



# Nuclear Energy Agenda of Turkey

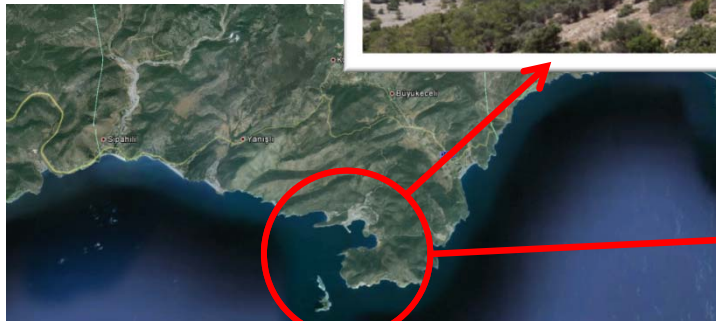
**Asc. Prof. H. Murat MERCAN**  
Deputy Minister

International Ministerial Conference  
St. Petersburg, Russia, 27-29 June 2013

# Historical Development

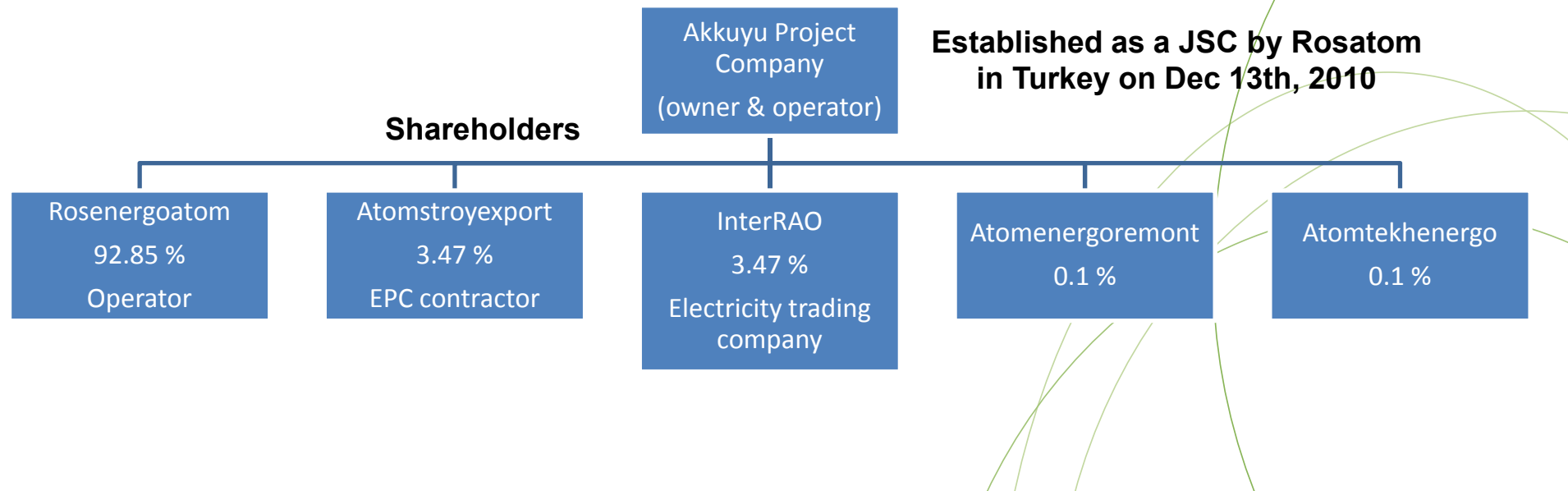
- First studies were started to build Turkey's 1st NPP in 1965
- Akkuyu site was selected by national authorities in 1974.
- Site license was obtained from AEC, former regulatory body, in 1976.
- 1977-2009: Four unsuccessful attempts based on tenders to build Akkuyu NPP in Turkey → All NPPs will be installed by means of IGA

Akkuyu site



# Akkuyu NPP Project

- **Signature of IGA** : with Russian Federation on May 12th, 2010
- **General Contractor** : ROSATOM-Atomstroyexport
- **Reactor Type** : VVER-1200 (AES-2006) - 60 years lifetime
- **Capacity** : 4800 MW (4 Units)
- **Implementation Model:** Build-Own-Operate (BOO)



# Responsibilities of Russian Side



Obtaining  
Licenses & Permits



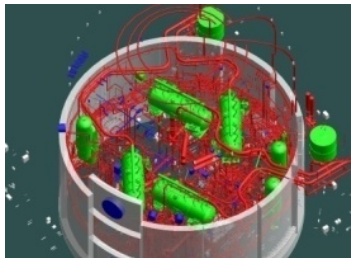
Financing  
Project



Project  
Management



Training of  
Turkish Personnel



Design



Construction



Operation & Maintenance

Supply of Equipment  
and Material



Supply of Nuclear Fuel

# Responsibilities of Russian Side



## Funding and Management of Nuclear Wastes and Decommissioning

- There is a take-back option for reprocessing of spent fuel
- **Funds:** Project Company will contribute;
  - ✓ 0.15 US cents/kwh to **Spent Fuel and Waste Management Fund**
  - ✓ 0.15 US cents/kwh to **Decommissioning Fund**



# Responsibilities of Turkish Side

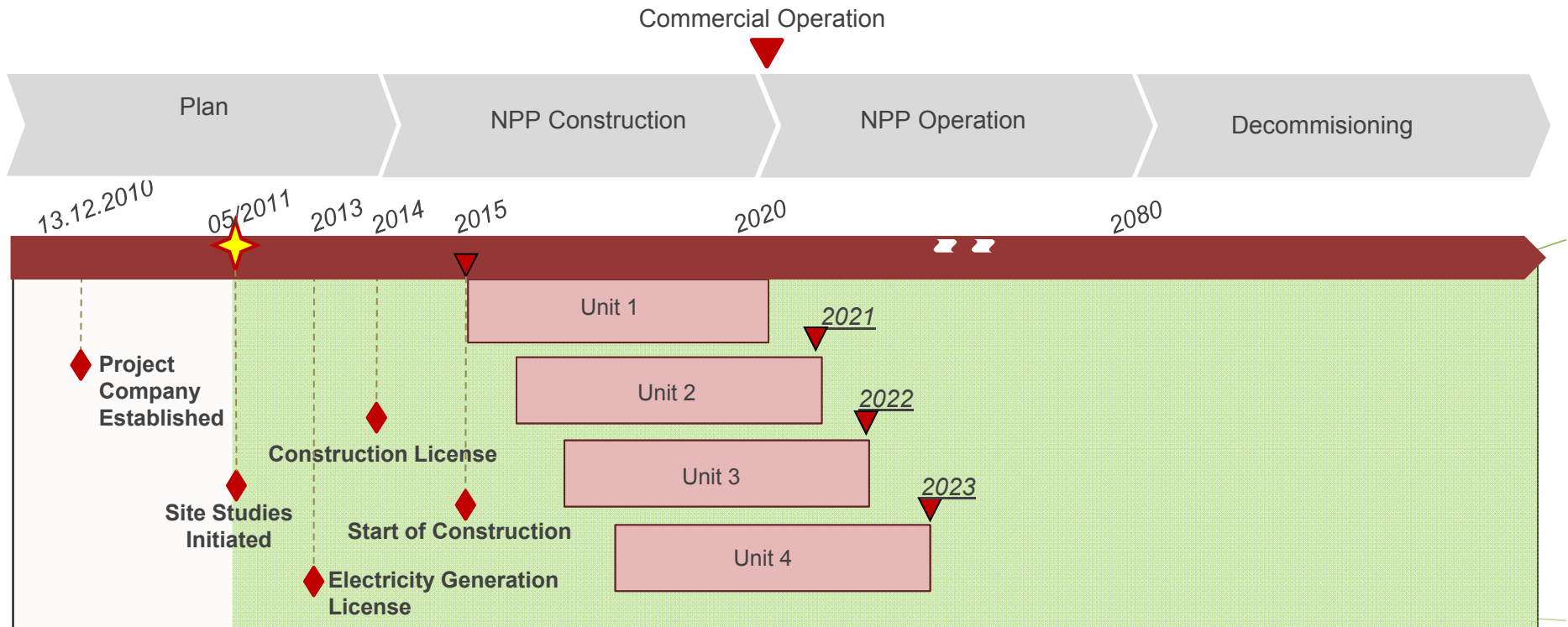
- ✓ Allocation of the plant site with its current license without any charge
- ✓ Purchasing electricity according to Power Purchase Agreement (%50 of Power, 15 years, 12.35 US cent/kWh)



# Power Purchase Agreement

- **Parties of the PPA:** Project Company & TETAS
- **According to the PPA:** 15-years, «weighted average» price of 12.35 cents/kWh
- **TETAS will purchase:**
  - ✓ 70% of electricity from Unit 1 and 2
  - ✓ 30% of electricity from Unit 3 and 4
- After the expiry of the PPA, Project Company will transfer 20% of its net profit to Turkish Treasury until the end of decommissioning.

# Time Schedule of Akkuyu NPP Project



- Construction Period: 2015-2022
- Beginning of Operation: Between 2020 and 2023



# Sinop NPP Project

- **Signature of IGA** : with Japan Government
- **Reactor Type** : ATMEA1 – 60 years lifetime
- **Capacity** : 4480 MW (4 Units)
- **Financial Model** : Public-Private-Partnership (PPA)



# Road Map of INIR Mission



- **Turkey has requested INIR Mission from the IAEA in 2012.**
- Turkey is considered in Phase 2 according to Milestone Document.
- INIR Mission will be conducted by the IAEA in November 2013.



# THANK YOU FOR YOUR ATTENTION

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