Germany Country Report

Landscape: Promotion of Renewable Energy Sources

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SEVENTH FRAMEWORK PROGRAMME

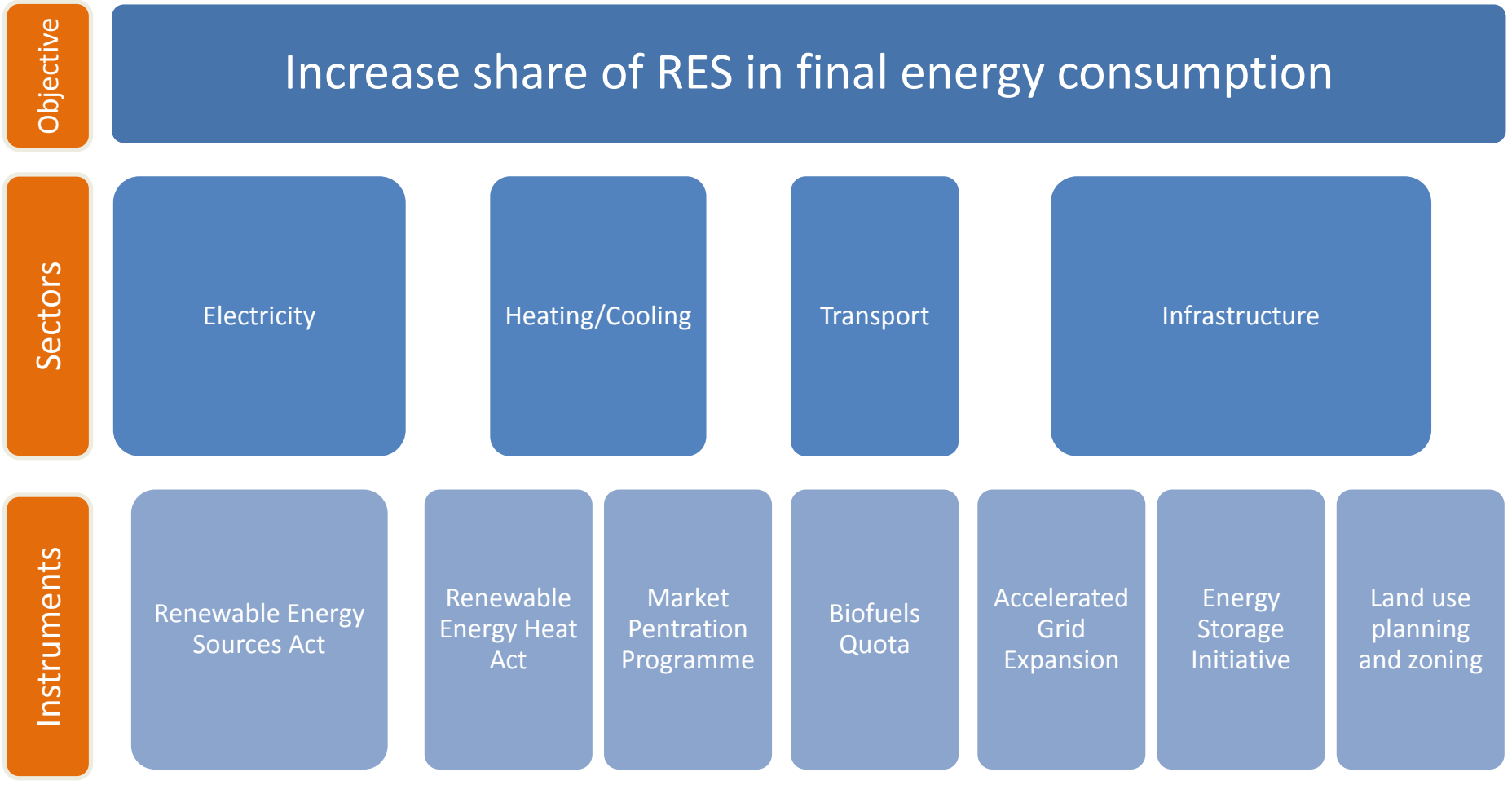
Agenda

- Climate and Energy Policy in Germany
- Landscape: Promotion of Renewable Energy Sources
- Optimality
- Interactions
  - Interactions within the Landscape
  - Interaction Carbon Pricing
  - Interactions with Energy Efficiency
- Summary

Climate and Energy Policy and Targets

		2020	2050
GHG emissions reductions (vs 1990)		-40%	-80 - 95 %
Renewable Energy	Share of electricity	35%	80%
	Share of heating	15%	-
	Share of transport	10%	-
	Overall share (Gross final energy consumption)	18%	60%
Energy Efficiency	Primary energy consumption	-20%	-50%
	Electricity consumption	-10%	-25%

Policy landscape: RES in Germany



RES: key measures in Germany

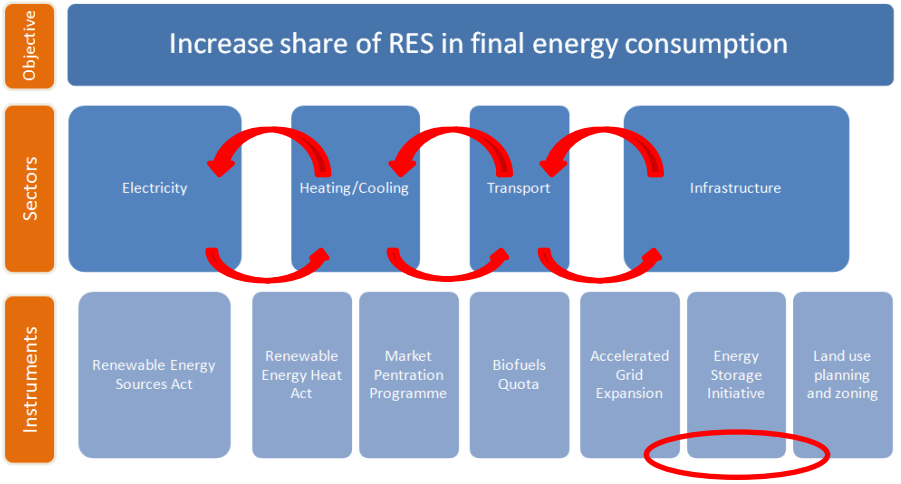
- Renewable Energy Sources Act , EEG (RES-E)
  - Feed-in tariff for renewable electricity, guaranteed for 20 years
  - Priority access to grid
  - Costs are equalized to all final energy consumers (with derogations for energy-intensive industry)
- Renewable Energy Heat Act (RES-H)
  - Obligation to use renewables for heating in new buildings (Command-and-control)
  - Obligation can also be met by energy performance standards < Energy Saving Ordinance
  - Completed by Market Penetration Programme (existing buildings)
- Biofuels Quota Act (RES-T)
  - Biofuels quota for mineral oil companies
  - So far based on energy content, from 2015 onwards on net GHG reduction
  - Quota obligation can be traded

Optimality

- Effectiveness (target achievement)
  - RES-E, RES-H: on track, RES-T: further effort required
- Efficiency
  - Static efficiency not achieved, dynamic efficiency needs detailed evaluation within the project
- Feasibility
  - Acceptance: Generally high acceptance, locally opposition, RES-T
  - Administrative:
    - RES-E: high, transfer of implementation to grid operator
    - RES-H: improvement of controls needed
  - Legal: RES-E: little flexibility, lobbying

Interactions within the landscape

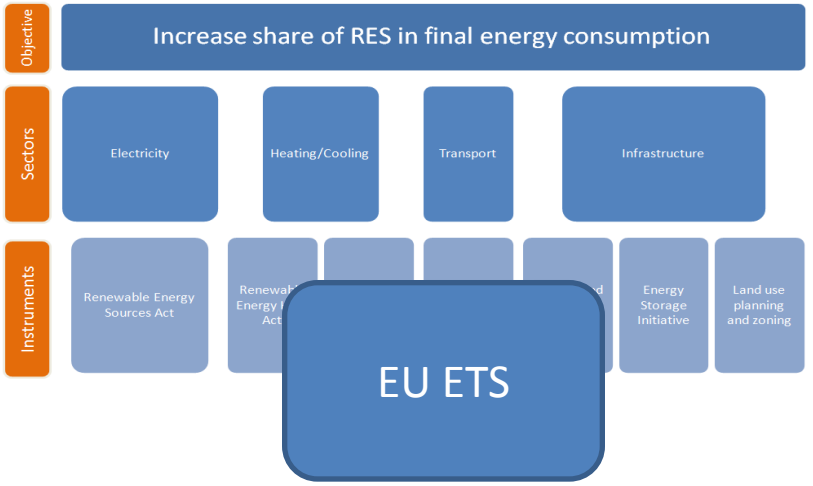
- Objective
  - Individual targets, but little coordination
- Scope/Coverage
  - High burden for private sector
  - Investments in RES-E reduce investments in RES-H



- Functioning /influencing mechanism
  - Competition for scarce resources: biomass feedstock, private investments, rooftop space
  - Further expansion depends on sufficient infrastructure
- Implementation network / administrative infrastructure
  - Legislative competences at the federal level (Federal Environment Ministry), but states partly responsible for implementation

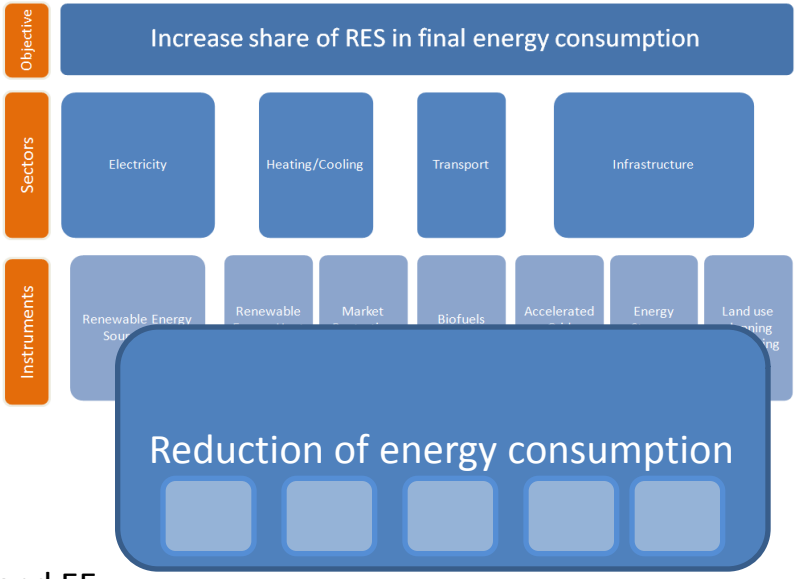
Interactions with Carbon Pricing (EU ETS)

- Objectives
  - Different but RES-E has impact on demand for EUAs from power sector
- Scope/coverage
  - Targets groups are very different (Large industries vs. small private investors)
- Functioning and influencing mechanism
  - RES-H partly funding from the Energy and Climate Fund (revenues from EUA auctioning)
  - High EUA prices increase RES-E profitability
  - High EUA price → high electricity prices → low EEG surcharge
- Implementation network /administrative infrastructure
  - ETS mainly implemented at EU level, RES-E mainly, RES-H totally on MS level



Interaction with Energy Efficiency (EE)

- Objectives
  - No overlaps, but reaching EE targets in the electricity sector increases level of target achievement in RES-E
- Scope and coverage
  - Target groups basically the same (private investors/households)
  - Abundant RES-E may lead to less interest in EE
- Functioning /influencing mechanism
  - Competing investments by household owners in RES-H and EE
  - RES-H and EE policies are partly funded from the same Energy and Climate Fund
- Implementation network /administrative infrastructure
  - EE in different ministerial responsibilities than RES, short term interest may impede ambitious policies



Interaction - Summary

- Within the RES landscape
  - Scope on the private sector and competition for biomass feedstock leads to conflicting relationship within the sector
  - Conflicts within the landscape have lead to an high investment in the electricity sector and loosing acceptance in the transportation sector
- RES – Carbon Pricing (ETS)
  - High EUA prices make RES-E more profitable and acceptable
- RES - Energy Efficiency
  - Conflicting influencing mechanism/administrative infrastructure lead to focus on the RES landscape at the expenses of the EE landscape (RES instruments reduce support for EE)
  - Competition for the same limited resources (biomass, private investments, Climate and Energy Fund)

Thank you for your attention.

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