

## Grid Modernization and Transformation Act Implementation

Group Facilitators: Jessica Greene and Chelsea Harnish

*Why is this topic important to the EE industry in VA?*

- Creates actual business opportunities
- “Where the rubber meets the road”

*What is the opportunity with this topic?*

- Real programs and the results that will follow
- \$1B business opportunities and opportunities for foundation tech
  - Allows for infrastructure
  - AMI Deployment
  - Time of Use/Dynamic Rate Structures
  - Customer engagement platform
  - “Moving everything forward”
- Takes *some* discretion away from the SCC
  - Subsequent legislation from this year took this further
    - SCC must re-run cost effectiveness analysis if they want to change a program’s budget
- Job Creation
- Stakeholder bill will facilitate transparency
  - Report should be made public
  - Currently goes to the Governor
- EM&V

*What are the barriers?*

- What does success look like?
  - Spending the money and making sure it is effectively spent
  - Ensure stakeholder process is working and goes through 2020
  - Creates thriving market place
    - Not just using the same contractors/businesses/3rd party implementer
- Made difficult for small organizations as a very high bar has been set
- List of contractors stays the same
  - Hard to get innovation if using same companies
  - Harder to break into the work for non-residential contractors
  - Residential contractors need to apply and have additional training
    - Could use stakeholder process to improve these issues
- Program execution
- Treating large area as one market
  - Urban vs. Rural
- No EE programs addressing split initiatives
  - High percentage of renters
- What’s the level of data that is needed to produce effective programs and results?

- Privacy issues and data access
- Regulatory barriers
- Effective implementation of grid modernization

*What role should VAEEC play?*

- Decipher information and present summary to members (synopsis)
- Allocation of money of ten years
  - Chunk should be redirected to 3rd party state agency to award funds to agencies via competition
    - Opens opportunities up to different sectors working together and drives innovation
    - \$870M through ratepayers
- Make sure the money is actually spent on EE programs
- Utilities could issue RFPs for “what should we do with this money”
- Use stakeholder process to improve contractor selection process and program execution
  - Translate contractor complaints and/or ideas about room for improvement

**Intersection between EE and Solar**

Group Facilitator: Andrew Grigsby

*Why is this topic important to the EE industry in VA? (Was phrased as “why did people vote for this topic?”)*

- VA State regulatory challenge
- Low cost of energy is a challenge
- No RECs, no incentives at the state level
- Lot of low-income flat roofs and sun in Northern VA

*What is the opportunity with this topic?*

- Find ways to pair solar with energy efficiency work
  - If goal is net zero, we need both, especially for new construction
    - Calculate max energy usage and design efficiency measures in accordingly.
    - Solar is the last piece of the puzzle
      - Can eliminate PV waste through EE
- How do we message to put solar and EE together?
  - Work on the concept of strategic electrification
  - Address the behavior delta, resiliency, benefits to get to a value proposition:
    - What’s in it for the customer?
  - Don’t sell scarcity message
    - Conservation message will only go so far
  - Emphasize aspects of EE that are easy to do
    - Keep message simple

- Important to make EE available for low income
  - Money doesn't capture all the important parts of EE or solar
  - Consider equity and environmental costs

#### *What are the barriers?*

- Both EE and solar boil down to economic decisions for most people; hard to meet the financial hurdle
  - Conservation isn't incentivized as long as solar is cheap
- HOAs and regulatory barriers
  - Need an integrated demand side rating plan with a place for solar
- Solar is sexy, so how do we incorporate efficiency into that messaging?
  - Confusion for the customers as they want solar/renewables even when told the buildings are inefficient
  - Solar is not always the best value
- Does it threaten the EE industry to focus on solar?
  - We don't want solar to overshadow EE

#### *What role should VAEEC play?*

- Strategic electrification
  - Call out need for how to set targets and engage customers
  - Policy and market thinking that way, so messaging needs to get out in front.
- Introduce programs to reward buildings that hit their BUI targets
  - Solar as a reward for EE
    - What should the targets be?
    - Do solar math, kw worth x \$\$
    - Look at time, location, pollution associated with EE
- Education!
  - Customers
  - Contractors
  - Local governments and regulators

## **Emerging Technologies**

Group Facilitator: George Barnes

#### *Importance*

- Micro Grids
- Technology enables data and data drives decisions
- Tim Bernadowski at Siemens attended a roundtable forum on energy efficiency initiatives and said the ideas were no different then what he saw 25 years ago
- History of Technology discussed how significant changes are marked by major leaps.
  - uncharted times where there are multiple major leaps and we need to determine where we fit? What we will leverage?

- discussed the underutilization of technology and the opportunity to be proactive
- 80% of the US internet traffic flows through data center in northern Virginia
- battery storage and electric vehicles discussed

### *Opportunities*

- How can we leverage data centers?
- Underutilization of technology – Tim said his refrigerator is smarter and faster than the building in which he works
- We need to understand and leverage cost savings and ROI
- David attended a national coop conference and he mentioned a pilot program that featured home owners that have volunteered to have their behavior and utilities usage tracked.

### *Barriers to success*

- Regulation
- Uniform approach
- Data Availability
- Knowledge gap
- Unwillingness to change
- Workforce outdated
- Confidence in technology
- Risk
- Changing players
- Changing needs
- Poor planning
- Outdated energy infrastructure

### *Emerging Technologies*

- Smart Phones, Alexa, Google Talk
- Financial saving and energy monitoring
- Energy intelligent appliances
- Lighting controls
- Communications and Feedback
- Complexity –
  - Tools and technology is there in the commercial building space but it is grossly underutilized
- Residential lacks the tools and infrastructure but there is significantly more drive to access – nest and smart homes, time of use rates, rebates

### *What role should VAEEC play?*

- Platform to share and inform
- Bring together business leaders and technology experts to discuss how to collaborate

- We could make a bigger push to engage large energy users to meet with technology leaders and innovators to discuss challenges and opportunity
- VAEEC could create a technology incubator and promote new innovative technology
- New technology form to highlight and showcase technology advances
- Startup Incubator
- Pilot Program Facilitator
- Education about technology
- EE Subscription Service
- Battery storage was specifically mentioned as an emerging technology and topic

## **Local Government Collaboration**

Group Facilitator: Tom Nicholas

*Why is this topic important to the EE industry in VA?*

- Implementation of Utility Programs
- Citizen cost savings
- Increased energy efficiency
- Coordinated data collection of our programs

*What is the opportunity with this topic?*

- Increased access to locality data
- Use of local governments
  - Dissemination of program info
  - Use of job (??) structure for EE funding
- Look to programs such as affordable housing
- Education of legislators, local government officials and residents
- Reduced energy costs to localities

*What are the barriers?*

- Political bent of localities
- Funding of programs
- Staff to execute the work
  - VAEEC staff/Board
  - Contractors
  - Localities
  - VAEEC membership
- Access to data
  - Specifically residential energy data

*What role should VAEEC play?*

- Facilitator
  - Local governments and program providers regarding progress

- Monitoring program execution
- Coordinate data mining and distribution of data
  - Housing
  - Transportation
- Coordinate private sector to target marketing and outreach
- Coordinate identification of data gaps