

### **AGENDA**

VNEC Board Meeting Virginia Tech Research Center Room 3-024 Arlington, VA April 22<sup>nd</sup>, 2016 3:00PM – 5:10PM

Item	Topic	Time
I	Welcome, introductions, and establishment of a quorum	3:00-3:05
II	Treasurer's Report	3:05-3:20
III	Workforce Update	3:20-3:30
IV	VNEC/CAER Legislation	3:30-3:40
V	Membership Policy	3:40-3:50
VI	NEI-VNEC Joint Nuclear Summit	3:50-4:00
VII	VA Chamber Energy Day	4:00-4:05
VIII	GEM*STAR Reactor Design Initiative (Ali Haghighat, VT)	4:05-4:20
IX	Proposal for Application of the IST for Advanced Reactor Design Testing:	4:20-4:35
	(Ranga Pitchumani, VT)	
	Molten Salt Loop	
	Supercritical CO <sub>2</sub>	
X	Priorities Moving Forward	4:35-4:55
XI	VNEC Board Elections	4:55-5:10

Dinner will follow the conclusion of the meeting, details are below.

### **CONENTS**

- 1. VNEC Director Appointment Letter
- 2. NEI Nuclear Energy Summit Draft Agenda
- 3. CAER Legislative Language
- 4. VA Chamber 2016 Energy Sustainability, & Resiliency Conference
- 5. GEM\*STAR Initiative
- 6. Treasurer's Report

### **DINNER**

When: 5:30PM (possibly earlier)

Where: Grand Cru Wine Bar & Bistro, 4301 Wilson Blvd, Arlington VA, 22230

(http://www.grandcru-wine.com)

**Note**: This restaurant is within walking distance (less than 5 minutes) of the VT Research Center.





# Virginia Nuclear Summit

June 6<sup>th</sup> 2016 • Richmond, VA

#### 8:15 a.m.-9 a.m.

**Networking Breakfast** 

# 9:10 a.m.—9:30 a.m. Welcoming Remarks

Welcome and introduction
 Alireza Haghighat, PhD VNEC Chairman

#### 9:30 a.m.-10:30 a.m.

Panel Discussion 1 — Working Together: Collaboration (university, industry, government)

Workforce Development: Developing the skills and talent to propel nuclear into the future

- Education Opportunities: What we have and what Virginia needs
  - Alireza Haghighat, PhD VNEC Chairman
  - Sama Bilbao y Leon, PhD VCU
  - UVA Representative
  - Community College Representative
- Recruitment and Retention: Finding and keeping talent in Virginia
  - Matt Kellam, Dominion
  - Nathaniel Marshal, BWXT & Virginia Board of Workforce Development

10:30 a.m.—10:50 a.m. Coffee/Networking Break

#### 10:50 a.m.-11:50 a.m.

Panel Discussion 2 — Doing Business with the Industry: The Role of Suppliers and Manufacturing in the Industry

- Advanced facilities: CAER/IST and other opportunities in Virginia
  - Joseph Miller, BWXT & Bob Bailey, SAER
- Defense Contracting: Virginia's contributions to the nuclear Navy
  - BWXT & Newport
- Nuclear Power: Nuclear's critical role in Clean Power Plan implementation
  - Dominion & GE
- Research and Manufacturing
  - Areva & University Representative

### 11:50 a.m.-12:20 p.m.

Next Steps: How do we enhance the nuclear industry in Virginia?

Speakers: NEI COO Maria Korsnick, Virginia Secretary of Commerce and Trade Maurice Jones Possible speakers -DOE representative and NRC

- Power
- Defense
- Medicine
- Manufacturing
- Research
- Education
- Workforce

12:20 p.m.—12:30 p.m. Networking Break

### 12:30 p.m.-1:30 p.m.

Keeping Nuclear in Virginia Going Strong

- Lt. Governor

1:30 p.m.

Adjourn

### VIRGINIA STATE BUDGET

2016 Session

### Budget Amendments - HB30 (Conference Report)

Bill Order » Item 109 #1c

Funding for the Ctr. for Adv. Engineering &Research

Item 109 #1c	First Year - FY2017	72017 Second Year - FY2018	
Commerce and Trade			
Department of Housing and Community Development	\$600,000	\$325,797	GF

**Language** Page 85, line 50, strike "\$50,637,001" and insert "\$51,237,001". Page 85, line 50, strike "\$64,504,601" and insert "\$64,830,398".

Page 88, after line 32, insert:

"Q. Out of the amounts appropriated in this item, \$600,000 from the general fund the first year and \$325,797 from the general fund the second year is provided to support efforts to restore the Center for Advanced Engineering and Research and Integrated Systems Test back to operational conditions. The appropriation of these funds is contingent upon the appropriation of federal funds from the United States Department of Energy or other sources that exceed \$3,000,000."

#### Explanation

(This amendment provides \$600,000 from the general fund the first year and \$325,797 from the general fund the second year to restore the Center for Advanced Engineering and Research and Integrated Systems Test back to operational conditions. Once the facility is operational, future funds from the federal Department of Energy, as well as funds from private companies and universities, will support the facility.)









# 2016 ENERGY, SUSTAINABILITY & RESILIENCY CONFERENCE













## **Tuesday, May 10, 2016**

7:30 a.m. - 9:00 a.m. - Networking Registration in Exhibit Hall

9:00 a.m. - 2:00 p.m. - Program

# GREATER RICHMOND CONVENTION CENTER

For more information contact Lindsay Borge at I.borge@vachamber.com

### Keynote Remarks by Tom Kuhn, President, Edison Electric Institute

Tom Kuhn will discuss how the government and private industry can work together to protect our grid and our economy from potential threats. Kuhn is President of the Edison Electric Institute, the association that represents all U.S. investor-owned electric companies. EEI's members provide electricity for 220 million

Americans, operate in all 50 states and the District of Columbia, and directly employ more than 500,000 workers.

### Who should attend?

Business Executives | Environmental Managers |
Operations & Facility Managers | EH&S Managers |
Sustainability Leads | Government Representatives
| Engineers | Energy Policy Professionals |
Consultants & Attorneys | Technology & Equipment
Providers | Business Strategists

### **Featuring Panel Discussions on:**

### Virginia's All of the Above Energy Strategy

Blueprint Virginia calls for the Commonwealth to embrace an "all of the above" energy strategy that supports economic development and job growth while meeting the growing needs of our population and business community. How is Virginia harnessing our diverse solar, wind, coal, natural gas, and nuclear resources to ensure the Commonwealth's long term economic vitality?

### **Sustainability—Good For Business**

We know that Virginia businesses are leading the way in developing new sustainability practices with a global impact. Every year, they find ways to use resources more efficiently and effectively. Businesses in Virginia devote millions of dollars annually to sustainability efforts that impact their communities. Business leaders will highlight how their organizations think about and practice sustainability across the board—and why it is good for their bottom line.

### Threats to Resiliency in Virginia—How and What is Virginia doing?

Reliable energy and data infrastructure is essential for businesses. Threats to our infrastructure—whether from natural events or a manmade disasters such as a cyber-attack—have a major impact not only on the utility industries but on the businesses that rely on them. Resilient infrastructure not only enhances quality of life, but helps businesses operate more efficiently and reliably. This panel will highlight how Virginia companies are planning and responding to events that could disrupt energy supply and mitigating risks through policies, programs, and investments that provide for more secure and resilient energy and data infrastructure.

**PLATINUM** 

DIAMOND













GOLD











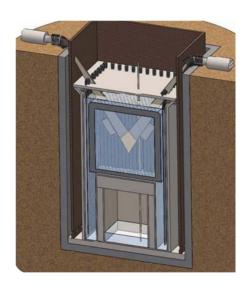


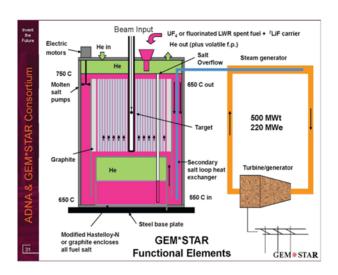
### GEM\*STAR, an Accelerator-driven Subcritical Reactor

Professor Alireza Haghighat, Chairman of the VNEC Board and Director of the Nuclear Science and Engineering Lab at Virginia Tech Research Center, will describe GEM\*STAR, Green Energy-Multiplier Safe Technology for Alternative Reactors. The design uses a molten salt fuel, with graphite moderation, in a subcritical configuration. The supplemental neutrons needed to sustain the reaction are provided by accelerator.

This concept was developed by Professor R. Bruce Vogelaar of Virginia Tech and Dr. Charles Bowman from ADNA Corporation (Accelerator Driven Neutron Applications). Dr. Haghighat will explain how this novel design addresses key challenges including waste, fuel enrichment, reprocessing, safety and cost. He will discuss the performance of the reactor for burning uranium or nuclear waste or converting weapons-grade plutonium. An equilibrium cycle can be achieved in approximately two years.

GEM\*STAR can significantly contribute to the generation of safe, clean, secure nuclear power that is economical with significantly less nuclear waste and no need for enrichment.





### **Request to the VNEC Board**

- Seek support from the State of Virginia for engineering design analysis and construction of a prototype
- Use of IST for characterization of molten salt