


Moving the Renaissance to Reality: Opportunities and Challenges

ANS DC Local Section Dinner Meeting
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It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of Light, it was the season of Darkness, it was the spring of hope, it was the winter of despair, we had everything before us, we had nothing before us, we were all going direct to heaven, we were all going direct the other way - in short, the period was so far like the present period, that some of its noisiest authorities insisted on its being received, for good or for evil, in the superlative degree of comparison only.

Charles Dickens, *A Tale of Two Cities*
English novelist (1812 - 1870)

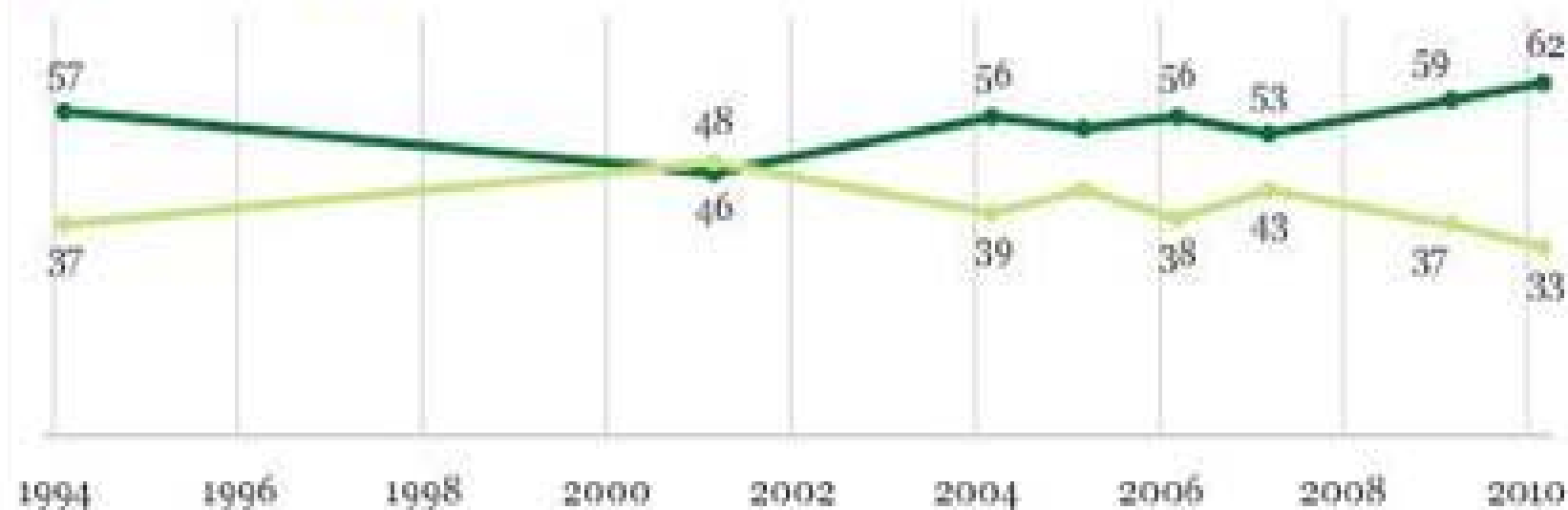
The Best of Times...

- Administration support
- Wide spread bipartisan congressional support
- Public support at historic highs
- Anticipated energy and climate legislation
- Focus on infrastructure development and jobs
- Additional loan guarantee authorization proposed; first conditional loan guarantee awarded

Historic Public Support

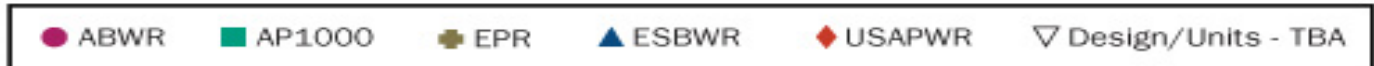
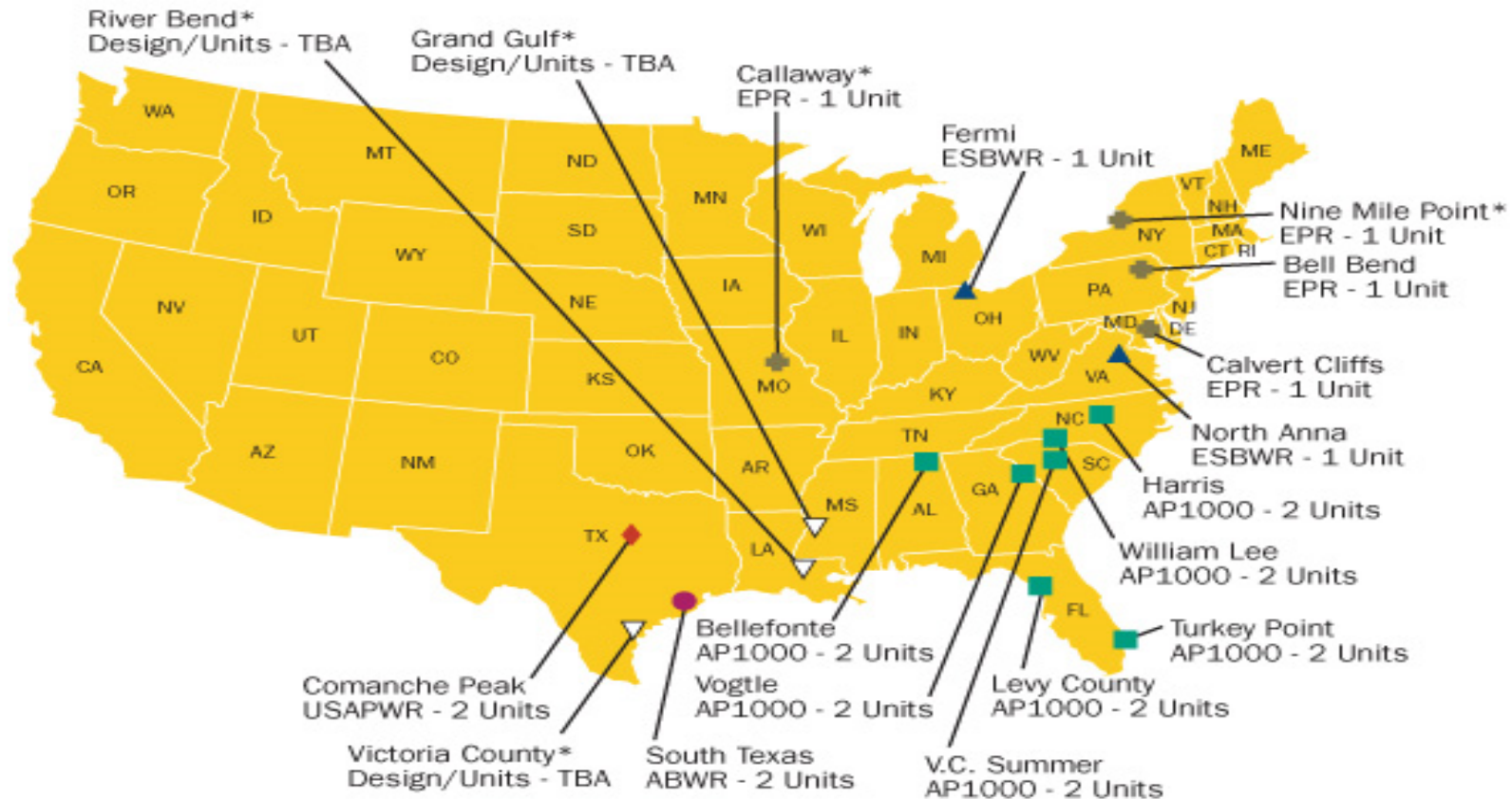
Overall, do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose the use of nuclear energy as one of the ways to provide electricity for the U.S.?

■ Total % favor ■ Total % oppose



GALLUP®

Multiple applications submitted to NRC



*Review Suspended

Site work in progress at Vogtle and Summer



Plant Vogtle Unit 4 foundation excavation showing Unit 1 and 2 in background with water vapor rising from cooling towers. March 4th, 2010.

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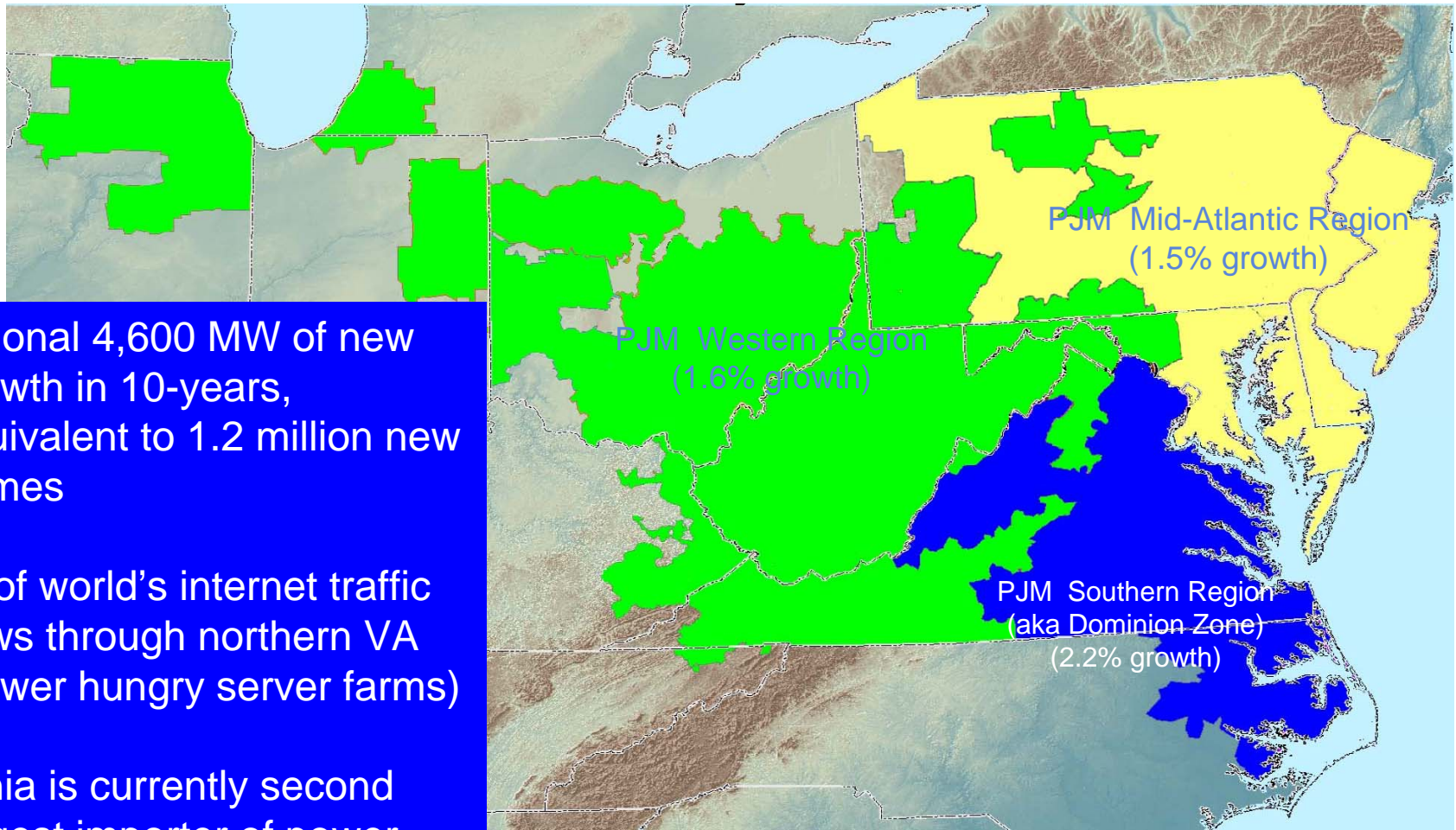
But...serious challenges remain

- Several applications suspended
- Project schedules extended..many into the next decade
- Economic conditions have affected load growth in many areas
- Natural gas prices are low
- Yucca Mountain decision
- Project costs will challenge even the largest companies

Market capitalization of some companies of interest (May 5, 2010)

■ Exelon	\$ 28.9 B
■ Southern Co.	28.1
■ Dominion	24.9
■ Duke	21.9
■ FPL	20.9
■ Entergy	15.0
■ PPL	9.3
■ Constellation	7.2
■ NRG	6.2
■ SCANA	4.8

Dominion Zone – Fastest Growing Region in PJM



Additional 4,600 MW of new growth in 10-years, equivalent to 1.2 million new homes

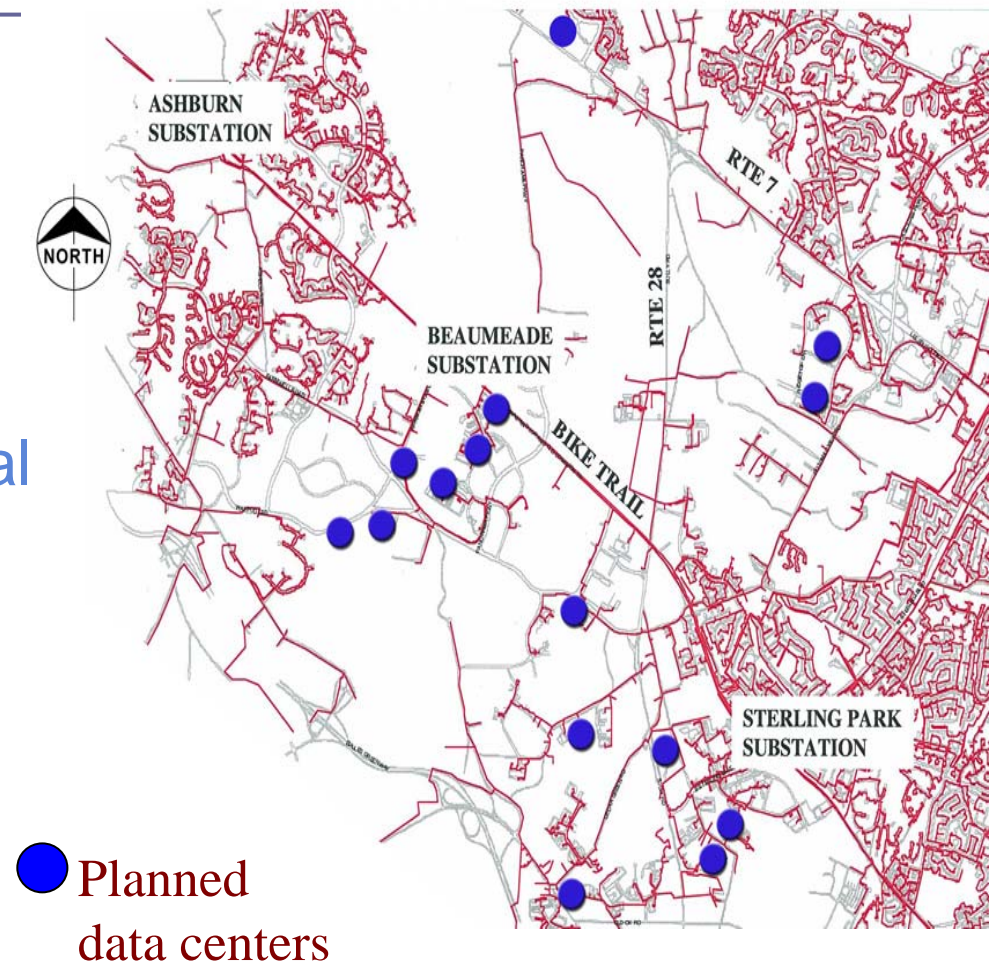
50% of world's internet traffic flows through northern VA (power hungry server farms)

Virginia is currently second largest importer of power – second only to California

Source: PJM Load Forecast Report (January 2009)

Planned Data Centers in Loudoun County: Base Load Demand

- Data centers rapidly driving up regional demand.
- Each facility adds 40 - 80 MW of additional demand.
- Demand for electricity may grow as much as 12 percent



Virginia New Generation

- The Governor's Virginia Energy Plan explicitly recognizes that the Commonwealth has "an opportunity to be the leader in nuclear energy" among the 50 states
- In 2007, Virginia Legislature approved a re-regulation of utilities which included a regulatory incentive for the construction of new nuclear plants

What has Dominion been doing?

- Comprehensive efforts over a diverse portfolio...clean coal, natural gas, nuclear, renewables, conservation, transmission
- An industry leadership position in understanding the path to new nuclear
- A diverse approach to meeting the anticipated 4,600 MW gap in electric supply by 2019
- Visit our web site:
 - [www. PoweringVirginia.com](http://www.PoweringVirginia.com)



Emission-free Nuclear Power

We are laying the groundwork for an expansion of clean nuclear energy at our North Anna Power Station in Louisa County, Va. Dominion is seeking a federal Combined Operating License (COL) authorizing construction and operation of a new reactor at North Anna. It would feature an advanced, simplified design using boiling water reactor (BWR) technology from General Electric. The new unit could meet the energy needs of as many as 375,000 homes.

And it would produce virtually no emissions into the atmosphere - including carbon. Operation of this new unit would be the equivalent of removing 1.5 million vehicles from America's highways. Nuclear power must play a major role in efforts to combat climate change.

Additionally, it would employ a low-profile cooling tower to avoid placing any additional heat into Lake Anna and the Waste Heat Treatment Facility, already used to cool the two existing units.

Dominion has always viewed nuclear energy as a safe, reliable and clean energy source. Currently, North Anna and Surry, our other nuclear station in Virginia, provide more than a third of the state's electricity.

Although Dominion has not made a final decision to build the unit, it wants to keep the nuclear energy option available to meet the Commonwealth's future energy needs.

If federal and state authorities approve construction, and Dominion decides to proceed, work could get underway as early as 2010, with electricity produced as early as 2015.

[Learn more](#) about the North Anna 3 project.

Dominion's NRC applications: Maintaining the nuclear option

- Applied to NRC for ESP September 2003
- ESP issued November 2007
- COL application filed November 2007
- Final environmental statement issued
- NRC staff review proceeding

North Anna site



Dominion has not made the decision to proceed

- COLA under review is based on ESBWR
- Late 2008: insufficient progress on contract negotiations with GEH
- March 2009: Competitive process RFP issued
- May 2009: 6 proposals received
- May 2010: Technology selected: MNES US-APWR
- June 2010: COLA amendment to be submitted
- Still reviewing financial aspects of going forward

Parting Thoughts

- Demand will increase rapidly; even with new efficiency initiatives, new baseload generation will be critical to the nation's economy and quality of life
- Nuclear will be critical to meeting this demand in an environmentally responsible manner
- Diversity of energy supply will continue to be important
- Licensing and construction schedules, while much improved, still stretch out until late in the decade
- Financial considerations, not technology or licensing, are dominant
- While public support is at all time highs, much misinformation is still present

Moving toward informed choices...



Total of over 8060 MW capacity—equal to 10800 Toronto wind generators
Or.....32,240 wind generators assuming typical capacity factors!