

1 Session 2 – Licensing of Nuclear installation

Date: June 28th, 14:00 -> 16:00

Main Speaker (15min):

Richard Savage (ONR Chief Nuclear Inspector, UK)

Panelists (5 min – short statement and discussion):

François Beringer (Commission locale d'information et de surveillance (Clis) de Fessenheim, France)

Bernard Fontana (Areva NP CEO, France)

Michael Knochenhauer (SSM, Director for the Department of Nuclear Power Plant Safety, Sweden)

Marjo Mustonen (TVO Director, Finland)

Peter Prozesky (WANO CEO)

Statement proposal:

Nuclear power has a strong part to play as a predictable low-carbon source of baseload...

But Nuclear faces a **challenging market environment:**

- Decrease of coal and gas prices (e.g. deregulated markets US)
- Share of renewables in electricity x2 in 10 years,
- Public acceptance

→ **Competitiveness while maintaining a high level of safety is key for nuclear power sustainability.**

1. Installed Base Life extension

For Installed Base, the two main stakes in the coming decade is **implementation of post-Fukushima measures** and **plant life extension**, beyond design operating life.

It requires from utilities:

- **to invest significantly in maintaining and upgrading their current fleet** to improve robustness and meet modern standards and safety goals (e.g. Implementation of post-Fukushima actions) **while preserving the competitiveness of the plants.**
- to get approval from Safety Authorities to continue operation after Periodic Safety Reviews (e.g. every 10 years in France) or to apply for license renewals.

→ **AREVA NP, as the OEM for more than 80 operating reactors, support utilities in their safety reassessment process and carries out modernization programs to improve plants safety level with regard to the updated applicable requirements**

→ **Continued safety improvements** and compliance with modern codes and standards contribute to **maintain public trust in the existing fleet.**

2. New Builds economic viability : from prototype reactor to industrial reactor

For New Builds, the stakes are different as the next generation and advanced reactor designs have the benefit of the lessons learned from the existing fleet in terms of safety features.

- The **main challenge is to improve New Build economic viability by reducing the overall engineering and construction time and cost** (as capital costs accounts for 60% of the LCOE and heavily impact the economics).
- The role of the **vendor** remain key through :
 - The **quality of execution**
 - **Standardization of designs** to benefit from economies of scale, **reduce licensing risk and increase predictability** of construction.
- The role of the **Regulatory Body and the Licensee** are also key as the licensing process is a major and essential project driver. To ease the licensing process and reduce time and costs, it requires :
 - **Clear, predictable and stable regulatory/licensing system** , with reliable and well-known process
 - **Recognition by the regulators of the industrial nuclear codes and standards** that meet the regulatory requirements to **avoid project specific answers**; ENSREG could investigate the benefits for Nuclear Safety of industrial nuclear codes and standards recognized by regulators.
 - **A “Nth Of A Kind” (NOAK) attitude from the Licensee** by avoiding additional non site specific or non-regulatory requirements -> **From prototype reactor to industrial reactor**