



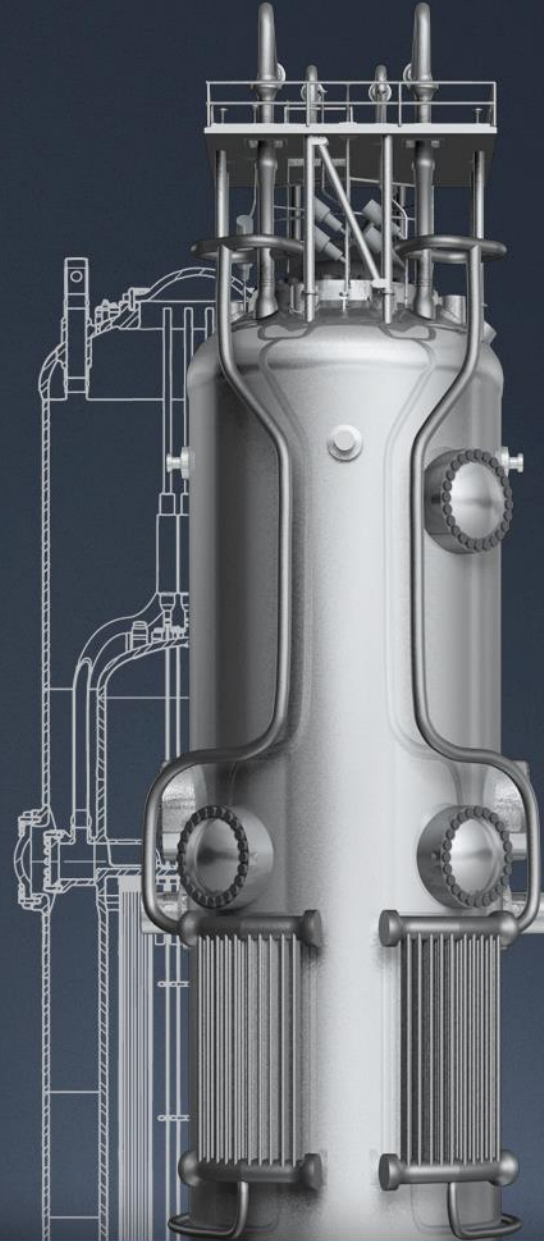
Safety and Reliability Aspects of Nuclear Energy

José N. Reyes, Jr.

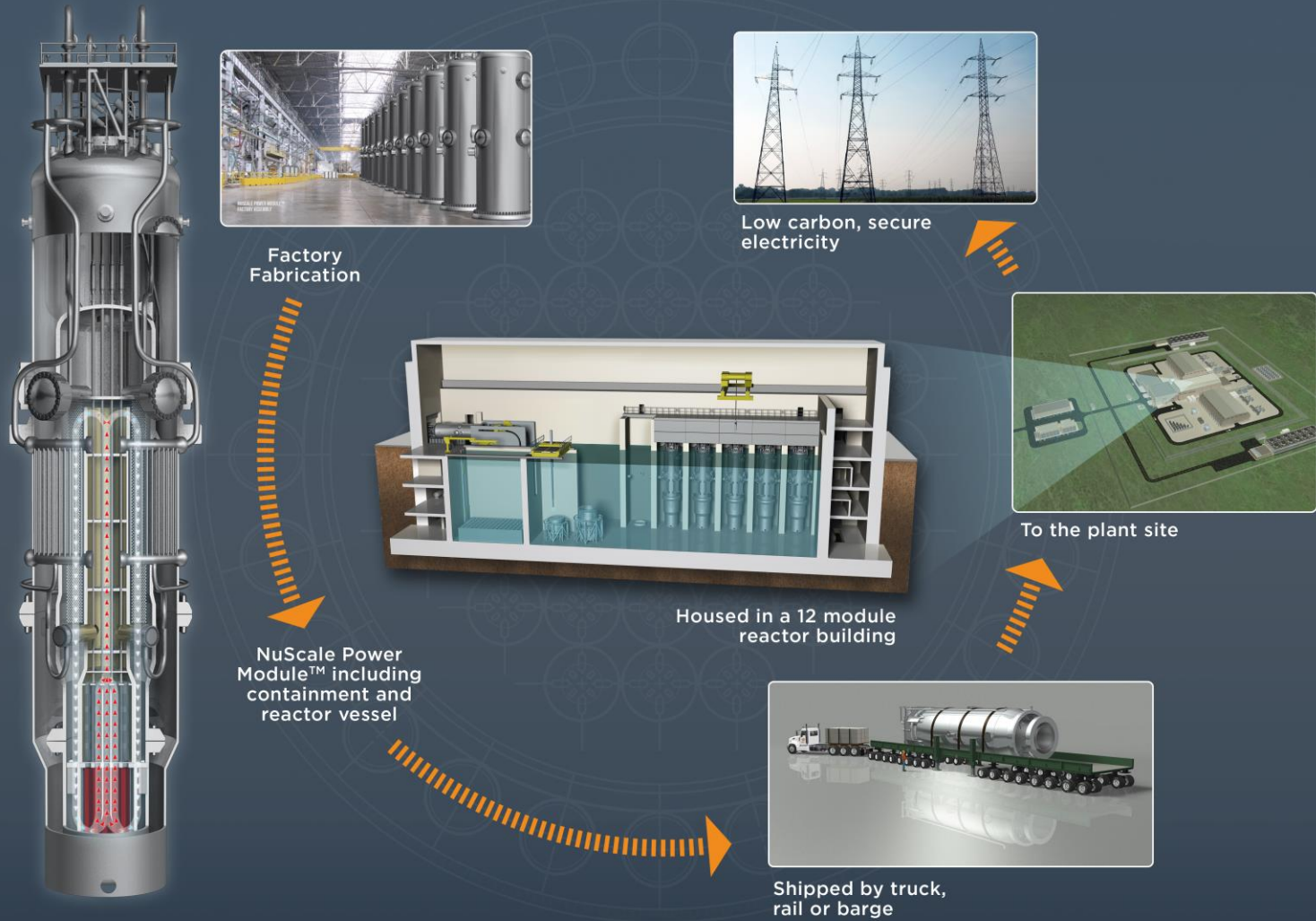
Co-Founder and Chief Technology Officer

*IAEA International Ministerial Conference on Nuclear
Power in the 21st Century*

*Abu Dhabi, United Arab Emirates
October 30-November 1, 2017*



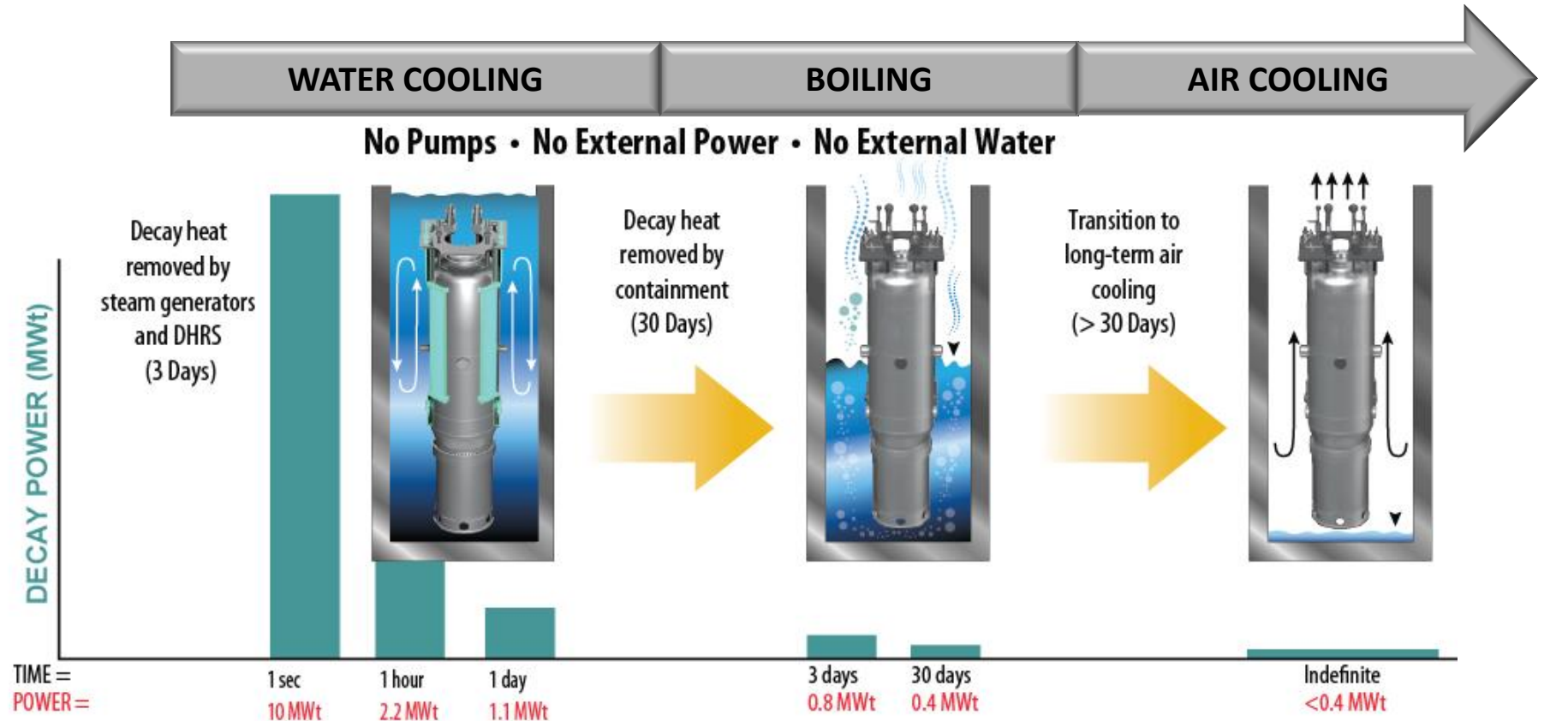
A New Approach to Construction and Operation



Enhanced Safety for a Site Boundary EPZ

Stable Long-Term Cooling Under all Conditions

Reactor Core cooled indefinitely without Computer/Operator Action, AC/DC power, or Water Addition



* Based on conservative calculations assuming all 12 modules in simultaneous upset conditions and reduced pool water inventory

Triple Crown of Safety

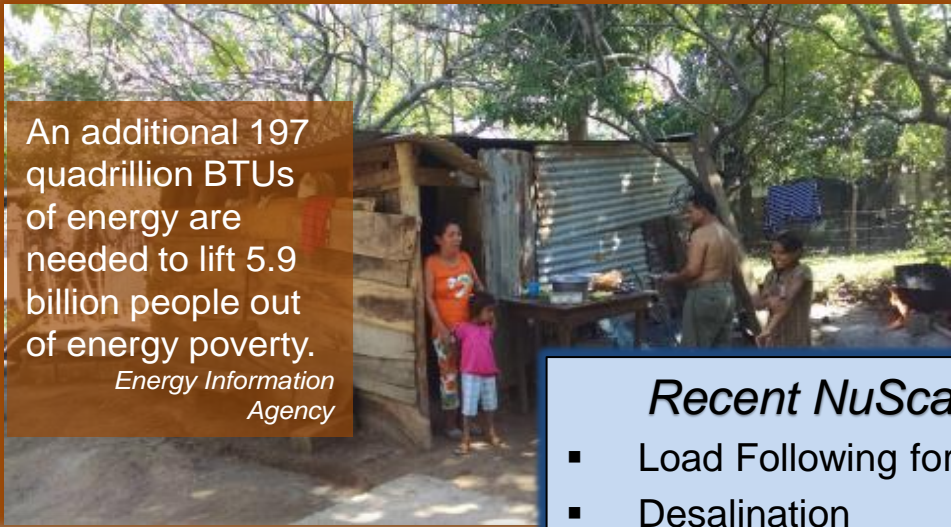
Robust and Expeditious Regulatory Process for Advanced Reactors (Lessons Learned)

- DCA accepted for docketing and review in March 2017
- 46 Month Review Process



New Applications - Expanding the Role of Nuclear Energy

Part of the Trilemma Solution - Environmental Protection, Energy Security and Economic Growth




An additional 197 quadrillion BTUs of energy are needed to lift 5.9 billion people out of energy poverty.

Energy Information Agency


Recent NuScale Studies

- Load Following for Wind and Solar
- Desalination
- Hydrogen Production
- CO₂ Reduction at Refineries
- Highly Reliable Power



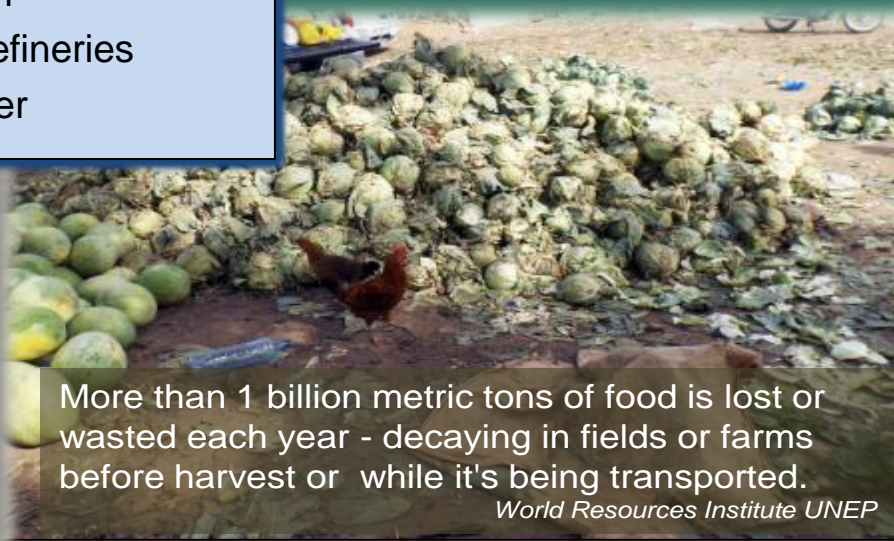
783 million people do not have access to clean water. More than 300 million people around the world rely on desalinated water for some of their daily needs.

World Health Organization



Outdoor air pollution contributes to the deaths of an estimated 5.5 million people globally every year, or about 15,000 people a day, -

2016 Global Burden of Disease Project.



More than 1 billion metric tons of food is lost or wasted each year - decaying in fields or farms before harvest or while it's being transported.

World Resources Institute UNEP

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