

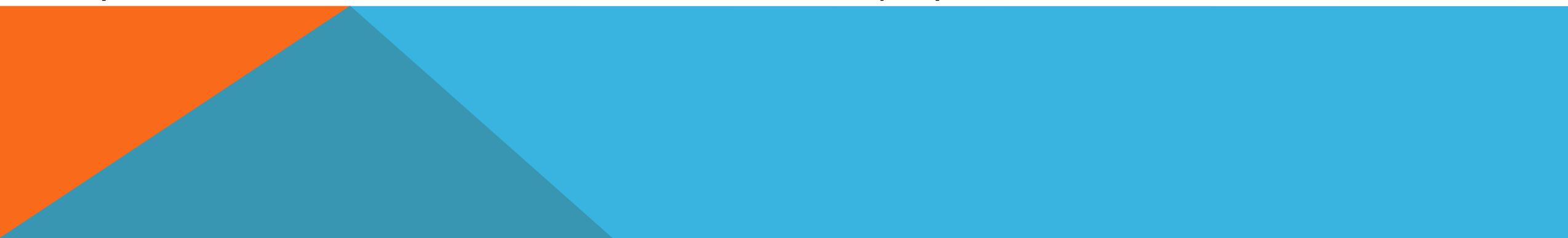
NEPIO GROUP

NUCLEAR POWER AUTHORITY (NPA)

QUESTION 1: CONSIDER WHETHER THE DECISION OF THE PRESIDENT IS A KNOWLEDGEABLE DECISION, AND SUFFICIENT TO PROCEED WITH THE PHASE 2 OF THE PROGRAM.

Yes, if the decision has been made clear by the president to include nuclear power as a national agenda and already got the popular support.

NPA will coordinate the nuclear power program between multiple stakeholders with the following major roles:

- **Coordinate for new law implementation with NRA**
 - **Make recommendation to the prime minister regarding feasibility and schedule of the NPP**
 - **Prepare GEN-ELEC to be the SPV and Owner/Operator for the NPP**
- 

Q1

Actions to be implemented (all according to phase 1 IAEA milestones docs)

- Pre feasibility study
 - Economic and financial early study
 - Human resource development study
 - Infrastructures (NEPIO regulatory body etc.)
 - Legal framework (new or old to be adapted)
 - Communication
 - Public acceptance
 - Site identification
- 

QUESTION 2 : ASSUMING THE PRESIDENT'S ANNOUNCEMENT DOES NOT CONSTITUTE A KNOWLEDGEABLE DECISION TO PROCEED IDENTIFY THE CRITICAL TASKS TO BE CONDUCTED BY THE NPA IN PHASE 1.

To start pre feasibility study in which to conclude whether it is necessary to start NPP

Pre-feasibility study which consist of:

- Pre site investigation (desktop site ranking & evaluation)
- Formulation of communications strategy
- New law and regulations studies
- National industry capabilities studies
- Early Impact studies when start the Nuclear power project

Nuclear power option included in national energy strategy

MILESTONE 1
Ready to make a knowledgeable commitment to a nuclear programme

MILESTONE 2
Ready to invite bids for the first NPP

MILESTONE 3
Ready to commission and operate the first NPP

Nuclear
Infrastructure
Development
Programme

First
NPP project

PHASE 1

Considerations before a decision to launch a nuclear power programme is taken

Pre-project

Feasibility study

PHASE 2

Preparatory work for constructing a NPP after policy decisions has been taken

Project decision making

Bidding process

PHASE 3

Activities to implement a first NPP

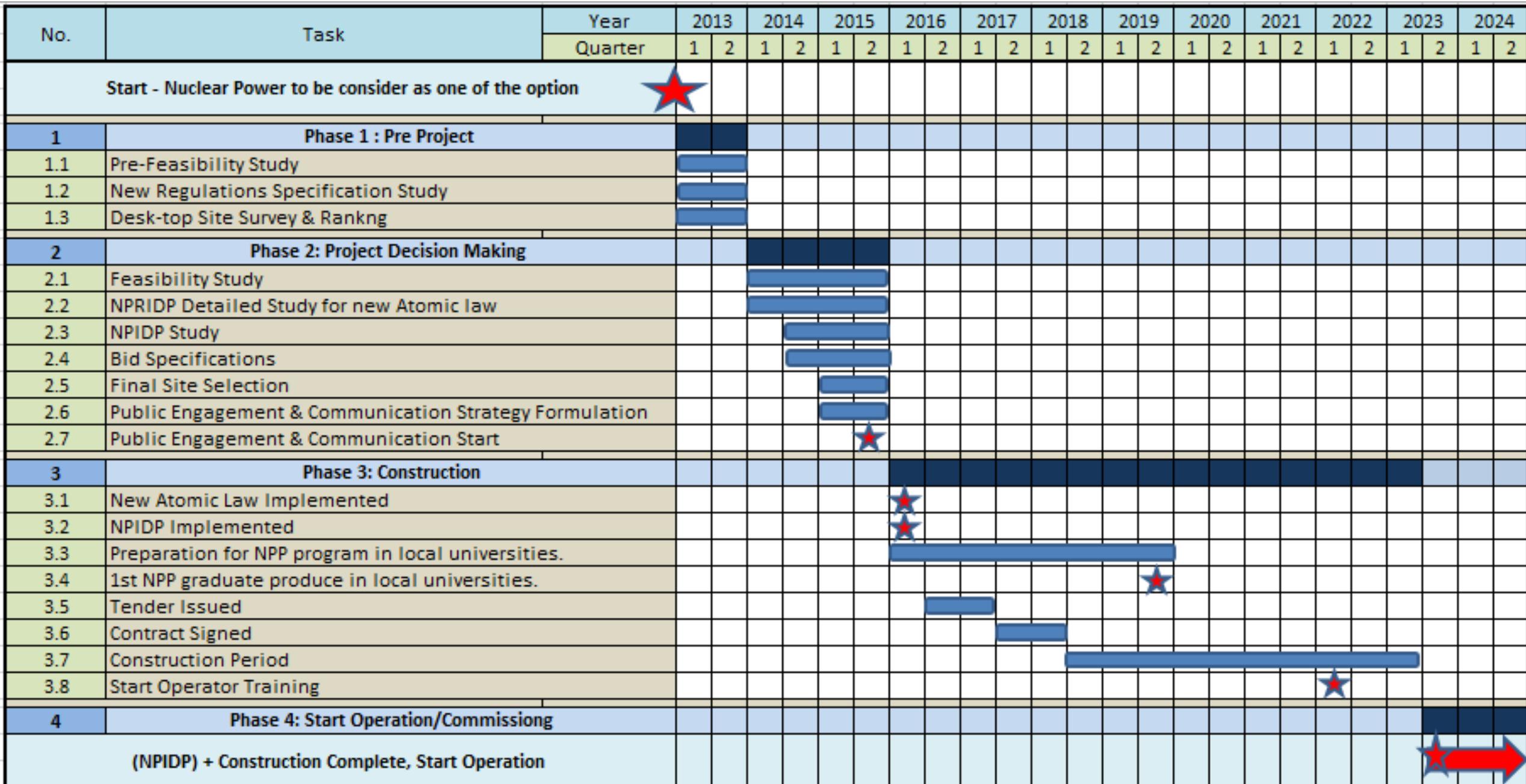
Construction

Commissioning

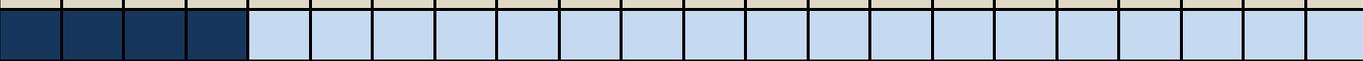
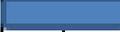
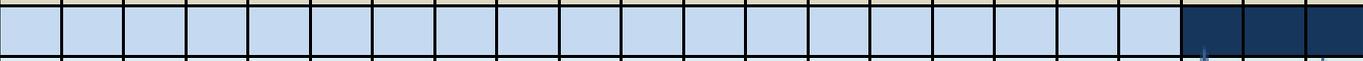
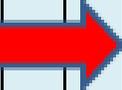
Operation of the first nuclear power plant



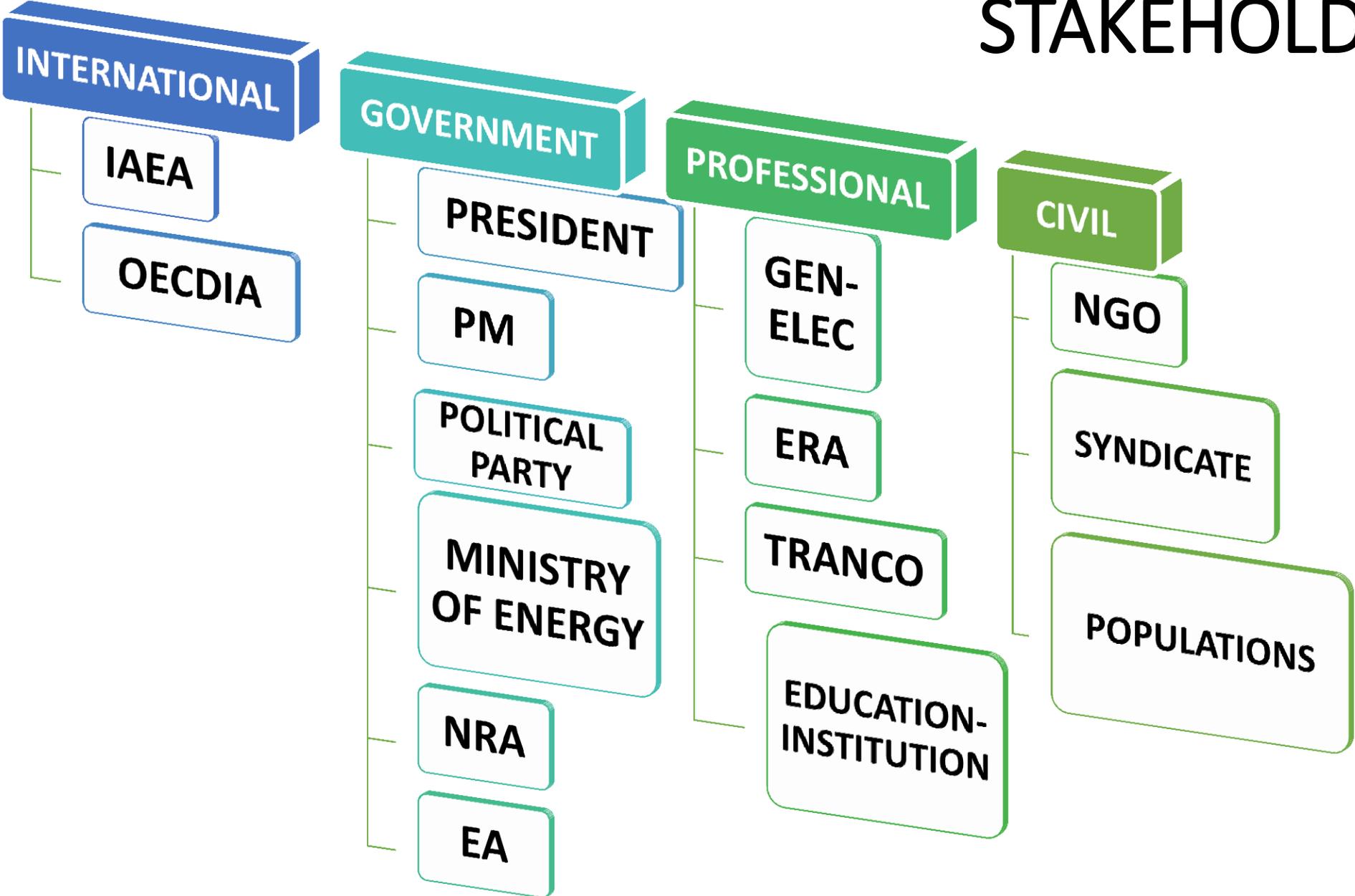
WITH PHASE I



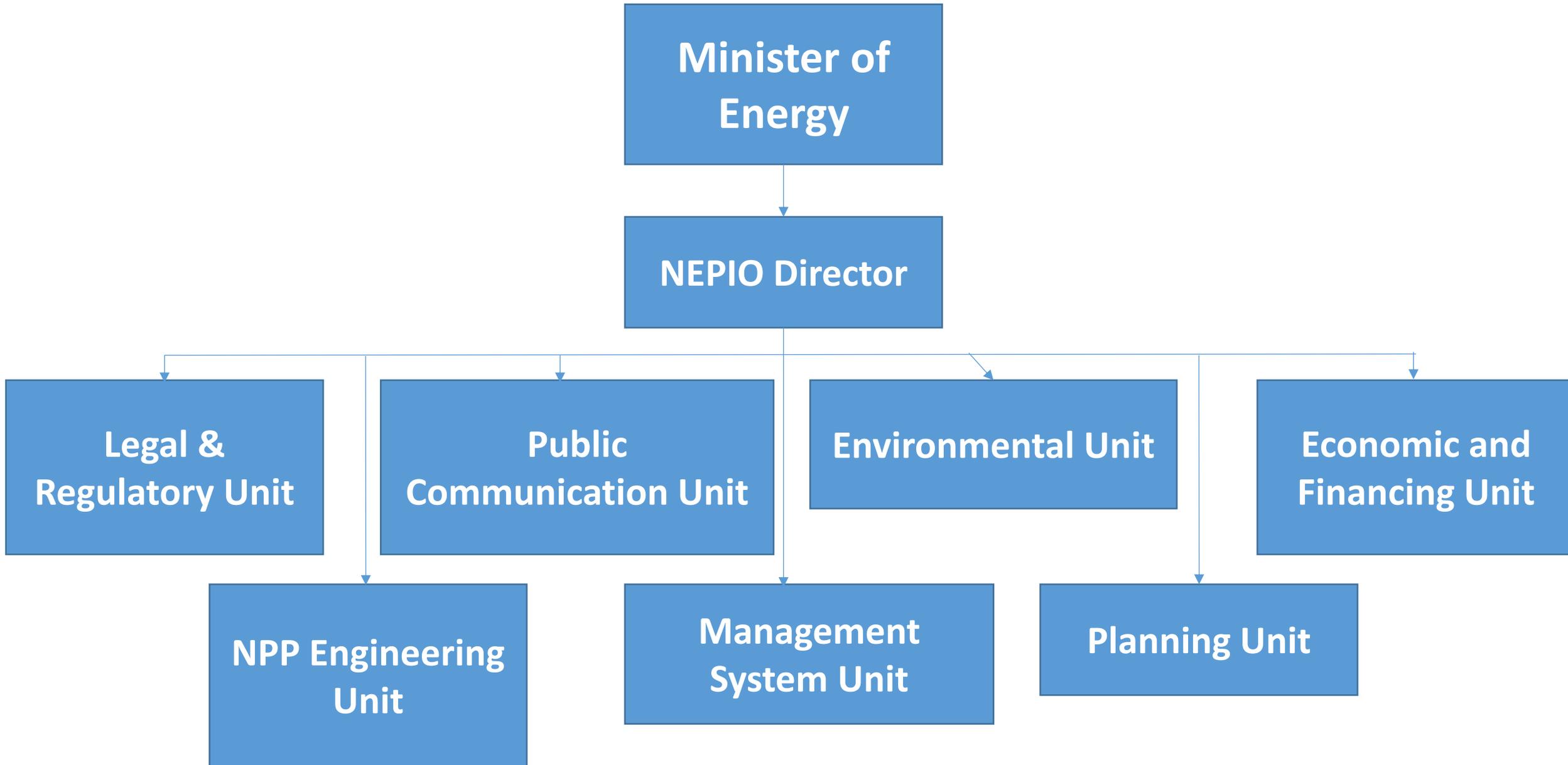
WITHOUT PHASE I

No.	Task	Year		2013		2014		2015		2016		2017		2018		2019		2020		2021		2022		2023			
		Quarter		1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2		
Start - Nuclear Power already decided as an option																											
2	Phase 2: Project Decision Making																										
2.1	Feasibility Study																										
2.2	NPRIDP Detailed Study for new Atomic law																										
2.3	NPIDP Study																										
2.4	Bid Specifications																										
2.5	Final Site Selection																										
2.6	Public Engagement & Communication Strategy Formulation																										
2.7	Public Engagement & Communication Start																										
3	Phase 3: Construction																										
3.1	New Atomic Law Implemented																										
3.2	NPIDP Implemented																										
3.3	Preparation for NPP program in local universities.																										
3.4	1st NPP graduate produce in local universities.																										
3.5	Tender Issued																										
3.6	Contract Signed																										
3.7	Construction Period																										
3.8	Start Operator Training																										
4	Phase 4: Start Operation/Commissioning																										
(NPIDP) + Construction Complete, Start Operation		 																									

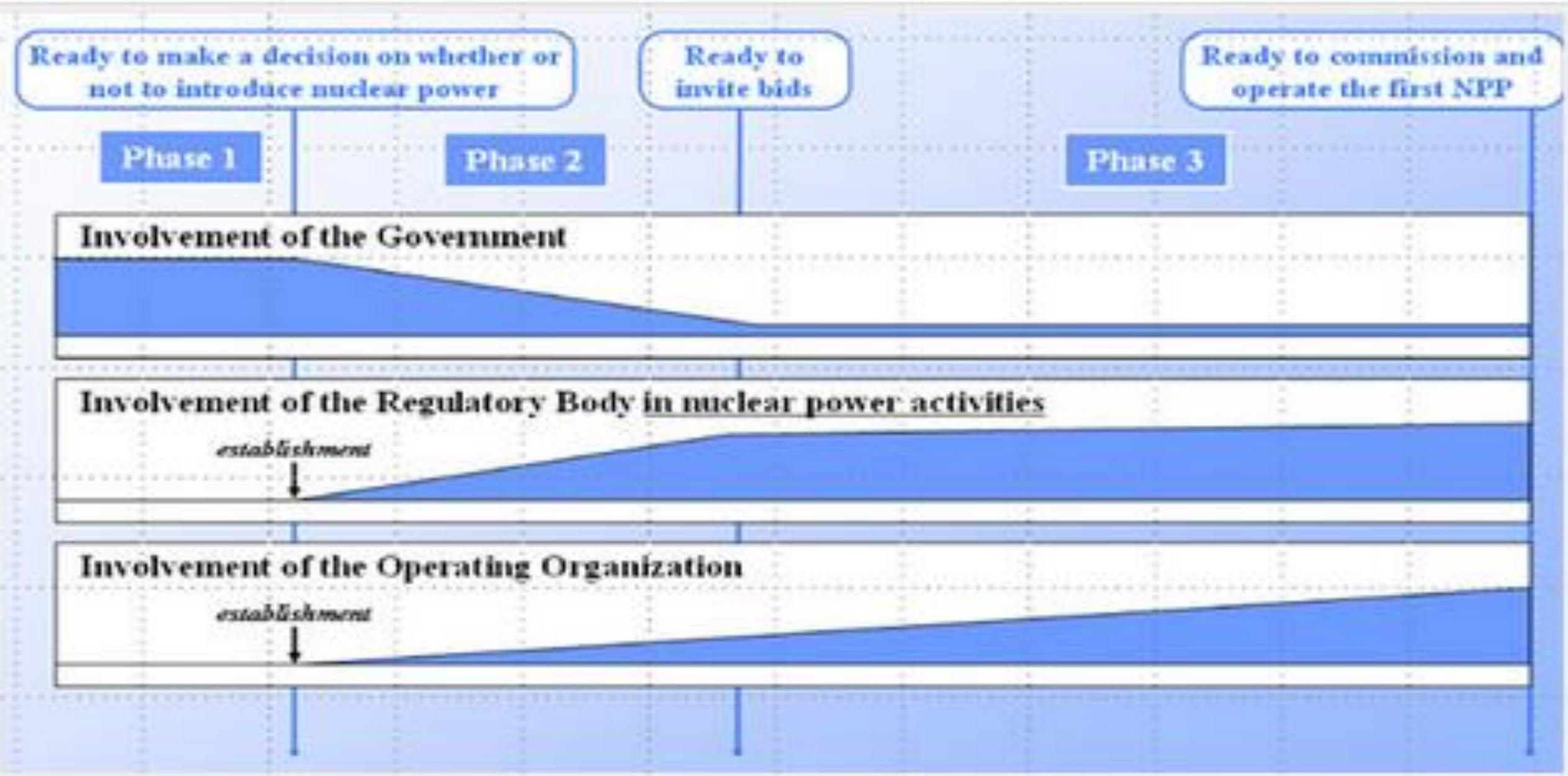
STAKEHOLDERS



NPA ORGANIZATON



WORKFORCE & COMPETENCE



EDUCATION PLAN

UNIVERSITY

START: 2015

**FIRST BATCH:
2018**

OPERATOR & TECHNICAL

START: 2021

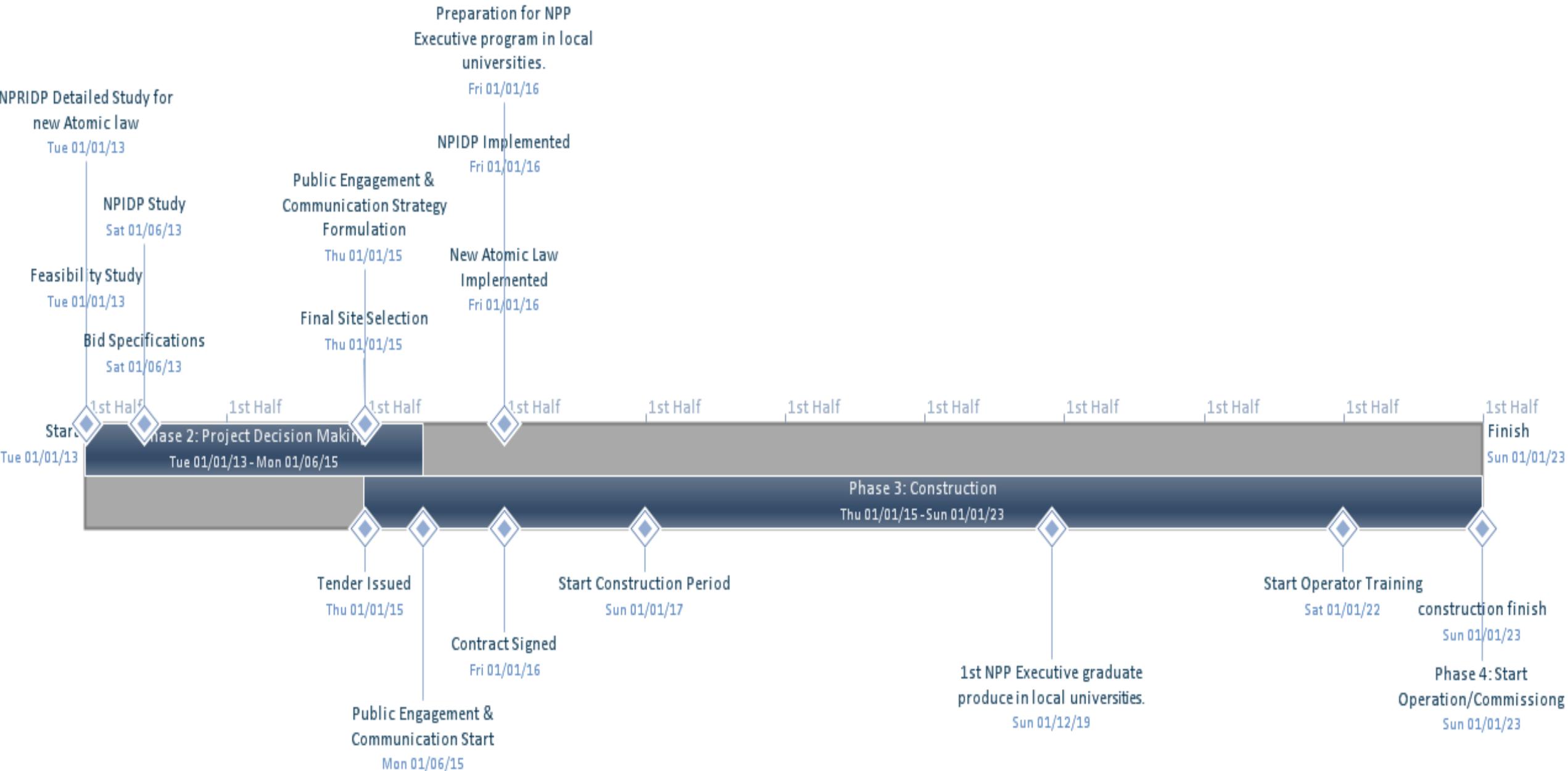
EXPECTED WORKFORCE

FULL: 2022

NPP ROADMAP

No.	IAEA Infrastructure Issues	Group	Lead Agency
1.	National Position	Policy	Nuclear Power Authority (NPA)
2.	Nuclear Safety	Regulation	National Regulatory Authority (NRA)
3.	Management	Policy	Nuclear Power Authority (NPA)
4.	Funding & Financing	Financing	GEN-ELEC & NPA
5.	Legislative Framework	Regulation	Nuclear Power Authority (NPA)
6.	Safeguards	Regulation	National Regulatory Authority (NRA)
7.	Regulatory Framework	Regulation	NRA & NPA
8.	Radiation Protection	Regulation	National Regulatory Authority (NRA)
9.	Electrical Grid	Technical Support/Project Development	GEN-ELEC, TRANSCO & ERA
10.	Human Resource Development	Policy	Nuclear Power Authority (NPA)
11.	Stakeholder Involvement	Policy	NPA, EA
12.	Site & Supporting Facilities	Technical Support/Project Development	NPA & GEN-ELEC
13.	Environmental Protection	Regulation	Environmental and Land Management Authority (EA)
14.	Emergency Planning	Regulation	NRA & EA
15.	Security & Physical Protection	Regulation	National Regulatory Authority (NRA)
16.	Nuclear Fuel Cycle	Policy	Nuclear Power Authority (NPA)
17.	Radioactive Waste	Regulation	National Regulatory Authority (NRA)
18.	Industrial Involvement	Policy	Nuclear Power Authority (NPA)
19.	Procurement	Financing	NPA & GEN-ELEC

NPP TIMELINE



ISSUES & RISK

ENVIRONMENT ISSUES & RISK

- Seismically active area
- Large population in coastal area

POLITICAL ISSUES & RISK

- President terms will end at 2017

INDUSTRIAL ISSUES & RISK

- No heavy industry in the country
- Lack of transmission grid across country
- Limited transportation to interior area

FINANCING ISSUES & RISK

- National loan

SECURITY ISSUES & RISK