



# Advanced Nuclear Energy Development in the U.S. Progress on UniStar's Calvert Cliffs-3 Project

George Vanderheyden

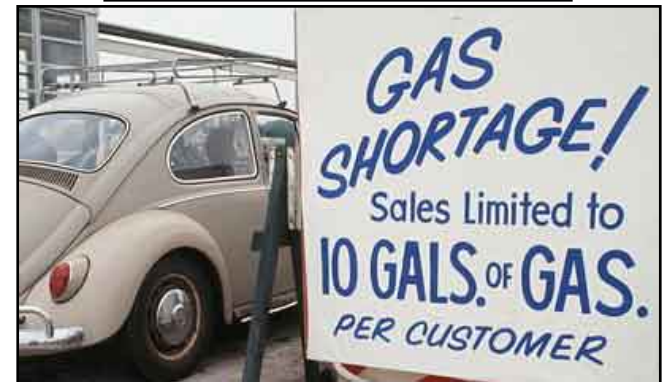
President / CEO UniStar Nuclear Energy

February 17, 2009

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# Understanding Our Past: The 1970s

- Political:
  - Vietnam War
  - Resignation of President Nixon
- Economic:
  - 1973 and 1979 Oil Crisis
- Environmental Movement:
  - On April 22, 1970 the United States celebrates first Earth Day



# Parallels to our Present: 2009

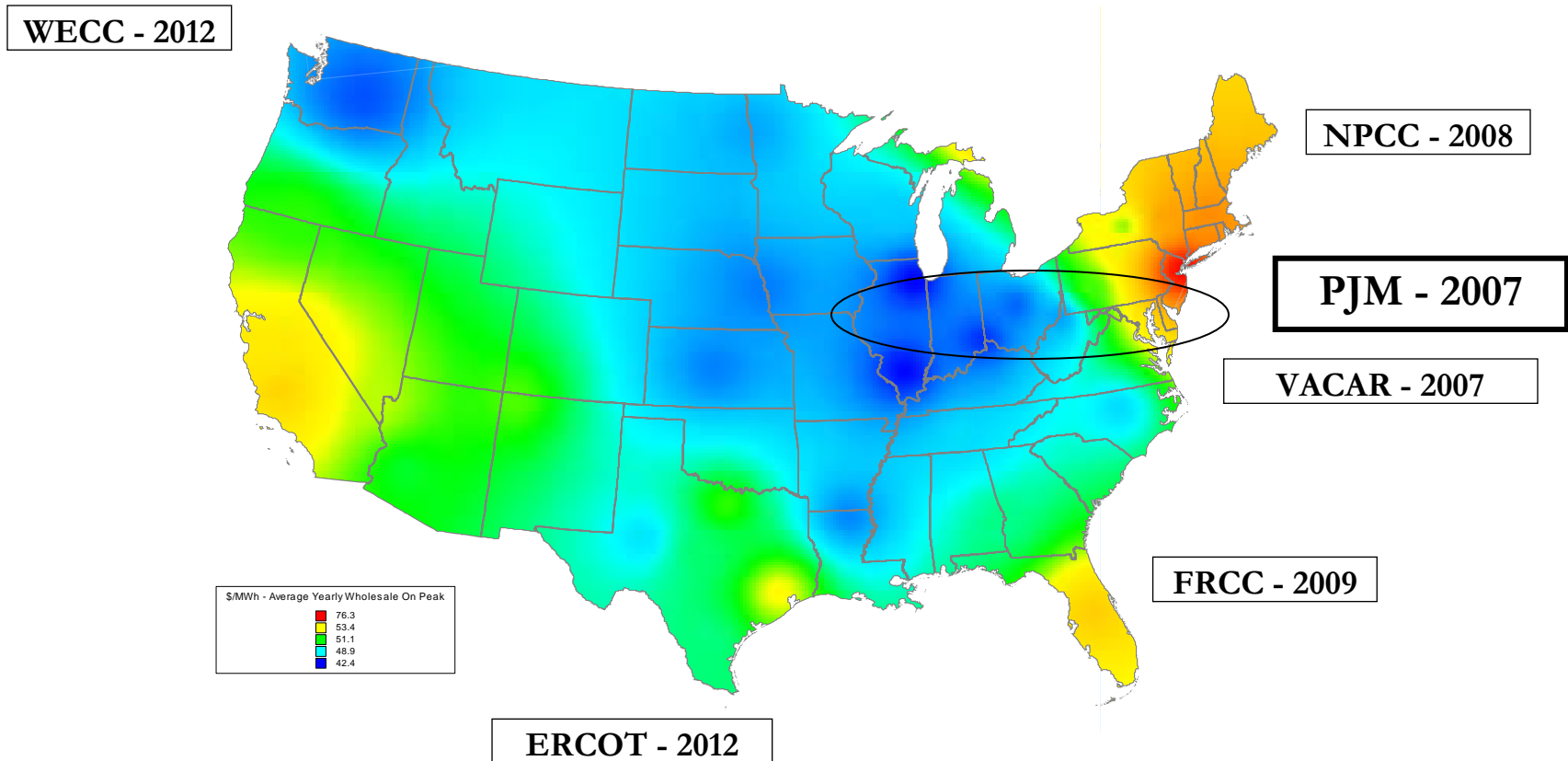
- Political:
  - Iraq War
- Economic:
  - On Jan 30, 2009, President Obama stated, “The recession is deepening, and the urgency of our economic crisis is growing. Yesterday, we reached a new threshold: the highest number of Americans receiving unemployment benefits on record.”
- Environmental Movement:
  - Global concerns include reduction of greenhouse gases and global warming



***Advanced New Nuclear Technology – Building for our Future***

# Supply and Demand In the U.S.

Date when minimum reserve margin (18%) was/is reached



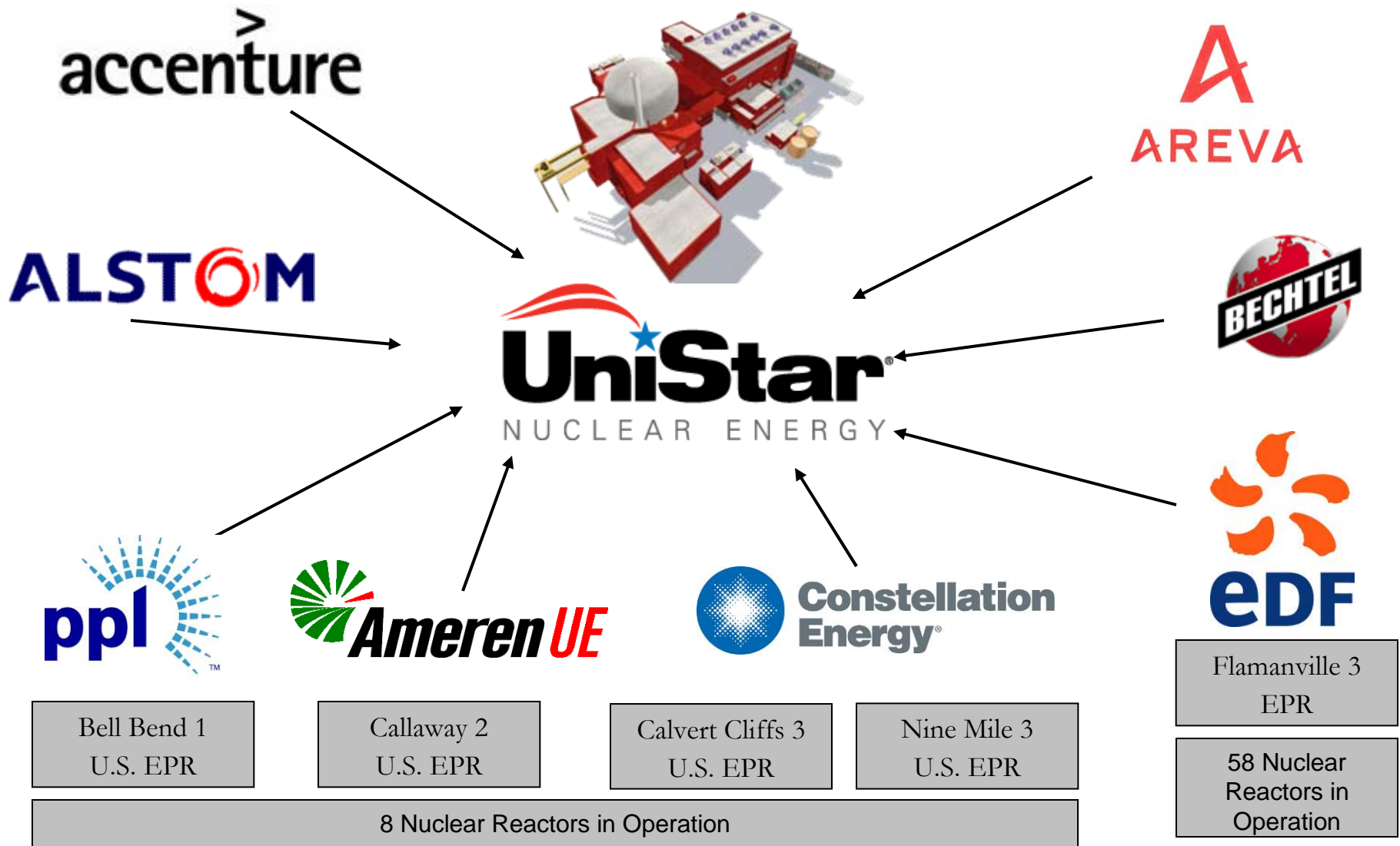
*The U.S. Has A Growing Need For New Generation*

# What is UniStar Nuclear Energy?

- A new and unique business model for the U.S. nuclear industry enabled by passage of Energy legislation
- Joint venture between Constellation Energy and EDF Group that offers a business framework leading to the development of future joint ventures
- Project companies will license, construct, own and operate nuclear power plants as part of a standardized fleet
- UniStar's prime technology is AREVA's Evolutionary Power Reactor (EPR), which, upon conversion to US standards, will be known as the U.S. EPR
- A single source approach with AREVA (design), Bechtel (construction), Alstom (turbine-generator systems), Accenture (IT), and UniStar Nuclear Energy (operator along with project company partners)

***Platform designed to reduce the risks, costs, and uncertainty of new nuclear***

# UniStar Partners





## U.S.



104 operating reactors

20+ different designs

Some operated as fleet

## France



58 operating reactors

3 designs

All operated as fleet

# UniStar - U.S. EPR Projects





# U.S. EPR – The Safest, Most Secure Technology Available

- Four independent safety trains in separate buildings, provide redundancy for maintenance or single-failure criterion
- Physical separation against internal hazards (e.g. fire)
- Shield building extends airplane crash and external explosion protection to two safeguard buildings and fuel building
- Corium





Flamanville

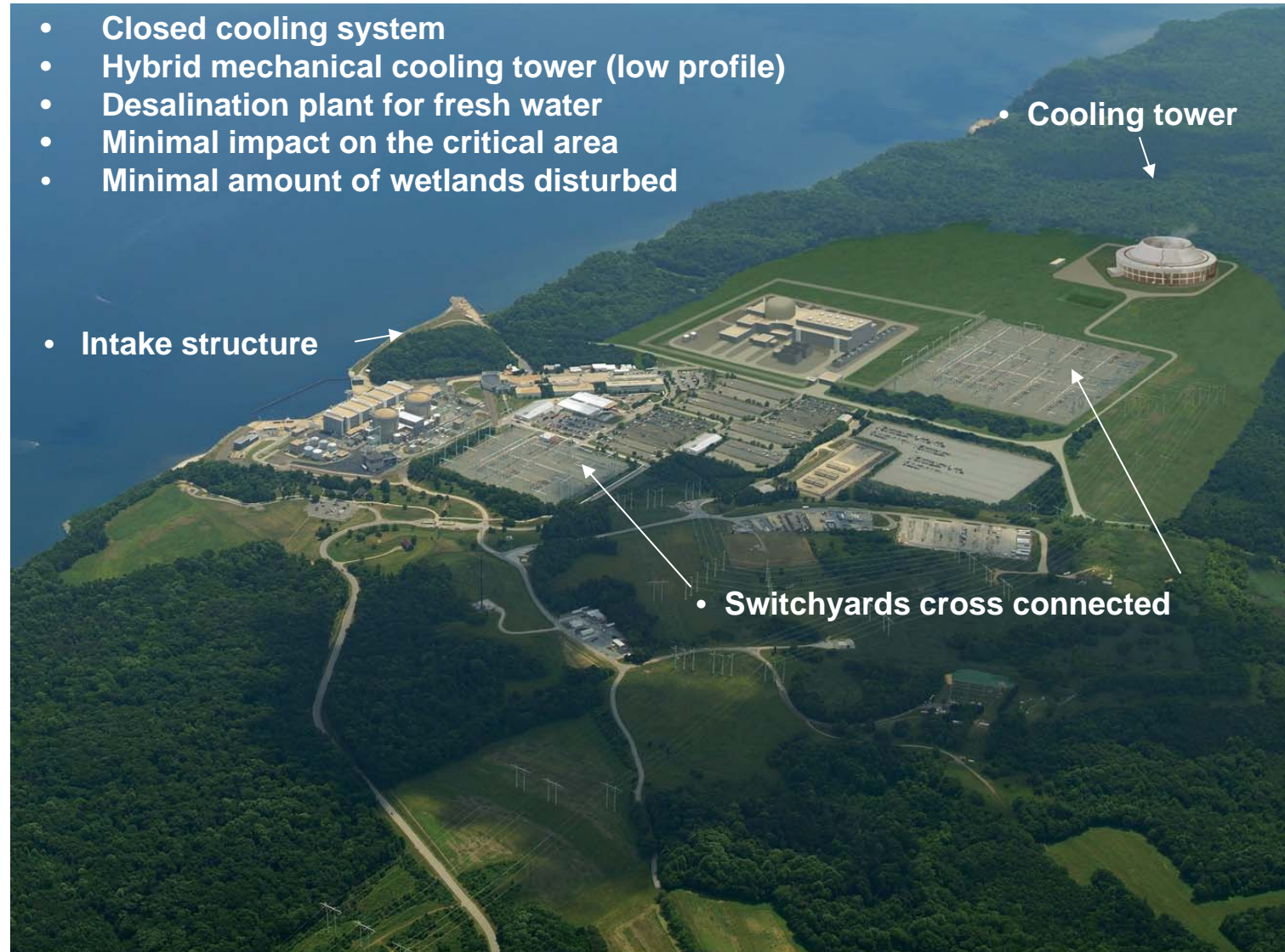


Calvert Cliffs



## CCNPP Unit 3 Artistic Rendering

- Closed cooling system
- Hybrid mechanical cooling tower (low profile)
- Desalination plant for fresh water
- Minimal impact on the critical area
- Minimal amount of wetlands disturbed





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