

INPRO Dialogue Forum 8
Toward Nuclear Energy System Sustainability: Economics, Resource
Availability, and Institutional Arrangement
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Statement on Economics: Bangladesh Part



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Present Power Picture:

- ❖ Low per capita energy use [According to WB Report 279 KgOE per capita]
- ❖ Near about 40% population don't have access to ELECTRICITY
- ❖ Widening the gaps between demand and supply of electricity [Demand about 8000 MW and avg. generation 6170.5 MW]
- ❖ Energy resource scarcity [Estimated gas about 6.50 TCF and coal about 1000 MT]

Daily Power Generation

Owner Name	Derated Capacity (MW)	Day Peak (MW)	Eve. Peak (MW)
Daily Generation of 26/08/2014			
PDB	4109.00	1294.00	2106.00
SBU,PDB	223.00	181.00	211.00
EGCB	622.00	95.00	146.00
APSCL	682.00	460.00	460.00
IPP	1617.00	395.00	567.00
SIPP,PDB	110.00	78.00	102.00
RENTAL(3 yrs)	33.00	30.00	37.00
SIPP,REB	215.00	139.00	160.00
Q.Rental 3 Years	100.00	78.00	78.00
QRPP(5yrs)	200.00	158.00	167.00
Other	825.00	1134.00	1130.00
RPP (3 Yrs.)	1069.00	631.00	636.00
QRPP (3 Yrs.)	416.00	350.00	370.00
RPP (15 Yrs.)	169.00	155.00	167.00
Total	10390.00	5178.00	6337.00

Generation Capacity by Fuel Type:

Fuel Type	Percentage of Total Generation
Natural Gas	67.10%
Furnace Oil	21.70%
Diesel	06.15%
Hydro	02.65%
Coal	02.40%

Power System Master Plan 2010:

- ❖ Formulates PSMP 2010 : Long term planning up to 2030;
- ❖ Diversifies Fuel Mix: Maximum utilization of indigenous natural gas and coal, liquid fuel, nuclear energy and renewable energy;
- ❖ Encourages public and private sector participation and imports of electricity from neighboring countries through regional cooperation.

Electricity Generation Planning: 2010-2030

Fiscal Year	Generation(MW)	Generation Mix: Year 2030	
2015	13,300	Domestic Coal	11,250 MW
2020	22,500	Imported Coal	8,400 MW
2025	30,000	Nuclear Power	4,000 MW
2030	39,000	Gas & LNG	8,850 MW
		Regional Grid	3,500 MW
		Liquid Fuel, Hydro, Renewable	2,700 MW

Study shows electricity generation cost would be: [PSMP 2010]

- For new plants 6.91 TK/kWh
- For existing plants 8.17 TK/kWh
- For purchased from third parties (RPP, QRPP, etc.) 7.84 TK/kWh

The actual scenario is something different.

Study completed by Employing IAEA Methodology and Tools:

- Comparative Assessment of Electricity Generation Options,
- Energy, Electricity and Nuclear power Planning,
- Tracing Future Sustainable Paths Through Nuclear and Other Energy Options,
- Role of Nuclear Power and Other Energy Options in Competitive Electricity Markets,
- Formulation of Sustainable Energy Development Strategies in the Context of Climate Change.

Participation in IAEA Supported Projects for Long-term National Power and Energy System Planning (2000-2030)

Project Code	Name of the Projects	Year
RAS0033	Role of Nuclear Power and Other Energy Options in Mitigating Greenhouse Gas Emissions	2000
RAS0038	Role of Nuclear Power and Other Energy Options in Competitive Electricity Markets	2003
RAS0041	Tracing Future Sustainable Paths through Nuclear and Other Energy Options	2005
RAS0045	Evaluation of Sustainable Energy Development Strategies for Addressing Climate Change Issue	2007-08

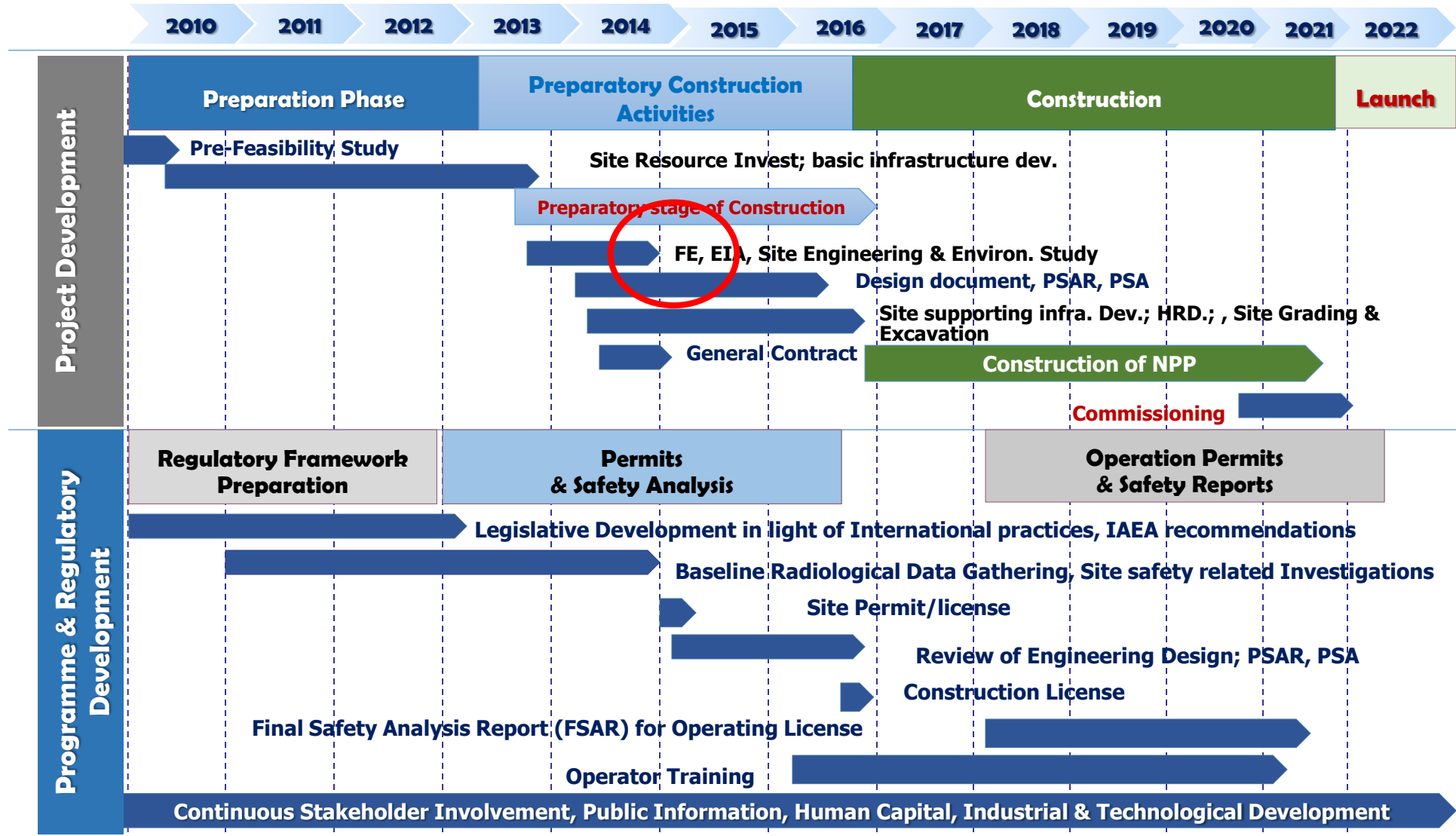
Investment

- ❖ 90% cost financed by ROSATOM of Russian Federation.
- ❖ 10 % cost financed from GOB fund.

Maturity of Design

- ❖ VVER-1000
- ❖ Generation III
- ❖ Proven Technology

Rooppur NPP Development Timeline (Proposed)



Political Commitment:

- ❖ 2000: Bangladesh Nuclear Energy Action Plan was approved by the government.
- ❖ 2008: Implementation of Rooppur NPP had become an Election Pledge of the present ruling party including all major political parties.
- ❖ 2013: Government has taken Rooppur NPP as one of the five fast-track projects.

THANK YOU