GENeSYS-MOD

GENeSYS-MOD: input and outputs

❑ **GENeSYS-MOD is a linear techno-economic framework, ideally suited to analyze medium to long term developments of the energy system**
- Sectors: Electricity, Industry, Buildings, and Transportation
- Flexible regional focus and remporal disaggregation
- Variable time horizon (usually until 2050)

❑ **Typical outputs of GENeSYS-MOD are:**
- Capacity expansion
- Dispatch of all considered final energies
- Use of storages, flexibility options, and sector-coupling
- Emission reductions

❑ **Some general information**
- GENeSYS-MOD is written in GAMS
- GENeSYS-MOD is open source
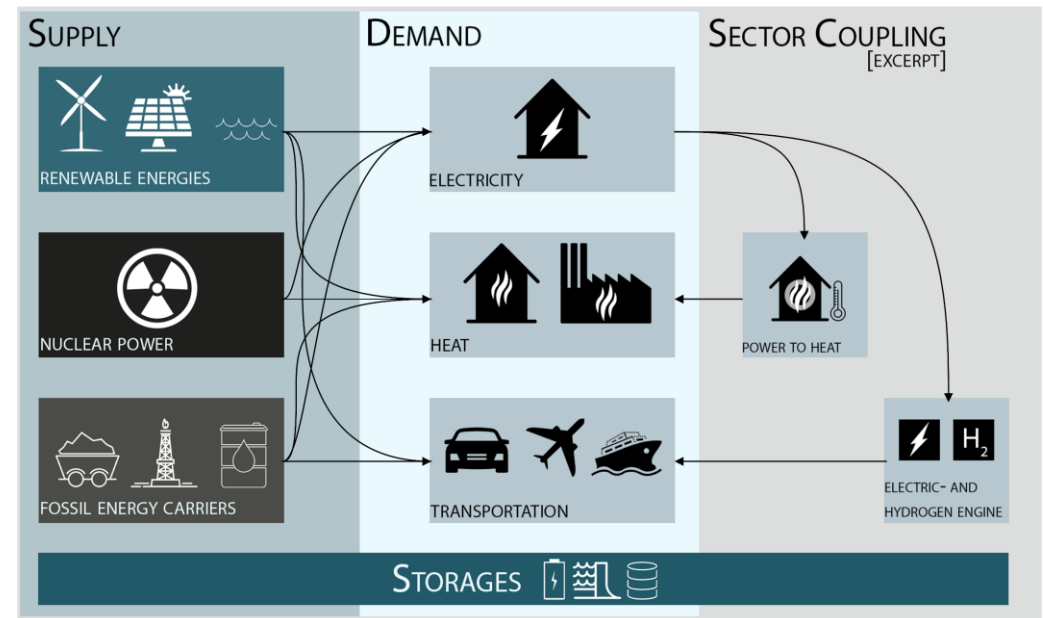
GENeSYS-MOD: Use cases

❑ **Examples of case studies for which GENeSYS-MOD is being used or has been used in the past**

- ▪ **Pathway projections of energy systems on different regional levels**
  - ➢ **Global**
  - ➢ **Continental (Europe)**
  - ➢ **Single Countries (Germany, China, India, Mexico, Japan, South Africa)**
- ▪ **Effects of short-sightedness of policy action with a special focus on stranded assets**
- ▪ **Effects of different carbon budget allocation mechanisms in the European Union**
- ▪ **Effects of employment developments through the energy system transformation**
- ▪ **Sensitivity of the energy system with respect to varying (and uncertain) input parameters**

GENeSYS
GLOBAL ENERGY SYSTEM
MODEL

Thank you, questions?

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Documentation

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