

The logo for Teollisuuden Voima Oyj (TVO) is displayed in white text on a dark blue circular background.

2ND MDEP CONFERENCE ON NEW REACTOR DESIGN ACTIVITIES

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Nuclear Safety
OL3 Project

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SESSION 7 - INDUSTRY INITIATIVES ON NEW REACTOR DESIGNS, UTILITY'S BENEFITS

- Utility's benefits from a standardized plant concept and large installed base of similar plants are evident
 - Plant level benefits: operational experience feedback, review of disturbances, ageing mechanisms, organisational topics, etc. → improved safety
 - Utility benefits as service / equipment purchaser: competent service / equipment suppliers who have large enough installed base for gathering experience and expertise → improved safety and better economic efficiency
- * Example: TVO's experience with OL1/2

SESSION 7 - INDUSTRY INITIATIVES ON NEW REACTOR DESIGNS, TVO SITUATION:

- TVO has now OL3 EPR project ongoing
- TVO is preparing for OL4 project with five different reactor alternatives included in the feasibility studies
- Finnish licensing requirements control the work; it is important to be able to freeze the regulatory requirements in the beginning of the project
- Multinational co-operation brings collective expertise in evaluation of new plant designs, especially certain areas such as severe accidents
 - **Potential benefits of multinational authority co-operation could be for licensing procedures, e.g. enhance manufacturer certification and approval of off-the-shelf components (serial manufactured)**
 - **Requirements which significantly affect the structures, systems and components are important to be harmonised**
 - **In any case, in each country, the prevailing conditions (site related requirements, environmental conditions, seismicity) must be taken into account in the design and sizing of the structures and equipment -> this should not affect the plant concept itself**

SESSION 7 - INDUSTRY INITIATIVES ON NEW REACTOR DESIGNS

- What TVO is doing/enhancing with respect to Industry Initiatives for OL4 nationally:
 - licensing plan
 - regulatory requirements – YVL Guides are being renewed
 - “approvable” plant concept in the beginning of licensing
 - harmonization of licensing and project activities
- International regulatory co-operation and harmonization of requirements as well as utility co-operation is needed for longer perspective

The logo consists of the letters 'TVO' in a white, bold, sans-serif font, positioned inside a dark blue circular shape. This circle is part of a larger graphic design on the left side of the slide, which includes overlapping circles in shades of blue and teal, and a light grey wavy pattern that extends towards the center.

TVO

THANK YOU