



CAREM PROJECT

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INTERNATIONAL MINISTERIAL CONFERENCE

ABU DHABI – Octubre 2017



Comisión Nacional
de Energía Atómica

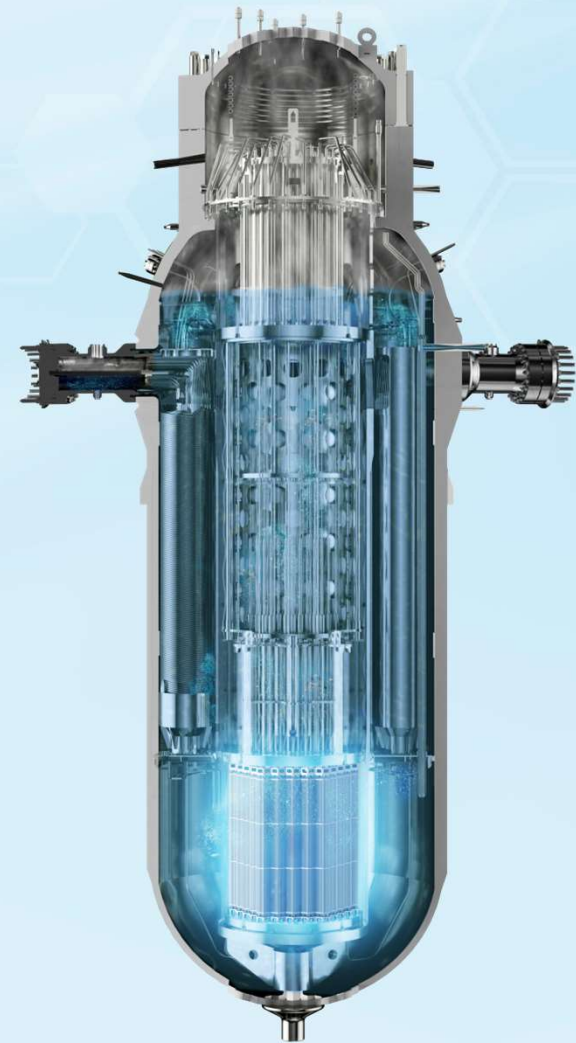
CAREM25 - BASIC PARAMETERS

- **First NPP fully designed in Argentina**
 - ✓ PWR type
 - ✓ 32 MWe gross
 - ✓ 100 MW core thermal power
 - ✓ Integrated Primary System
 - ✓ Natural circulation
 - ✓ Self-pressurized
 - ✓ Enriched UO_2 fuel (3,1 and 1,8%)
 - ✓ Passive safety systems
 - ✓ Operating cycle length of 18 months



AIMS OF THE PROTOTYPE

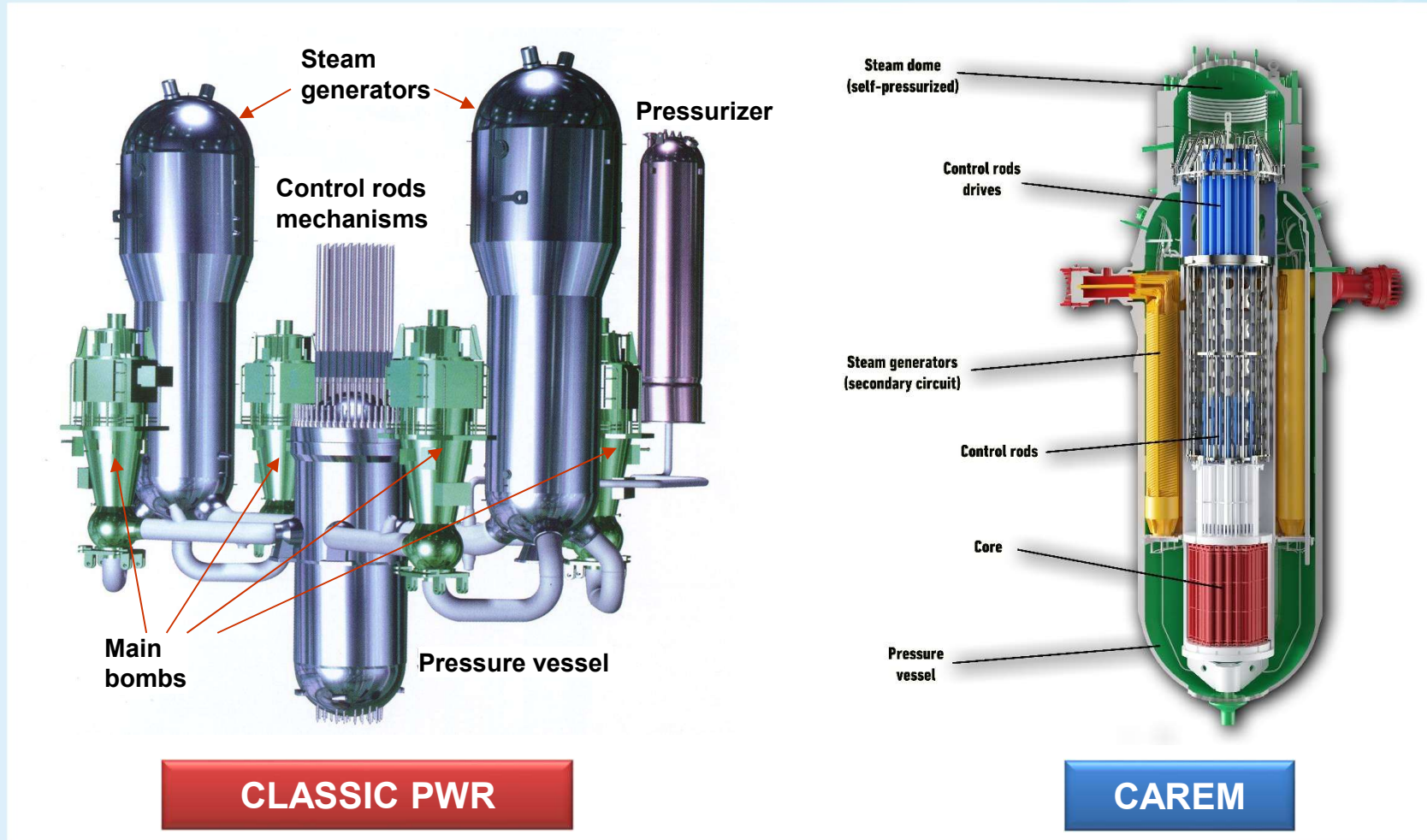
- ✓ To qualify the whole concept at a small scale
- ✓ To generate developing capabilities within the CNEA, its associate companies and the private industry (supplier development)
- ✓ To repeat the success obtained with the Research Reactors exportation.
- ✓ To operate Argentinean NPPs
- ✓ To become a worldwide referent of the new generation of nuclear reactors



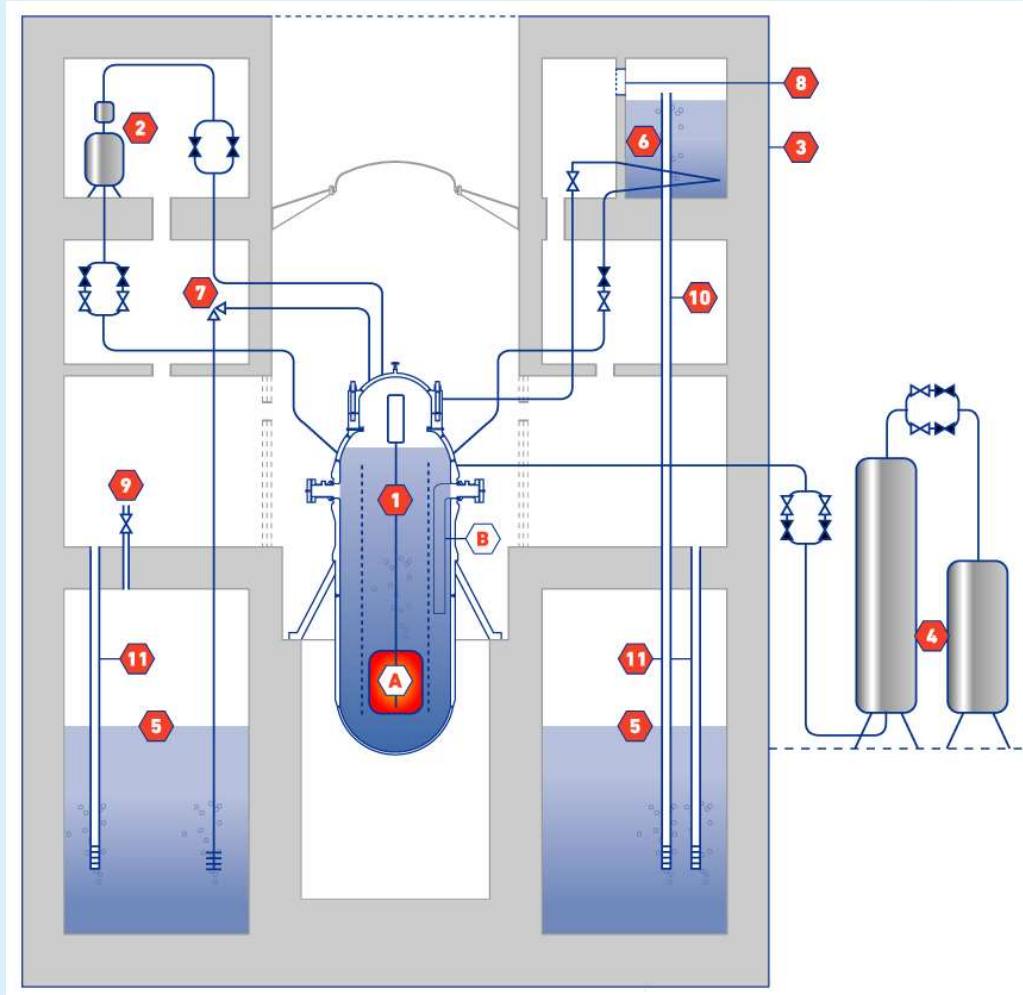
MAIN PRECEDENTS

- 1) The Project began during the '80s.
- 2) August 2006: A Presidential Decree declared of **National Interest** *“the construction and start-up of the Reactor CAREM Prototype”*.
- 3) November 2009: The **National Law 26.566** declared again the national interest for the CAREM Project, imposing CNEA to be in charge of its management.
- 4) 2016: Strong support given by current administration.

COMPARISON: CLASSIC PWR / CAREM



PASSIVE SAFETY SYSTEMS



- A) Core
- B) Steam generators
- 1) Safe Shutdown System
- 2) Diverse Shutdown System
- 3) Containment building
- 4) Medium Pressure Injection System
- 5) Pressure Suppression Pool
- 6) Isolation Condenser System
- 7) RPV relief valve
- 8-11) Containment building pressure equalizer

CURRENT STATUS



CURRENT STATUS

CONTAINMENT AIRLOCKS



CURRENT STATUS

RPV - FORGES

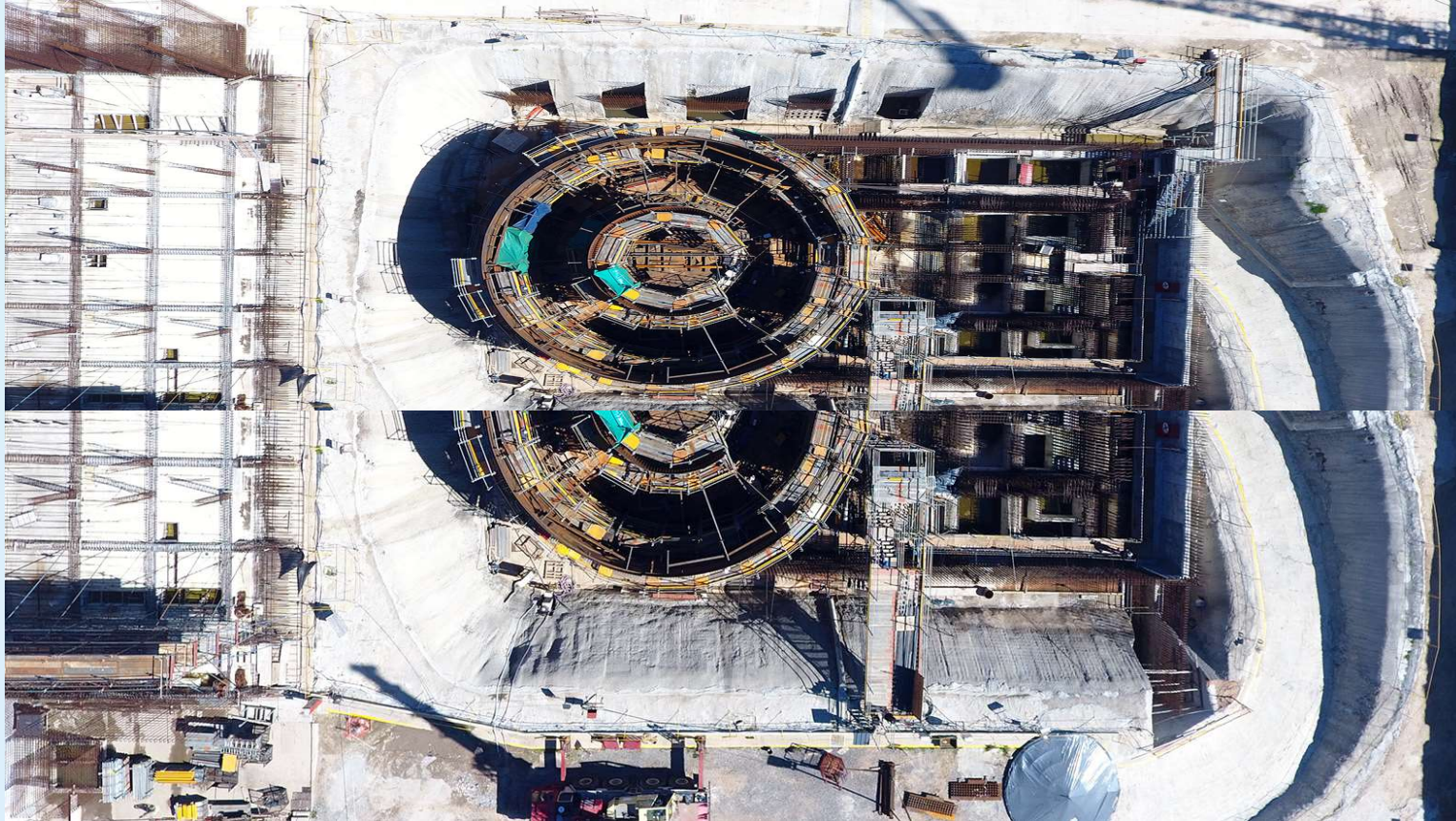


CURRENT STATUS

RPV - FORGES



CURRENT STATUS



CURRENT STATUS



CURRENT STATUS



THANK YOU FOR YOUR ATTENTION



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