

EU Energy Supplies: Integrating Climate
Change Policies and Renewable Energy
Standards with the Goal of a Secure Energy
Future

The European Parliament Brussels

October 18, 2005

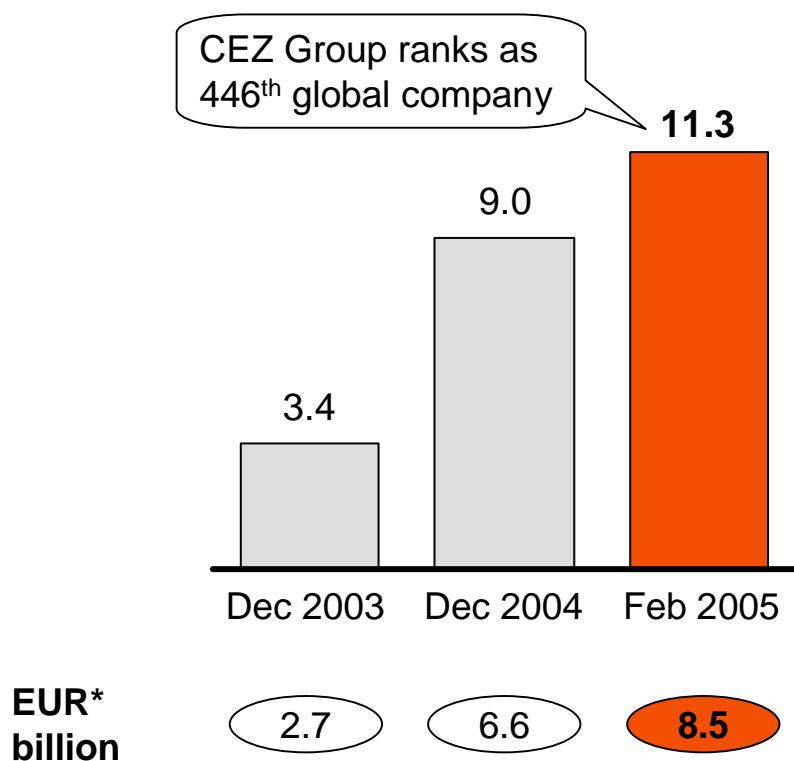
*Karel LUKAS, Director, CEZ Representation Office
Brussels*



CEZ GROUP BELONGS TO TOP 500 BIGGEST GLOBAL COMPANIES AND TOP 10 EUROPEAN POWER UTILITIES

Market capitalization of CEZ Group

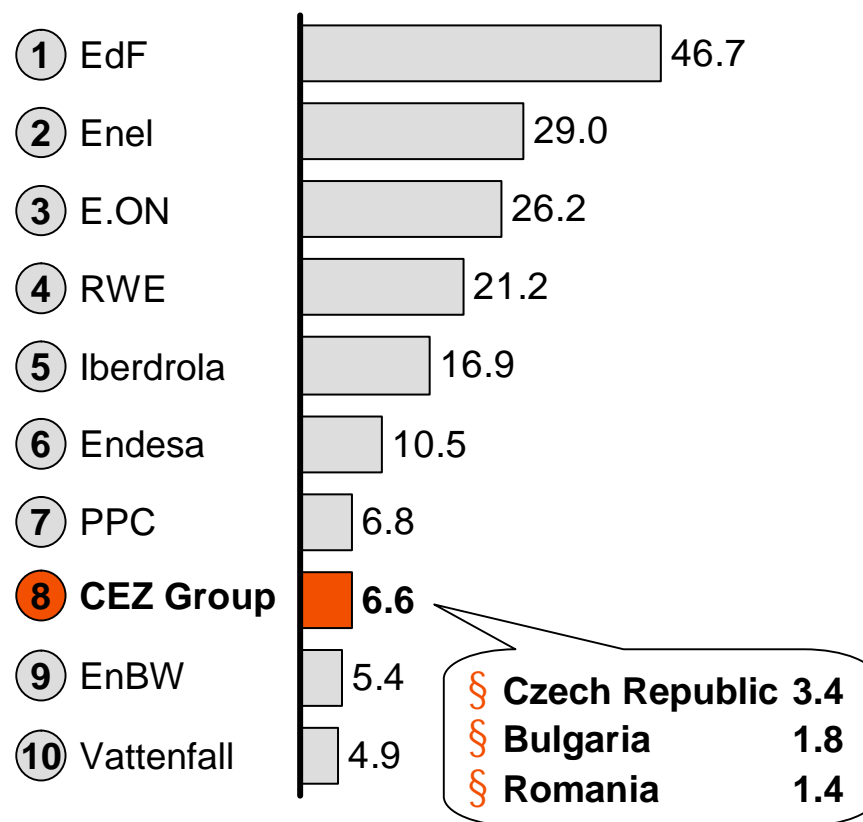
USD* billion



* 2003: 1.26, 2004: 1.36, 2005: 1.37

Top 10 European power utilities

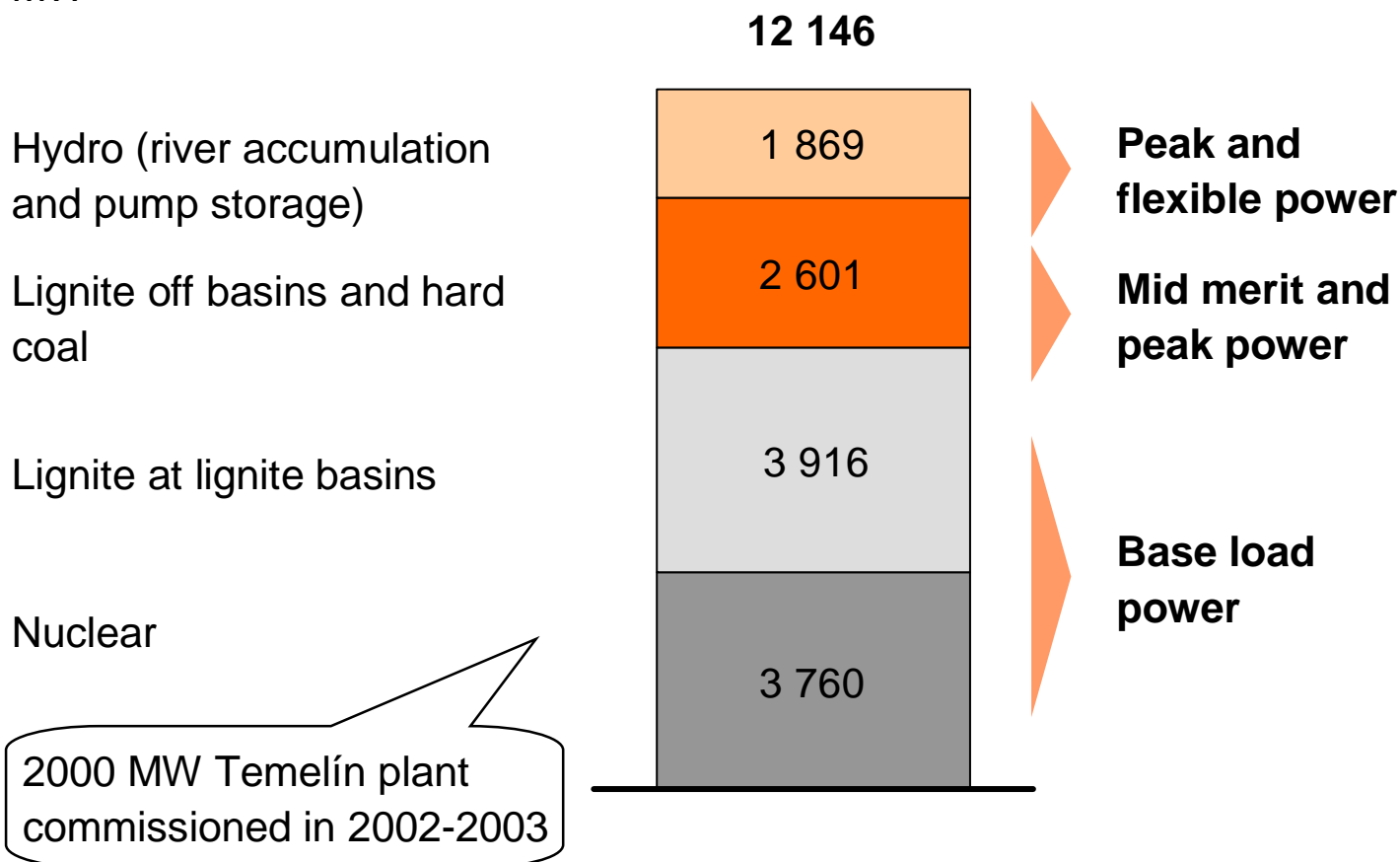
Number of customers, million





WITH TEMELIN, ČEZ GROUP OPERATES BALANCED COST COMPETITIVE GENERATION FLEET OF 12 GW

ČEZ generation capacity MW

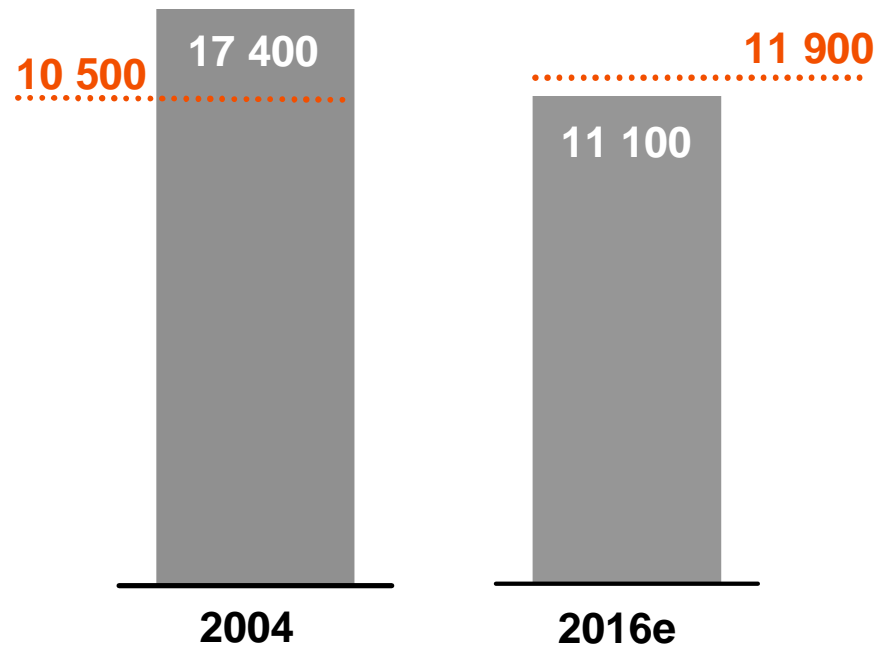




LIBERALIZED ENERGY SECTOR WILL HAVE TO MEET THE GROWING DEMAND IN FUTURE

2

Instaled capacity in Czech Republic MW



..... Peak demand

§ **Generation capacity shortage over the next 10 to 15 years due to decommissioning of obsolete units and demand growing**

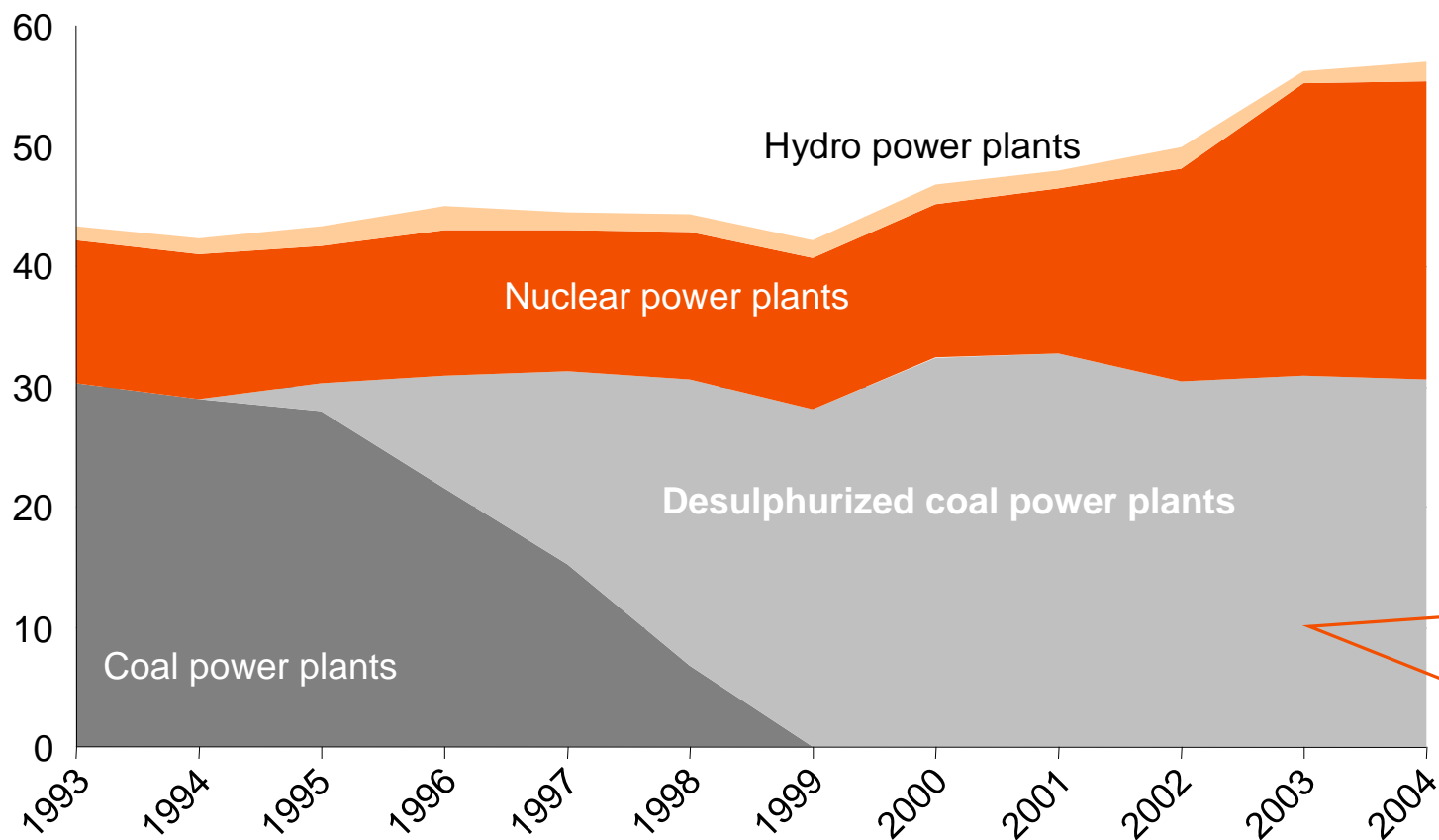
§ **In liberalised economy the utilities will construct new power plant only if adequate return of investment is guaranteed**



CEZ GROUP NOW OPERATES BALANCED, CLEAN AND COST COMPETITIVE GENERATION FLEET OF 12 GW

Generation structure of CEZ Group

TWh



CEZ Group emission change 2003/1993

| | |
|-----------------|-------|
| CO | - 78% |
| Fly-ash | - 95% |
| NOx | - 49% |
| SO ₂ | - 92% |

CEZ invested EUR 1.5 billion into desulphurization of its plants between 1993-1999



DECISIONS ON NEW PLANT CONSTRUCTION ARE CONDITIONED BY SEVERAL FACTORS

2

CZECH EXAMPLE

Availability of Fuel

§ Limited sources in the Czech Republic (largely depleted lignite reserves)

CO₂ Regulation

§ Unclear allocation rules for CO₂ quotas and their price

Investment incentives

§ No support for new plants with partial exception for renewables and cogeneration

Authorization

§ Long procedures – making investment more expensive, launch of new capacities on the market delayed, risk of non-authorization

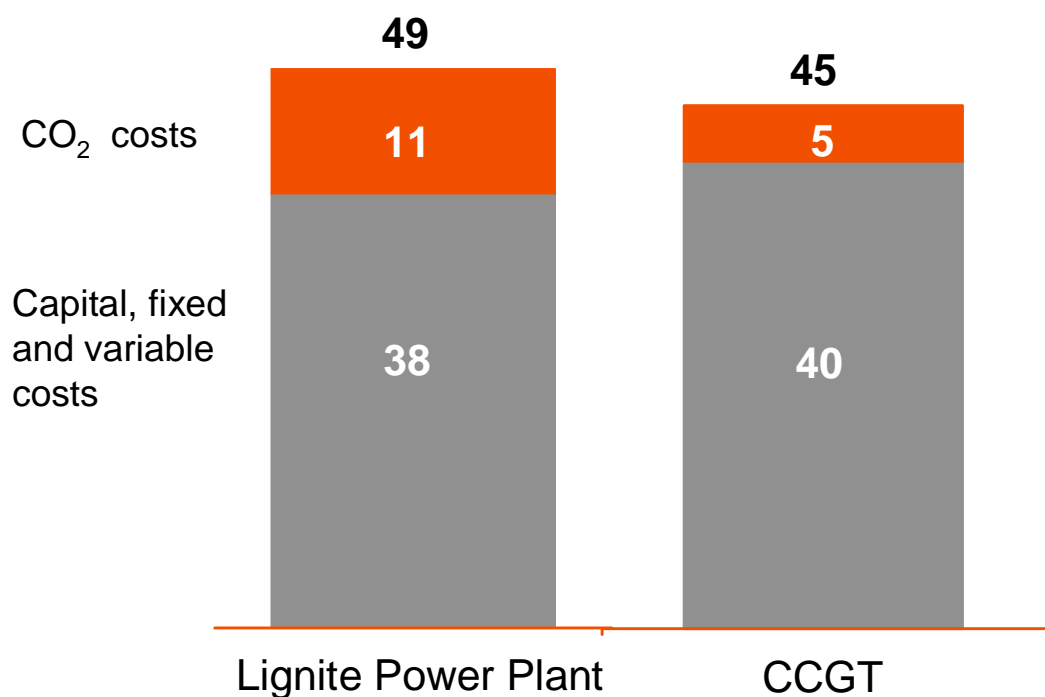


RULES FOR ALLOCATION OF CO₂ QUOTAS MAY CHANGE CHOICE OF FUEL/TECHNOLOGY

2

ILLUSTRATIVE

New power plant – full costs, Eur/MWh



- § Choice of technology is critically dependent on CO₂ regulation (number of permits and CO₂ costs)
- § Uncertain outlook of CO₂ regulation in the Czech Rep. hampers investments decision
- § To stop coal-firing generation is a risk as coal is the only indigenous primary energy source in CEE countries.
- § That is why in Germany new coal power plants receive CO₂ quotas for next 15 year



ČEZ generation portfolio is facing significant challenges in the near future ...

- § More than 90% of coal resources installed capacity reaches end of life time by 2020
- § Significant reduction of available lignite by 2017 (coal-mine ČSA), further inevitable reductions, after limit break throw ČSA no lignite available beyond 2035-40
- § Strict SO₂ NO_x emission ceilings to be introduced by 2016
- § CO₂ emission trading launched in 2005
- § Opening borders to Europe in 2002 brings competition from Western Europe, CEE and potentially from Russia

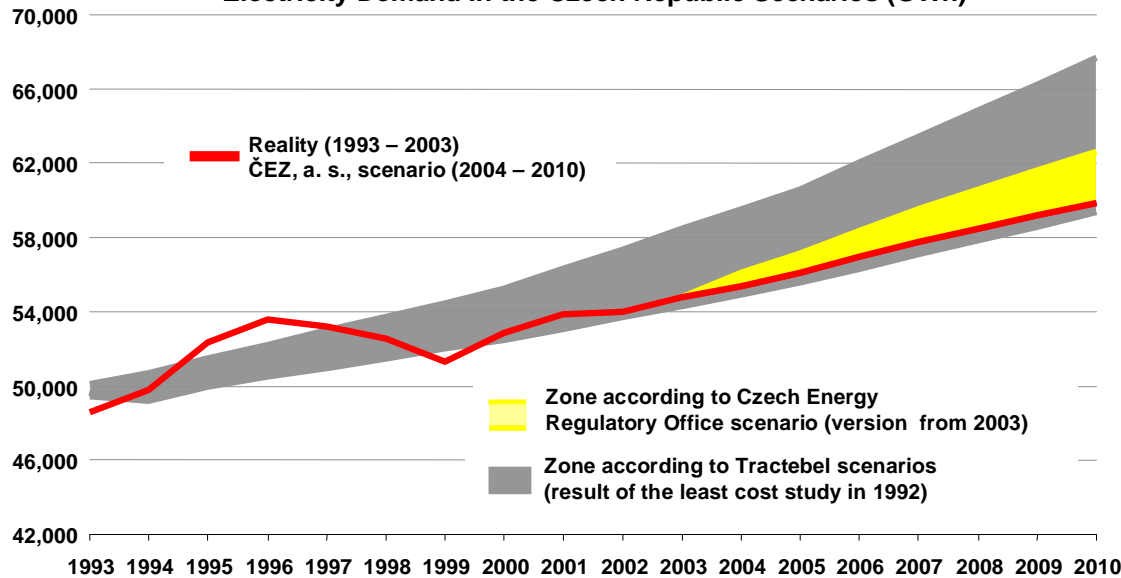
To address challenges early on a comprehensive generation strategy (Obnova zdrojů) is being developed

- § Over CZK 100 billion to be invested in lignite, hard coal, gas, and potentially nuclear power plants
- § Alternative locations, fuels and sizes carefully evaluated to maximize ČEZ value
- § Aggressive project implementations start immediately with power plant Tušimice (first units to be finished by 2008) and continue beyond 2020

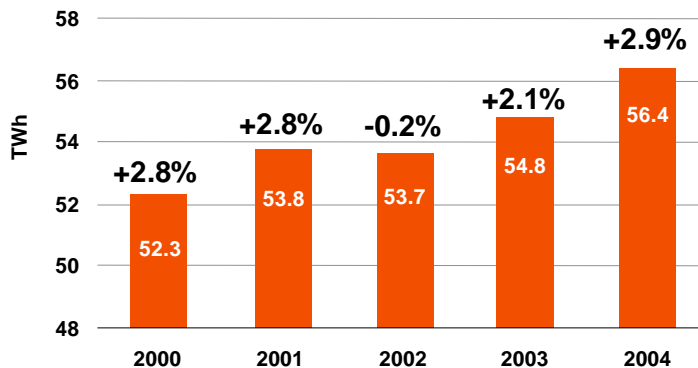


ELECTRICITY DEMAND INCREASES, ČEZ SCANS OPPORTUNITIES TO BUILD NEW POWER PLANTS

Electricity Demand in the Czech Republic Scenarios (GWh)

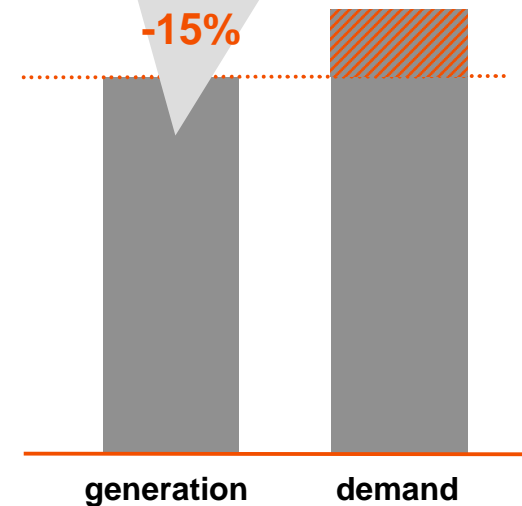


Year on year electricity demand index



possible sources for filling in the space after decommissioning of coal power plants

- § construction by ČEZ
- § other producers
- § import



Czech Republic E 2015*

*/ Ancillary services provided by large coal power plants will not have been sufficient even before.



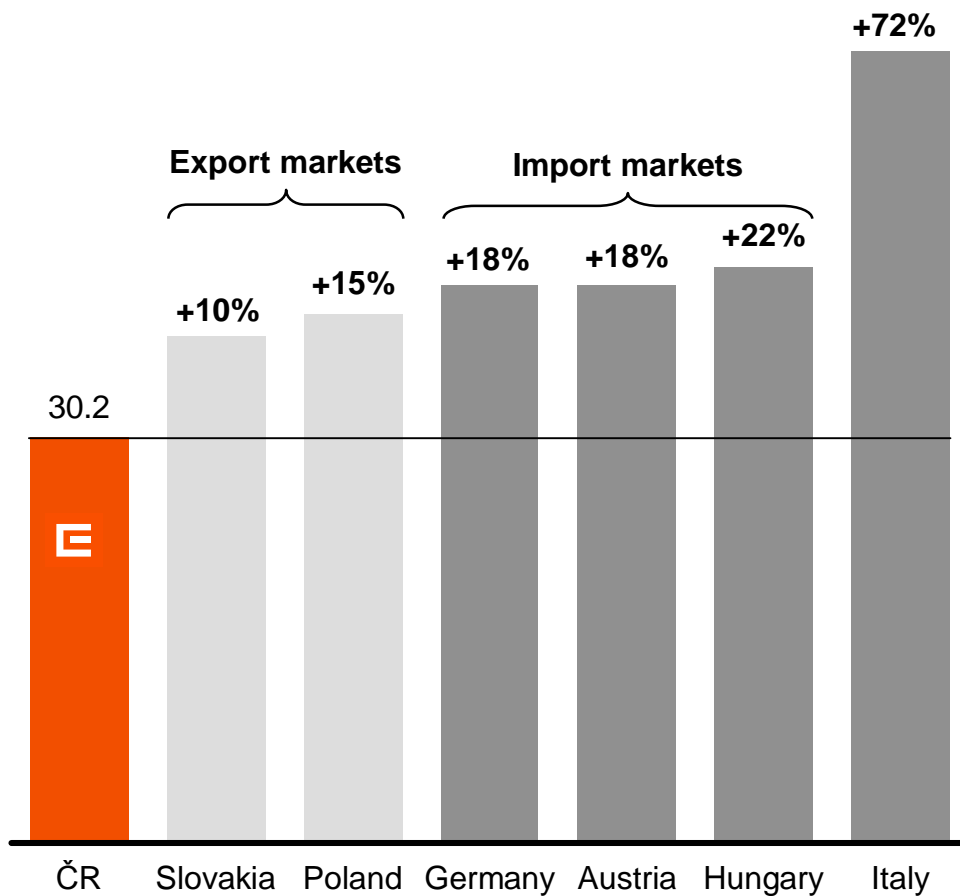
CEZ INTENDS TO BUILD ITS FUTURE PLANT FLEET AROUND NEW GENERATION OF LIGNITE PLANTS

| | Coal | Nuclear | Gas | Renewables |
|-------------------------------|--------------------------------------------------------------|--------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------------------|
| Environmental impact | § Acceptable emissions if well designed/managed | § No emissions § Nuclear risk | § Low emissions | § Limited/no emissions § No resource depletion |
| Competitive advantages | § Low cost lignite in the Czech rep. | § Politically acceptable in Czech rep. | § Flexibility, relatively low investment cost | § Public support (except for wind) |
| Risks/ constraints | § Lignite availability § CO ₂ regulation/price | § High up front investment | § High/volatile gas price | § Subsidy scheme not clear yet |
| | § Cornerstone of the future CEZ plant fleet | § Complement to lignite for baseload generation | § Potentially source of flexible power | § Complementary role (e.g. combined combustion of coal and biomass) |



AT THE SAME TIME, ČEZ GROUP MAINTAINS THE LOWEST WHOLESALE PRICE IN THE REGION

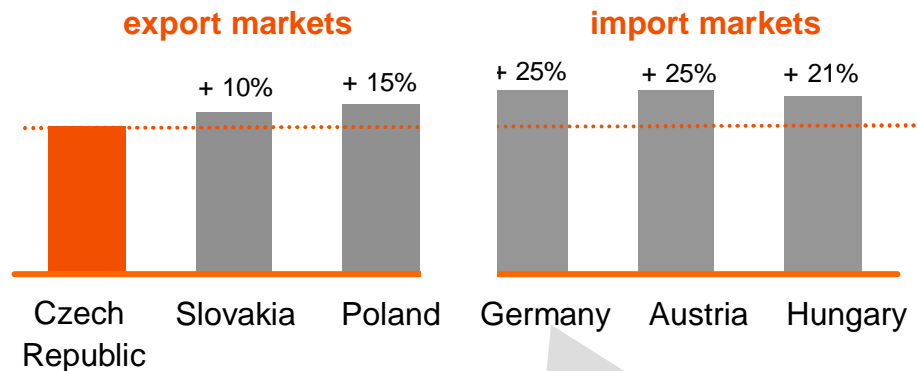
Wholesale power price
2005, baseload, EUR/MWh



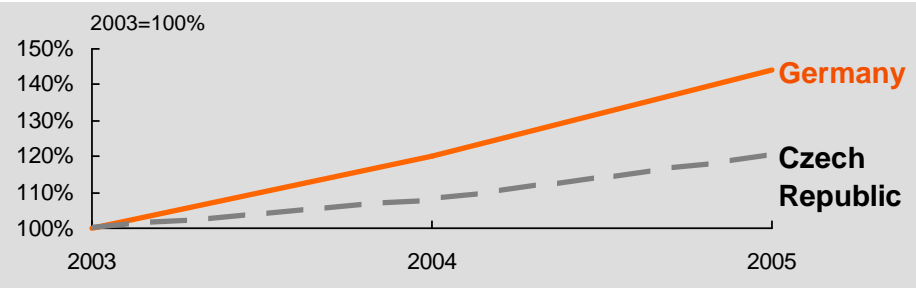


THE CZECH REPUBLIC HAS THE LOWEST ELECTRICITY PRICES IN THE REGION AND THE DIFFERENCE CONSTANTLY GROWS

Wholesale electricity prices for year 2005 in the Czech Republic and neighbouring countries



development of electricity wholesale markets in the Czech Republic and Germany

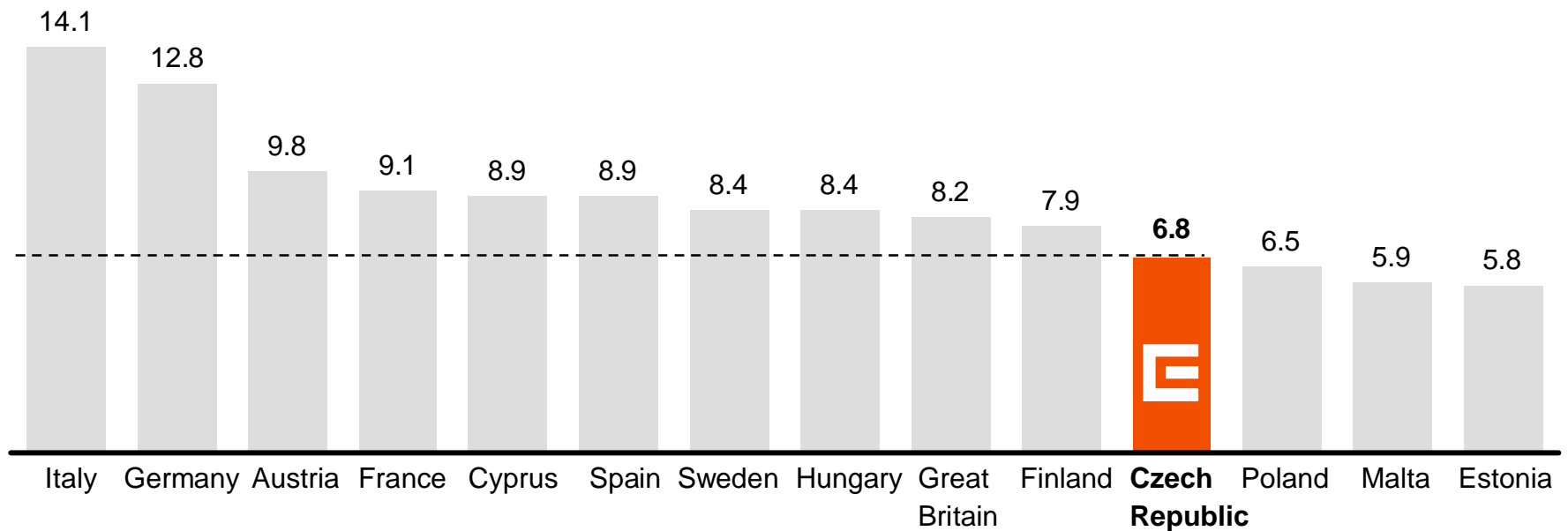




END USER POWER PRICES IN THE CZECH REPUBLIC ARE STILL SIGNIFICANTLY BELOW EU LEVEL

Average electricity prices for households

EUR cent/kWh, VAT excl.

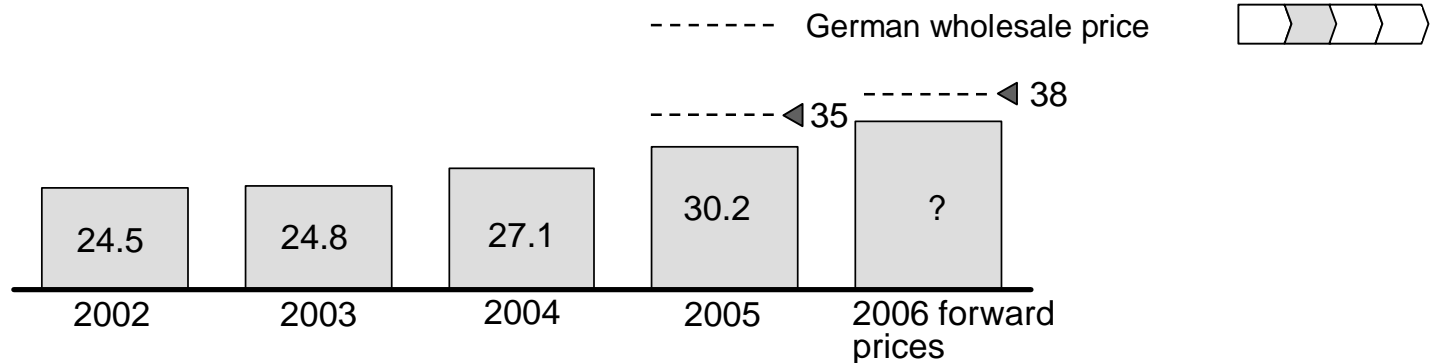




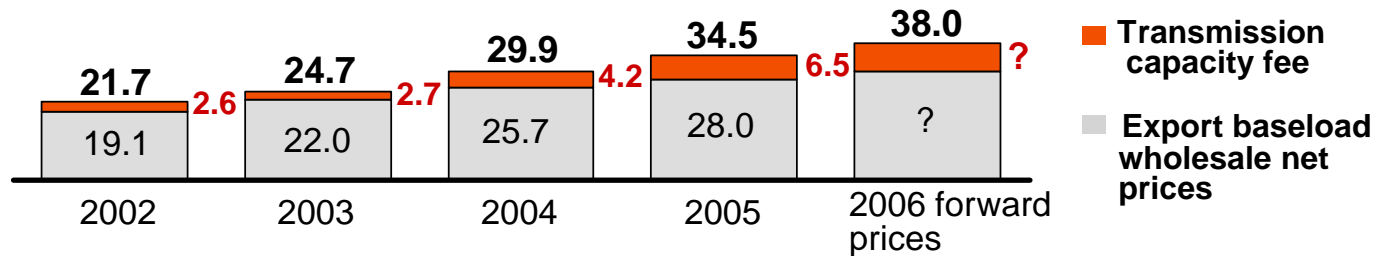
DOMESTIC AND EXPORT PRICES ARE CONVERGING TO INTERNATIONAL (GERMAN) LEVELS

EUR/MWh*

Domestic annual
baseload wholesale
prices



Price Change
Percent



Net Price Change
Percent



* Exchange rate CZK/EUR 30