

INPRO Dialogue Forum on Global Nuclear Energy Sustainability:
**Long-term Prospects for Nuclear Energy in the
Post-Fukushima Era**

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***National Vision and Strategy for the
introduction of Nuclear Power Plant
in Algeria***

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1. National vision and strategy for Nuclear Power in the 21st century in **ALGERIA**



- Long-term policy for nuclear energy

➤ **COMENA**

- Mission and Organization

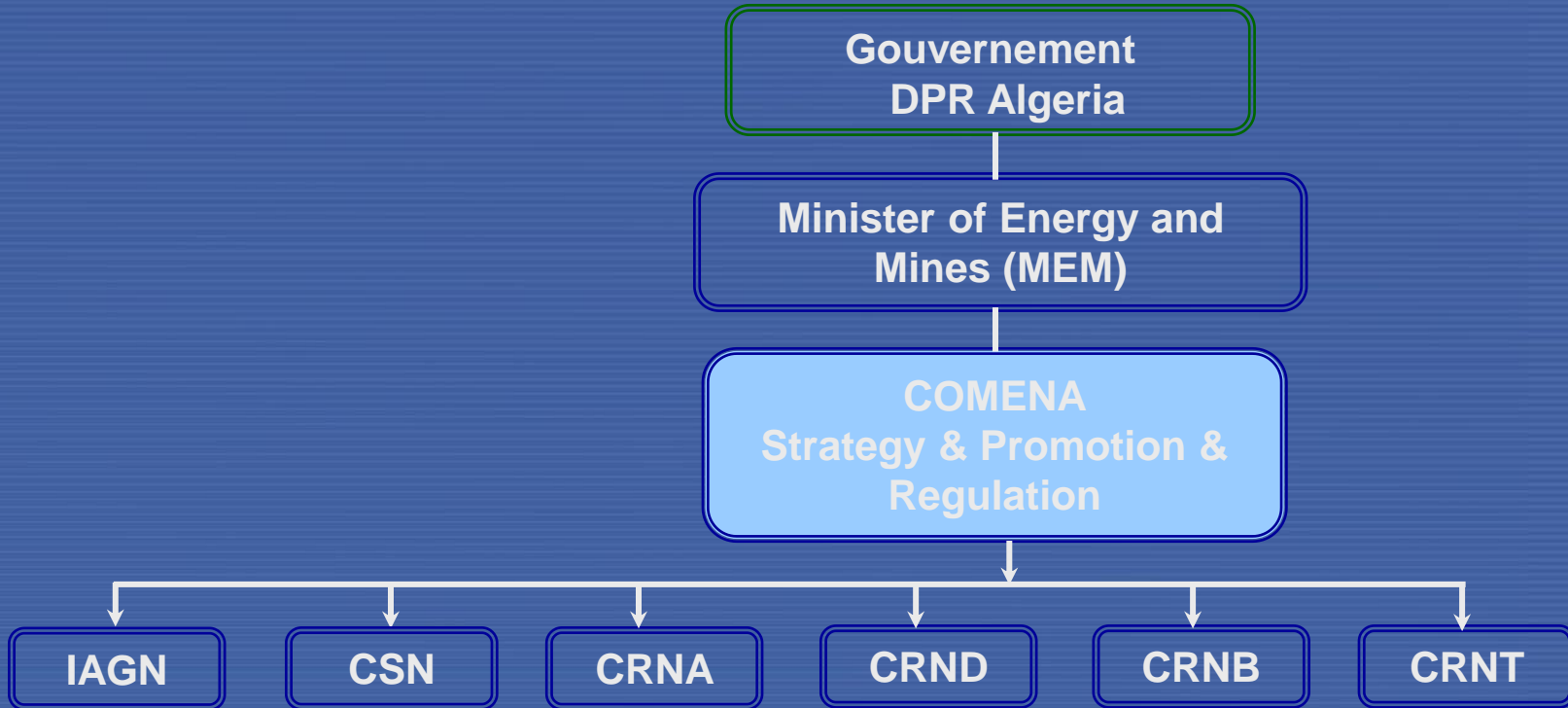
The Algerian Commission of Atomic Energy (COMENA) constitutes the principal governmental agency for implementing the national policy in matter of promotion and development of nuclear power and nuclear techniques. (Ref: P-Decree 96-436.1996)

- **Acts under the authority of the Minister of Energy and Mines.**
- **Develops skills and infrastructures in the field of :**
 - Technology of nuclear facilities ;
 - Application of nuclear sciences and techniques for energy, health, industry, agriculture, environment,....

1. National vision and strategy for Nuclear Power in the 21st century in **ALGERIA**



➤ *Governmental organisation for nuclear energy*



Organization Chart of the Algerian Nuclear Sector.

1. National vision and strategy for Nuclear Power in the 21st century in **ALGERIA**



➤ Current status

- No NPPs in Algeria;
- Basic infrastructure: Mainly Two research reactors:
 - Nur (1MW)
 - Es-salam (15MW)
- Institute (IAGN) for Education and Training in Nuclear Engineering
(P-Decree No. 11-211, June 2011)
- Nuclear Security Center (CSN) (P-Decree No. 12-87, February 2012).

1. National vision and strategy for Nuclear Power in the 21st century in **ALGERIA**



➤ Energy Supply and Demand:

- Over the past years Algeria's demand for both primary energy and electricity has experienced a significant increase.
- The electric capacity installed is about 8000Mw and the demand is growing at nearly more than 5% annually.
- Algeria's electricity supply is derived from fossil fuel with natural gas accounting for 97%.

1. National vision and strategy for Nuclear Power in the 21st century in **ALGERIA**



- Nuclear power programme

The choice of nuclear power is motivated by:

- Nuclear Power Plant is being a sustainable energy source for the production of clean and cheap electricity;
- The presence of natural resources of uranium in the region;
- The availability of basic nuclear infrastructures.

2. Main lessons learned after Fukushima in **ALGERIA**



After the Fukushima accident it is suggested to:

- Further evaluate the site selection;
- Reconsiderations of natural disaster events;
- Enhance the study of the Design Basic Analysis;
- It is necessary to reassess the seismic zones and reevaluate seismic criteria acceptance;
- Enhancement of safety requirements for NPPs.

3. **Algeria's** expectations for global Nuclear Power development in the 21st century



- National anticipation in the next 100 years

Main Considerations:

- Energy as a Driver of the Development Process;
- Need for a Diversified Basket of Energy Options;
- Protection of the Environment;
- Optimal National Mineral Resources (U) Exploitation;

Technical Cooperation Activities with IAEA, On Going Program:

- Sustainable Energy Development and Preparation for NPP;
- Techno-economic Feasibility of Seawater Desalination using Nuclear Energy (2006).

3. **Algeria's** expectations for global Nuclear Power development in the 21st century



- Major policy implications and challenges

National goals and policies

The preparation to the introduction of nuclear power to Algeria will be held through:

- ✓ Upgrading of Basic Nuclear Infrastructures;
- ✓ Performance improvement of Nur and Es-salam Reactors;
- ✓ Engineering competency development;
- ✓ Site selection and evaluation for nuclear power plant;
- ✓ Follow Up of the State of Art and evaluation of existing reactor technologies and future trends.

3. **Algeria's** expectations for global Nuclear Power development in the 21st century



Energy Planning Activities (On Going Activity with (IAEA)) :

- Present Installed Electrical Capacity ~ 8000 MW
- Annual Increase 5 %

=> First Nuclear Power Plant by 2020 ~ 2025

**THANK YOU
FOR YOUR KIND ATTENTION**