

Nuclear Power in the Midwest: Today and Tomorrow

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Overview

- ✓ Exelon's nuclear holdings
- ✓ Role of nuclear power locally, nationally and globally
- ✓ Future of nuclear power
 - Need for new generation
 - The clean, safe and secure option
 - The challenges to new build

Exelon Corporation

- ✓ Among nation's largest electric utilities
- ✓ \$19 billion in annual revenues
- ✓ Businesses
 - Energy Generation, ComEd, PECO
- ✓ 5.2 million electric customers in IL and PA
- ✓ 460,000 gas customers in Philadelphia
- ✓ 17,500 employees
- ✓ Owns/operates largest nuclear fleet in U.S.

Exelon Nuclear



17 units at 10 sites in three states
Approx. 18,000 MW capacity owned
3rd largest nuclear fleet worldwide

Two-unit station in initial development in Texas

Midwest Nuclear Plants

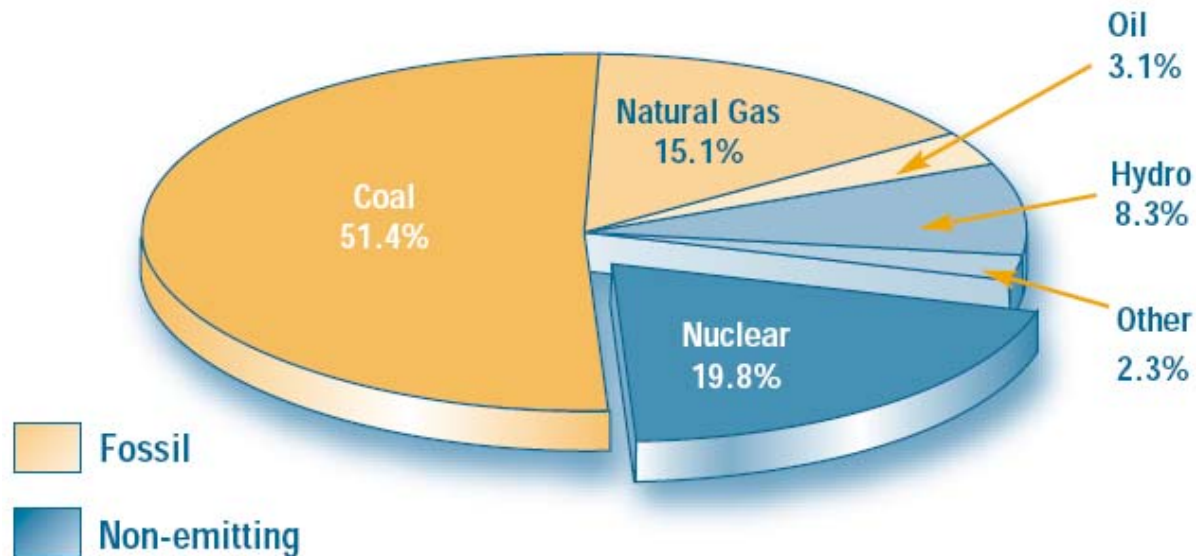


State	Capacity
Illinois	11263 MWe
Iowa	565 MWe
Michigan	3879 MWe
Minnesota	1622 MWe
Ohio	2117 MWe
Wisconsin	1541 MWe

U.S. Electricity Generation Sources

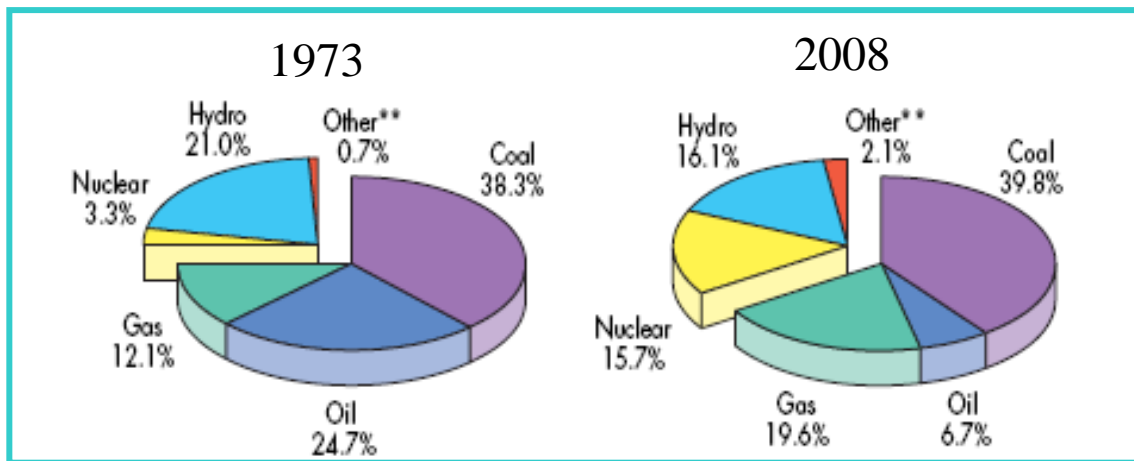
Second Largest Source of Electricity in the U.S.

Figure 1



Source: Department of Energy/Energy Information Administration

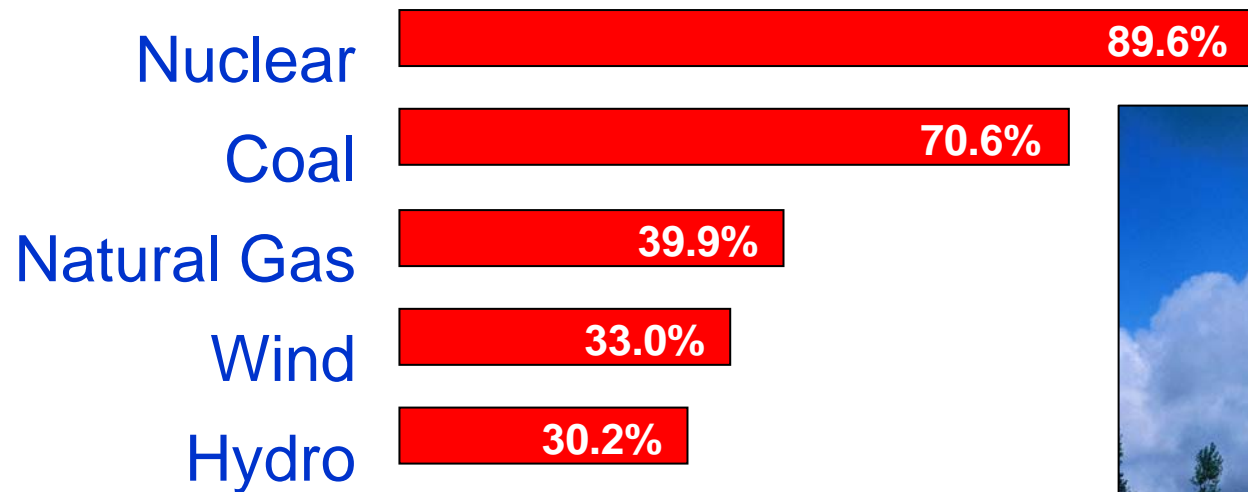
Percentage of Nuclear Power Generation Worldwide



Country (based on first 10 producers)	% of nuclear in total domestic electricity generation
France	78
Sweden	50
Ukraine	48
Korea	37
Germany	28
Japan	26
United Kingdom	20
United States	20
Russia	16
Canada	15
Rest of the World*	8
World	16

Renewables: Not the Entire Answer

Typical Availability:



Nuclear Availability

- ✓ Uranium is abundant
- ✓ Uranium sources in friendly nations
- ✓ Stockpile capabilities

Nuclear Efficiency



= 2.5 tons



= 3 Barrels

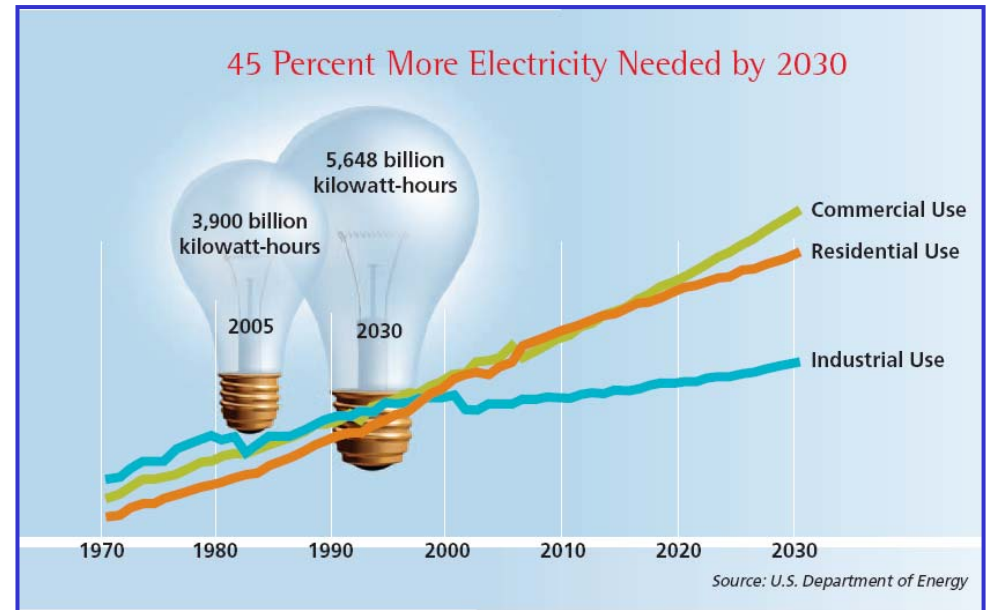


= 1 ton



Future Electricity Demand

- Experts predict that more than 350,000 megawatts more generating capacity will be needed by 2030



Nuclear Power is Green

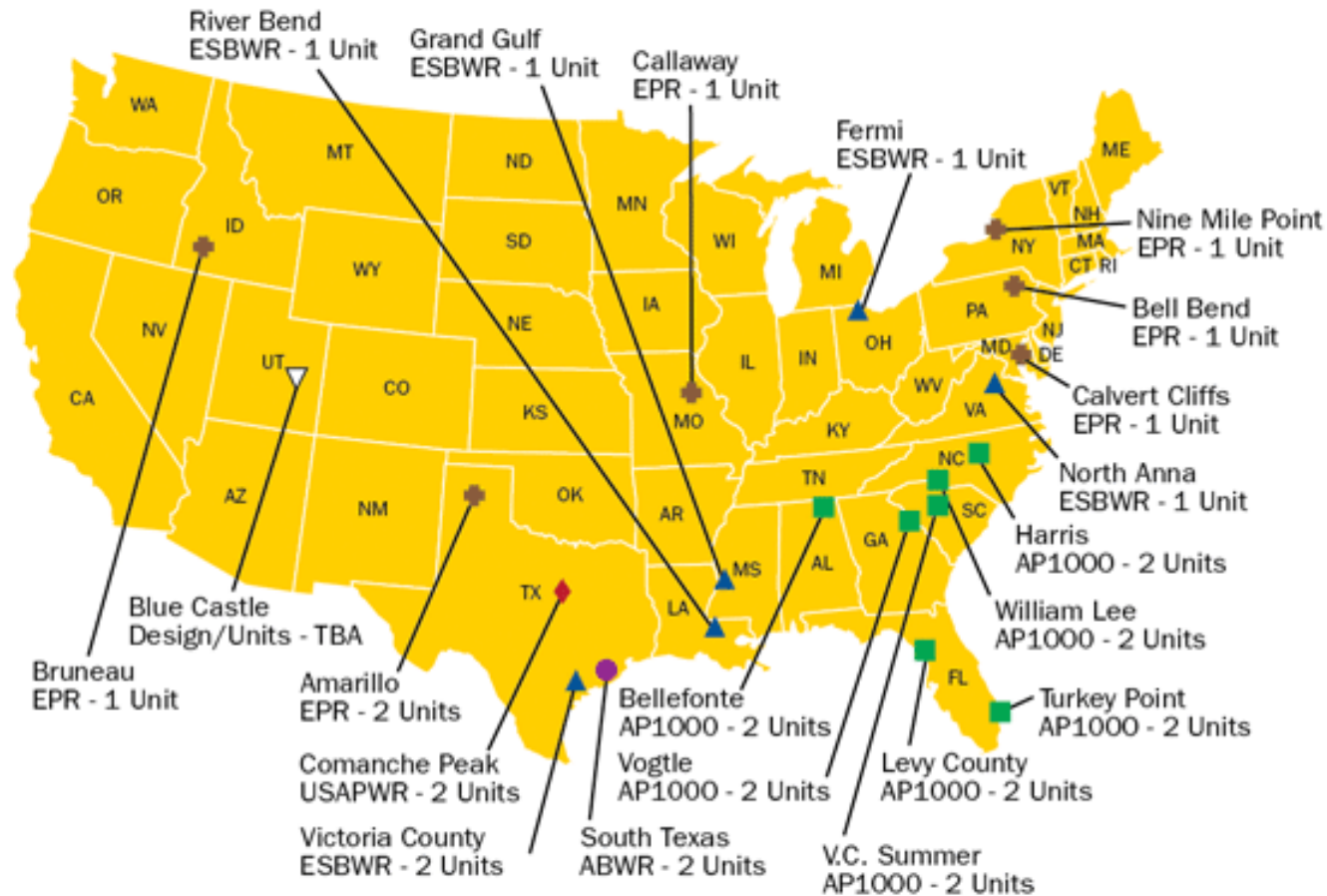
- ✓ Nuclear plants emit virtually no GHG emissions
 - Exelon operates nation's largest nuclear fleet safely and reliably
 - Achieved average capacity factor of 94.5% in 2007, exceeding industry average of 90.4%
 - Displaced the need for equivalent coal-based generation
 - o Prevented 121 million metric tons of CO₂ emissions in 2007 (equivalent to taking 23 million cars off the road)

The Climate Problem and Exelon 2020

- ✓ Reduce, offset or displace more than 15 million metric tons of greenhouse gas emissions per year by 2020
 - Reduce or offset Exelon's carbon footprint
 - Help our customers reduce their greenhouse gas emissions
 - Offer more low-carbon electricity in the marketplace

A large version of the Exelon logo is centered on the slide. It consists of the word "Exelon" in blue, with a green power button symbol in the "o", followed by a registered trademark symbol (®).Below the main Exelon logo is a smaller logo for "Exelon 2020". The word "2020" is in a bold, green, sans-serif font, with a green arrow pointing to the right. Below "2020" is the tagline "a low-carbon roadmap" in a smaller, green, sans-serif font.

Locations of Potential New Nuclear Plants



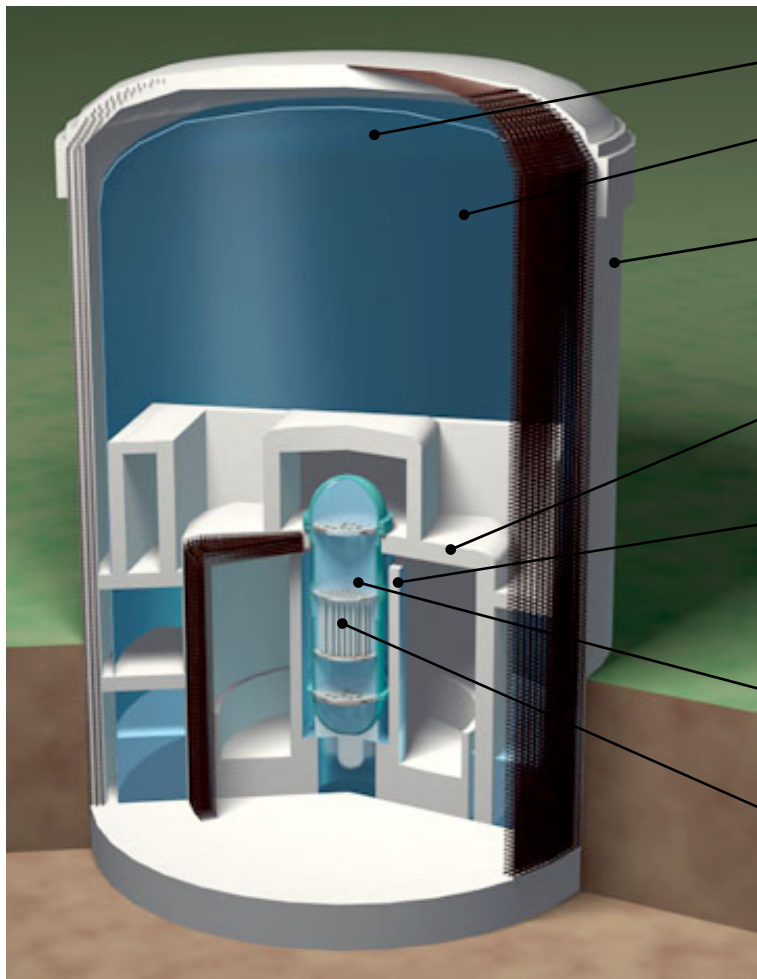
You may click on a design name to view the NRC's Web site for the specific design.

● ABWR
 ■ AP1000
 ⬢ EPR
 ▲ ESBWR
 ◆ USAPWR
 ▽ Design/Units - TBA

Cost Uncertainties

- Regulatory Process
- Cost / Cost of Capital
- Component Availabilities
- Experience Base
- Skill Availability

Reactor Structural Security



Containment Vessel

1.5-inch thick steel

Shield Building Wall

3 foot thick reinforced concrete

Dry Well Wall

5 foot thick reinforced concrete

Bio Shield

4 foot thick leaded concrete with
1.5-inch thick steel lining inside
and out

Reactor Vessel

4 to 8 inches thick steel

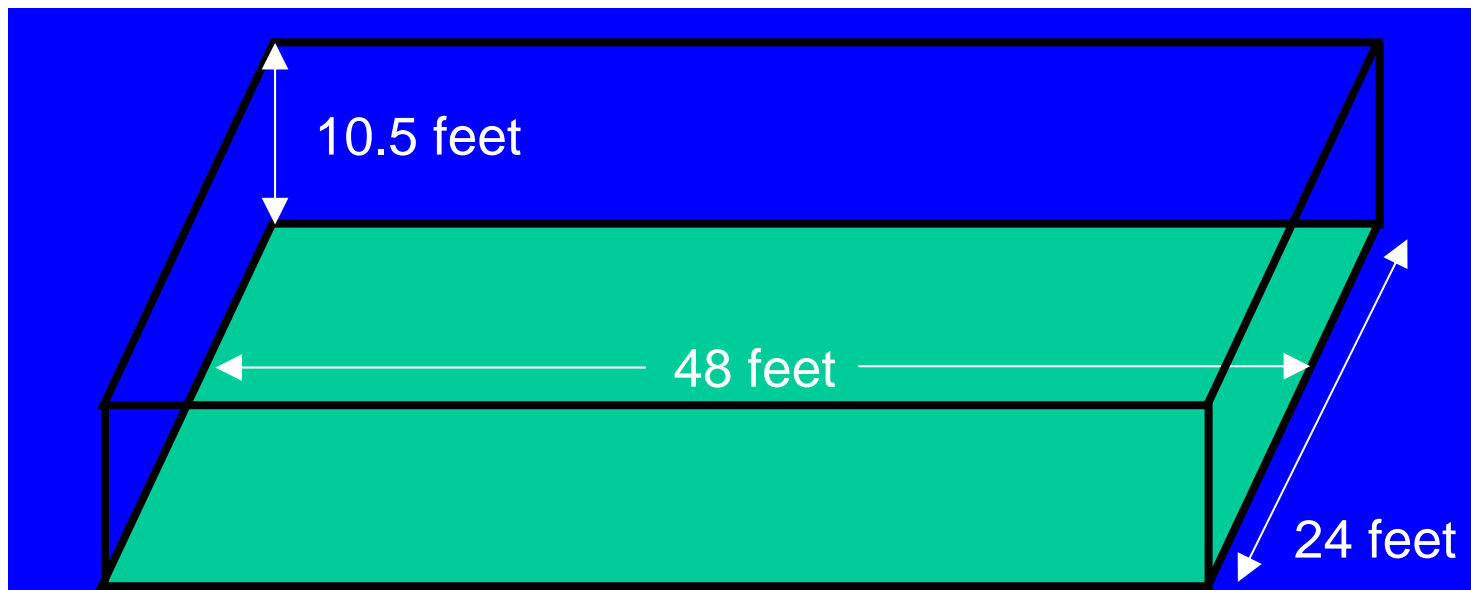
Reactor Fuel

Plant Security

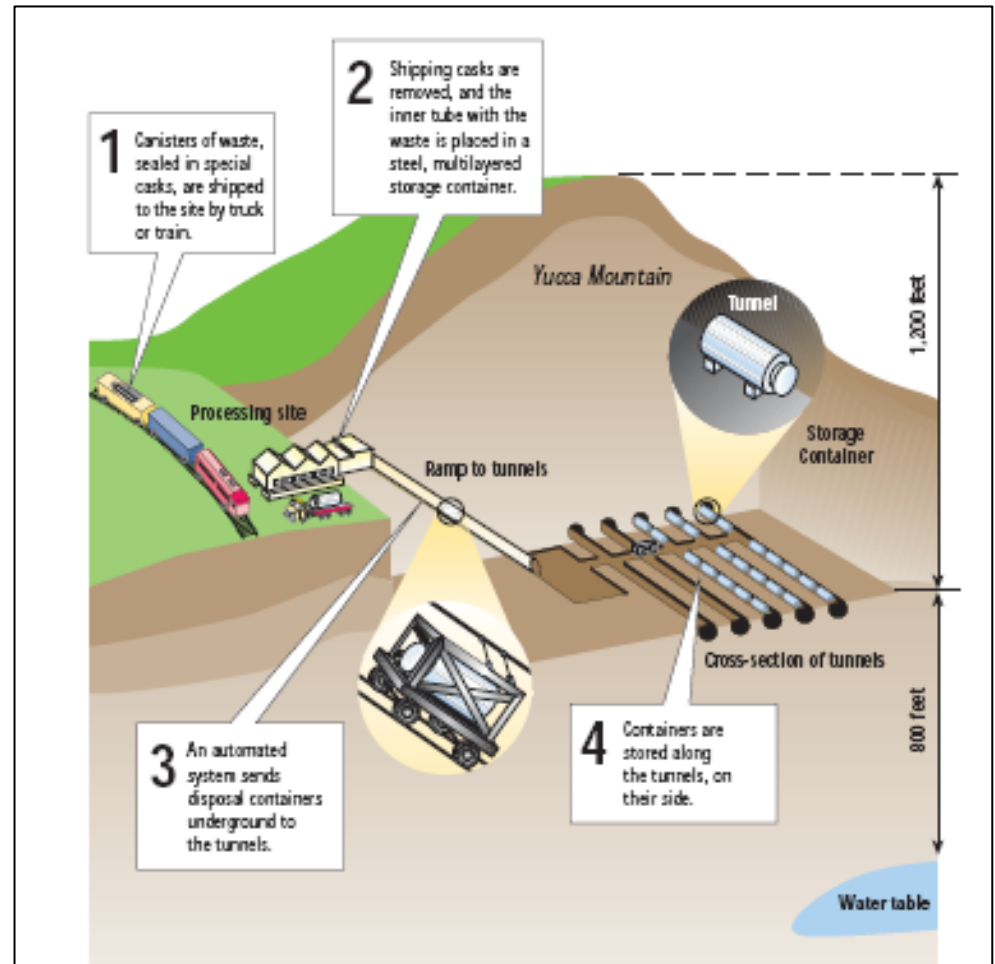
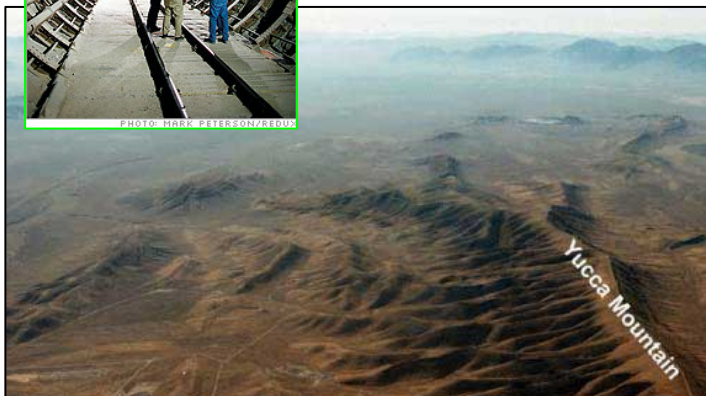
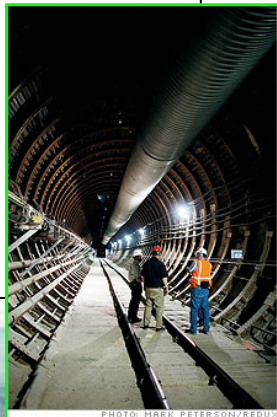
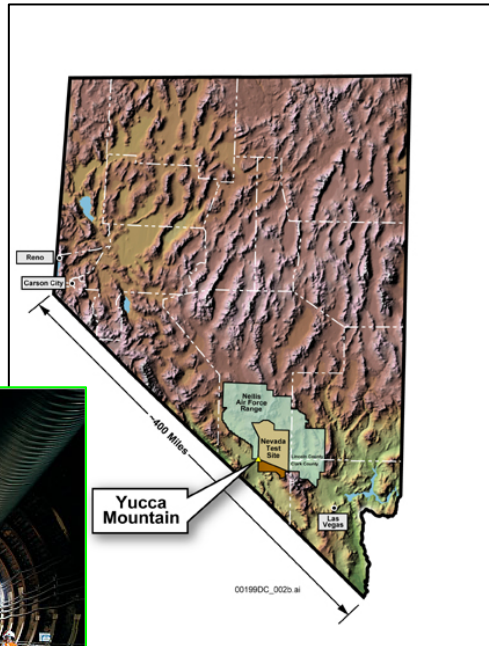


Putting Nuclear Waste in Perspective

- ✓ All used nuclear fuel produced at a station over 40 years, if stacked side by side, would fill a 4-car garage.



Yucca Mountain in Nevada



Spent Fuel Management

- ✓ Inventory of SNF on hand is greater than can be stored in on-site spent fuel pools
 - Original design of spent fuel pools ~five years
 - Re-racking has extended that life to ~20 years, but no further re-racking is possible
- ✓ Dry cask storage (Exelon began in 2000)
 - End of 2007, at four of Exelon's 10 operating sites
 - 947 MTU of SNF in 82 storage systems
 - Dry cask storage underway at four additional sites between now and 2012



Byron, IL



LaSalle, IL



Braidwood, IL



Dresden, IL



Quad Cities, IL

Exelon[®] Nuclear



Three Mile Island, PA



Clinton, IL



Peach Bottom, PA



Limerick, PA



Oyster Creek, NJ