Financing of the Paks II. nuclear new-build project

NEA - High-Level Warsaw Conference on Nuclear Financing
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Pál Kovács
state secretary responsible for the maintenance of the capacity of the Paks NPP, Hungary
Quo vadis EU?

Does the EU want:
• Security of Supply?
• Low carbon electricity?
• Competitiveness?
• Economic growth?

Is the European market design fit for (10+)60+ year long investments?
Paks II., an NPP capacity replacement project

- Paks II. – Hungary’s biggest project, also unique in Europe;
- Two new nuclear units, 2x VVER-1200;
- 12,5 bn EUR investment;
- A turn-key project:
  - Fixed technical content
  - Fixed quality
  - Fixed price
- Advanced safety systems;
- Load-following capability;
- High annual load factor;
- 60 years lifetime;

The location is an already used site of the Paks I. NPP, with a well established infrastructure

**Investment project of the 21st century**
Legal framework of the project

Intergovernmental agreement (IGA)
- on the peaceful use of nuclear energy by Russia and Hungary;
- includes an agreement to build two VVER units of at least 1000 MWe each at the Paks site.

Financial Intergovernmental Agreement (FIGA) – state funding
- Credit of up to EUR 10bn (80+20%);
- Hungarian Party has the right to prepay any amount at par and without any additional charges;
- 30+ years fixed interest rate: 3.95%, 4.5%, 4.8%, 4.95%.

Paks II. Ltd.: a state-owned vehicle for the execution of the project
Monte-Carlo simulations for several parameters:
- Inflation;
- Exchange rates;
- OPEX;
- Fuel costs;
- Waste management and decommissioning costs;
- O&M capex;
- Expected lifetime;
- Load factor;
- Electricity price.

There are no negative IRRs

Sensitivity analysis: 2 x 10,000 simulations by the European Commission

Recently, profitability expectations have improved significantly

There are many other aspects for a government
European Commission’s state aid decision:

- Power output trading strategy of Paks II. will be a commercial profit-optimising strategy.
  - At least 30% of its electricity output will be sold in Hungarian Power Exchange (HUPX, day-ahead, intraday, future markets)
  - The rest: on transparent auctions (conditions shall be determined by the Hungarian energy regulatory body)

- No feed-in-tariffs
- No contract for differences
Thank you for your kind attention!