

# REACTING TO CHANGING MARKET ENVIROMENT

ALAN SVOBODA,

EXECUTIVE DIRECTOR SALES TRADING

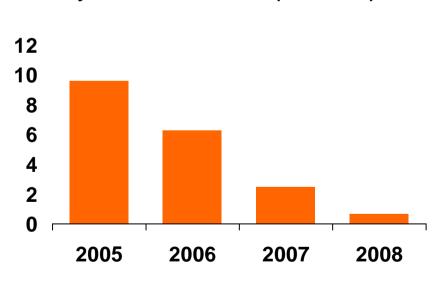
Capital Markets Day Prague, October 2<sup>nd,</sup> 2008

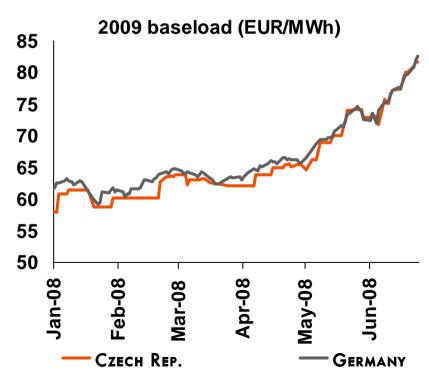


## CZECH ELECTRICITY MARKET HAS FULLY CONVERGED WITH GERMANY AND THERE ARE NO ADMINISTRATIVE INTERVENTIONS

- Czech market is integral part of wider European electricity market
- Czech power prices are fully liberalized and are driven by the same fundamentals as German market
- There are no administrative interventions from the side of government

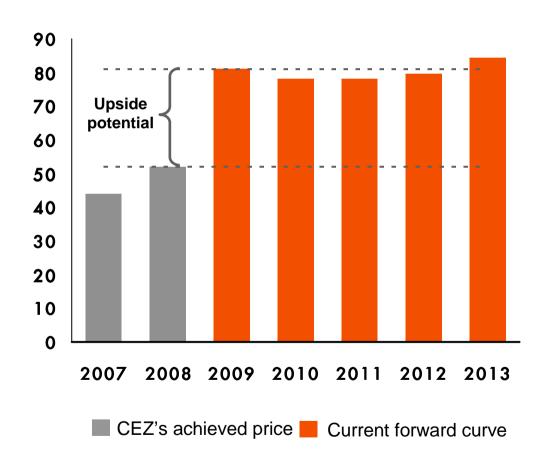
Spread of German and Czech
1 year ahead baseload (EUR/MWh)







### CURRENT EARNINGS ARE BASED ON POWER PRICES MUCH LOWER THAN CURRENT FORWARDS

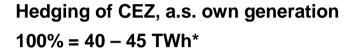


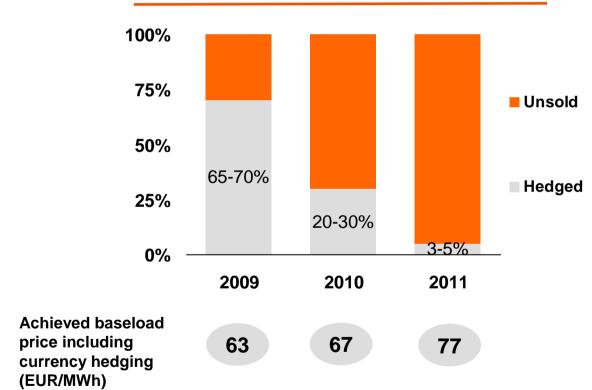
- Record 2008 financial results are based on >52 Eur/MWh baseload price
- Current German 1Y baseload futures trade around 80 Eur/MWh

There is large room to improve profitability in 2009 and onwards



### CEZ IS BENEFITING FROM HIGH POWER PRICES DUE TO ITS OPEN POSITIONS





- CEZ, a. s. applied standard concept of gradual hedging of its open position from generation portfolio against price risks
- Within this strategy CEZ, a. s., sells electricity on forward basis for years Y+1 through to Y+3
- Hedged volume for 2009 is influenced mainly by sales of two-year (08/09) compound product realized in Q3 2007

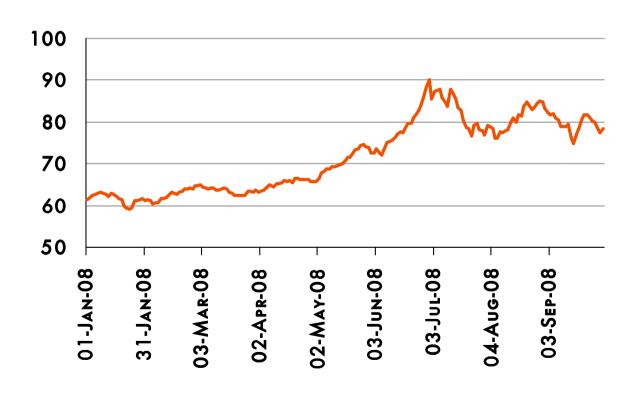
<sup>\*</sup> Expected net generation of 55-60 TWh reduced by 15TWh reserved for tariff customers



## POWER PRICE SIGNIFICANTLY INCREASED TO A NEW LEVEL OF 80 EUR/MWH

#### 1-year forward price

EEX baseload, EUR/MWh



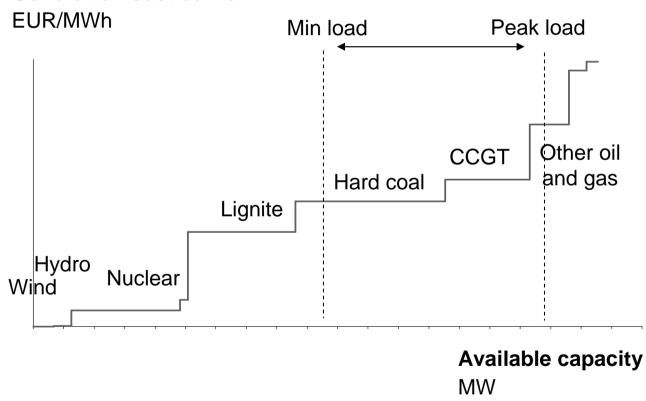
- Power price is almost 30% higher compared to beginning of the year
- Large volatility of power price over the last year





### MAIN DRIVERS OF POWER PRICE IN GERMANY ARE PRICE OF HARD COAL, GAS AND CO<sub>2</sub>

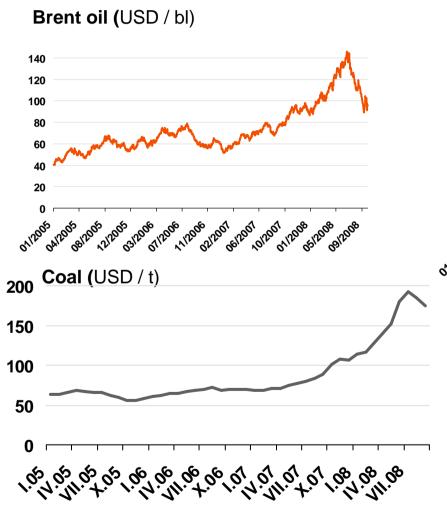
#### **Generation cost curve**

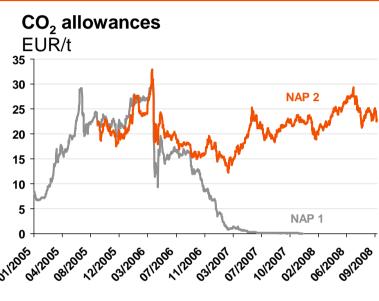


- In free market, power price is set by variable cost of marginal plants
- In Germany, the marginal plants are fueled by hard coal (in off peak) or gas (in peak)
- As a result, the power price should be driven by coal, gas and CO<sub>2</sub> price



#### PRICES OF THESE COMMODITIES ARE INCREASING AS WELL



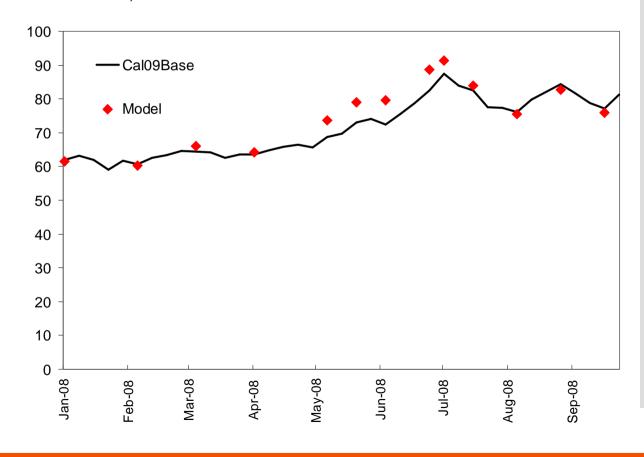




### MODELLING RESULTS DEMONSTRATE THAT POWER PRICE IS DIRECTLY LINKED TO THE COMMODITY PRICES

#### 1-year forward price

EEX baseload, EUR/MWh



- Fundamental model shows a very good fit of model outputs based on commodity price forwards with the actual forward power prices.
- The analysis shows that changes in commodity prices directly translate into power price variations.



### WE EXPECT POWER PRICES TO REMAIN STRONG DUE TO THE POSITIVE COMMODITY OUTLOOK

#### **Future outlook**

#### Oil/gas

>100 USD/bl due to demand fueled by growth in China, India, Brazil and slow expansion of production capacity due to delays and increasing costs of new upstream projects

#### Hard coal

Potential of high prices if oil remains high, in spite of increasing transportation capacity

#### CO<sub>2</sub>

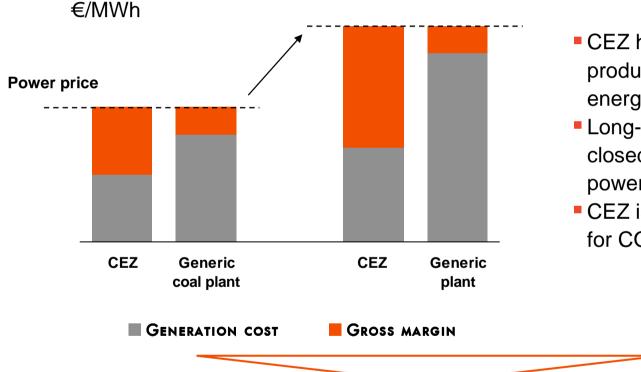
Increase from current levels around 25 EUR/t CO<sub>2</sub> to 30-40 EUR/t CO<sub>2</sub> driven by switching economies and banking from NAP II to NAP III

- The commodity prices are likely to be high/grow further in the mid term
- There is potential for further power price growth due to the link to the commodity prices



## ELECTRICITY PRICE GROWTH HAS POSITIVE IMPACT ON CEZ'S GROSS MARGIN, BECAUSE VARIABLE COSTS REMAIN ALMOST UNCHANGED

#### **Power plant economics**



- CEZ has > 90% domestic production in lignite & nuclear energy
- Long-term contracts have been closed for fuel for the lifetime of power plants
- CEZ is 100% covered until 2012 for CO<sub>2</sub> emissions

CEZ unit costs will remain stable even under short-term growth in oil & CO<sub>2</sub> prices



#### CEZ IS IDEALLY POSITIONED FOR THE MIDTERM

# CEZ is in an excellent position to create significant value for shareholders in the next 5 years

- Current profits are driven by power prices at a large discount to prevailing futures curve
- Market power price has potential for further growth
- Our input costs are stable
- We have 100% allocation of CO<sub>2</sub> allowances



### SINCE 2013, MORE STRINGENT RULES FOR CO<sub>2</sub> ALLOCATION ARE EXPECTED

- Current draft of EU directive proposes full auctioning of all CO<sub>2</sub> allowances for power industry, while gradual implementation of auctioning is proposed for other sectors
- Multiple EU member states advocate gradual implementation of auctioning, especially new EU members who over-delivered against their Kyoto targets and who need massive investments to refurbish their energy infrastructure

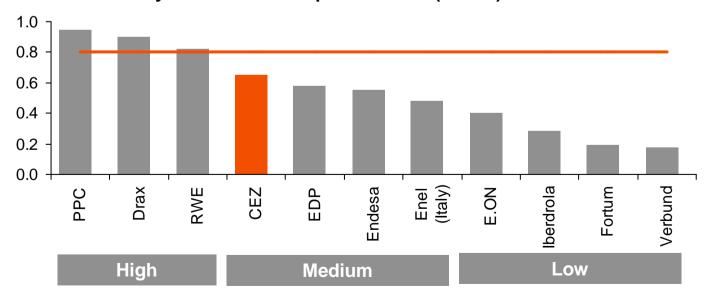
Benchmark based free allocation is likely to continue beyond 2013



### ALREADY NOW OUR CO<sub>2</sub> INTENSITY IS BELOW EUROPEAN AVERAGE

- CEZ Group CO<sub>2</sub> intensity currently stands at 0.65 t/MWh of supplied electricity
- This is already below European price setting plant, which we estimate has an emission factor of 0.8 t/MWh
- Thus increase in CO<sub>2</sub> price has positive impact on CEZ profitability

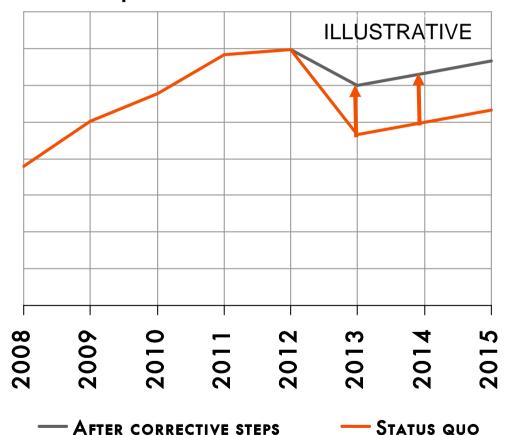
#### Carbon intensity of selected European utilities (t/MWh)





### PROFITABILITY CAN BE SIGNIFICANTLY REDUCED

#### **CEZ Group EBITDA**



- •Until 2013 EBITDA will grow driven by power prices
- One-off drop in 2013 due to CO<sub>2</sub> auctioning can be largely mitigated
- After 2013 growth should resume due to the expected growth of CO<sub>2</sub>



### IN ORDER TO ELIMINATE NEGATIVE IMPACT OF CO<sub>2</sub> AUCTIONING WE ARE IMPLEMENTING SEVERAL MEASURES

#### **CEZ** is reacting by following strategic priorities:

- Diversification of the generation fleet by constructing gas plants
- 2. Development of nuclear power projects wherever possible
- Establishing portfolio of renewables and environmental investments
- Within the EU, investments in coal plants only if there is a significant cost advantage
- Investment in JI/CDM projects, forward purchases of emission allowances
- Investments into projects in growing markets outside the EU



## PROJECTS UNDERWAY WILL BRING 3,760 MW OF GAS CAPACITY BY 2013-14





Location	Name	Approximate Size (MW)
Czech Rep.	Pocerady	800
Czech Rep.	Uzin	400
Slovakia	MOL	800+160
Hungary	MOL	800
Bulgaria	Varna	800

More projects are under consideration



### NUCLEAR ENERGY REMAINS VERY ATTRACTIVE AND CEZ PURSUES OPPORTUNITIES IN THIS AREA

2.

### Reasons for nuclear energy

- , in the money"
- CO<sub>2</sub> free solution
- Reliable & predicable fuel suppliers
- Another way to diversify generation portfolio
- Increasing awareness of the need for nuclear energy in the EU

#### **CEZ** response

- Increase of production at existing plants from 26TWh to 31 TWh in 2012
- **Temelin** up to 3,400 MW of new capacity, in July 2008 EIA study submitted to Ministry of Environment
- Dukovany up to 1,700 MW of new capacity
- CEZ bids for Cernavoda (RO)
- Interested in participation in construction of Jaslovske Bohunice (Slovakia) when tender is launched



### RECENTLY ACQUIRED WIND PROJECT WILL SIGNIFICANTLY INCREASE OUR PRESENCE IN RENEWABLES

- 3.
- Romania Fantanele & Cogealac project will bring 600 MW wind capacity by 2011
- 2020 targets in the Czech Republic
  - Triple the annual renewable energy production from 1.7 TWh to 5.1 TWh
  - Intention to invest CZK 30 bn into renewable sources
  - Wind power preferred, promising opportunities in photovoltaic
  - Already 150-220 MW of capacity in five locations have secured agreement of municipalities, have guaranteed connection to the grid and partly land assurance

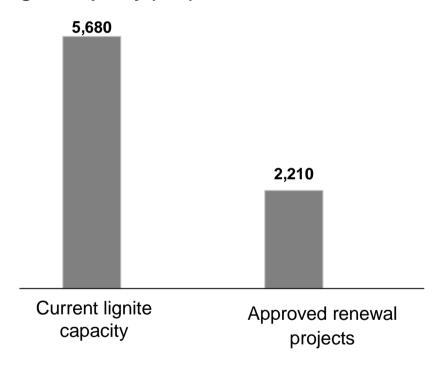




### CEZ DECIDED TO INVEST INTO RENEWAL OF ONLY SELECTED LIGNITE PLANTS IN THE CZECH REPUBLIC

4.

#### Lignite capacity (MW)



#### Rationale

- Low cost of domestic lignite
- Thermal power plants next to mines – only costs of internal logistics
- Replacement of old units with more efficient new technology (20% lower CO<sub>2</sub> emissions, from 1t CO<sub>2</sub>/MWh to 0.8 CO<sub>2</sub>/MWh)
- Secured lignite supplies for the investment lifetime

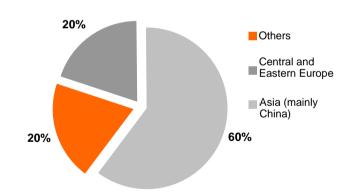


### CEZ ALREADY CONTRACTED OVER 2/3 OF ITS TOTAL QUOTA OF CERs

JI (Joint Implementation), CDM (Clean Development Mechanism) – mechanisms of Kyoto protocol, which enable investments into projects for reduction of green house gases and their import to ETS for utilization instead of CO<sub>2</sub> allowances

- Until 2012 CEZ Group can import to EU ETS approximately 21 mil of CER credits from JI/CDM
- So far CEZ contracted more than 14 mil of credits with deliveries in 2008-2012
  - Directly from CDM projects
     Example: wind farm or project of biomass power plant in China
  - On secondary markets
- Outstanding target of 7 mil to be contracted till Q2 2009

Expected geographical composition JI/CDM portfolio of direct investments





### CEZ IS INVESTIGATING OPPORTUNITIES OUTSIDE EUROPEAN UNION

6.

#### CEZ FINDS COUNTRIES OUTSIDE EU ATTRACTIVE DUE TO FOLLOWING REASONS:

- Dynamic growth of GDP leads to high electricity demand growth
- Need to build additional generation capacities
- Exclusion from EU ETS gives higher flexibility regarding portfolio mix



#### NEGOTIATIONS ON SPECIFIC OPPORTUNITIES ARE ALREADY UNDER WAY:

- Russia 600 MW of CCGT co-generation planned in Moscow
- Turkey JV with Akkok, negotiations pending



## INVESTMENT PROGRAM WILL ALLOW CEZ TO REDUCE THE AVERAGE CO<sub>2</sub> EMISSION FACTOR BY 50%

