

# CEZ GROUP: READY FOR DECENTRALIZED ENERGY FUTURE

**Investment story, November 2019** 

# **AGENDA**



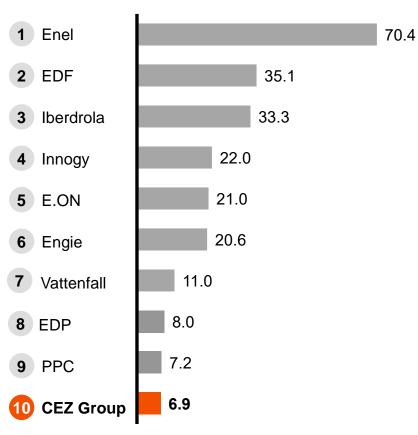
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# CEZ GROUP RANKS AMONG LEADING UTILITY COMPANIES IN EUROPE



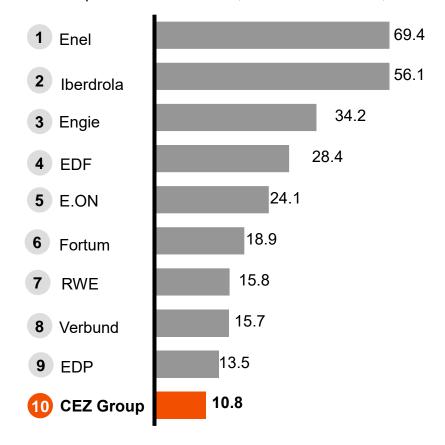
### Top 10 European power utilities

Number of customers in 2018, in millions



## **Top 10 European power utilities**

Market capitalization in EUR bn, as of November 15, 2019



# CEZ GROUP IS AN INTERNATIONAL UTILITY WITH A STRONG POSITION IN ITS DOMESTIC MARKET AND GROWING PRESENCE IN WESTERN EUROPE



## **Target markets**

#### Czech Republic

- Mining
- Traditional Generation
- Renewables
- Distribution
- ESCO, Sales

#### Germany

- Renewables
- ESCO

#### **Poland**

ESCO, Sales

#### France

Renewables

#### Slovakia

ESCO

3

# Other markets

#### Poland

- Traditional Generation
- Renewables

#### Romania (divestment ongoing)

- Renewables
- Distribution
- Sales
- ESCO

# Bulgaria

### (divestment ongoing)

- Distribution
- Sales
- Renewables

### Turkey\*

- Distribution
- Sales
- Traditional Generation
- Renewables

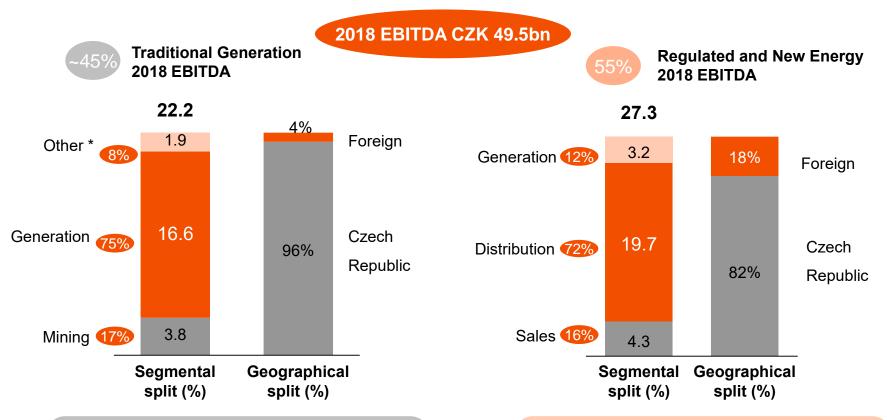
# CZECH REPUBLIC IS THE MOST IMPORTANT MARKET FOR CEZ GROUP, IT IS VERTICALLY INTEGRATED THERE



	Lignite mining	Generation	Transmisson	Distribution	Supply
CE7	100%	o=0/		050/	<b>28%</b> 17.5 TWh
GEZ		36.0 TWh			
		67.0 TWh		72%	
Others	47% 18.3 million tons	<b>33%</b> 29.2 TWh		<b>35%</b> 19.7 TWh	44.7 TWh
	<ul> <li>CEZ fully owns the largest Czech mining company (SD) covering 71% of CEZ's Lignite needs</li> <li>Remaining 3 coal mining companies are privately owned</li> </ul>	<ul> <li>Other competitors are individual IPPs</li> </ul>	<ul> <li>The Czech transmission grid is owned and operated by CEPS, 100% owned by the Czech state</li> </ul>		<ul> <li>Other competitors –</li> <li>E.ON, PRE (41%</li> <li>held by EnBW),</li> <li>Bohemia Energy,</li> <li>Innogy, Centropol</li> <li>Energy</li> </ul>

# SEGMENTAL AND GEOGRAPHICAL CONTRIBUTIONS TO EBITDA IN 2018





#### **OPERATIONS TEAM**

- The most effective use of our traditional assets
- Proactively adjusting to the new energy environment
- Generating sufficient cash flows to develop new activities and pay dividends to our shareholders

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#### **DEVELOPMENT TEAM**

- Ensuring future growth for CEZ based on ESCO activities, decentralized energy, distribution and domestic renewables with focus on end customers
- Acquisitions and organic growth in stable countries

\*including eliminations CEZ GROUP

# KEY BUSINESS DRIVERS OF CEZ GROUP



## **Traditional Generation**

- Benefits from higher power prices.....
  - Electricity price almost 60% higher\* compared 2018 hedged baseload price
- .... as it is positively geared toward growing price of CO2 allowances
  - CEZ emission intensity 0.39 t/MWh is well below 0.6 t/MWh intensity of price setting plant and will further drop to 0.3 t/MWh by 2025
- Stable CAPEX
  - Upgrade of lignite fleet completed
  - Current Capex mostly maintenance related

# Regulated and New Energy

- Benefits from RAB growth
  - 5% increase by 2020 in Czech distribution
- Additions of renewables capacity
  - Current pipeline of up to 565 MW of wind parks in Europe
  - Ambition to add further renewable capacities in the Czech Rep.
- Expansion of energy services offering ("ESCO")
  - Expected 2019 revenues increase by 42% to CZK 22.5 bn
  - Further growth anticipated organically and through acquisitions

# PRIORITIES OF THE UPDATED CEZ GROUP BUSINESS STRATEGY AND POLICY



## Strategic priorities of CEZ Group

Efficient operation, optimal utilization and development of generation portfolio

Modern distribution and a care for customers' energy needs

Development of new energy in the Czech Republic

Development of energy services in Europe

## Main strategic thesis of CEZ Group

- Efficient management of nuclear plants and coal plants located near the coal basins and preparation of conditions for realization of new nuclear plant as part of strengthening energy security and decarbonization of generation portfolio in Czechia
- Modernization and digitalization of distribution and sales in Czechia, development of complex services taking into account customers' needs
- Development of energy services (ESCO) and renewables (RES) in Czechia in fulfilling Czech climate and energy plan
- Development of foreign ESCO activities and achieving significant position in markets close to Czechia, primarily Germany, northern Italy and Poland
- Realization of efficient exit strategies from markets and energy segments, which are risky or do not have attractive prospects
- Finalization of RES development abroad and securing return of funds invested

# KEY SUBSTANTIVE AND GENERAL FINANCIAL **OBJECTIVES IN THE UPDATED STRATEGY**

**Additional 2025 EBITDA\* Goal** 

# (CZK bn)

## **Strategic Priorities**

### **Key Substantive Objectives and Ambitions for 2025**

**Efficient Operation**, **Optimum Utilization** & Development of **Generation Portfolio** 

- Safe and efficient generation by nuclear plants (WANO's assessment of CEZ's nuclear power plants above the global nuclear operators median; annual generation above 31.5 TWh).
- Long-term NPP operation (Temelín units at least until 2060 and 2062, Dukovany units until 2045 and 2047).
- Value maximization in mining and conventional generation, efficient generation by power and heating plants in mining regions. Controlled phaseout of plants outside mining regions.
- Negotiating a framework for the construction of a new nuclear unit at Dukovany, which would cover the regulatory and market risks of the project. Commencing project preparations according to the approved contractual framework.

+1 to +2 beyond the effect of market prices \*\*

Modern **Distribution & Care** for Customers' **Energy Needs** 

- Distribution CZ: Increasing revenues by way of increased investments in the context of changes induced by decentral energy; increasing efficiency and reducing operating expenses.
- Sales CZ: Maintaining current profitability by way of: maintaining the current customer base, increasing customer satisfaction, and expanding offerings in the portfolio of noncommodity products and services.

+2 to +4

**New Energy Sector Development in** Czechia

- ESCO CZ and SK: 25%+ share in the growing market with target EBITDA margin > 7%.
- RES CZ: Playing a major role in the growth of renewables in Czechia. Total potential for Czech solar installed capacity estimated at up to 5 GW, including about 0.5 GW on land currently owned by CEZ Group.

+2 to +3

**Energy Services Development in Europe** 

- Continuing with quick organic and acquisition expansion in Germany, northern Italy, and Poland.
- Maximizing synergies from the consolidation of activities in target markets.
- Becoming a Top 3 ESCO player in these markets by 2025, with target EBITDA margin > 7%.

+2 to +3

### **Divestment** Strategy

- Return of capital invested in RES assets in Germany and France.
- Completion of sale of assets in Bulgaria, sale of generation and distribution assets in Romania, Poland, and Turkey. The goal is to sell those assets by the end of 2022. The assets' contribution to CEZ Group's annual 2018 EBITDA was CZK 5.5 bn.

The goal of additional 2025 EBITDA\* demands significant investments in new assets, primarily in RES in Czechia, ESCO abroad, and distribution in Czechia. Investments in RES development in Czechia and ESCO development will be financed by income from divestments.

# CEZ GROUP INTENDS TO LEAVE MARKESTS WITH INSUFFICIENTLY APPEALING OUTLOOK AND NEED FOR INCREASED MANAGEMENT FOCUS



## Strategic priorities

Leaving risky and nonperspective markets and segments

Recovery of capital invested in foreign renewables

## **Key initiatives**

- Carry out divestments of assets in Romania and Poland
- Finalize divestments of assets in Bulgaria and Turkey
- Finalization of renewables development abroad and securing recovery of invested funds

### Reasons for the divestments

- Romanian regulatory environment has stabilized after brief wobbles at the start of new regulatory period
- Increased interest from various financial groups in Romania who seek infrastructure investments with higher yields compared to Western Europe
- Monetization of Polish coal business and reduction of CEZ's carbon footprint
- Turkish market is extremely risky especially due to currency volatility

Potential use of proceeds

- Debt reduction to avoid negative impact on consolidated leverage through divested EBITDA
- Reinvestments into energy services and domestic renewables
- Distribution to shareholders

2018 EBITDA contribution of assets contemplated for sale: CZK 5.5bn\*

# 50% REDUCTION IN INSTALLED COAL CAPACITY ALREADY BY 2025 AND FULL COAL DECOMISSIONING BY 2050



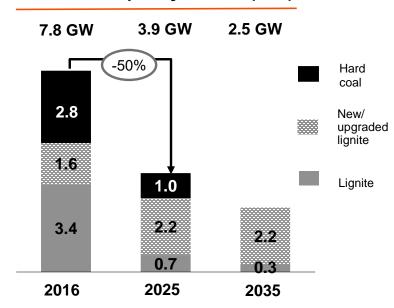
## Coal fired power plants will be gradually closed

- Coal fired power plants currently represent 46% of capacity and 44% of generation volume in 2018 and their revenues are less than 20% of total
- Coal fired capacity will decrease by half from 7.8 GW in 2016 to 3.9 GW by 2025 and further to 2.5 GW in 2035

# CEZ is expanding its footprint in renewables, not planning any new coal fired power plants

 CEZ's strategy focuses on power generation capacity growth in renewables expanding its currently running 1,700 MW renewable generation capacity (half of which built in the last decade)

# Expected development of installed capacity in coal (GW)



# Coal extracted is mainly used in own power plants

- CEZ Group produced 20.9 mil tones of coal, out of which only 28% is sold externally
- Share of coal mining and related activities (except power generation) on CEZ group's revenues is 2% only

## CEZ Group has reduced CO2 emissions by 43% since 2007

- In 2018 CEZ generated more than half of its electricity at zero-emission facilities
- CEZ Group made a commitment to phase-out coal by 2050

# **AGENDA**

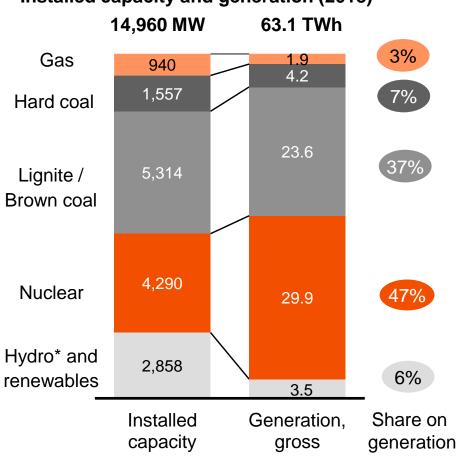


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# CEZ GROUP OPERATES LOW COST GENERATION FLEET



## Installed capacity and generation (2018)

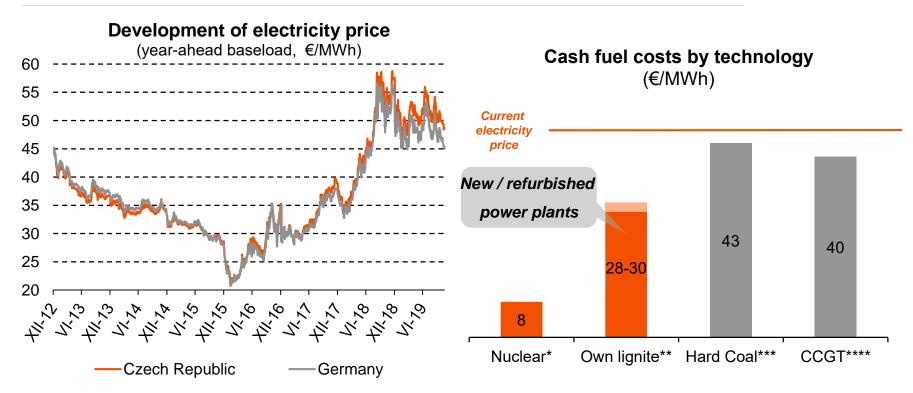


- Coal power plants are using mostly lignite from CEZ's own mine (71% of lignite needs sourced internally, remaining volume through long-term supply contracts)
- Nuclear plants have very low operational costs

CEZ has a long-term competitive advantage of low and relatively stable generation costs

# LOW COST AND UPGRADED GENERATION PORTFOLIO IS A GREAT ADVANTAGE IN THE CURRENT PRICE ENVIRONMENT



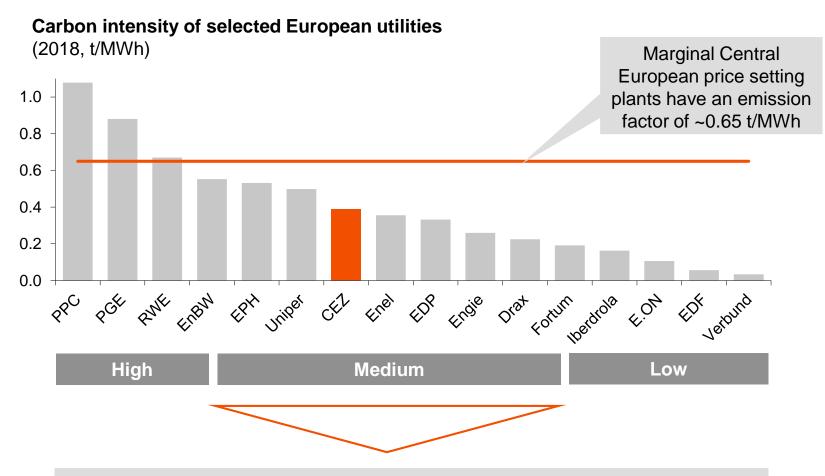


### **Drivers of electricity price**

- hard coal prices being mainly driven by levels of Chinese coal imports and shale gas discoveries in the US
- carbon prices rising due to implementation of MSR in 2019 and increase of switching costs
- growing capacity of subsidized renewables
- stagnating electricity demand

# CEZ GROUP'S CO<sub>2</sub> INTENSITY IS BELOW INTENSITY OF A EUROPEAN PRICE SETTING PLANTS





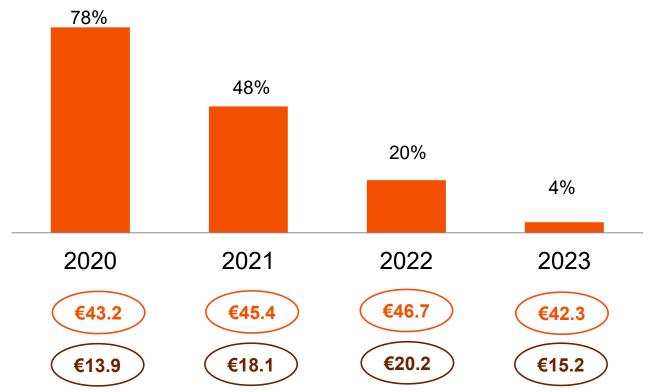
Increase in CO<sub>2</sub> price has a positive impact on CEZ profitability\*

# CEZ CONTINUES HEDGING ITS GENERATION REVENUES IN THE MEDIUM TERM IN LINE WITH STANDARD POLICY



# Share of Hedged Production of CEZ\* Facilities as of Sep 30, 2019

(100% of deliveries in 2020–2023 corresponds to 54–56 TWh)



Electricity selling price (EUR/MWh)

**EUA purchase** price\*\* (EUR/t)

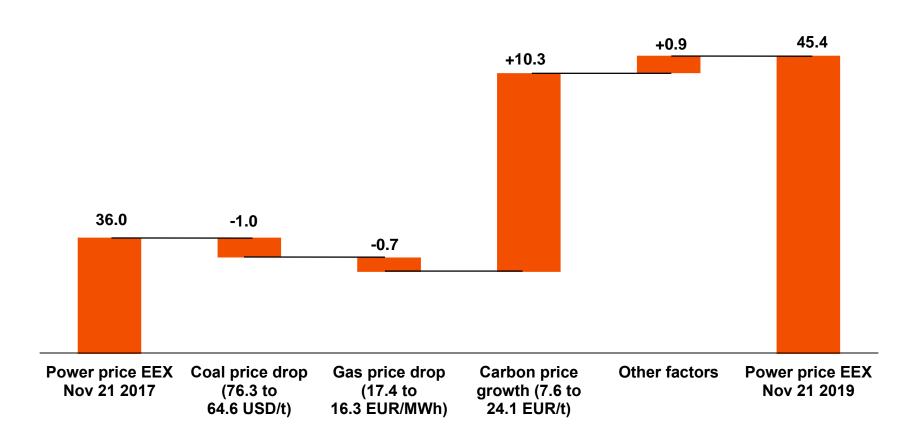
As of Oct 2018 the 84% of the electricity for 2019 was hedged for 35.8 EUR/MWh; average EUA purchase price was 5.7 EUR/t

# THE PRICE OF ELECTRICITY HAS GROWN IN RECENT YEARS MAINLY DUE TO CARBON ALLOWANCE PRICE INCREASE



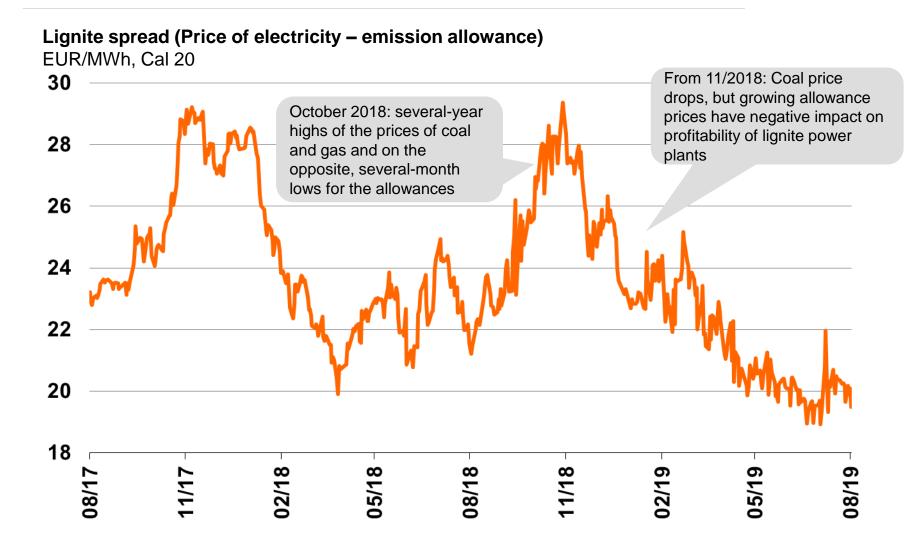
Breakdown of Cal20 electricity price changes over the last two years

(EUR/MWh, Nov 21, 2017 – Nov 21, 2019)



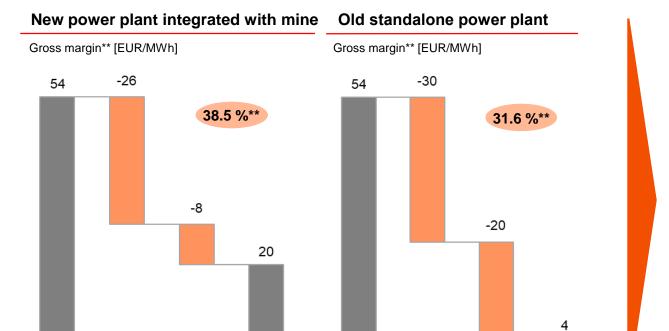
# THE GROWTH OF CO<sub>2</sub> PRICES PUTS COAL POWER PLANTS ARE UNDER ECONOMIC PRESSURE





# PROFITABILITY OF LIGNITE PLANTS IS HIGHLY DEPENDENT ON THEIR EFFICIENCY AND INTEGRATION WITH MINE





Standalone coal power plants are still under significant economic pressure and are very sensitive to requirements set by the emission reduction legislative (BREF/BAT) and other external factors.

The economy of power plants integrated with mine is more robust.

Apart from the above mentioned illustrative gross margin, it is also necessary to cover other variable costs and fixed costs (wages, maintenance and other items excluding depreciation) in the amount of 8-15 EUR / MWh depending on the type, age and capacity of the plant.

Power

price

GM

CO<sub>2</sub>

Coal

Power

price

Note: The gross margin also needs to cover investments, the amount of which depends on technical condition and especially on changing regulation and legislation (e.g. emission limits)

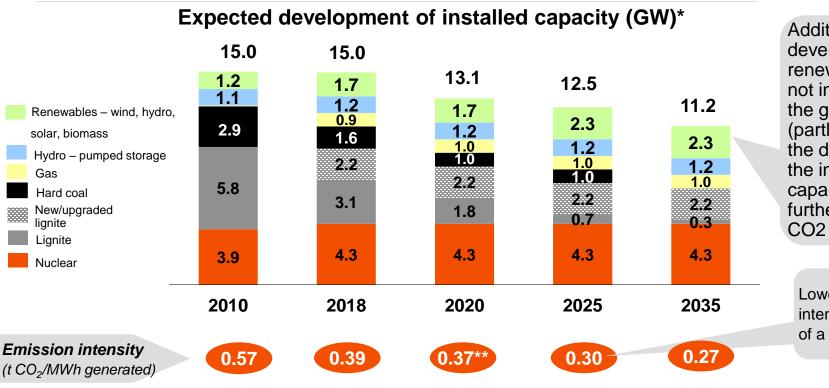
CO<sub>2</sub>

Coal

GM

# CEZ GROUP'S CO2 EMISSIONS INTENSITY TO FURTHER DECLINE AS A RESULT OF CLOSURES OF OLD LOW-PROFIT COAL UNITS





Additional development of renewables is not included in the graph. It will (partly) offset the decline in the installed capacity and will further decrease CO2 intensity.

Lower than an intensity of a CCGT

- CO2 emission intensity to decrease by another 22% from 2018 levels.
- Upgraded portfolio contains highly efficient Tušimice (39%), Prunéřov (40%) and Ledvice (42.5%) power plants.
- Closures of old lignite and hard coal units not supplied by our own coal, i.e. units with low profit will result in decrease of the total installed capacity.
- Capacity of nuclear increased by 0.5 GW in 2009-13 enabling additional 3.8 TWh of carbon free production.

# **OPERATIONS TEAM**

# **KEY OBJECTIVES FOR 2019**



# **Mining**

- Minimize expenses associated with continued mining beyond environmental limits.
- Closely coordinate mining operations and development with planned operation of conventional facilities.
- Maintain the required level of commercial reserves for the future.
- Optimize capital expenditures on mining machinery projects.

# **Generation—Traditional Energy**

#### **Existing Generating Facilities**

- Continually enhance the safety of nuclear and nonnuclear generating facilities.
- Ensure NPP availability at the level of the world's best practice.
- Maximize the creation of the segment's operating cash flow in 2019 and ensure optimum compliance with environmental and regulatory requirements for the operation of coal-fired plants, in particular, in 2020+.
- Continue to prepare development projects with margin benefits resulting from increasing nuclear generation to over 31 TWh a year (combining change in fuel incl. campaign optimization as well as modifications to conventional island technology) with significant economic benefits from 2022.
- Ensure the conditions for long-term NPP operation (fulfilling the Dukovany LTO and Temelín PSR action plans).

#### **Heat Sector**

 Start the construction of a hot-water pipe from Temelín to České Budějovice.

#### **New Nuclear Plants**

Ensure fulfillment of the targets of the New NPP strategic program for 2019 with emphasis on the EIA process at Dukovany.

# Finance and Administration

#### **Finance**

- Effectively support maintaining CEZ Group's medium-term financial stability.
- Minimize average financing costs.

# **Supporting and Centralized Activities**

- Ensure nuclear fuel deliveries for 2019 and optimum purchase of fuel for 2020+.
- Manage expenditure on supporting activities efficiently.
- Complete the construction and commission a new corporate data center at Tušimice.
- Fulfill the objectives of the "Centralized and Supporting Activities Redesign & Optimization" project with a permanent gain of approx. CZK 0.5 bn a year.

# **AGENDA**



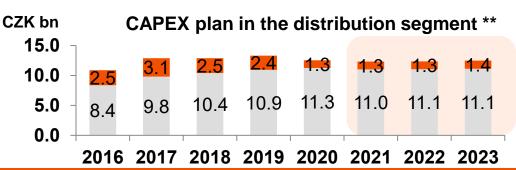
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# IN 2018 CZECH DISTRIBUTION MADE UP FOR 63% OF DEVELOPMENT TEAM EBITDA, TRANSPARENT CZECH REGULATION INCENTIVISES HIGHER INVESTMENTS



## Overview of 2019 regulation parameters and 2018 EBITDA contribution

	Czech Republic 2019	Romania 2019	Bulgaria 2019
RAB (local currency m)	101,580	2,278*	588
RAB (€ m)	3,952	462	300
WACC pre-tax	7.951%	6.9%	6.67%
Regulatory period	2016 – 2020	2019 - 2023	2018 - 2021
2018 EBITDA (CZK bn)	17.2	1.6	1.0



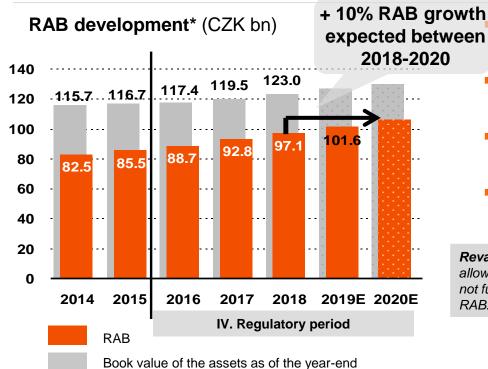
CAPEX is subject to revision depending on new regulatory period parameters and updated strategy

Foreign

Czech Republic

# CZECH REPUBLIC - RAB GROWS AS A RESULT OF POSITIVE NET CAPEX AND CLOSING GAP BETWEEN RAB AND ASSET BOOK VALUE





Investments above depreciation lead to growth of the Regulatory Asset Base (RAB)

- Initial value of RAB was set at lower amount than the book value of assets.
- Currently there is approx. 25% gap between RAB and the book value
- Revaluation coefficient\*\* reduces initial RAB discount to asset book value.

Revaluation coefficient: allowed depreciation is not fully deducted from RAB.\*\* Correction factor to reflect planned and actual CAPEX (usual impact in tens of millions) and to reflect transfer of assets to another company.

$$RAB(y) = RAB(y-1) + Investments(y) - Depreciation(y) \times \frac{RAB(y-1)}{NBV(y-1)} + Correction factor(y)$$

Public consultation of new regulatory parameters for 5<sup>th</sup> regulatory period started in August 2019. The public consultation will end in January 2020.

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# WE SEE LONG-TERM OPPORTUNITINIES IN GROWING ENERGY SERVICES SEGMENT



The potential for CEZ Group's dynamic growth in ESCO is amplified by the EU countries' commitment to major energy savings by 2030.

- We estimate investment costs needed for the fulfilment of the EU energy efficiency directive until 2030 (derived from GDP growth) at approx. EUR 600bn in Germany and approx. CZK 700bn in the Czech Republic.
- However, high demand for ESCO services in the future is primarily guaranteed by attractiveness for customers:
   projects effectively pay for themselves from savings (they do not need subsidies) and new technologies provide customers with greater comfort and modern functionalities.

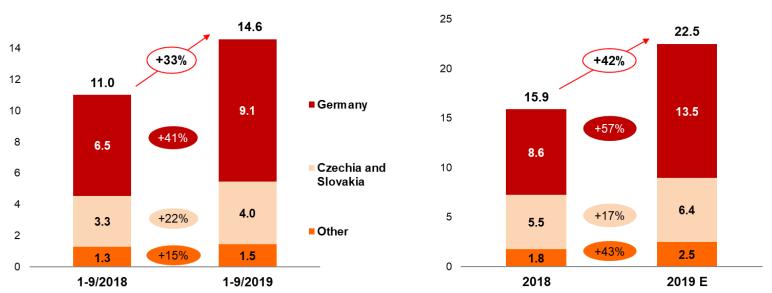
Indicative values today*	CEZ ESCO (Czech Republic)	ESCO international	ESCO TOTAL
ANNUAL SALES (2019 E)	Approx. CZK 6.4bn	CZK 16.0 bn	CZK 22.5 bn
Annual sales growth (2019 E)	17%	53%	42%
EBITDA/SALES (2019 E)	8%–9%	5%–6%	5%–6%
EMPLOYEE HEADCOUNT	Approx. 1,800	Approx 3,300	Approx. 5,100

# CEZ GROUP CONTINUES ITS ESCO EXPANSION AND EXPECTS 42% REVENUE GROWTH IN 2019



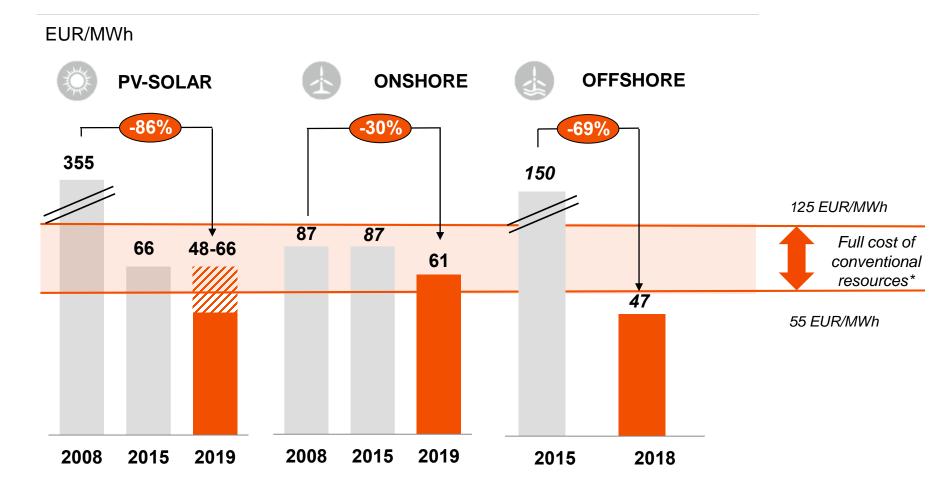
- On Jan 25, acquisition of a 100% interest in En.plus GmbH, which deals with designing and installation of air-conditioning and cooling equipment.
- On May 16, the acquisition of a 100% stake in the Hermos Group was completed. HERMOS delivers solutions consisting of engineering, manufacturing of switchgears, software for automation systems and IT systems and from after-sale services. HERMOS group employs over 500 people.
- In September, CEZ Group acquired a 76% stake in Polish company EUROKLIMAT, a general contractor for technical equipment of buildings and a Polish HVAC market leader. Company has 223 employees.

# **ESCO Sales** (CZK billions)



# CEZ INTENDS TO EXPAND ITS INVOLVEMENT IN RENEWABLES, WHICH ARE ALREADY COMPETITIVE WITH CONVENTIONAL GENERATION





27 \* Source: BNEF CEZ GROUP

# CEZ SUSSESFULLY OPERATES WIND FARMS IN ROMANIA AND GERMANY, IT HAS SIGNIFICAN PIPELINE ALSO IN FRANCE



#### Romania

- The largest European on-shore wind park 600 MW operated since 2010.
- Operating support in the form of green certificates for 15 years

## **Germany**

 133.5 MW operated since 2016, operating support in the form of a 20-year feed-in tariff with average 89 EUR/MWh (flat)

### Pipeline in France, Germany and Poland

- Stakes in projects with a potential installed capacity of up to 565 MW acquired in Germany, France and Poland, of which 13.6 MW under construction
- The projects will participate in the auctions and are expected to be operational by 2025

CEZ operates 742 MW of wind farms and has additional pipeline of 565 MW CEZ expects to develop the pipeline to "ready-to-build" phase and then decide if to sell or construct and operate them

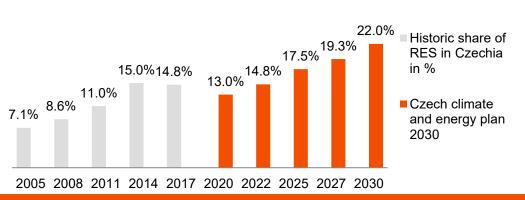
# NEW OPPORTUNITIES IN RENEWABLES ARE EMERGING IN THE CZECH REPUBLIC

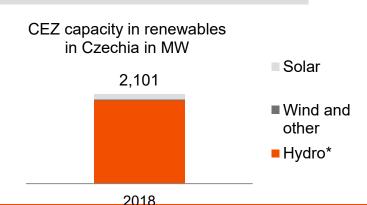


- Czech climate and energy plan envisages significant increase in the share of production from renewables from 13.0% in 2020 to 22% in 2030.
- Czech government intends to introduce the Modernization Fund, which should provide
  investment subsidies for renewables, energy efficiency and emission reductions. The proposal
  was approved by the Chamber of Deputies on 8th November 2019, is still subject to the approval by
  the Senate.

# CEZ aims to remain leader in the Czech Republic also in the renewables segment Competitive advantages

- deep knowledge of the market and construction process regulations
- ownership of land suitable for first renewable projects





# INVEN CAPITAL HAS MADE TEN INVESTMENTS IN FIVE COUNTRIES AND SUCCESFULLY CONCLUDED FIRST DIVESTMENT



# INV/E/N CAPITAL

 Inven Capital SICAV, a.s., is CEZ's wholly-owned subsidiary with variable capital, focusing on investments in clean-tech startups in a later stage of growth.

#### **Selected Events**

- A co-investment contract was signed in March 2018 with the European Investment Bank (EIB), which undertook to entrust up to EUR 50 m to the fund. Inven Capital then changed its legal form and manages two sub-funds: Inven Capital—Sub-Fund A (CEZ Group) and Inven Capital—Sub-Fund B (EIB).
- The fund invested in five companies up to 2017: sonnen, SunFire, tado, Cloud&Heat Technologies, and VU LOG.
- Additional investments were made in 2018: Cosmo Tech (vendor of a SW platform for the optimization of decision-making in asset management); additionally, investments were made in existing companies tado, Cloud&Heat Technologies, sonnen, SunFire.
- In 2019 it acquired stakes in **Driivz** (vendor of SW platform for charging station management), **CyberX** (provider of solutions in industrial cyber security), **Neuron Software** (acustics diagnostics of machines), **Zolar** (green tech company)

# First successful exit: Sale of the Fund's first acquisition—sonnen

- Investment in a minority share in sonnen, a German manufacturer of battery storage systems, was the Fund's first investment back in 2015.
- In February 2019 sale of Inven Capital's stake in sonnen (jointly with other investors) to Shell was finalized.
- The sale was in accordance with the company's strategy to seek companies with high potential for investment appreciation and hold shares for 3–7 years. Achieved selling price and achieved return on invested capital considerably exceeded its initial expectations of CEZ.

# **DEVELOPMENT TEAM**

# **KEY OBJECTIVES FOR 2019**



## **Distribution**

#### Czechia

- Preparation for the price regulation and the public consultation process for the 5th regulatory period.
- Prepare the distribution system for the development of decentralized generation, accumulation, electric mobility, and change in consumption structure.

#### **Abroad**

- Protect CEZ's legal rights in Bulgaria and complete the sale of assets
- Maximize return on investment in Romania.

### Sales—Retail

#### Czechia

- Maintain market share in electricity (No. 1 in the market) and reinforce our position in natural gas (No. 2) with unique services and product packages.
- Further develop noncommodity products and services (photovoltaics, heating maintenance, heating systems, CEZ Mobil, etc.).
- Improve the care of and be closer to our customers (increasing the overall CX index by 6%, strengthening online tools, completing redesign of customer care centers) and continue cultivating the market and enhancing consumer protection.
- Increase sales and cost effectiveness.

Abroad, maximize gross margin and reduce fixed expenses.

## **ESCO Activities**

#### Czechia & Slovakia

- Reinforce CEZ ESCO's position in the domestic market and in Slovakia through organic growth and acquisitions.
- Increase existing ESCO group companies' revenue from sale of noncommodity products in Czechia to CZK 7.7 bn.

### **Abroad (other than Slovakia)**

- Continue to develop ESCO activities through organic growth and selective acquisitions (especially in Germany)
- Increase existing foreign companies' revenue from sale of noncommodity products to CZK 12.7 bn.

# **New Energy**

#### Renewables

- Execute the RES development strategy in Czechia.
- Operate the RES portfolio efficiently in Czechia and abroad.
- Complete the construction of the Ascheres, France wind park with an installed capacity of 13.6 MW.
- Increase the value of development acquisitions abroad.

### **Inven Capital**

- Expand investment activities and make 1–2 new growth investments.
- Define exit strategies and financial parameters for sale of companies in the portfolio.

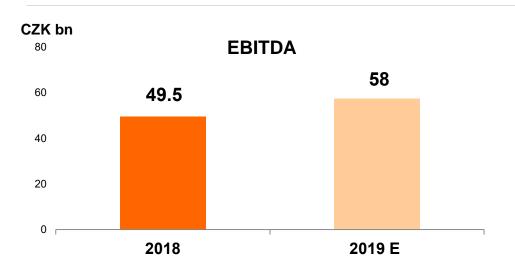
# **AGENDA**

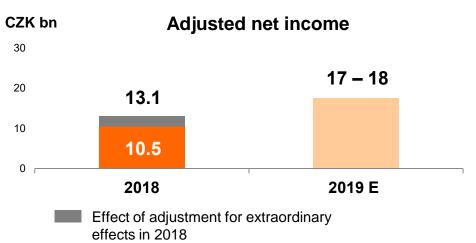


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# OUTLOOK FOR 2019 - ESTIMATING EBITDA AT CZK 58 BN, ADJUSTED NET INCOME AT CZK 17 TO 18 BN







#### Rationale for EBITDA outlook:

- Fulfilled risk of returning the payment of SŽDC's liability to CEZ Prodej from 2010 of CZK 1.3 bn due to a decision of the court
- Higher profit on commodity trading and higher margin on electricity sales

#### Key assumptions for the current prediction:

- Estimated electricity generation at CEZ Group generating facilities totaling 65.5 TWh, including 30.4 TWh at nuclear plants
- Estimated average realization price of generated electricity in Czechia of approx. 38 EUR/MWh\*

### Selected prediction risks and opportunities:

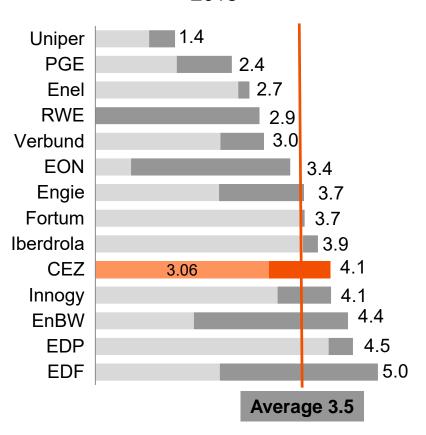
- Availability of generating facilities
- Consolidation and other effects

<sup>\*</sup> This is the result of hedges from past years, deals made in 2019, and the current market valuation of remaining, still unsold, estimated generation in Q4 2019.

# CEZ TARGETS ITS LEVERAGE RATIO OF NET FINANCIAL DEBT/EBITDA BETWEEN 2.5x AND 3.0x



# Net economic debt/ EBITDA\* 2018



# **Current credit rating**

- A-, stable outlook from S&P
- Baa1, stable outlook from Moody's

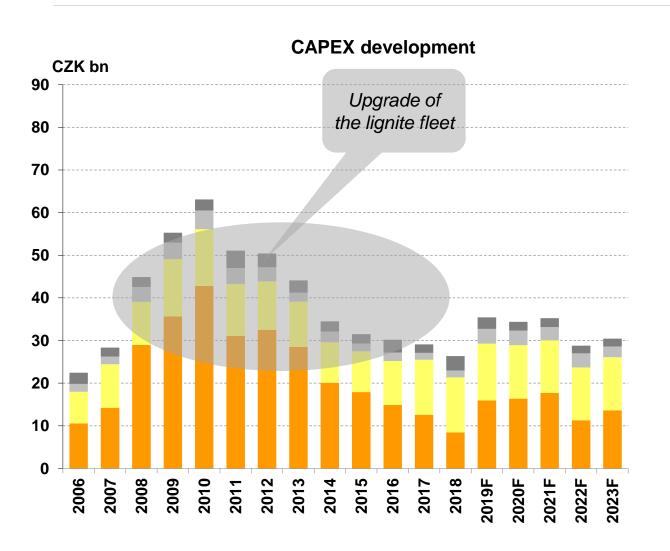
# **Tolerated leverage**

- net financial debt/EBITDA ratio at 2.5-3.0x
- 3.06x as of YE 2018 influenced by specific factors affecting the value of the ratio, such as higher margin deposits on commodity exchanges (in connection with increased electricity prices) or purchase of CO2 allowances for own use in 2020 and 2021
- 2019 ND/EBITDA ratio will be positively influenced by higher guided EBITDA and it reached 2.8x as of Sep 30, 2019

<sup>\*</sup>EBITDA as reported by companies, \*\* Net economic debt = net financial debt + net nuclear provisions + provisions for employee pensions + net reclamation provision

# **CEZ GROUP CAPEX FORECAST**





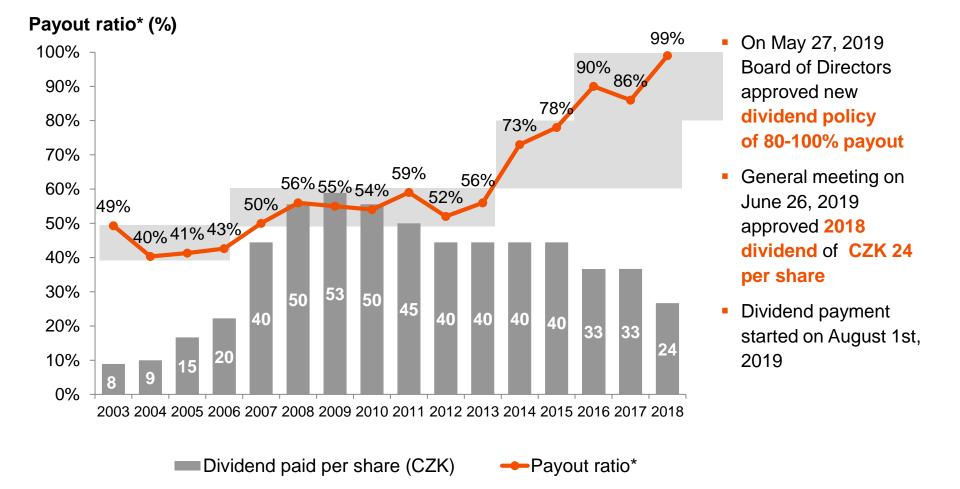
- Other
- Mining
- Distribution
- Generation

Total CAPEX during 2019 (in CZK bn): 164	0-2023
Generation-traditional*	70
Generation – new energy	5
Distribution **	63
Mining	16
Other (including sales)	10

\*Increase in 2019-21 primarily given by BAT/BREF induced investments and investments in Melnik (supply of heat to Prague) \*\* of which CZK 8 bn outside Czech Rep., excludes Bulgaria from 2020

## DIVIDEND POLICY IS TO DISTRIBUTE 80 – 100 % OF ADJUSTED NET INCOME





## **AGENDA**



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I atest and historical financial results	66

### SUMMARY AND INVESTMENT HIGHLIGHS



### CEZ is operating renewed low cost and profitable generation fleet

- CEZ is positioned for upsides in profitability due to high CO2 and/or hard coal prices
- CEZ's strategic priority is to maintain efficient operations, optimal utilization and development of generation portfolio
- CEZ has measures in place to maintain nuclear (CO<sub>2</sub> free) output at and above 31 TWh
- As part of CEZ's sustainable development strategy "Energy for the Future", CEZ is committed to generating carbon neutral electricity before 2050

### CEZ expands energy services offering, distributed energy and renewables in Central/Western Europe

- CEZ is increasing its investments into distribution
- CEZ aims to become a leading player in energy efficiency solutions
- CEZ wants to grow its presence in domestic renewables

### Financial summary

- Dividend approved at CZK 24 per share from 2018 earnings, i.e. 99% of adjusted net income.
   Dividend policy: 80-100% payout ratio
- Strong Credit Rating and Leverage target of Net Financial Debt/EBITDA between 2.5x and 3.0x

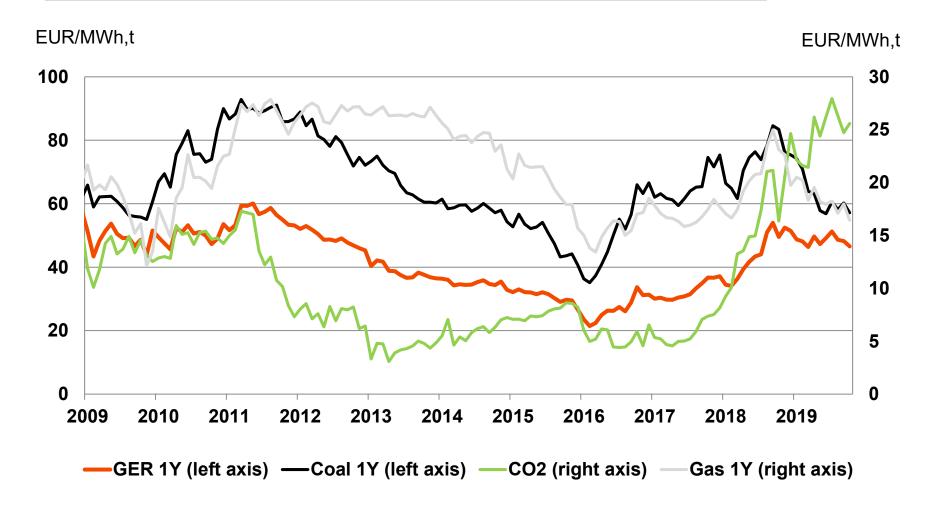
## **AGENDA**



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## HISTORICAL DEVELOPMENT OF PRICES OF INPUT COMMODITIES





## ELECTRICITY MARKETS IN THE REGION ARE INTEGRATED, CEZ CAN SELL ITS POWER ABROAD



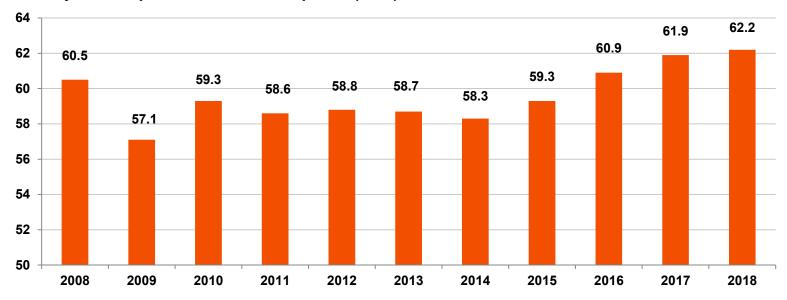


Source: EEX, PXE, TGE

## CZECH ELECTRICITY DEMAND GREW BY 0.5% IN 2018



#### Net electricity consumption in the Czech Republic (TWh)

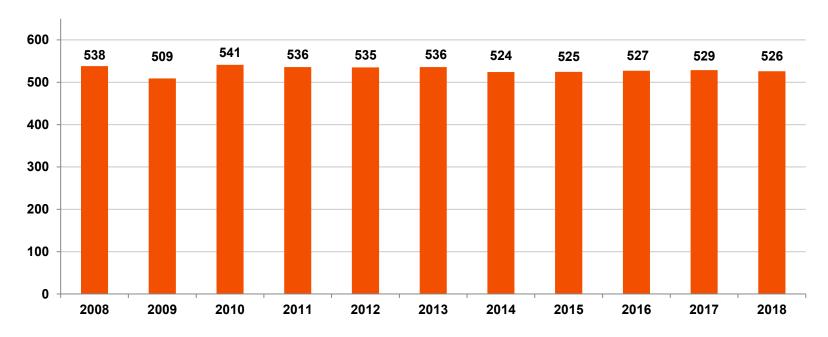


- Consumption in the Czech Republic grew 0.5% in 2018, of which:
  - + 1.7% large industrial companies
  - 1.1% households
  - 0.6% small businesses
- Consumption in the distribution area of CEZ Distribuce\* grew by 0.5%
  - + 1.4% large industrial companies
  - 0.7% households
  - 1.1% small businesses

## GERMAN ELECTRICITY DEMAND HAS SHRUNK Y/Y



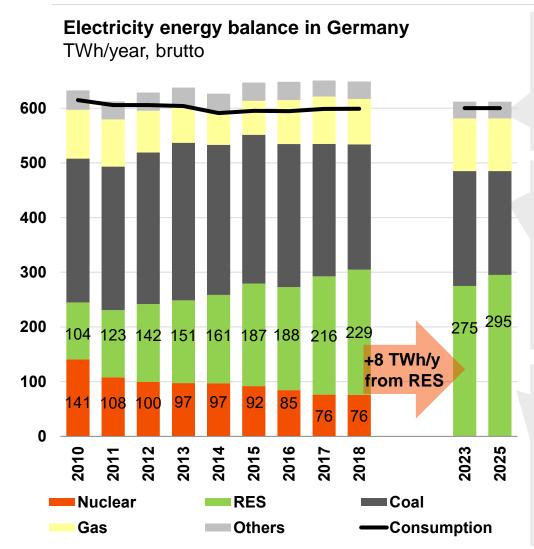
**Net electricity consumption in the Germany (TWh)** 



- Net electricity consumption in Germany has decreased by 0.5 % in 2018 of which:
  - 0.5% industry
  - 0.8% households
  - +0.0% trade, small businesses, public institutions and agriculture

# RENEWABLE GENERATION GROWTH IN GERMANY WILL OFFSET PLANNED PHASE OUT OF GERMAN NUCLEAR AND COAL POWER PLANTS BY 2023...





#### **German consumption**

- Long term stagnation
- Potential decrease due to Energy Efficiency Directive
- Most likely low support from EV; 2022 target:
   1m cars ~ 2.5 TWh/year

#### **German supply** (2023 vs 2010)

- Nuclear power plants phase out (Atomausstieg): –141 TWh from Nuclear
- Energiewende : +170 TWh from RES
- Coal phase-out: Germany plans to reduce coal capacity by ~ 9 GW to 30 GW in 2022, but coal generation should remain more or less stable until 2023 due to sufficient spare coal capacity

#### **After 2023**

- Growth of RES volumes based on plan.
   Annually displaces 1000 MW of coal from the market
- Germany aims at reducing its black- and browncoal capacity to 30 GW in 2022, 17 GW in 2030 and phase out all its coal capacity by 2038

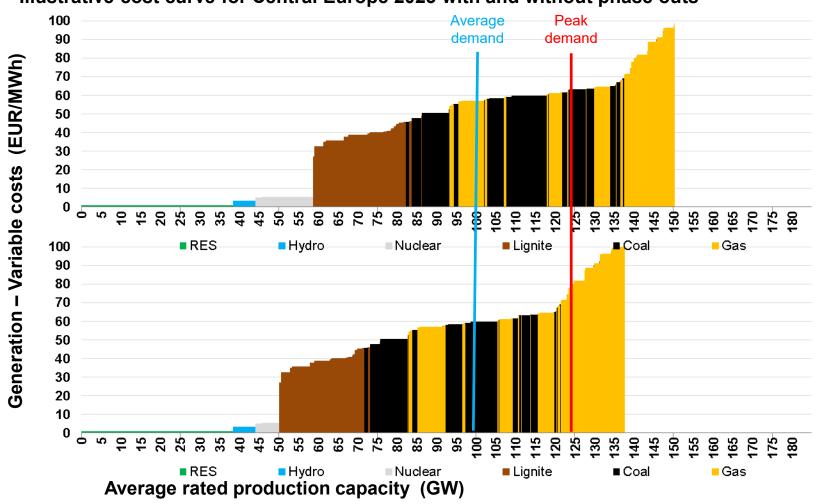
## ...AND PRICE UPSIDE FROM THE GERMAN'S COAL AND NUCLEAR PHASE OUT MIGHT BE EXPECTED...



Without Phase-out

With Phase-out

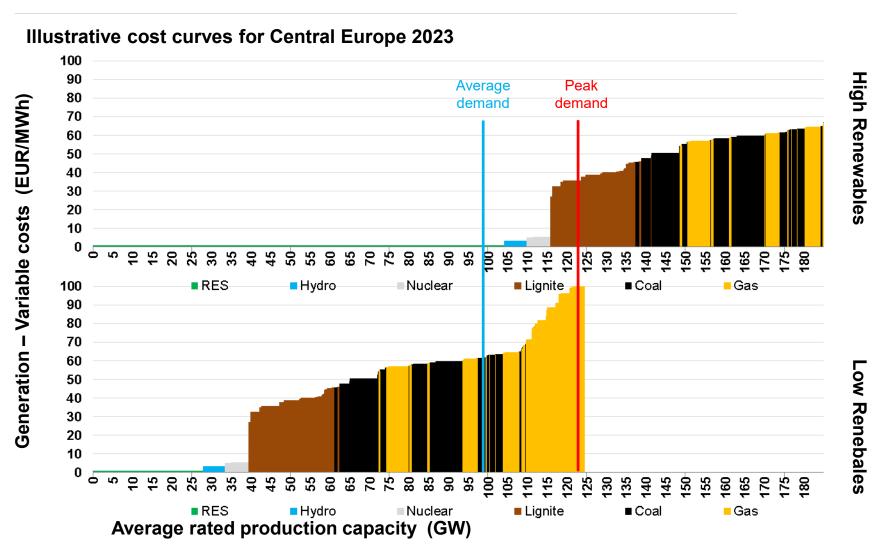




## ... RENEWABLES WILL BRING MORE VOLATILITY INTO

## Œ

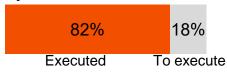
## THE MARKET



## TARGETS OF 2020 STRATEGIC AMBITIONS ARE LARGELY ACHIEVED



#### Operations Team – additional CZK 3 bn EBITDA by 2020\*



- Cost reductions and efficiency increase in support services
- Power Generation and Mining optimization
- Strengthening position in the Heat market

### Development Team - additional CZK 6 bn EBITDA by 2020\*



- Acquisitions and Development in Renewable Generation, ESCO and distribution in Western and Central Europe
- Acquisition potential up to CEZ Group's leverage of 3x Net Debt / EBITDA
- Optimization of Distribution operations and Sales to retail
- Venture-type investments in Energy related areas in Europe

Ambitions that were not executed already are being incorporated into updated strategy for the period 2019+

## CEZ CONTEMPLATES SALE OF ITS DISTRIBUTION, SALES AND GENERATION ASSET EAST OF HOME MARKET



2018	Bulgarian assets (67% stake)	Romanian assets (100% stake)	Poland generation (100% stake)
2019 RAB (EUR m)	300	462	-
Installed capacity	-	600 MW wind 22 MW hydro	678 MW coal
Electricity generated/ distributed*	9.5 TWh	1.2 TWh/ 6.8 TWh	2.8 TWh
Number of sales customers	2.1 m	1.4 m	-
External revenues (CZK bn)**	16.5	13.3	4.6
EBITDA (CZK bn)	1.3	3.2	1.0
Net profit (CZK bn)	0.5	1.6***	0.2

### Total contribution to CEZ Group (2018): CZK 5.5 bn EBITDA and CZK 34.8 bn revenues

Turkish assets are consolidated with equity method. CEZ owns 50% share in Akcez Enerji owner of distribution company SEDAŞ which distributed 9.7TWh of electricity to 1.8million customers in 2018. CEZ also owns 38% share in Akenerji Elektrik Üretim which owns 904 MW CCGT plant which generated 3.8TWh in 2018. Akenerji also owns 28 MW wind and 289 MW hydro power plants which generated 0.9TWh.

## CEZ GROUP CONTEMPLATES SALE OF ASSETS IN ROMANIA



<b>Data for 2018:</b>	Fi	nancials	(2018,	EUR m)		
		Revenues	EBITDA	NI	Assets	Equity
Distributie Energie Oltenia Electricity distribution	<ul> <li>Connection points: 1.50 m</li> <li>Distributed electricity* (GWh): 6,826</li> <li>2019 RAB €462m</li> <li>Network length: 79,206 km</li> </ul>	174.5	61.7	11.6	598.8	428.5
CEZ Vanzare Electricity supply	<ul> <li>Customers: 1.39 m</li> <li>El. sales* (GWh): 3,425</li> <li>Market share**: 6.8%</li> <li>Gas sales (GWh): 1,085</li> </ul>	251.9	7.4	5.1	88.7	17.8
Tomis Team & M.W. Team Invest On-shore wind	<ul><li>347.5MW in Fântânele (139 GE turbines)</li><li>Generation (GWh): 632</li><li>Commissioned in 2010</li></ul>	70.9	25.3	20.5	436.6	396.0
Ovidiu Development On-shore wind	<ul> <li>252.5MW in Cogealac (101 GE turbines)</li> <li>Generation (GWh) 473</li> <li>Commissioned in 2012</li> </ul>	48.5	22.7	20.3	332.4	318.4
TMK Hydroenergy Power Hydro plant	<ul><li>22 MW of capacity</li><li>Generation (GWh): 83</li><li>Renovated in 2013</li></ul>	7.5	5.7	1.9	29.6	10.0
<b>CEZ Romania</b>	Support services to the group	32.4	3.3	0.4	139.1	8.9

## CURRENT STATUS OF DIVESTITURE PROCESS OF FOREIGN ASSETS



#### SALE OF ROMANIAN ASSETS—PROCESS STARTED, INDICATIVE OFFERS EXPECTED BY END OF YEAR

- The selling process started officially on Sep 9, 2019. More than 30 prospective buyers expressed interest in buying the assets.
- The first stage of the sale will be completed by screened prospective buyers submitting their offers in December 2019.
- Following an evaluation of the bids, we expect binding bids to be submitted in Q2 2020 and an agreement to be signed with the winner of the tender. Transaction completion is expected in H1 2021.

#### SALE OF POLISH ASSETS—PREPARATORY STEPS STARTED

- Preparatory steps are underway for starting the selling process for Polish assets. Prospective buyers of the assets are expected to be contacted by the end of H1 2020.
- We expect indicative bids to be submitted in the fall of 2020 and an agreement with the tender winner to be signed and the transaction to be completed in 2021.

## SALE OF BULGARIAN ASSETS—COMPETITION AUTHORITY DISAPPROVED THE TRANSACTION, WE ARE EVALUATING FURTHER STEPS

- An agreement to sell our Bulgarian assets to Eurohold was made in June 2019. On Aug 2, Eurohold filed an
  application for transaction approval with the Bulgarian competition authority. The authority started proceedings on
  Oct 3, more than two months after the filing.
- Although Eurohold does not own any energy assets, the Bulgarian competition authority ordered an in-depth review
  of the transaction on Oct 10, extending the deadline for issuing its decision until mid-March 2020.
- However, the authority did not make use of the extension, dismissing Eurohold's application for transaction approval on Oct 24.
- An administrative action was brought against the competition authority's decision by both CEZ and Eurohold.

## PROJECT OF NEW NUCLEAR IN THE CZECH REPUBLIC



Government currently works with a scenario, where CEZ develops the new nuclear plant through SPV. Conditions to be specified in a series of contracts between CEZ and the government. The negotiations are at the beginning.

### Anticipated contract principles

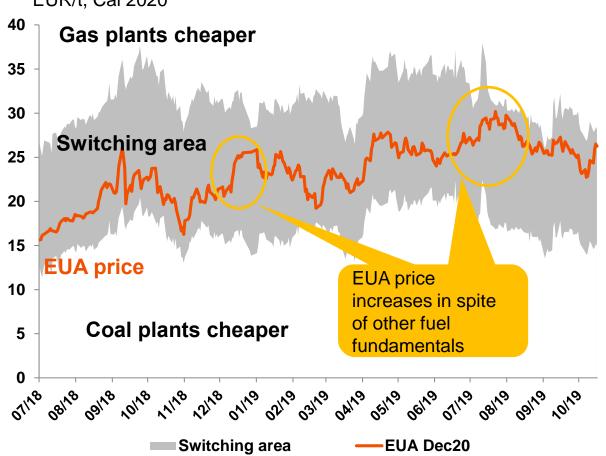
- Contract will include put and call options with strike prices covering expenses at the end of each phase
- Government will be obliged to buy SPV in case of the absence of the contract for the next phase

20	19 2024	-25 2029	9-32	2037	7-40
Business model selection	EPC contractor selection	Construction permit and final notice to proceed	Construction phase		New nuclear unit operational
	Framework agreem	ent			
	1 <sup>st</sup> phase contract	2 <sup>nd</sup> phase contact	3 <sup>rd</sup> phase contract		4 <sup>th</sup> phase contract
	<ul> <li>EIA (2019)</li> <li>Permit for the siting of nuclear installation</li> </ul>	<ul><li>Engineering</li><li>Nuclear licenses</li><li>Site permit</li></ul>	<ul><li>Construction</li><li>Commissioning</li></ul>		<ul><li>Operation</li></ul>
	■ EPC tender	<ul> <li>Construction permit</li> </ul>	IIII		
CAPEX	EUR 100-150 m for 1 <sup>st</sup> phase		Significant capex sta only in 2029	arts	

## EUA PRICE STAYS WITHIN COAL-TO-GAS SWITCHING RANGE



EUA prices necessary for the coal-to-gas\* switching and market EUA prices
EUR/t, Cal 2020



- EUA follows the main trends of other energy commodities for the most of the time, but it can also move against other fuels' fundamentals in case there are some specific (often political) EUA impulses
- EUA moving above the switching level means more gas generation at the expense of coal
- Almost a half of the total switching potential of emission savings in 2020 would be realized with current forward prices
- EUA auctions will decrease by 400 Mt next year because of the MSR effect

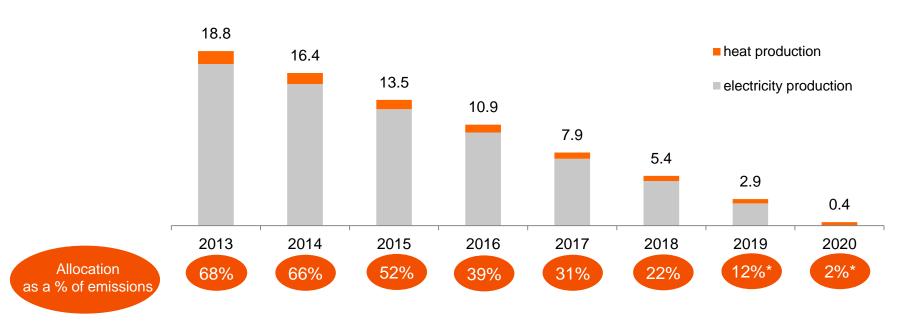
<sup>\*</sup>for coal and gas plants with 34% resp. 56% and 36% resp. 50% efficiencies, ARA coal and NCG gas

## CEZ GROUP RECEIVES PART OF EMISSION ALLOWANCES FOR FREE



- CEZ Group to receive up to 69.6 million emission allowances for electricity production in the Czech Republic in 2013–2019 in exchange for investments reducing greenhouse gas emissions.
- Up to 60% of the standard national auction volumes can be freely allocated for the modernization of the energy sector in less developed countries post 2020 (including Czech republic)

#### Expected allocation of allowances for CEZ Group in the Czech Republic (millions)



\* % of 2018 emissions

## ENVIRONMENTAL, SOCIAL AND GOVERNANCE POLICY



**CEZ Group has formulated a sustainable development strategy "Energy for the Future"** and has nominated Member of the Board of Directors **Michaela Chaloupková** to be CEZ Group Sustainability Leader with responsibility for oversight of the sustainable development. The Board oversees ESG and climate-related issues regularly.

#### **Environment**

- CEZ made a commitment to generate carbon neutral electricity before 2050 and published expected decarbonization timeline
- CEZ is giving a priority to projects enabling plant operation after 2020 when new BAT/BREF limits are to enter into force
- CEZ is active in e-mobility, its 180 charging stations are the largest network in Czechia

#### Social

- CEZ has donated CZK 336 million in 2018 through CEZ Foundation or directly to more than thousand public benefit projects
- CEZ has shortened 37.5-hour work week and guarantees one additional week of paid vacation beyond the statutory minimum
- Freedom of association in trade unions, collective bargaining and a long-term collective agreement is in place within CEZ
   Group companies
- Environmental protection, social criteria and respect for human rights are integral part of CEZ Group suppliers' obligations

#### Governance

- 21.8% of employees are women, 29.6% of new employee hires are women
- 4 out of 12 Supervisory Board members are employee representatives
- 2 out of 19 Board of Directors and Supervisory Board members are women
- CEZ has emphasis on providing equal opportunity and promoting diversity

Sustainability\* report providing details of our initiatives can be downloaded at www.cez.cz/en/investors.html

## THE CLIMATE TARGETS IN EUROPE ARE BECOMMING MORE AND MORE AMBITIOUS...



#### 2020

## 20%

- Binding EU-wide target
- Target already accomplished thanks to the economic crisis, rising RES and inexpensive gas

## 20%

- Binding on national level in the form of specific national targets
- Great chance to meet the target on EU level

### 2030 (passed)\*

### At least 40% (40%)

- Binding EU-wide target
- Can be reached as a side effect of fulfilling other two targets
- Pressure to increase the ambition to 50-55%

### At least 32% (27%)

- Binding at EU-wide level, effectively national targets will be specified
- Fulfilment in electricity, heat, and transportation
- RES electricity in the EU should grow to 55%.

## consumption\*\*

Share of renewable

(RES) in total final

energy sources

Reduction of

1990 levels

greenhouse gas

emissions from

Energy savings (EED\*\*\*) in comparison with levels in 2007 predictions

#### 20%

- Indicative on national level
- Mandatory energy-saving measures in final consumption
- Until recently, little attention from the EC

### At least 32.5% (27%)

- Indicative at EU-wide level
- Binding annual savings of 0.8% of consumed energy at national level
- Both sub-targets will be similar for the Czech Republic and require a slight decrease in energy consumption by 2030

## Implications for CEZ Group

- Potential for increased emission allowance prices and thus higher generation margin by virtue of low CO<sub>2</sub> emission factor
- Further potential for ESCO development (as a result of pressure on energy savings) and RES development

## ... THE NEW EUROPEAN COMMISSION PRESIDENT PLANS TO INCREASE THE AMBITIONS EVEN FURTHER



Reduction of greenhouse gas emissions from 1990 levels

Share of renewable energy sources in total final energy consumption

Energy savings (EED\*\*\*) compared to business-as-usual predictions from 2007

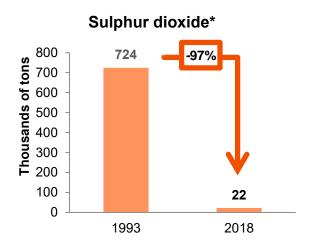
### **Declaration of "Green Deal for Europe":**

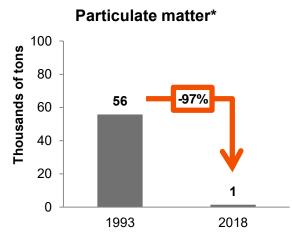
- Increase the emission reduction target for 2030 from 40% to 50%-55%
- Europe will be the first greenhouse gas emission neutral continent by 2050 (relevant legislation will be provided in first 100 days in office)
- Consider implementation of CO<sub>2</sub> tax on goods imported from countries with weak climate policies
- Partial transformation of the European Investment Bank into a "Climate Bank" to unlock 1 trillion euros for climate investments in the following decade
- Financial support for less developed regions (so called "Just transition fund")
- Energy savings mentioned only implicitly

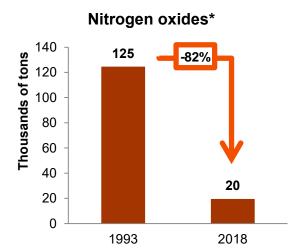
- Pressure on decarbonization will grow further
- Strong long-term incentive for CO<sub>2</sub> price growth

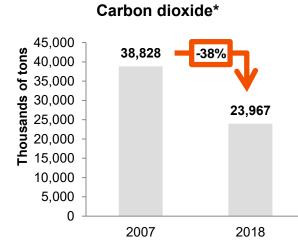
## CEZ GROUP SIGNIFICANTLY REDUCED EMISSIONS FROM ITS COAL FLEET











- During 1990's CZK 111 bn has been invested into complex, modernization of power stations, desulphurization, denitrification and efficiency upgrades. 1,965 MW of old units have been decommissioned
- In 2000-02 nuclear power plant Temelin was commissioned and contributed to reduction of coal output
- 2010's comprehensive renewal of Tušimice and Prunéřov TPP's and new supercritical unit at Ledvice. Investment of more than CZK100 bn has led to further increase in efficiency of the power generation and emission reductions

## CARBON INTENSITY OF CEZ' PORFOLIO



			Lignite	Black coal	Gas Biomass	
		Power Supply (TWh)	Heat supply (TJ)	Heat supply ratio <sup>1)</sup>	Emissions of CO₂ per EE and HE³) produced	
Hodonín		0.3	453	12%	129 g CO₂/kWh	
Poříčí 2		0.6	1,312	19%	547 g CO₂/kWh	Partly biomass
Počerady 2	<b>(</b>	1.8	0	0%	356 g CO₂/kWh	Gas
Energotrans	0	0.9	9,575	80%	428 g CO₂/kWh	
Trmice		0.3	2,929	59%	506 g CO₂/kWh	Heating Plant
Dvůr Králové		0.0	164	68%	542 g CO₂/kWh	
Mělník 2		1.3	2,250	19%	699 g CO₂/kWh	
Ledvice 3	•	0.5	898	19%	731 g CO₂/kWh	
Ledvice 4		2.7	347	2%	765 g CO₂/kWh	
Dětmarovice		1.4	534	4%	826 g CO₂/kWh	
Prunéřov 2		2.8	262	1%	826 g CO₂/kWh	
Tušimice 2		5.2	460	1%	833 g CO₂/kWh	
Prunéřov 1		2.2	598	3%	909 g CO₂/kWh	
Počerady	•	5.3	172 <sup>2)</sup>	<1 %	948 g CO₂/kWh	Power plant
Mělník 3		1.0	0	0%	974 g CO₂/kWh	Ļ

Note: CO<sub>2</sub> only from coal part of power plant, except PPC

## CZECH REPUBLIC: ELECTRICITY DISTRIBUTION - OVERVIEW OF REGULATORY FRAMEWORK



## Regulatory Framework

- Regulated by ERU (Energy Regulatory Office, www.eru.cz)
- The main components of regulatory formula for distribution
  - Revenue cap = Operating expenses + Depreciation + Regulatory return on RAB Other revenues corrections +/- Quality factor + Market factor
  - RAB adjusted annually to reflect net investments
  - Regulatory rate of return (WACC nominal, pre-tax) 7.951% for 2016-2020
  - Operating costs are indexed to CPI + 1% (30% weight) and market services price index (70% weight). In IV. Regulatory period efficiency factor set at 1.01%/year.
  - Quality factor prescribed levels of SAIDI and SAIFI parameters Maximum bonus or penalisation +/- 4% of allowed profit. Currently has neutral impact on CEZ Distribuce.
  - Market factor to reflect unexpected cost which could not had been planned while setting
    planned values of allowed costs (e.g. new duties coming from new legislation). Never used by
    ERU in case of CEZ Distribuce.

## Regulatory period

- 4<sup>th</sup> regulatory period from January 1, 2016 till December 31, 2020,
- Main focus:
- lowering allowed costs compared to the previous period (reflecting actual costs in the previous regulatory period);
- pressure on quality and security of electricity distribution (prescribed SAIDI and SAIFI parameters);
- renew and develop the networks incentivised by reasonable regulation parameters.

## Unbundling & Liberalization

- Since January 1, 2006 all customers can choose their electricity supplier, market is 100% liberalized
- Prices for distribution regulated as per above, prices of commodity is not regulated at all.

## CZECH DISTRIBUTION - WACC COMPONENTS IN IV. REGULATORY PERIOD



WACC set using CAPM formula:

WACC= 
$$\left(k_e \times \frac{E}{D+E}\right) + \left[\left(k_d \times \frac{D}{D+E}\right) \times (1-T)\right]$$
  
 $k_e = r_f + \beta \times MRP$   
 $k_d = r_f + credit \ risk \ margin \ (CRM)$ 

- Risk free rate (r<sub>f</sub>) was derived from median yields of 10-y Czech sovereign bonds for 10 years period
- Credit risk margin set as a difference between BBB rated corporate bonds and 10Y German and French Sovereign bonds\*

WACC components	4th regulatory period 2016 – 2020
Risk free rate (r <sub>f</sub> )	3.82 %
Market risk premium (MRP)	5 %
ß unlevered	0.536
ß levered (ß)	0.901
Cost of equity (k <sub>e</sub> )	8.32 %
Credit risk margin (CRM)	1.38 %
FTSE Euro Corporate Bonds BBB	4.53 %
EUR gov 10YEUR	3.15 %
Cost of debt, pre tax (k <sub>d</sub> )	5.19 %
Tax rate (T)	19 %
Cost of debt, post-tax	4.21 %
Debt/(Debt+Equity)	45.75 %
WACC (nominal, before tax)	7.951%

## **ROMANIA:** REGULATORY FRAMEWORK OF ELECTRICITY DISTRIBUTION



## Regulatory Framework

- Regulated by ANRE (Autoritatea Nationala de Reglementare in domeniul Energiei)
- Price cap (tariff basket) methodology
- Revenue = Controllable OPEX + non-controllable OPEX + Depreciation + Purchase of losses + Regulatory return on RAB - Revenues from reactive energy - 50% gross profit from other activities
- Losses (technical + commercial) reduction program agreed with ANRE on voltage levels
- Possibility for annual corrections
- Investment plan approved by ANRE before regulatory period starts, revision of investments carried out usually done at the end of the regulatory period.
- 2019 RAB set at 2278 mil RON
- Regulatory return (WACC pre-tax real terms) equals to 6.9%.
- Distribution tariff growth capped in real terms at 10% yearly on voltage levels and at 7% yearly for average weighted distribution tariff in the third regulatory period

## Regulatory periods

4th regulatory period Jan 1, 2019 – Dec 31, 2023

#### Liberalization

- Removal of regulated prices for industrial consumers by end 2013, for residential consumers by end 2017
- Starting January 2018 the market was liberalized. Consumers who have not chosen their energy supplier in the free market are priced with a Last Resort Supplier tariff (endorsed by ANRE)

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## **BULGARIA:** REGULATORY FRAMEWORK OF ELECTRICITY DISTRIBUTION



## Regulatory Framework

- Regulated by EWRC (Energy and Water Regulatory Commission)
- The regulatory formula for distribution
  - Revenue cap = Costs + Regulatory return on RAB + Depreciation
  - Regulatory rate of return (WACC nominal, pre-tax) at 6.67% for the 5<sup>th</sup> regulatory period
  - Average values set for the NBV, depreciation and investments for the whole period
  - RAB set at EUR 300.5 mil. for the 5<sup>th</sup> regulatory period\*
  - Technological losses in 5<sup>th</sup> regulatory period set by regulator at 8%
  - Efficiency factor introduced in the 2<sup>nd</sup> regulatory period, not applied in the 5<sup>th</sup> regulatory period, yet. EWRC may apply it later.

## Regulatory periods

- 3<sup>rd</sup> regulatory period August 1, 2013 July 31, 2015
- 4<sup>th</sup> regulatory period August 1, 2015 June 30, 2018
- 5<sup>th</sup> regulatory period July 1, 2018 June 30, 2021

## Unbundling & Liberalization

- Unbundling successfully completed by December 31, 2006
- Since July 2007, all consumers have the right to become eligible. Most of the household customers remain in universal service with regulated tariffs though
- Liberalization process and transfer of consumers to free market is partly restrained due to a limited scale of energy products provided by the Bulgarian energy exchange (IBEX)

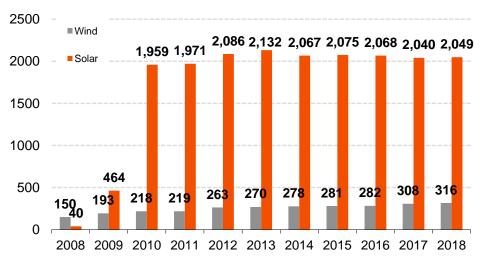
### **CZECH REPUBLIC: RENEWABLES SUPPORT**



#### 2019 feed-in-tariffs (EUR per MWh)

	Plants commissioned in 2010	Plants commissioned in 2019
Solar <30 kW	569.3	0
Solar >30 kW	564.8	0
Wind	104.0	75.0

## Installed capacity of wind and solar power plants in the Czech Republic $(\mbox{\em MWe})$



- Operators of renewables can choose from two options of support:
  - Feed-in tariffs (electricity purchased by distributor)
  - Green bonuses (electricity sold on the market, bonuses paid by distributor, level of green bonuses is derived from feed-in tariffs)
- Feed-in tariffs are set by a regulator to ensure 15-year payback period. During operation of a power plant they are escalated by PPI index or by 2% at minimum and 4% at maximum.
- Support is provided for 20 years to solar, wind, pure biomass and biogas plants and for 30 years to hydro.
- Solar plants commissioned in 2014 or later do not receive any support.
- Solar plants put into operations in 2010 with capacity over 30kWp are obliged to pay 10% tax of revenues.

## **ROMANIA: RENEWABLES SUPPORT** UPDATE OF THE RULES ADOPTED IN 2017 SIGNIGICANTLY IMPROVES VISIBILITY OF FUTURE CASH FLOWS



- Wind farms receive income from sales of electricity on the market and from sales of green certificates
- Two green certificates (GC) obtained by the producer for each MWh supplied from wind to the network until 2017, one GC from 2018 onwards, duration of support – 15 years.
- Legally set price for green certificate is EUR 29.4 EUR 35 (adjusted in March 2017 from previous EUR 27 to EUR 55)
- In March 2017 the tradability of green certificates was extended all certificates issued after 1st April 2017 are tradable until 31st March 2032 (originally the lifespan was limited to 12 months).
- The updated regulatory scheme assumes an obligation to buy a constant annual amount of green certificates for 15 years, starting Apr 1, 2017, so that all green certificates are absorbed at the end of the 15-year periode

#### **Green certificates market clearing price (EUR/certificate)**

## 60 50 40 30 20 10

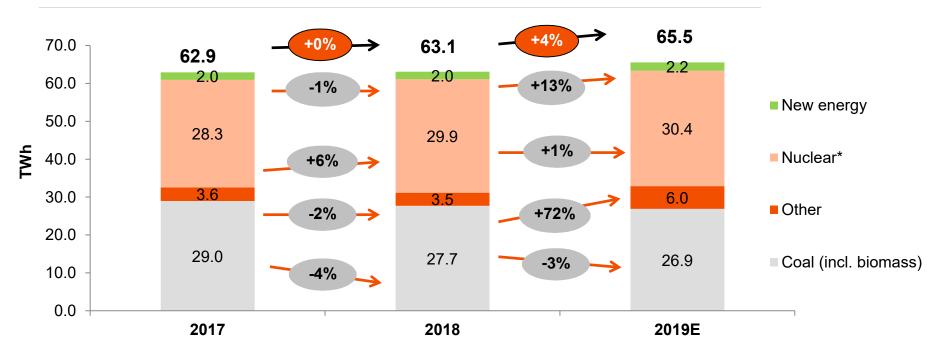
#### Romanian year ahead electricity price (EUR/MWh)



**CEZ GROUP** Source: OPCOM,PXE

# 2018 GENERATION VOLUMES AFFECTED BY OUTAGES IN COAL-FIRED POWER PLANTS, AMBITION TO RAISE GENERATION BY 4% IN 2019





#### 2018 volume trends

- + Optimization of outages in both nuclear power plants
- + Commercial operation of new Ledvice 4 coal power plant
- + Higher generation in Poland
- + Shorter outages in Tušimice 2 power plant
- Lower generation in Dětmarovice, Prunéřov and Mělník
- Worse weather conditions in Romania, Germany and Czechia

#### 2019 volume ambition

- + Optimization of outages in both nuclear power plants
- + Shorter outages at Prunéřov 2, and Mělník 3 power plants and higher generation in Ledvice 4 power plant
- Lover generation by Dětmarovice, Počerady and Ledvice 3 power plants
- + Primarily higher generation by Počerady CCGT plant due to favorable market prices of electricity and gas
- + Worse-than-average weather conditions in 2018

### LEVEL AND STRUCTURE OF DEBT



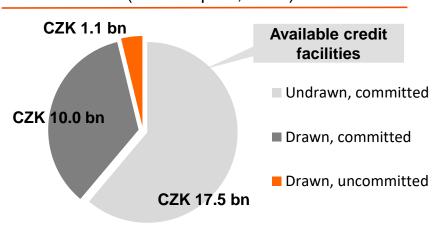
### CEZ GROUP MAINTAINS A STRONG LIQUIDITY POSITION

#### **Debt Level\*\***

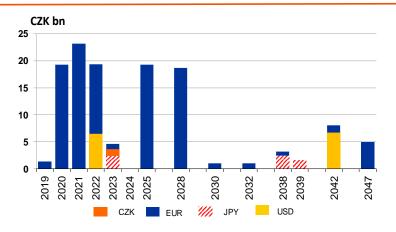
		As at	As at
		Dec 31, 2018	Sept 30, 2019
Debt and loans	CZK bn	162.8	166.7
Cash and fin. assets*	CZK bn	11.5	11.0
Net debt	CZK bn	151.3	155.6
Net debt/EBITDA		3.1	2.8

### **Utilization of Short-Term Lines\*\***

(as at Sep 30, 2019)



### **Bond Maturity Profile** (as at Sep 30, 2019)



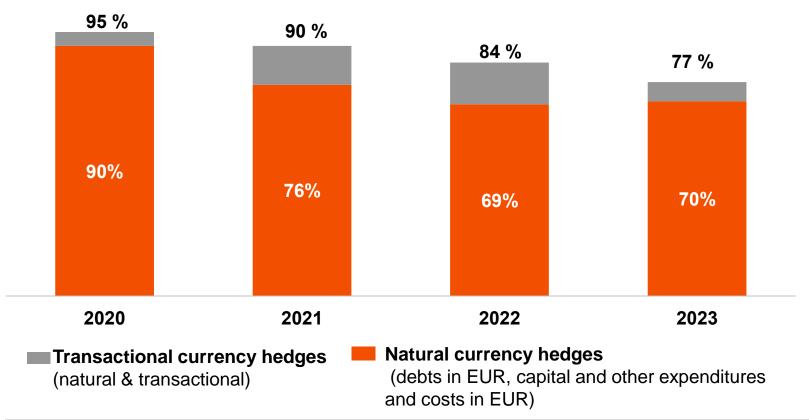
- CEZ Group has access to CZK 27.5 bn in committed credit facilities, using CZK 10 bn as at Sep 30, 2019.
- Committed facilities are kept as a reserve for covering unexpected expenses and to fund short-term financial needs.
- The payment of dividends for 2018 (CZK 12.9 bn) began on Aug 1, 2019. 99% of the amount awarded was paid by Sep 30, 2019.

## CEZ CONTINUES HEDGING ITS CURRENCY EXPOSURE IN LINE WITH STANDARD POLICY



### Total currency hedges as of Sep 30, 2019

(as % of total expected EUR long position in a given year)



The foreign exchange position for 2020 is hedged at an average rate of 26.75 CZK/EUR and the foreign exchange position for 2021–2023 is hedged at approx. 26–27 CZK/EUR on average.

## CEZ GROUP FINANCIAL AND OPERATING RESULTS



(CZK bn)	Q1 - Q3 2018	Q1 - Q3 2019	Change	%
Revenues	131.8	148.1	+16.3	+12%
EBITDA	38.7	44.7	+6.0	+16%
EBIT	16.7	22.1	+5.4	+32%
Net income	9.1	13.6	+4.5	+49%
Net income - adjusted *	11.3	14.7	+3.4	+30%
Operating CF	36.5	40.5	+4.0	+11%
CAPEX	15.3	18.6	+3.3	+22%

		Q1 - Q3 2018	Q1 - Q3 2019	Change	%
Installed capacity **	GW	15.0	14.9	-0.1	-1%
Mining	m tons	15.3	14.7	-0.6	-4%
Generation of electricity - segment traditional energy	TWh	44.3	45.1	+0.8	+2%
Generation of electricity - segments new energy and sales	TWh	1.4	1.6	+0.2	+16%
Electricity distribution to end customers	TWh	38.4	38.5	+0.1	+0%
Electricity sales to end customers	TWh	27.5	26.3	-1.3	-5%
Sales of natural gas to end customers	TWh	6.4	6.7	+0.2	+4%
Sales of heat	000′TJ	14.8	16.1	+1.4	+9%
Number of employees **	000's	30.9	32.2	+1.3	+4%

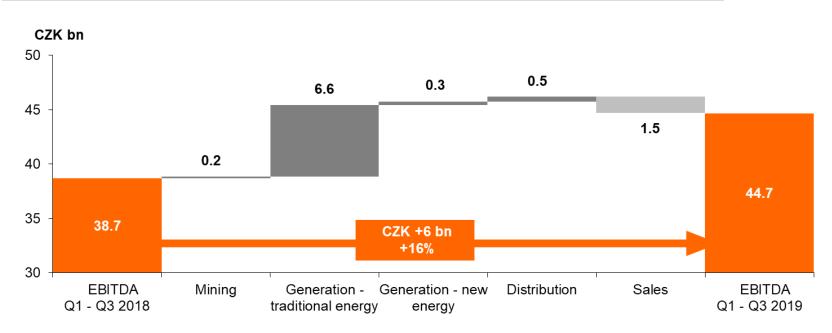
<sup>\*</sup> Adjusted net income = Net income adjusted for extraordinary effects that are generally unrelated to ordinary financial performance in a given year (such as fixed asset impairments and goodwill write-offs)

Note: Accounting in the last period had an impact on financial results reported for Q1 and Q2 2019.

<sup>\*\*</sup> As at the last date of the period

### YEAR-ON-YEAR CHANGE IN EBITDA BY SEGMENT





#### Main causes of year-on-year change in Q1-Q3 EBITDA:

- Higher realization prices of generated electricity in Czechia, including the effect of hedges and commodity trading (CZK +6.8 bn)
- Higher expenses on emission allowances for generation in Czechia (CZK -1.2 bn) due to increased market prices and lower allocation of free allowances
- Extraordinary effect of a court decision under which the payment of SŽDC's liability to CEZ Prodej from 2010 had to be returned including interest and costs (CZK -1.3 bn)

Note: Accounting in the Generation—Traditional Energy segment in the last period had an impact on financial results reported for Q1 and Q2 2019.

## OTHER INCOME (EXPENSES)



(CZK bn)	Q1 - Q3 2018	Q1 - Q3 2019	Change	%
EBITDA	38.7	44.7	+6.0	+16%
Depreciation, amortization and impairments*	-22.0	-22.6	-0.6	-3%
Other income (expenses)	-5.2	-5.4	-0.2	-4%
Interest income (expenses)	-3.6	-3.8	-0.2	-5%
Interest on nuclear and other provisions	-1.3	-1.4	-0.1	-4%
Income (expenses) from investments and securities	s -0.5	0.5	+1.0	-
Other	0.3	-0.7	-1.0	-
Income taxes	-2.4	-3.1	-0.7	-28%
Net income	9.1	13.6	+4.5	+49%
Net income - adjusted	11.3	14.7	+3.4	+30%

#### Depreciation, Amortization, and Impairments\* (CZK -0.6 bn)

- Higher depreciation and amortization (CZK -0.3 bn), primarily at CEZ Distribuce, CEZ Energo (fully consolidated since mid-2018), and CEZ Korporátní služby
- Higher additions to impairments of Bulgarian (CZK -0.6 bn) and Romanian (CZK -0.1 bn) assets
- Lower additions to impairments of Czech assets, including goodwill write-off (CZK +0.4 bn)

#### Other Income (Expenses) (CZK -0.2 bn)

- Higher interest expenses (CZK -0.3 bn), higher interest revenue (CZK +0.1 bn)
- Positive y-o-y difference in income and expenses from equity investments and securities (CZK +1.0 bn), primarily due to depreciation of the Turkish lira in 2018
- Other (CZK -1.0 bn), primarily loss on financial derivatives and loss on other finance income and expenses

#### **Net Income Adjustments**

- Net income in Q1–Q3 2019 adjusted for negative effects amounting to (CZK +1.1 bn), including impairments of fixed assets in Bulgaria of CZK +1.0 bn and in Romania of CZK +0.1 bn
- Net income in Q1–Q3 2018 adjusted for the negative effect of additions to CEZ provisions corresponding to the value of potential partial performance under a guarantee provided for Akcez group companies' loans due to continued weakening of the TRY/USD exchange rate in Q3 2018 (CZK +1.4 bn), for the negative effect of fixed asset impairments in Bulgaria (CZK +0.4 bn), and for the negative effect of fixed asset impairments including goodwill write-off in Czechia (CZK +0.4 bn)

Note: Accounting in the last period had an impact on financial results reported for Q1 and Q2 2019.

## **NUCLEAR AND MINING PROVISIONS AS OF YE 2018**



### Nuclear and mining provisions as of YE 2018 in accordance with IFRS

(discount rate 1.25% p.a. (real), est. Inflation effect 1.25%)

	Provision (CZK bn)	Responsibility of:	Cash cover (CZK)		
Interim storage of spent nuclear fuel	7.6 bn	CEZ	0.01 bn		
Permanent storage of spent nuclear fuel	32.2 bn	State <sup>*</sup> , costs paid by CEZ	Fee 55 CZK/MWh generated in NPP to Nuclear Account***		
Nuclear Facility decommissioning	23.8 bn	CEZ	13.1 bn		
Mining reclamation	8.6 bn	CEZ (SD**)	5.2 bn		
Landfills (ash storage)	0.7 bn	CEZ	0.2 bn		

<sup>\*</sup> RAWRA - Radioactive Waste Repository Authority

<sup>\*\*</sup>SD – Severočeské doly

<sup>\*\*\*</sup> State Nuclear Account balance as of YE 2018 CZK 28.4bn

## SELECTED HISTORICAL FINANCIALS OF CEZ GROUP





Profit and loss CZK bn	2010	2011	2012	2013	2014	2015	2016	2017	2018
Revenues	<u>198.8</u>	<u>209.8</u>	<u>221.9</u>	<u>216.7</u>	<u>201.8</u>	<u>210.2</u>	<u>203.7</u>	<u>205.1</u>	<u>184.5</u>
Sales of electricity	175.3	181.8	186.8	189.4	173.8	182.1	174.9	104.1	103.1
Sales of services								76.3	59.9
Sales of gas, heat and coal and other income	23.6	28	35.1	27.4	27.9	28.1	28.8	24.7	21.5
Operating Expenses	<u>110</u>	122.4	<u>136.1</u>	<u>134.7</u>	<u>129.3</u>	<u>145.1</u>	<u>145.7</u>	<u>148</u>	<u>135</u>
Purchased power and related services	54.4	65.9	71.7	79	75.8	90.9	88.3	57.4	52.2
Fuel and emission rights	16.9	17.1	15.8	13.8	12.7	13.1	13.2	16.0	19.1
Salaries and wages	18.7	18.1	18.7	18.7	18.9	17.8	19.2	22.1	25.6
Other	20	21.3	29.9	23.2	21.9	23.4	25.1	26.3	38.1
<u>EBITDA</u>	<u>88.8</u>	<u>87.4</u>	<u>85.8</u>	<u>82</u>	<u>72.5</u>	<u>65.1</u>	<u>58.1</u>	<u>53.9</u>	<u>49.5</u>
EBITDA margin	45%	42%	39%	38%	36%	31%	29%	26%	27%
Depreciation, amortization, impairments	26.9	26.2	28.9	36.4	35.7	36.3	32.1	29.5	29.7
<u>EBIT</u>	<u>62</u>	<u>61.3</u>	<u>57</u>	<u>45.7</u>	<u>36.9</u>	<u>29</u>	<u>26.1</u>	<u>25.6</u>	<u>19.8</u>
EBIT margin	31%	29%	26%	21%	18%	14%	13%	12%	11%
Net Income	<u>46.9</u>	<u>40.8</u>	<u>40.1</u>	<u>35.2</u>	<u>22.4</u>	<u>20.5</u>	<u>14.6</u>	<u>19</u>	<u>10.5</u>
Net income margin	24%	19%	18%	16%	11%	10%	7%	9%	6%
Adjusted net income	<u>49.8</u>	<u>41.2</u>	<u>41.3</u>	<u>43</u>	<u>29.5</u>	<u>27.7</u>	<u>19.6</u>	<u>20.7</u>	<u>13.1</u>
Adjusted net income margin	25%	20%	19%	20%	15%	13%	10%	10%	7%
Balance sheet CZK bn	2010	2011	2012	2013	2014	2015	2016	2017	2018
Non current assets	448.3	467.3	494.7	485.9	497.5	493.1	489.3	487.9	480.4
Current assets	96.1	131	141.1	154.5	130.4	109.6	141.6	136	227
- out of that cash and cash equivalents	22.2	22.1	18	25	20.1	13.5	11.2	12.6	7.3
Total Assets	<u>544.4</u>	<u>598.3</u>	<u>635.8</u>	<u>640.4</u>	<u>627.9</u>	<u>602.7</u>	<u>630.8</u>	<u>623.9</u>	<u>707.4</u>
Shareholders equity (excl. minority. int.)	221.4	226.8	250.2	258.1	261.3	267.9	256.8	250	234.7
Return on equity	22%	18%	17%	14%	9%	8%	6%	8%	4%
Interest bearing debt	158.5	182	192.9	199	184.1	157.5	167.8	154.3	161
Other liabilities	164.4	189.4	192.6	183.3	182.4	177.3	206.2	219.6	311.7
<u>Total liabilities</u>	<u>544.4</u>	<u>598.3</u>	<u>635.8</u>	<u>640.4</u>	<u>627.9</u>	<u>602.7</u>	<u>630.8</u>	<u>623.9</u>	<u>707.4</u>

## SELECTED HISTORICAL FINANCIALS OF CEZ GROUP



### **EUR**

Doof!! and lose									
Profit and loss EUR M	2010	2011	2012	2013	2014	2015	2016	2017	2018
Revenues	<u>7,735</u>	<u>8,163</u>	<u>8,634</u>	<u>8,432</u>	<u>7,852</u>	<u>8,179</u>	<u>7,926</u>	<u>7,981</u>	<u>7,179</u>
Sales of electricity	6,821	7,074	7,268	7,370	6,763	7,086	6,805	4,051	4,012
Sales of services								2,969	2,331
Sales of gas, heat and coal and other income	918	1,089	1,366	1,066	1,086	1,093	1,121	961	837
Operating Expenses	<u>4,280</u>	<u>4,763</u>	<u>5,296</u>	<u>5,241</u>	<u>5,031</u>	<u>5,646</u>	<u>5,669</u>	<u>5,759</u>	<u>5,253</u>
Purchased power and related services	2,117	2,564	2,790	3,074	2,949	3,537	3,436	2,233	2,031
Fuel and emission rights	658	665	615	537	494	510	514	623	743
Salaries and wages	728	704	728	728	735	693	747	860	996
Other	778	829	1,163	903	852	911	977	1,023	1,482
<u>EBITDA</u>	<u>3,455</u>	<u>3,401</u>	<u>3,339</u>	<u>3,191</u>	<u>2,821</u>	<u>2,533</u>	<u>2,261</u>	<u>2,097</u>	<u>1,926</u>
EBITDA margin	45%	42%	39%	38%	36%	31%	29%	26%	27%
Depreciation, amortization, impairments	1,047	1,019	1,125	1,416	1,389	1,412	1,249	1,148	1,156
EBIT	<u>2,412</u>	<u>2,385</u>	<u>2,218</u>	<u>1,778</u>	<u>1,436</u>	<u>1,128</u>	<u>1,016</u>	<u>996</u>	<u>770</u>
EBIT margin	31%	29%	26%	21%	18%	14%	13%	12%	11%
Net Income	<u>1,825</u>	<u>1,588</u>	<u>1,560</u>	<u>1,370</u>	<u>872</u>	<u>798</u>	<u>568</u>	<u>739</u>	<u>409</u>
Net income margin	24%	19%	18%	16%	11%	10%	7%	9%	6%
Adjusted net income	<u>1,938</u>	<u>1,603</u>	<u>1,607</u>	<u>1,673</u>	<u>1,148</u>	<u>1,078</u>	<u>763</u>	<u>805</u>	<u>510</u>
Adjusted net income margin	25%	20%	19%	20%	15%	13%	10%	10%	7%
Balance sheet EUR M	2010	2011	2012	2013	2014	2015	2016	2017	2018
Non current assets	17,444	18,183	19,249	18,907	19,358	19,187	19,039	18,984	18,693
Current assets	3,739	5,097	5,490	6,012	5,074	4,265	5,510	5,292	8,833
- out of that cash and cash equivalents	864	860	700	973	782	525	436	490	284
Total Assets	<u>21,183</u>	<u>23,280</u>	<u>24,739</u>	<u>24,918</u>	24,432	<u>23,451</u>	<u>24,545</u>	<u>24,276</u>	<u>27,525</u>
Shareholders equity (excl. minority. int.)	8,615	8,825	9,735	10,043	10,167	10,424	9,992	9,728	9,132
Return on equity	22%	18%	17%	14%	9%	8%	6%	8%	4%
Interest bearing debt	6,167	7,082	7,506	7,743	7,163	6,128	6,529	6,004	6,265
Other liabilities	6,397	7,370	7,494	7,132	7,097	6,899	8,023	8,545	12,128
Total liabilities	<u>21,183</u>	<u>23,280</u>	<u>24,739</u>	<u>24,918</u>	<u>24,432</u>	<u>23,451</u>	<u>24,545</u>	<u>24,276</u>	<u>27,525</u>

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