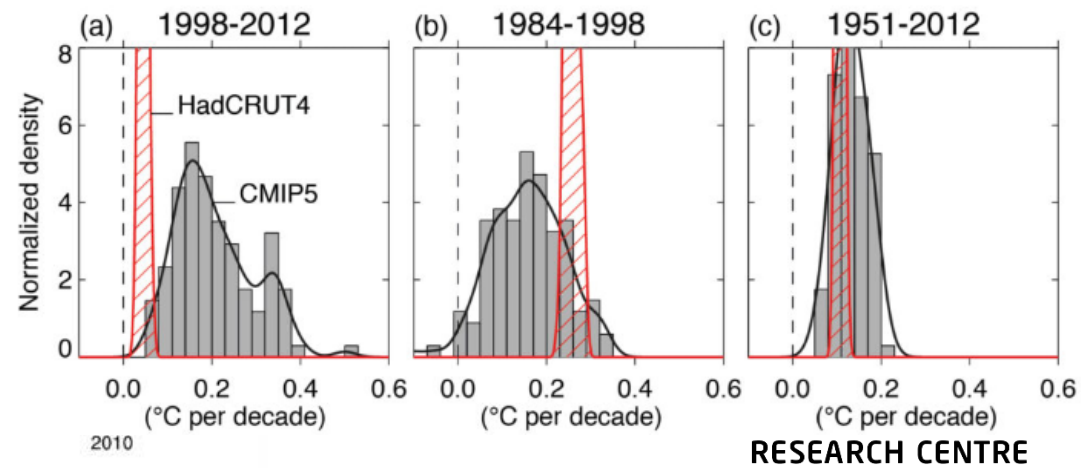
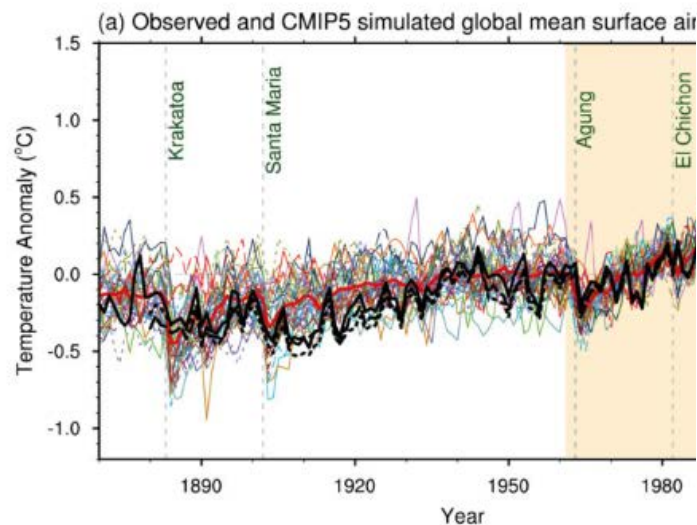
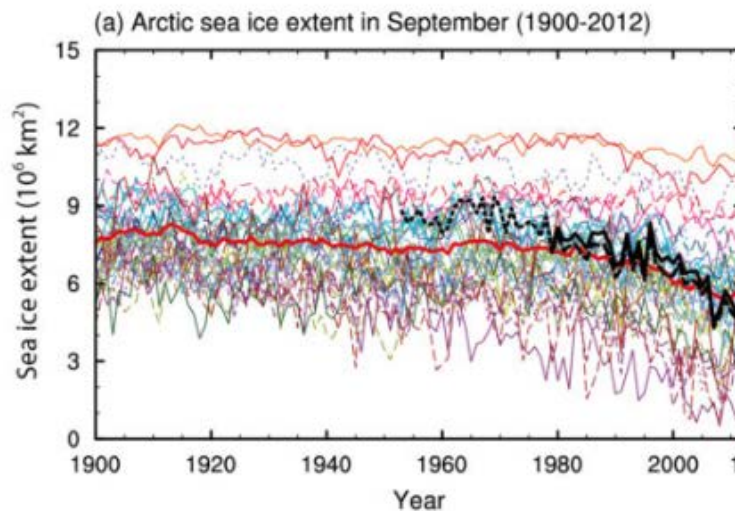
## Energy policy discourses and discursive struggles

- **Discourse institutionalisation**
  - ✓ discourse is translated into institutional arrangements
- **Discourse structuration + institutionalisation**
  - ➔ **hegemonic discourse in a given domain**
- **or in a weaker form we could speak of discursive domination**



## Energy policy discourses and discursive struggles

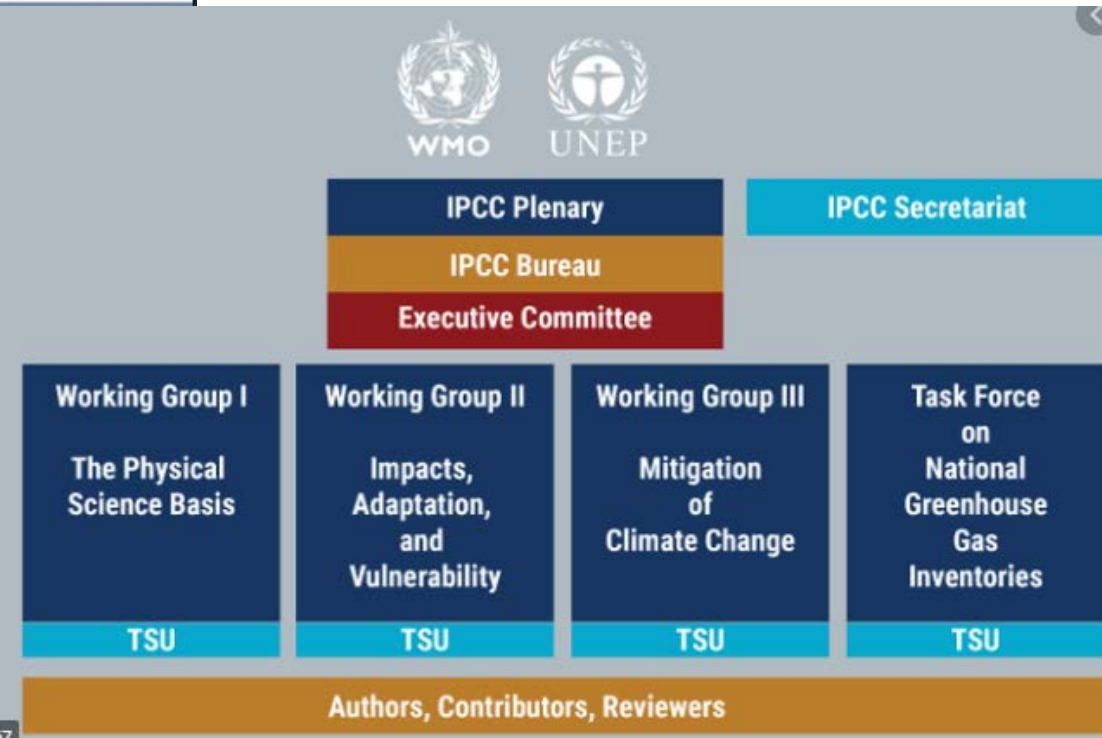
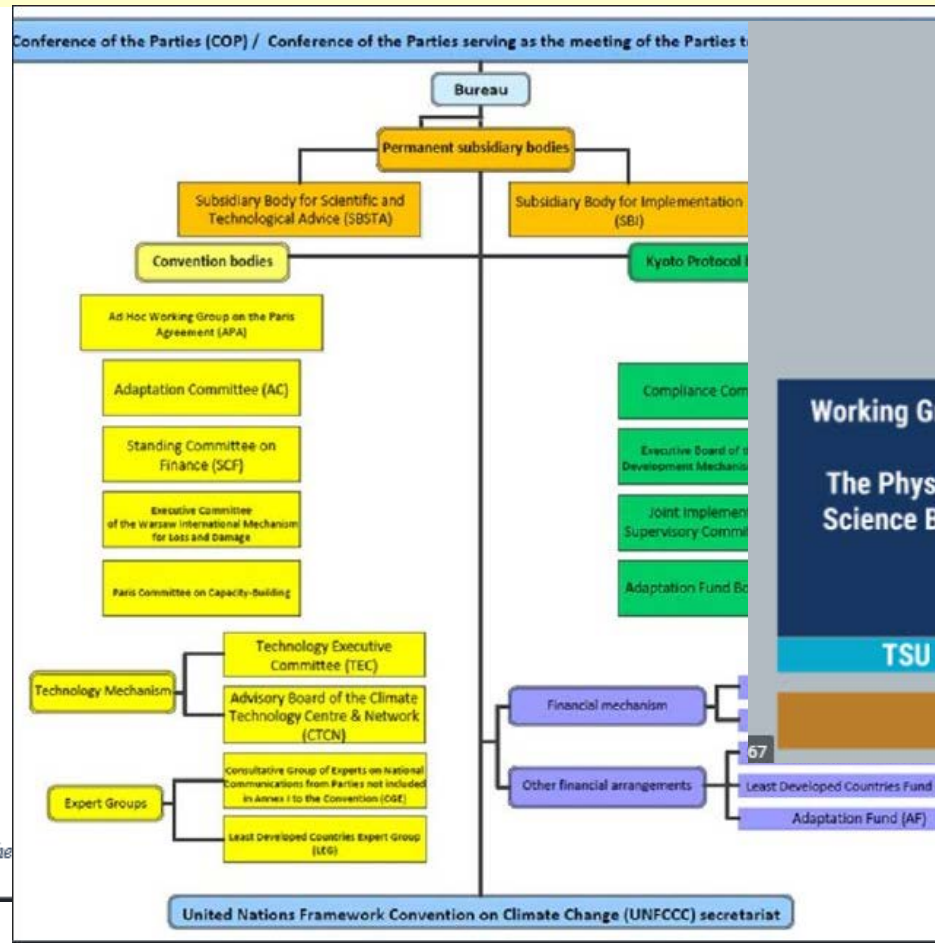
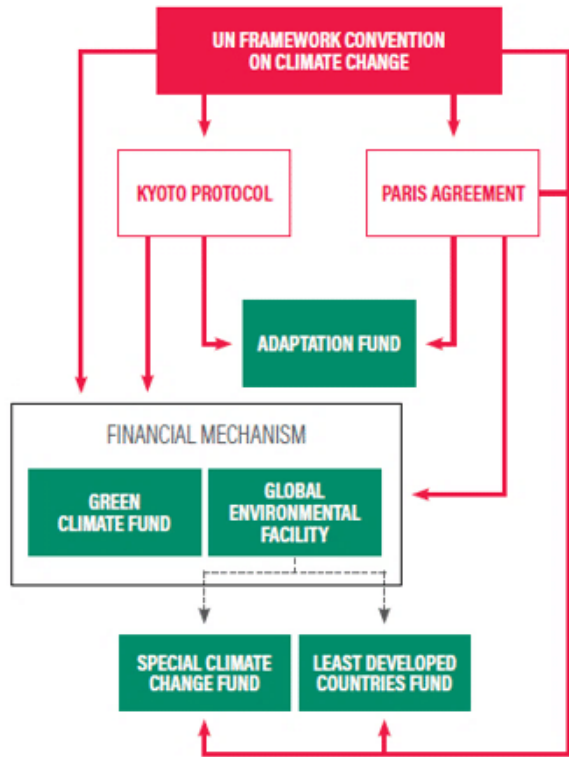
- Development of ‘climate policy’ is a good example of discourse structuration and institutionalisation.
  - ✓ You need to use the concepts and categories of “climate” to participate in the discussions
  - ✓ e.g. greenhouse gases, GWP, Radiative Forcing, Global mean sea level, etc.



# Energy policy discourses and discursive struggles

## ➤ UNFCCC and IPCC are clear examples of the institutionalization

Figure 1 UNFCCC Bodies and funds



Note: The dotted arrows indicate that the LDCF and SCCF are administered by the UNFCCC.  
 Source: WRI.2018. & UNFCCC 2018. <https://unfccc.int/>



# Storylines in energy policy discussion

- **Interpretative process of discursive closure**
  - ✓ central element in the regulation process,
  - ✓ complex issues are simplified
- **Storylines are the narratives of social reality**
  - combine elements from many different domains
  - provide actors with a set of symbolic references
  - common understanding.
- **Storylines are essential political devices that allow the overcoming of fragmentation and the achievement of discursive closure**



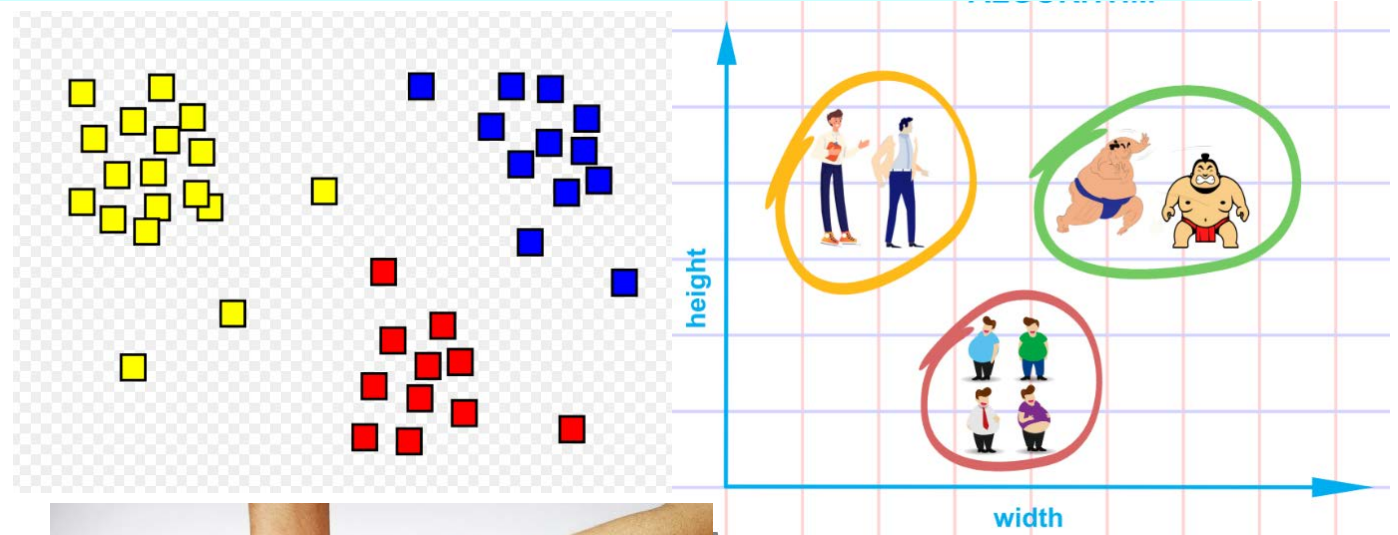
## Storylines in energy policy discussion

- **Argumentative discourse analysis holds that the power of storylines is essentially based on the idea that it sounds right**
- **Whether something sounds right is influenced by**
  - ✓ **plausibility of the argument itself**
  - ✓ **trust in the author that utters the argument**
  - ✓ **practice in which it is produced**
  - ✓ **acceptability of a story-line for own discursive identity**



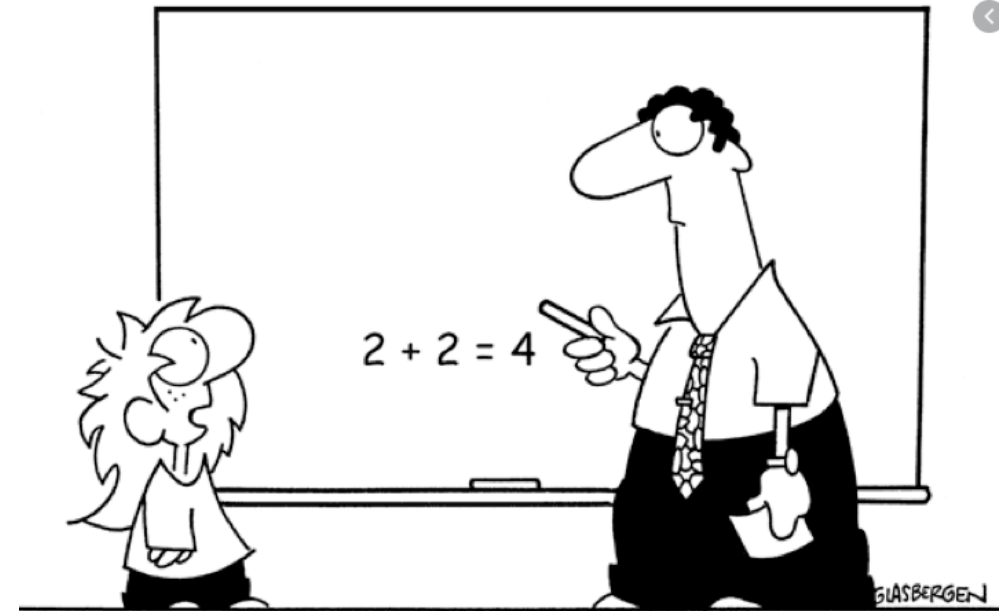
## Storylines in energy policy discussion

- The concept of storyline fulfils an essential role in
  - ✓ clustering of knowledge,
  - ✓ positioning of actors, and
  - ✓ creation of coalitions amongst actors of a given domain.
- In the struggle for discursive hegemony, actors can form discursive coalitions to strengthen their position.



## Storylines in energy policy discussion

- Discursive coalitions are defined as the ensemble of
  - ✓ (1) a set of storylines
  - ✓ (2) the actors who utter these story-lines
  - ✓ (3) the practices in which this discursive activity is based
- Storylines are seen as the discursive cement that keeps a discourse-coalition together



“How can I trust your information when you’re using such outdated technology?”

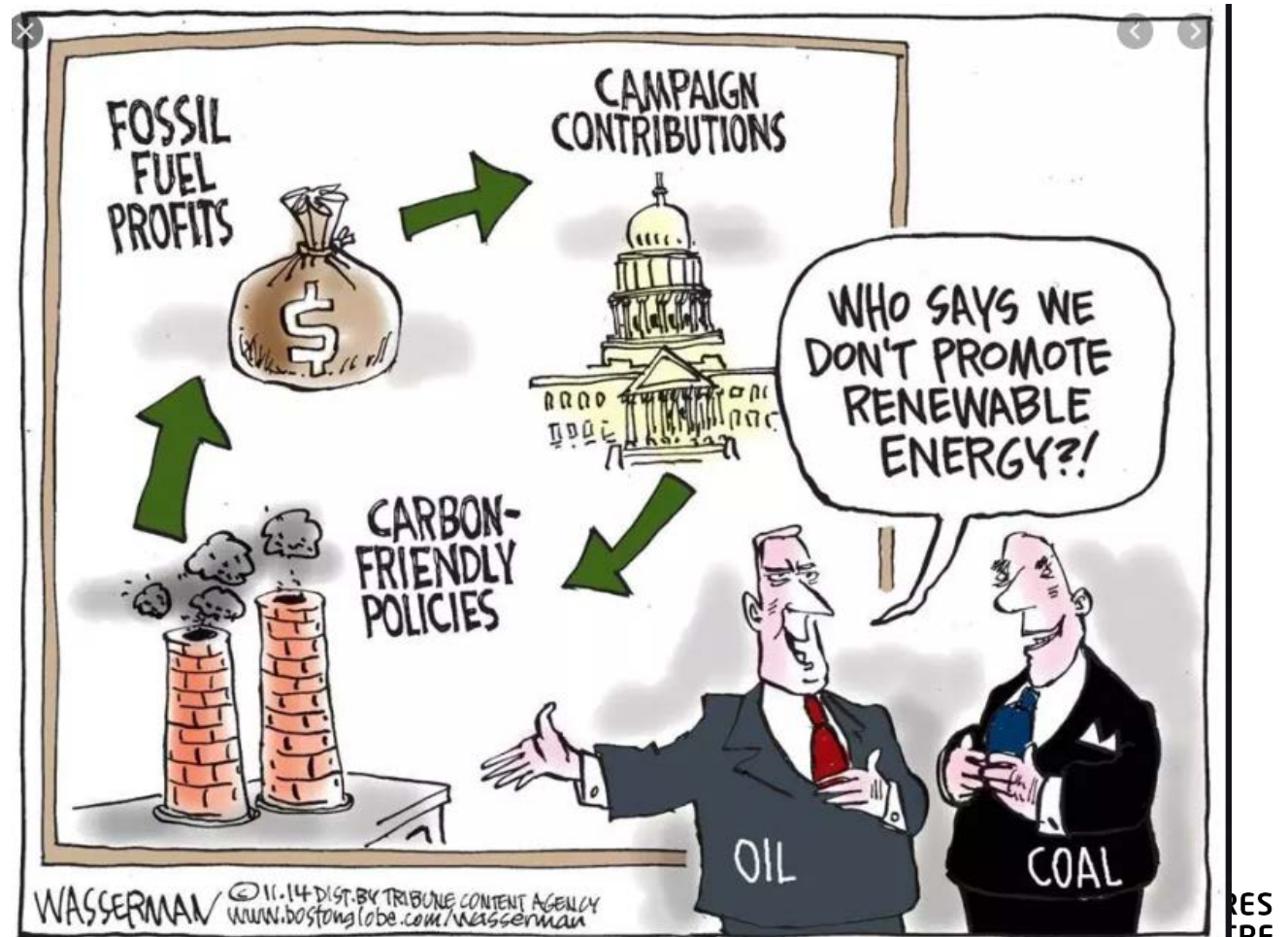
## Storylines in energy policy discussion

- **Definitions of the criteria that should be used in the energy policy decisions can be seen as a certain way of constructing the reality**
  - ✓ **defining essential components**
  - ✓ **defining the importance of the selected components, etc.**



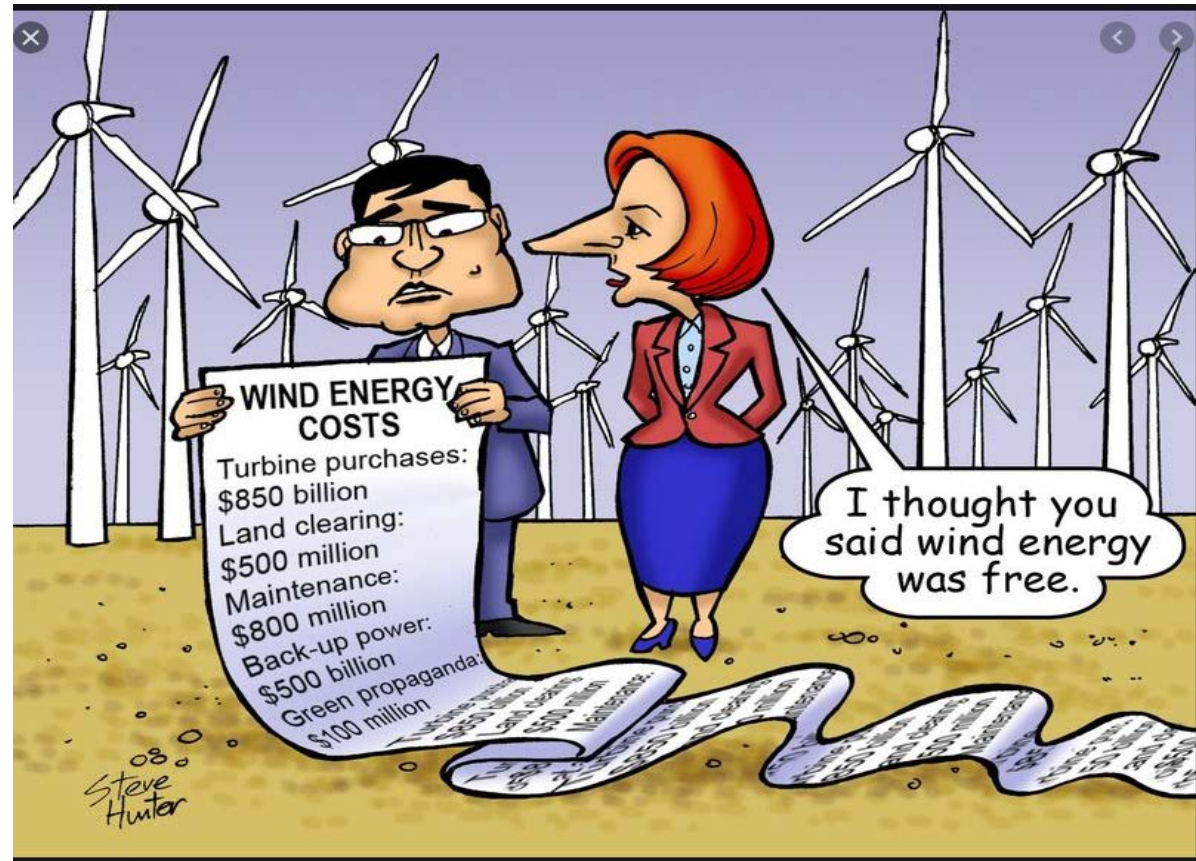
## Storylines in energy policy discussion

- Different actors participating in the struggle to achieve a hegemonic position in the interpretation of the reality have
  - ✓ different interests,
  - ✓ different resources, and
  - ✓ base their arguments on different knowledge claims



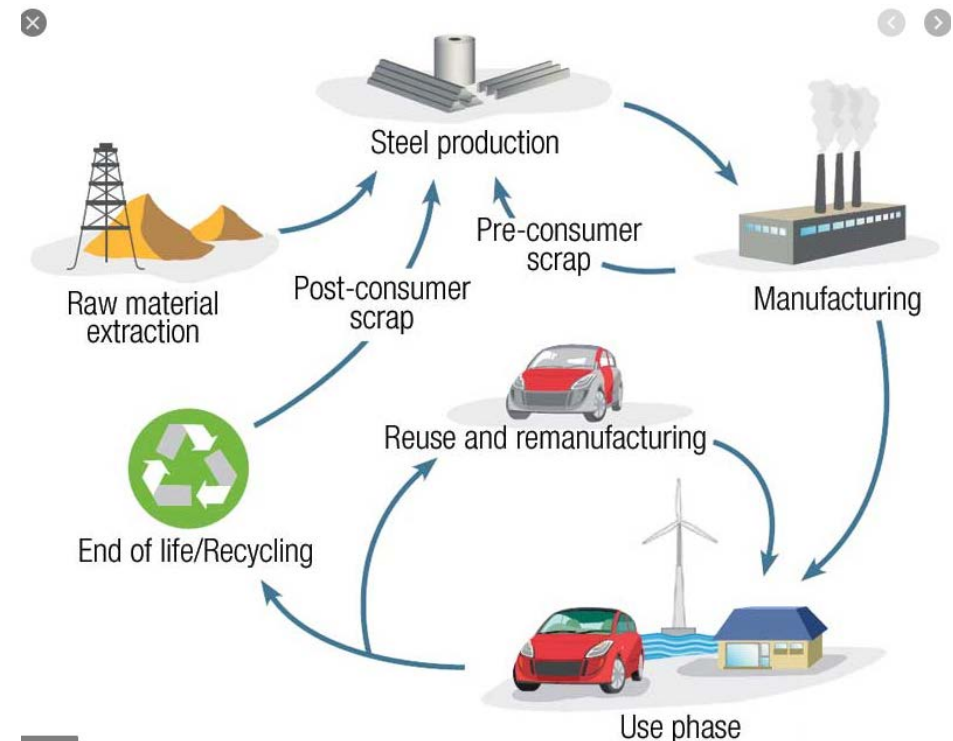
## Storylines in energy policy discussion

- The act of defining the criteria for electricity and its production is an act of constructing and framing reality



## Storylines in energy policy discussion

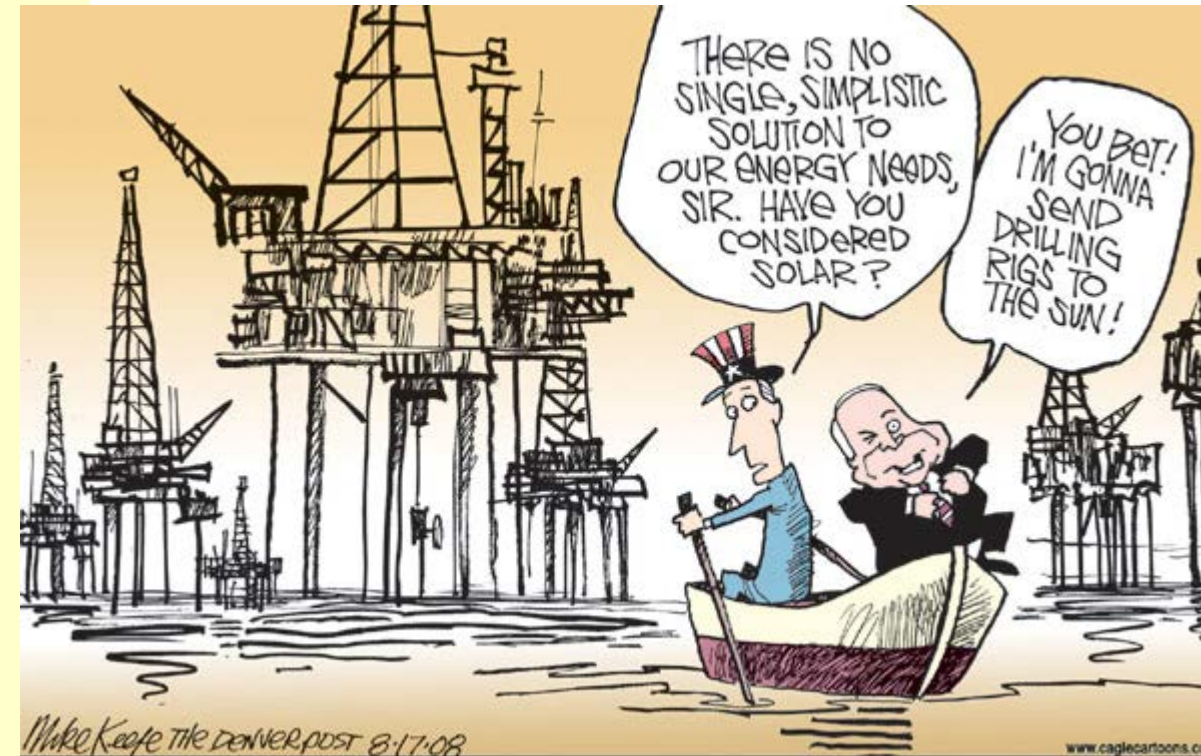
- For instance, the definition how much CO<sub>2</sub> or other emissions are emitted in electricity production using different technologies is a very complex process including numerous claims where the boundaries of the calculations should be placed:
- ✓ should we include all the potential life-cycle emissions (starting e.g. from the mining the metals) or
  - ✓ should we have a narrower definition.





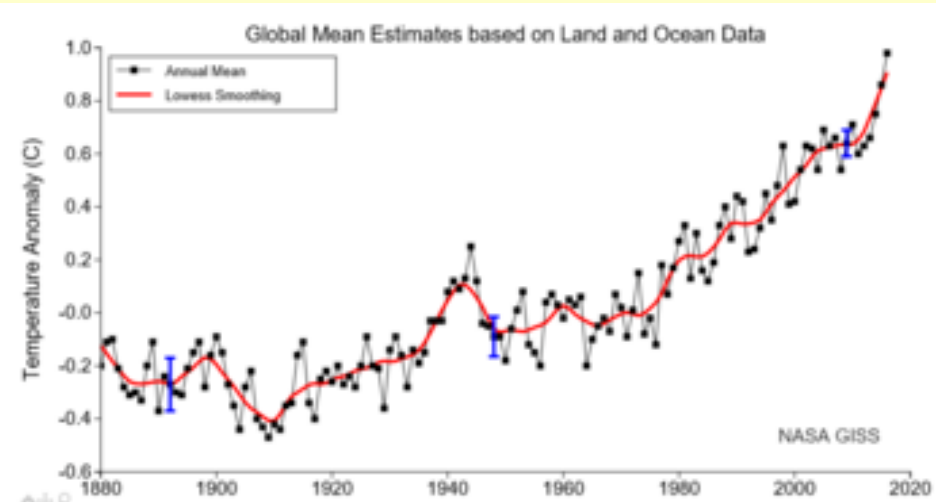
## Storylines in energy policy discussion

- There are always embedded interests in the definitions that are partly related to definitions of reality in other realms, partly constituted through the discourse
- It is not possible to have neutral, "objective" definitions based on natural scientific facts
- The role of different actors can vary considerably depending on their capacity to participate in the discourse.



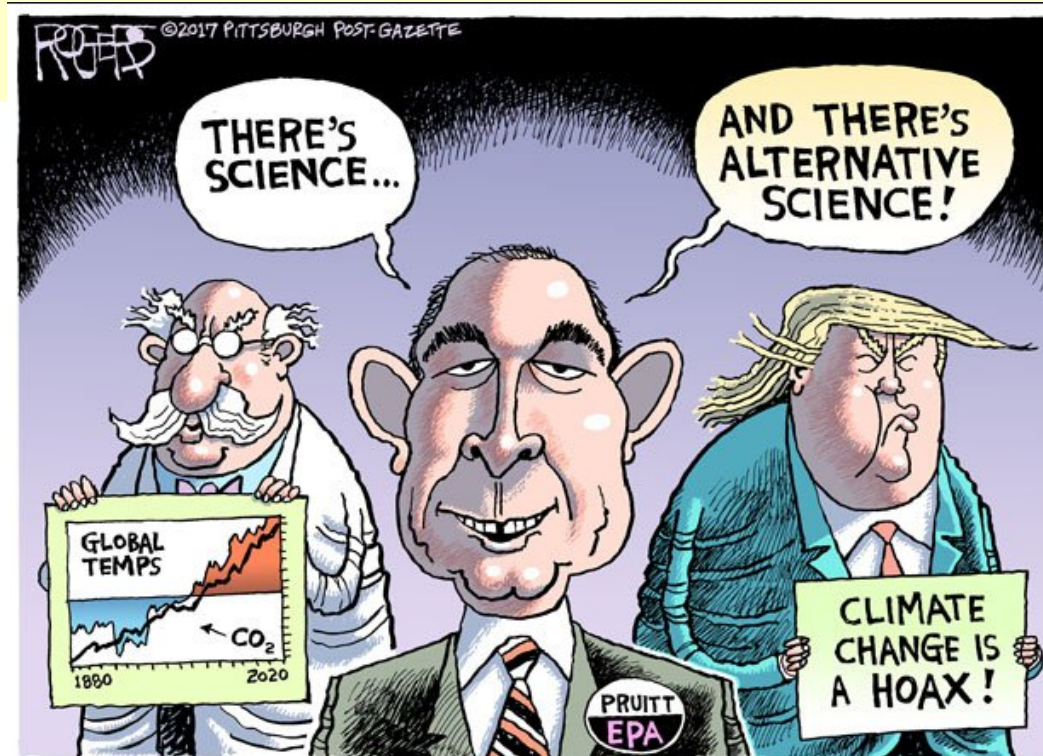
## Storylines in energy policy discussion

- **Who should be in the position to define the criteria of sustainability and who will accept them**
- **Credibility, acceptability, and trust of the different actors, determine the dynamics of the argumentative game**
- **In a scientifically oriented society, the role of science-based arguments is often essential in the process of achieving credibility**



## Storylines in energy policy discussion

- Actors defining the concept of sustainable electricity production have to base their definitions, at least to some extent, on scientific argumentation
- But, then, of course . . .



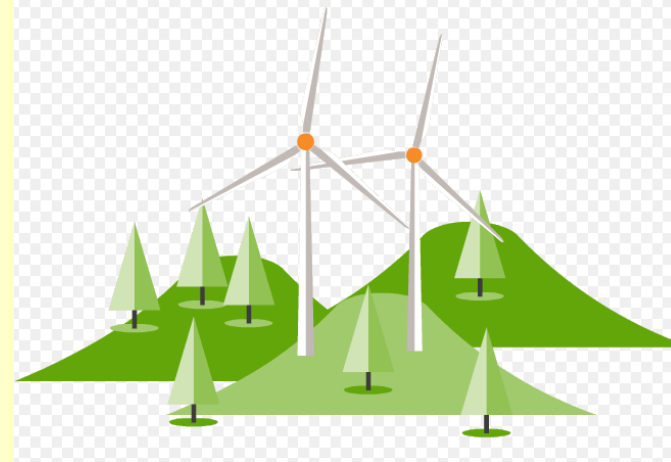
## New energy policy discussions in the Facebook in Finland



- Facebook group “New energy policy”
  - ✓ 6700 members

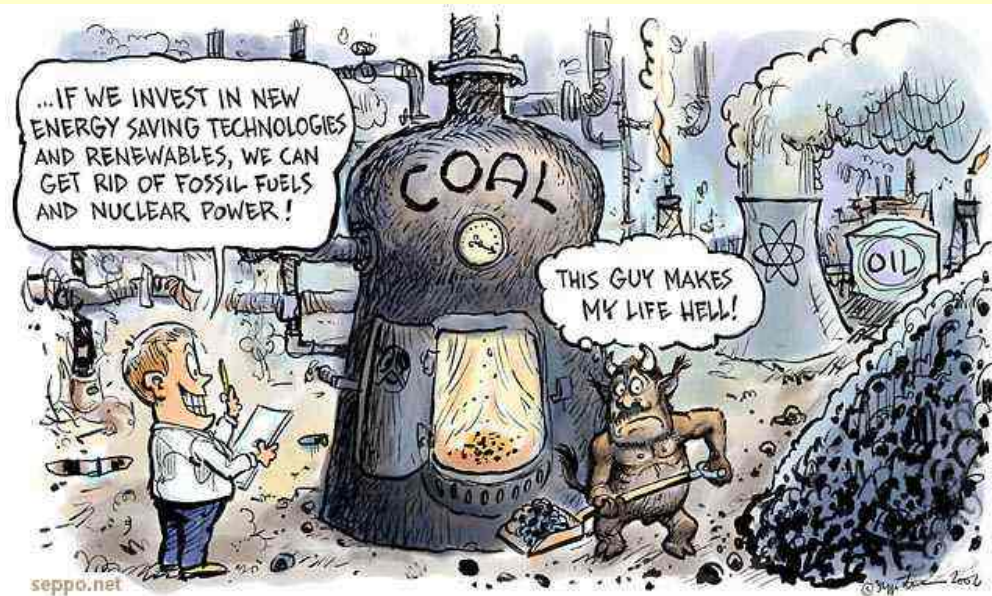
## New energy policy discussions in the Facebook in Finland

- In the Facebook group “New energy policy”
- Main elements in discursive struggles in the energy transition towards climate-neutral future concern the roles of
  - ✓ renewable energy and
  - ✓ nuclear energy
- Struggles culminate in the discussion
  - ✓ which is the best way to reduce the CO<sub>2</sub> emissions and
  - ✓ how the transition should be carried out



## New energy policy discussions in the Facebook in Finland

- ‘Renewable energy’ can be seen as a storyline, which is, naturally, also related to the physical realities
- Narrative, which connects certain types of electricity production to the different environmental problems and economics related to the use of fossil fuels and nuclear energy



## New energy policy discussions in the Facebook in Finland

- In ‘Renewable energy’ narrative issues like
  - ✓ climate change, small particle emissions, electricity price, short construction time, employment, productivity, domestic technology, distributed production, etc.
  - ✓ are connected to structural change of electricity production brought about by the increased use of wind and solar power



## New energy policy discussions in the Facebook in Finland

- Within the renewable energy discussion, the role of biomass-based energy is important in the Finnish case

### Suomen päästölähteet ja nielut vuonna 2018

Päästökauppa- ja taakanjakosektorin päästöt yhteensä 56,4 Mt CO<sub>2</sub> ekv. (75%)



Maankäyttösektorin päästöt yhteensä 18,7 Mt CO<sub>2</sub> ekv. (25%) ja nielut -28,9 Mt CO<sub>2</sub> ekv.



Suomen kasvihuonekaasuinventaarion mukaan Suomen päästöt olivat vuonna 2018 yhteensä 75 miljoonaa hiilidioksidiekvivalenttitonnia (Mt CO<sub>2</sub> ekv.).<sup>7</sup> Suurin osa (56 %) Suomen päästöistä syntyi fossiilisten polttoaineiden poltosta energiaksi muun muassa liikenteessä ja lämmityksessä.



## New energy policy discussions in the Facebook in Finland

- **‘Nuclear power’ storyline**
- **In this narrative, electricity production is connected to**
  - ✓ **reliability and stability of power supply,**
  - ✓ **the price,**
  - ✓ **quality,**
  - ✓ **amount of power**
  - ✓ **the economic performance and the competitiveness of companies and of the nation-state, the growth of GDP, employment, etc.**



## New energy policy discussions in the Facebook in Finland

- These two storylines are devices through which actors can be positioned e.g. as problem solvers, victims, perpetrators, scientists, or as scaremongers



problem solver



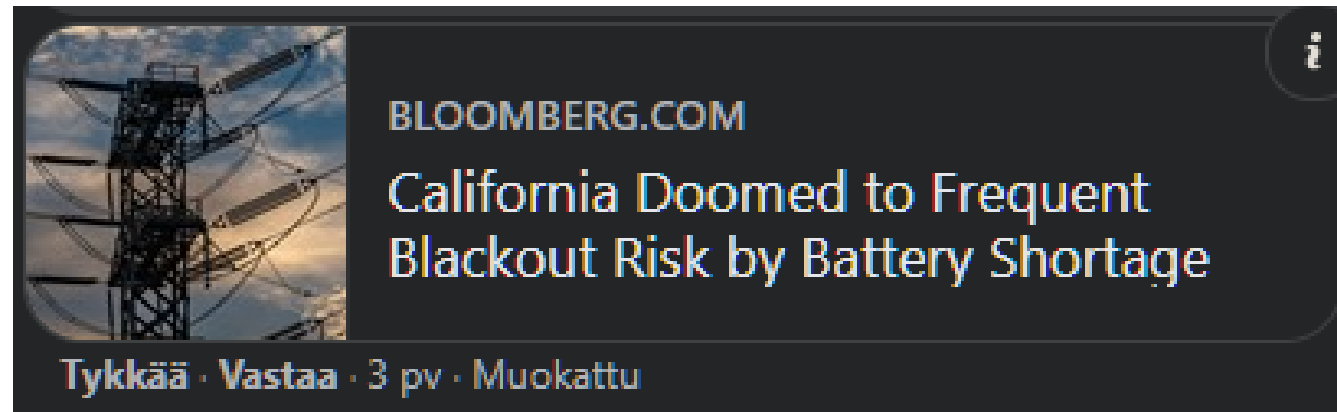
## New energy policy discussions in the Facebook in Finland

- ‘Nuclear power’ storyline labels the wind and solar power as "Random power" or "Happenstance power"
- emphasizing the intermittent role of these energy sources.
- In the discussion, the question expressed is normally:
  - ✓ "What can we do when there is no wind and the sun is not shining"?



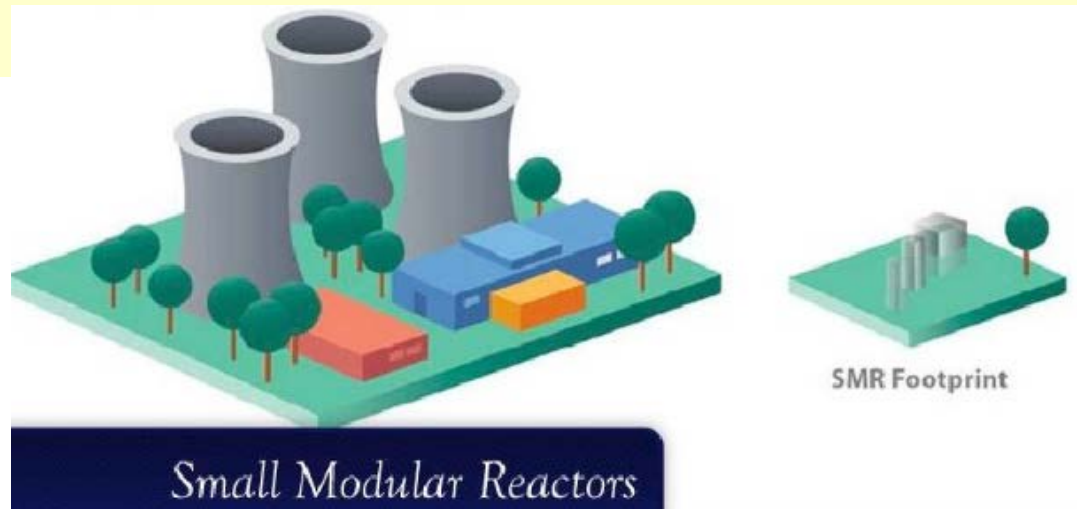
## New energy policy discussions in the Facebook in Finland

- **‘Nuclear power’ storyline is also linked to the arguments of the insufficient storage capacity of electricity**



## New energy policy discussions in the Facebook in Finland

- Proponents of the 'Nuclear power' storyline often attack forcefully against the use of term 'renewable energy' and insist that the term 'carbon neutral energy' should be used instead
- Some members of this discursive coalition are employed by large power companies or small think tanks and consulting companies



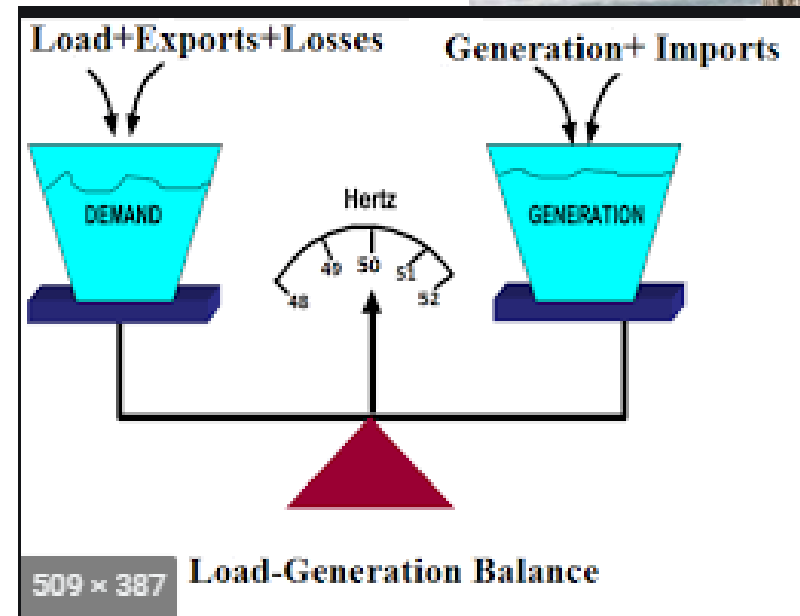
## New energy policy discussions in the Facebook in Finland

- The “Nuclear power” storyline is emphasizing the steady electricity production from nuclear power plants as an antithesis to the wind and solar power
- This is argued to enable competitive production in the heavy industry, especially in basic metal and pulp and paper industry
- An illustrative old argument was "a paper machine does not run on windmills" or “wind power may be suitable for other purposes but not for forest industry”



## New energy policy discussions in the Facebook in Finland

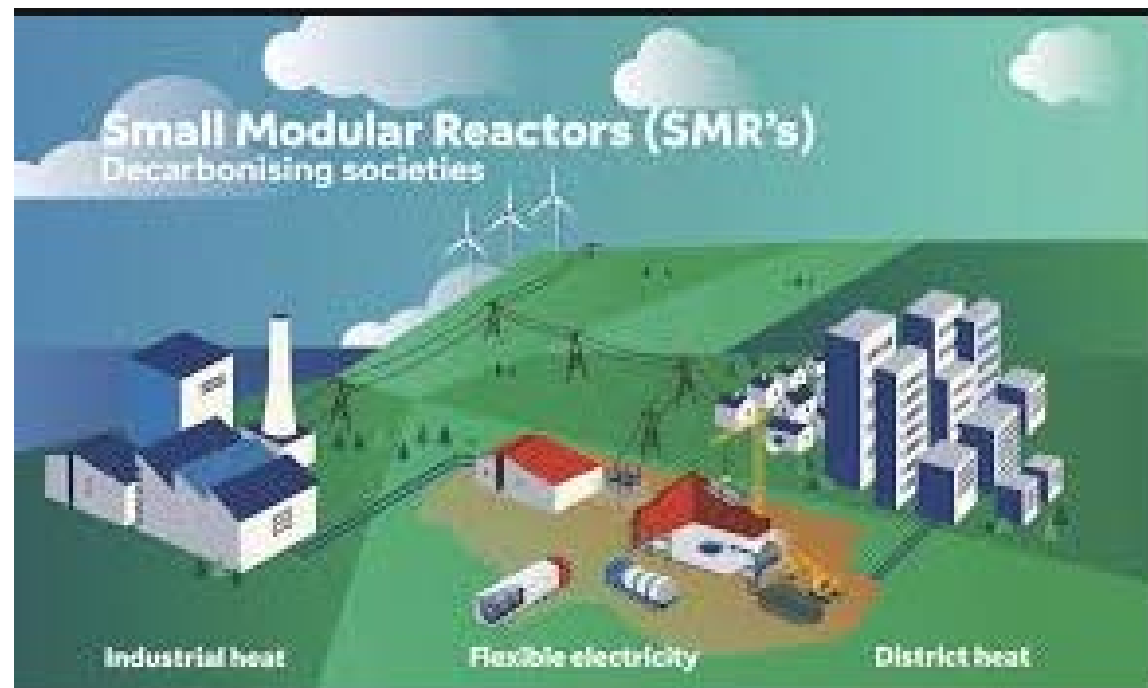
- The need for balancing the production and consumption in every second is one of the main argument in “Nuclear power” storyline
- These arguments are used
  - ✓ to predetermine the problem definition and
  - ✓ to struggle over the discursive hegemony.



## New energy policy discussions in the Facebook in Finland

- In the “Nuclear power” storyline the economic problems and long construction time of nuclear power plants are often discredited with the argument of future development of small modular reactors

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## New energy policy discussions in the Facebook in Finland

- The argument of carbon-free electricity production with nuclear power has become dominant
- This is used for reversing the older counterargument that nuclear power is environmental hazardous due to the nuclear accident and waste problems



## New energy policy discussions in the Facebook in Finland

- This discursive change has been able to impact the acceptability of the nuclear storyline and the public perception towards nuclear energy in Finland
- Today more people see nuclear power production as part of the solution to climate change problems.
- In a survey about energy attitudes by Finnish Energy Industry, amount of people supporting increase of nuclear production has increased from

**30 % in 2015 to  
47 % in 2019**



## New energy policy discussions in the Facebook in Finland

- The renewable energy storyline has several "branches" for different energy sources.
- Wind power production is often emphasized with the argument of
  - ✓ low production costs and
  - ✓ larger production during the wintertime when electricity consumption is highest in Finland



## New energy policy discussions in the Facebook in Finland

- **The counter-arguments against wind power:**
  - ✓ fluctuating power output
  - ✓ potential noise pollution at infra-sound frequencies,
  - ✓ visual disturbance,
  - ✓ a threat to birds and bats (a special Finnish discussion)
  - ✓ government subsidies needed earlier



## New energy policy discussions in the Facebook in Finland

- Arguments supporting solar power development are often based on
  - ✓ fast decreasing prices of solar panels
  - ✓ increased reliability to be achieved through decentralised electricity production
  - ✓ possibilities of the prosumer approach
- The economic arguments to support wind and solar power have become dominant while earlier the arguments for renewable energy were mainly environmental



## New energy policy discussions in the Facebook in Finland

- **Biomass-based electricity production is often supported using arguments of**
  - ✓ **vast biomass resources in Finland,**
  - ✓ **the employment benefits distributed in rural areas,**
  - ✓ **utilization of waste products especially in the forest industry and agriculture,**
  - ✓ **highly developed supply chains and**
  - ✓ **high technology skills in Finland for biomass utilization**



## New energy policy discussions in the Facebook in Finland

- **Biomass discussion is tightly linked to the capacity of Finnish forests**
  - ✓ to supply raw material for the pulp and paper industry
  - ✓ to function as the carbon sink and storage.
- **The European Union definitions about the calculation methods for land use-related emissions are central here**
- **Biodiversity discussion has a specific role to forest biomass use and the role of commercial forests in timber production.**



## Conclusions

- **The changes in the framing of energy transition show that the interlinkages between economic and environmental questions are crucial in the discursive struggle**
- **The complexity of the energy transition can be seen in the development of new argumentative chains to support certain definitions of reality and determining which concepts are valid in the discussion**
- **Here the credibility, acceptability, and trust of the different actors have an important role**



## Conclusions

<b>Nuclear power supported</b>	
<b>Earlier</b>	<b>Now</b>
<b>Cheap price</b>	<b>Carbon free production</b>
<b>Renewable energy supported</b>	
<b>Earlier</b>	<b>Now</b>
<b>Environmentally friendly</b>	<b>Cheap price</b>

## Conclusions

- **The historical path dependency impacts the sphere of maneuverability in the energy transition**
- **The potential sunken costs of past investments provide**
  - ✓ **momentum for continuing the historical development path**
  - ✓ **supporting the economic arguments over**
  - ✓ **the environmental concerns**



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**Thank you**

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