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# Nuclear Program in Czech Republic, Up-Date No. 2 (July 2012)

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# Nuclear Power Plants in Czech

**Dukovany NPP (utility ČEZ)**

WR plant type VVER 1000 model V-320

Basic Design: Russia

Detailed Design: Czech (Skoda, EGP..)

Two units with design electric power output 1000 MWe, each

Completed in years 2000-2002

Design Lifetime: 40 year (+20)

Units present cover 14% of all electricity production in Czech Republic

Particularity: Russian design equipped by US WELCO I&C system licensed in accordance with NRC requirements.



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# Nuclear Power Plants in Czech (cntd.)

**Dukovany NPP (utility ČEZ)**

VVER plant type VVER 440 model V-213

Four units with original design electric power output 440 MWe, each

completed in years 1985-1987

Design Lifetime: 30 year (+30)

They present cover 20% of all electricity production in Czech Republic

Particularity: Modernization projects in years 2005-2009 increasing the safety and electric

output 3x 460 MWe and 1x 500 MWe



# Future nuclear projects (of utility CEZ)



**Temelín NPP**  
planned construction  
Unit 3 and 4 (PWR)

**Dukovany NPP**  
planned construction  
Unit 5 (PWR)

**Jaslovské Bohunice**  
planned construction  
1 or 2 new unit (PWR)





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# New Nuclear Projects ETE34 – actual status

EZ has three bids from 2th June 2012.

Project	Supplier
AP 1000	Westinghouse Electric Company LLC Westinghouse Electric Czech Republic S.r.o.
EPR 1600	AREVA NP S.A.S.
MIR 1200	ŠKODA JS a.s. JSC Atomstroyexport JSC OKB Hidropress





## **New Nuclear Projects ETE34 – actual status**

On Monday 2nd July 2012 received the utility CEZ three tenders for the completion of Nuclear Power Plant TEMELIN from bidders:

Company **Areva**,

Consortium of companies (Russian-Czech)

**ŠKODA JS, Atomstroyexport** and

**Gidropress**

Consortium of companies

**Westinghouse Electric Company** and

**LLC Westinghouse Electric CR**



## **New Nuclear Projects ETE34 – actual status**

Winner of the tender is to be chosen within the next year.

The cost of completion is estimated at 200 to 300 billion CZK (behind curtain talks about 500bio CZK).

Tender documents had contained 6 000 pages and 11 000 questions.



## **New Nuclear Projects ETE34 – actual status**

Offers of individual companies include thousands of pages.

Westinghouse said 12 000 pages in 14 boxes with a total weight of 250 kg.

Czech-Russian consortium included even 80 000 pages and 28 boxes full of documents aluminum weighs about ton.

Offer Areva had 20 thousand pages.





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# Westinghouse





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# AREVA





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# Czech-Russian





## Time schedule

- 1st July 2012:** submission of three tenders
- End of 2012:** preliminary evaluation of the offers and call for completion
- End of 2013:** publication of evaluated results and announcement of the winner
- 2013 – 2014:** announcement of relevant partner(s) of CEZ utility
- 2016 - ?:** start of construction
- Up to 2015:** licensing and operation of 2 units



## Several perceptions

Some representatives of large German engineering company, which last year decided to abandon its nuclear program, said:

"Atom for us represents 3% of turnover, 90% concerns and 100% negative publicity."

For the medical devices they are substantially larger proportion of the turnover (and mostly profit), it was ultimately a very simple decision for the bailout!



## Several perceptions

the price of completion beyond it cost 500 billion CZK (worst case estimation).

they took the planned 260 billion CZK and invested in mutual funds worldwide importance and invested in conservative yield above 12% pa and would put on the market to buy 25 TWh electrics . and than to receive this for 10 years and nothing happens, so profit is about 250 TWh.

the issue is where the eltricity to buy...



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How begin TEMELINMANIA 2012. Supereshow for 200 Bilions“