

# POWER INDUSTRY DEVELOPMENT IN THE CZECH REPUBLIC A RELIABLE, SAFE, AND RESPONSIBLE SOURCE MIX

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# The Czech Republic – a significant European crossroad of energy flows



Gas pipelines

Oil pipelines



# Current challenges for Czech energy sectors

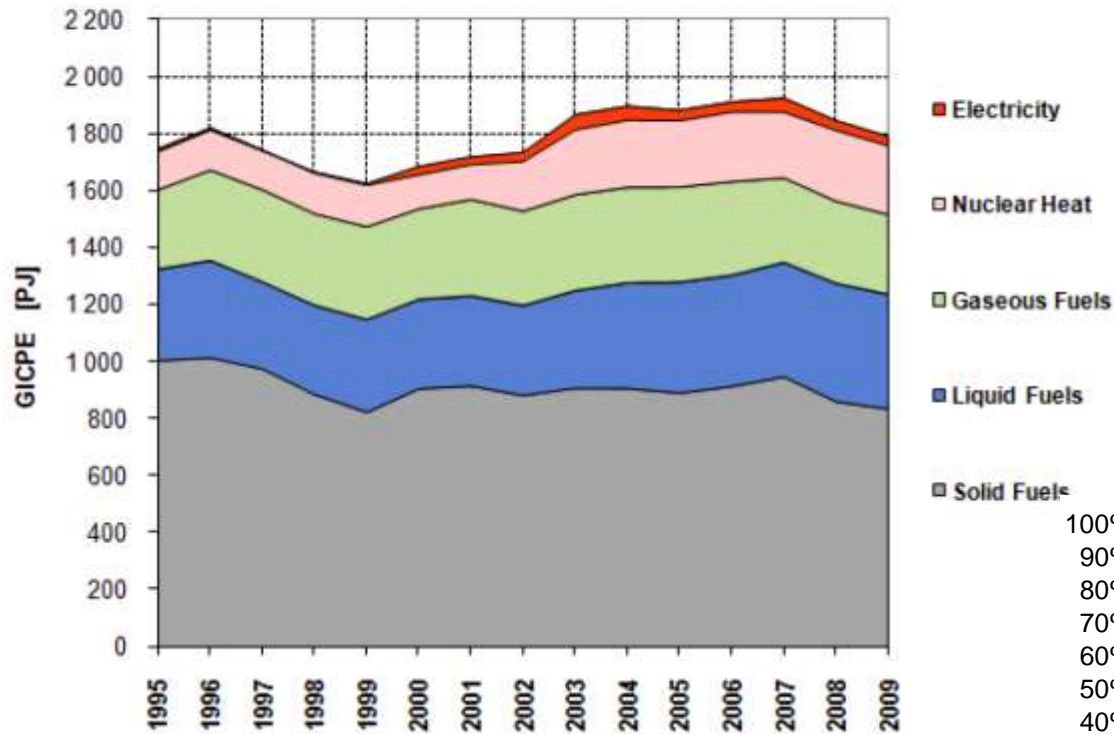


- **Call for long-term energy policy and stable legal and regulatory framework (4/40 principle)**
- **Independent Energy Commission (so-called Pačes Comm.) – group of experts to assess energy policy - long-term energy needs**
- **Pačes Committee has stimulated broad public discussion about energy issues**
- **Media interest in energy issues continues and now seeks less hot stuff and more accurate information**
- **Excessive support of „green subsidies“ is under criticism (photovoltaics case)**
- **Change of public opinion on nuclear future – both public and political support**

# The structure of primary energy resources

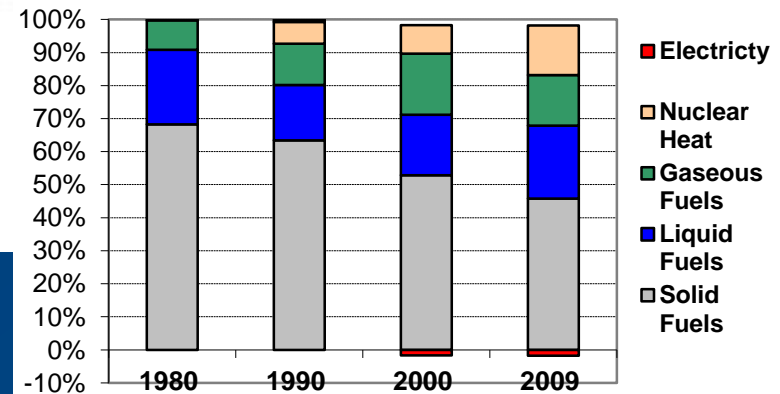


Figure 2.11 Structure of the Czech Gross Inland Consumption of Primary Energy

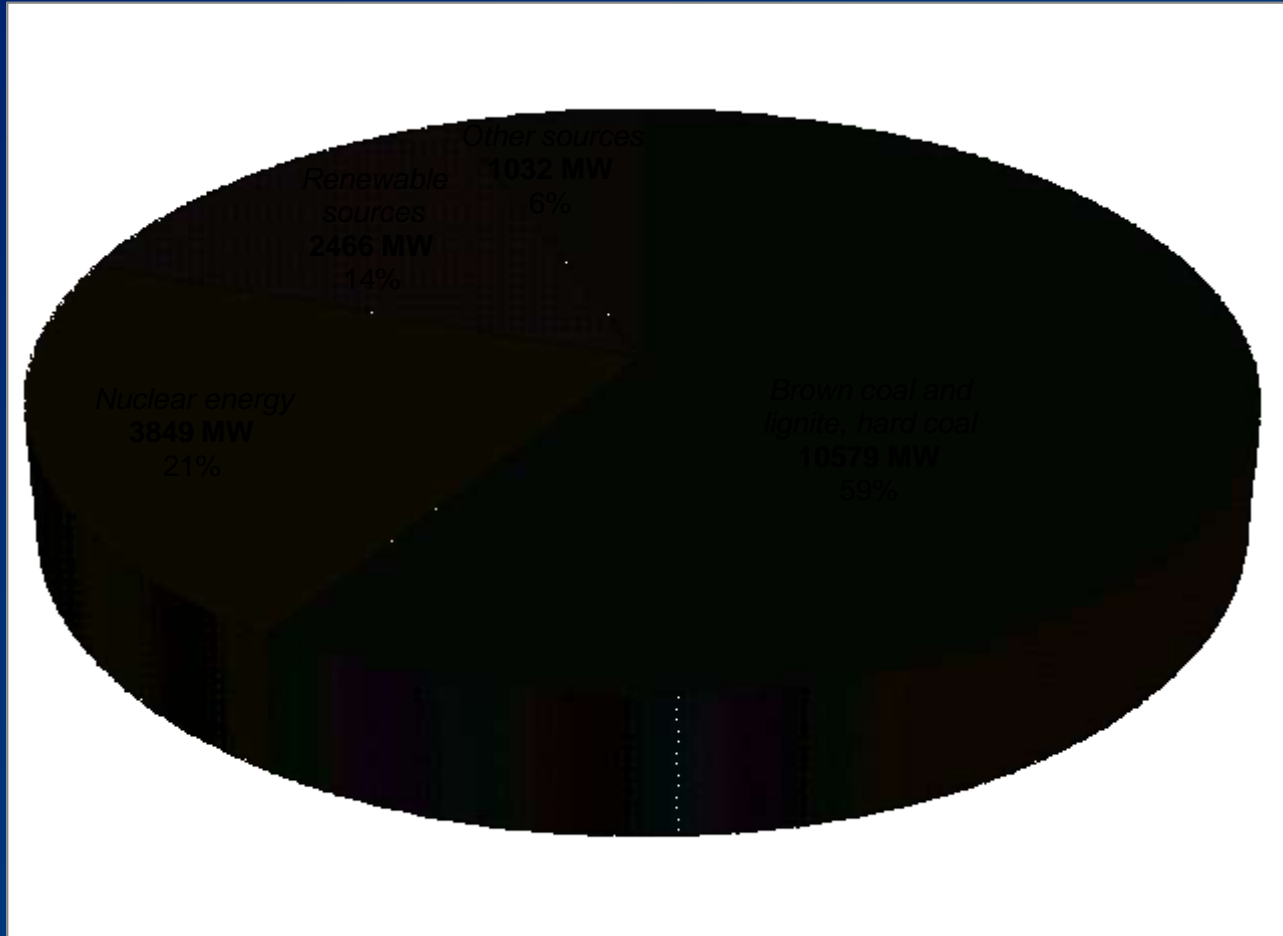


Import dependency

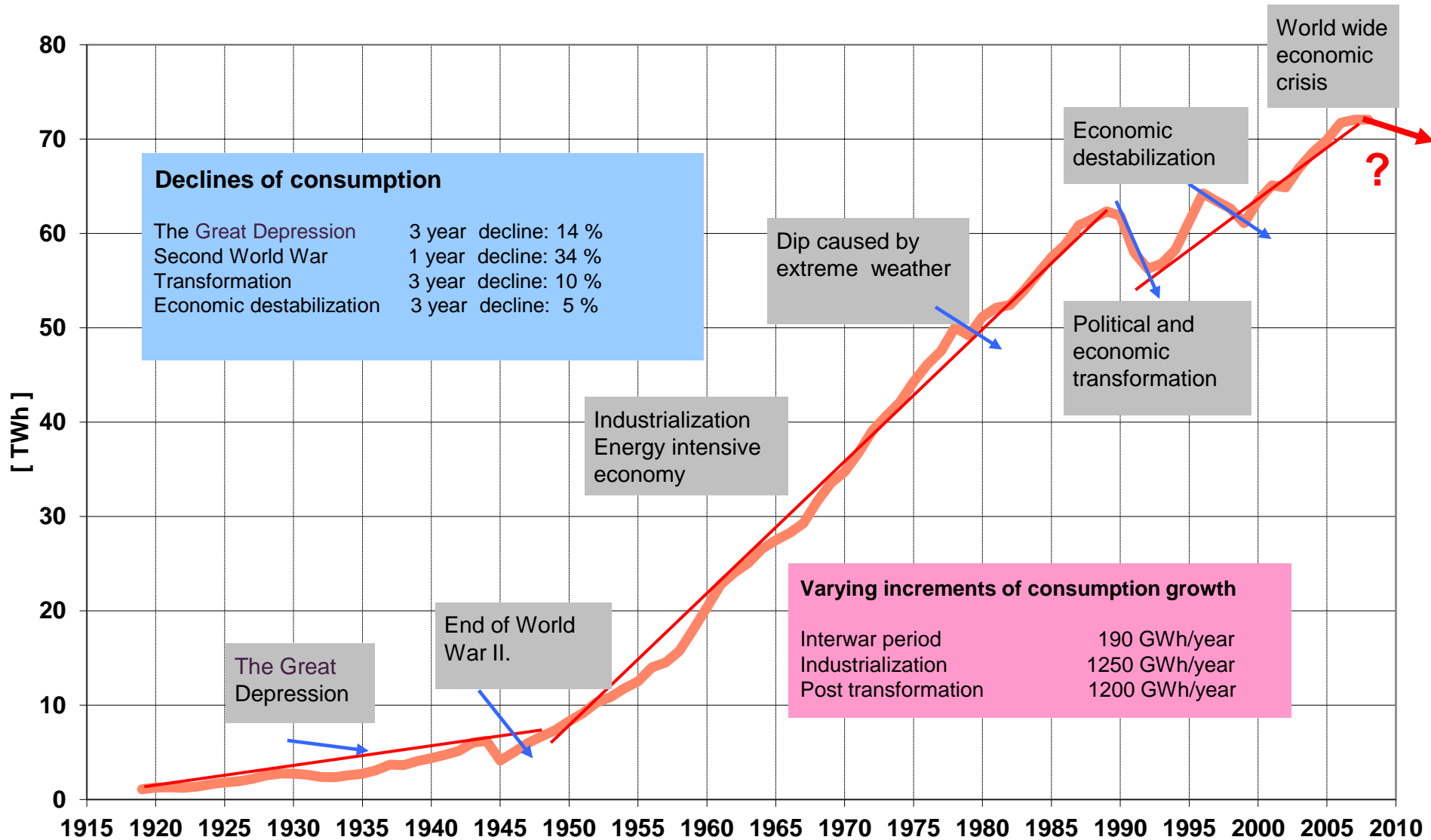
- natural gas
- crude oil
- nuclear fuel



# Breakdown of electrical power capacity

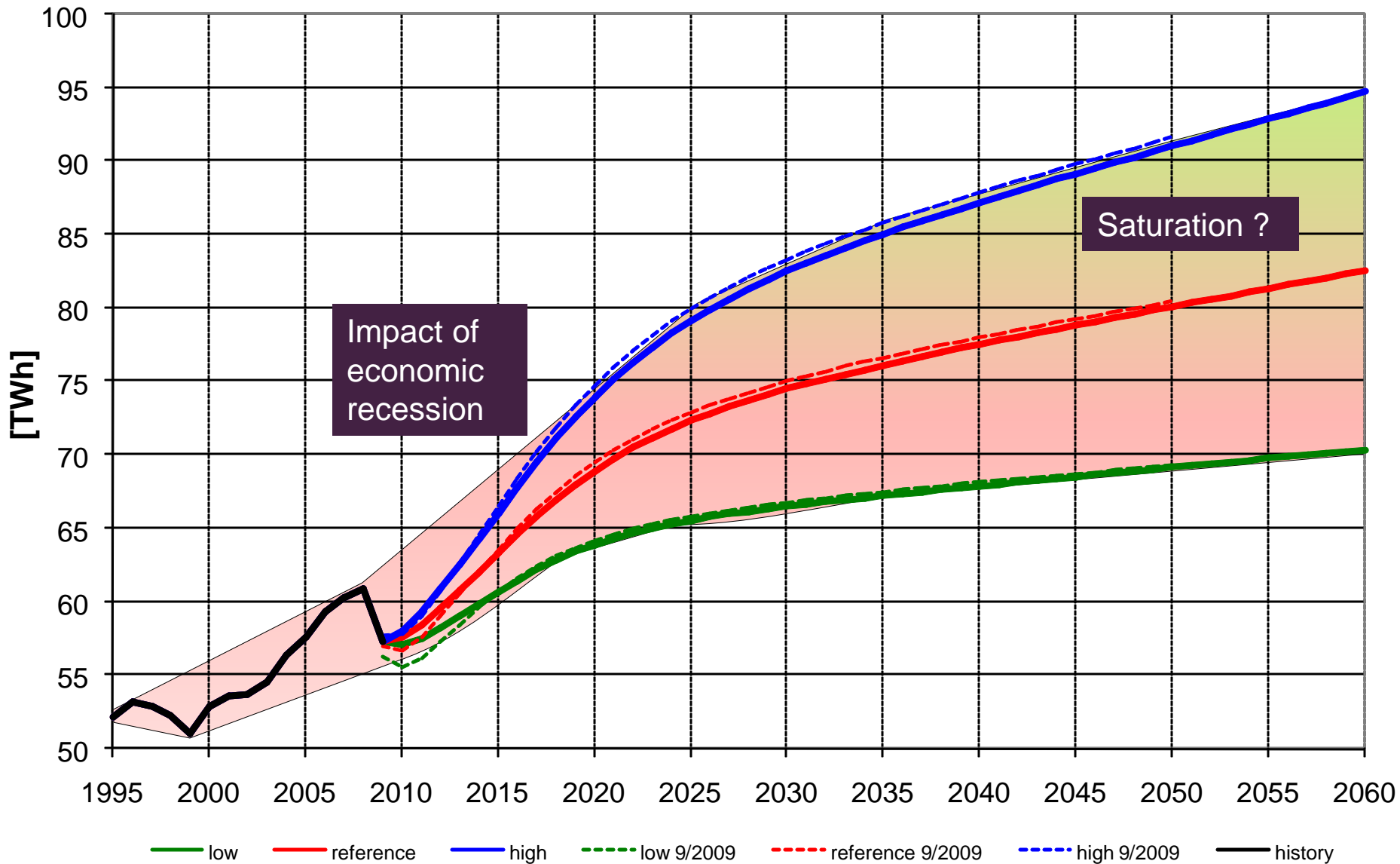


# Historical record of electricity consumption





# Old electricity forecasts and real consumption



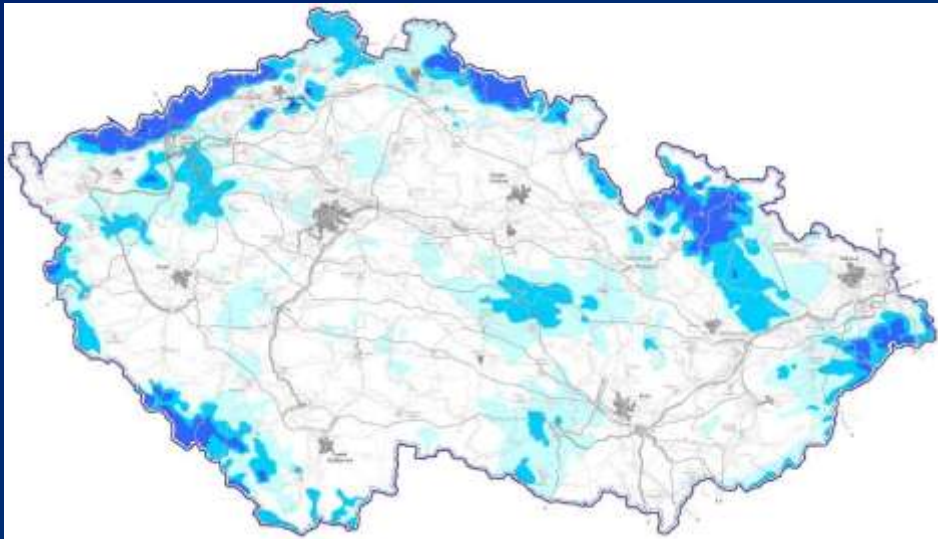
# Cornerstones of sustainable Czech energy development

- Domestic energy resources and potentials – lignite, uranium, hydrofuel, other renewables (biomass, wind, solar)
- EU requirements: Directive 71/2001 set indicative RES targets for 2010; Energy Package 20-20-20 set mandatory quotas for 2020
- Political interference in energy issues – confirming coal-mining limits, continuing excessive support of renewables
- New energy projects (plants, lines, stations) are checkmated by lengthy licensing processes and NIMBY

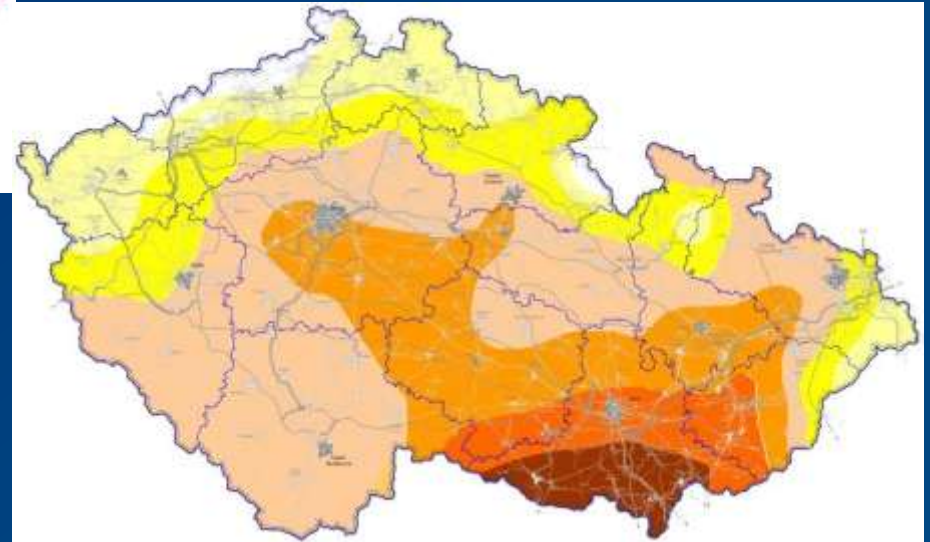


# Natural conditions for renewable energy exploitation

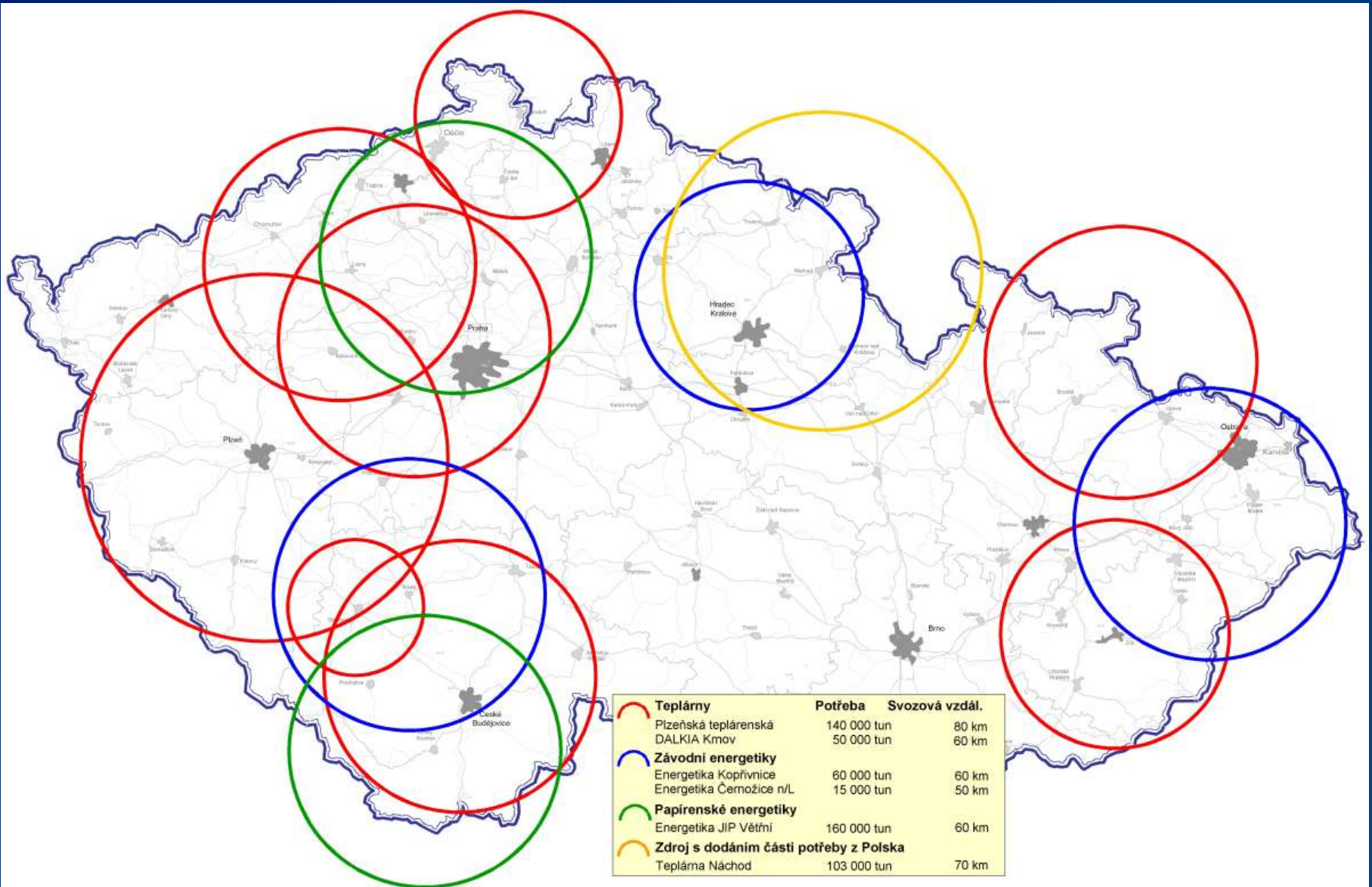
WIND DISTRIBUTION POTENTIAL  
IN THE CZECH REPUBLIC



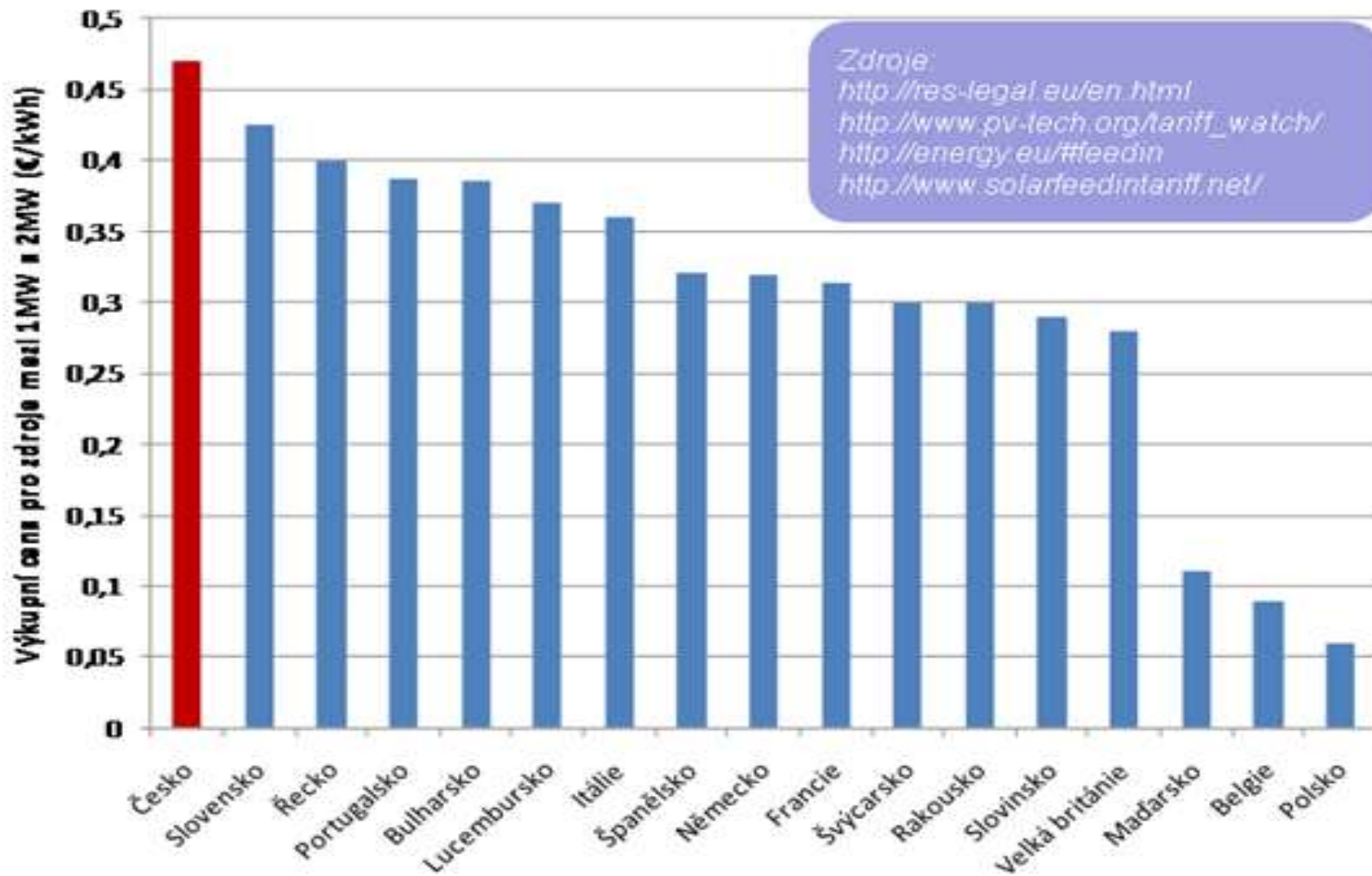
AVERAGE SUN CONDITIONS  
IN THE CZECH REPUBLIC



# Transport radius for large biomass projects



# Excessive support of renewables – impact on the final consumer price



# Wind electricity flows

Power flows in Europe during high production of wind power plants in Germany

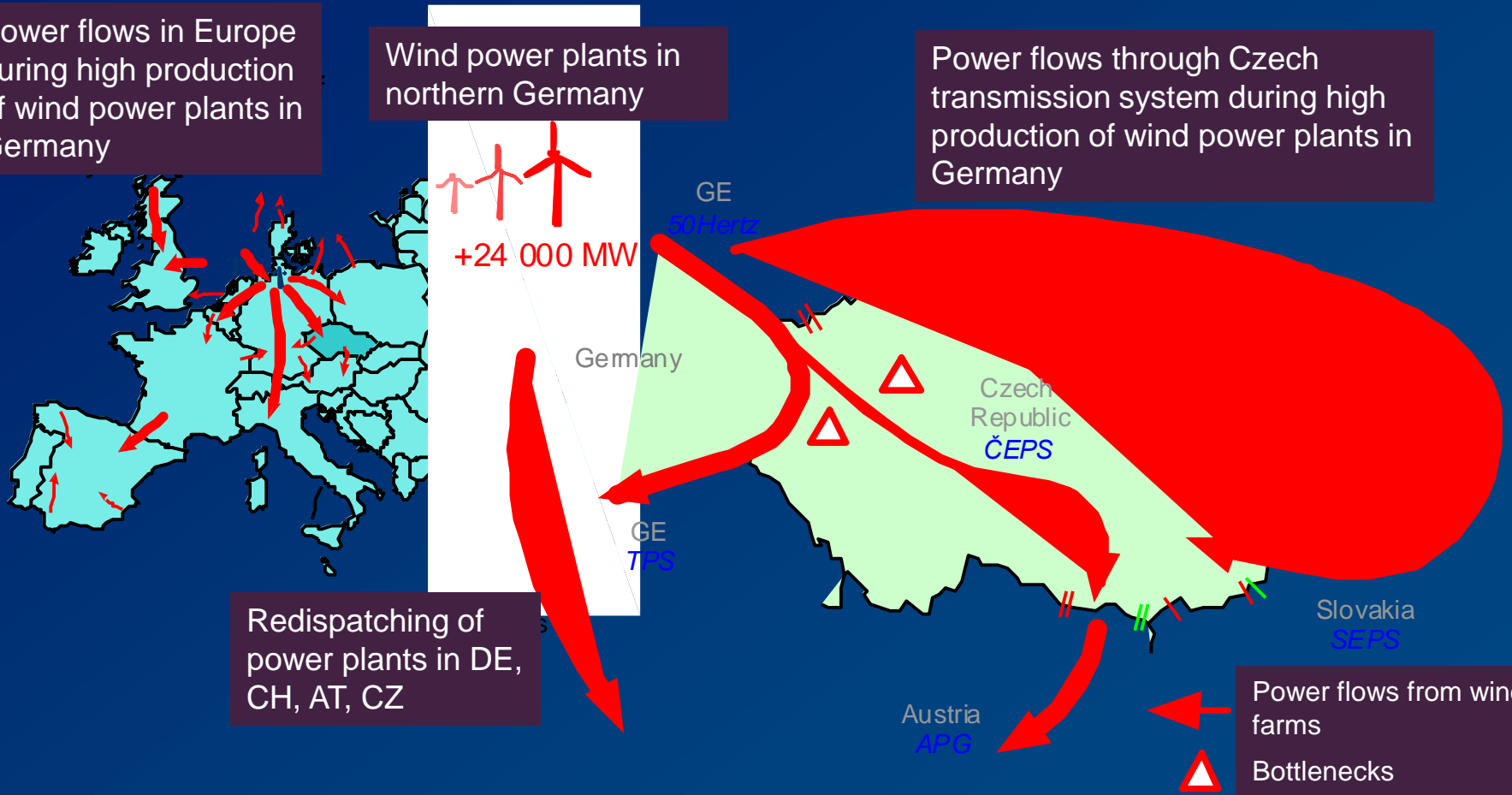
Wind power plants in northern Germany

Power flows through Czech transmission system during high production of wind power plants in Germany

Redispatching of power plants in DE, CH, AT, CZ

Power flows from wind farms

Bottlenecks





# Imperatives for future energy development

## Well balanced energy mix

- **Nuclear**
  - Get ready to substitute the existing units
  - Replace obsolete coal-fired power plants
- **Domestic coal**
  - Efficiently utilize coal reserves
  - Give more priority to the central heating
- **Imported oil**
  - Motor fuels
  - Chemical products
- **Imported gas**
  - Maintain local heating
  - Balancing capacities
- **Renewables**
  - Keep costs affordable
  - National allocation plan

# Imperatives for future energy development



- **Coordinate energy infrastructure development within the EU and the CEE region !**
- **Support conservation and green energy, but at affordable cost !**
- **Depoliticize decision making in energy business !**



**Thank you for your attention**

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**Czech Republic**

