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Technical and Economic Added Value of Local RES Deployment

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Zero Emission Campus
Technical Aspects

- **Energy Efficiency**
  - **Demand side**
    - energy required for a *service / production*
  - **Supply side**
    - energy required to *operate the supply system*

Data: Energy Matters, Nate Hagens
Technical Aspects

- **Less Grid Losses**
  - Decentralised power production, close to the demand
  - **Savings equal to the annual production of a large nuclear power plant**

Data: AGEB
Economic Aspects

- Systemic Approach
  - **Decentralised energy mix** versus energy-only market
  - Less infrastructure cost for grid operation
    - Less transportation
    - Less need for ancillary services

*Data: 50hertz, Amprion, Tennet, TransnetBW*
Economic Aspects

- Less Dependency on Imports
  - Exchange rate fluctuations
  - Gross economic backlash
  - Political aspects

Data: AGEB/BMWi
Social Aspects

- Economic Development
  - In particular benefits for rural regions
  - Countryside supplies energy to urban areas

![Graph: Production of Renewable Power](image)

- Cities
- Urban Districts
- Compacted Rural Districts
- Less Populated Rural Districts

Data: Thünen-Institute
Social Aspects

- Participation
  - Regional value added
  - Acceptance for a system transition

**Investments in Renewable Power Plants**

- Citizens: 47%
- Institutional investors: 41%
- Utilities: 12%

Data: trend research
Zero Emission

A Question of Global Thinking and Local Action

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