

The background of the slide features a scenic photograph of several wind turbines situated on a grassy hill. The scene is captured during a sunrise or sunset, with a warm, golden glow on the horizon and a layer of mist or low clouds surrounding the base of the turbines. Overlaid on the left side of the image is a large, stylized geometric shape composed of several parallel diagonal lines in shades of orange, grey, and white, creating a modern, architectural feel.

VACO Energy, Environment & Land Use Committee 2023 Summer Meeting Energy Issues Update

Sam Brumberg

Vice President & General Counsel

Virginia, Maryland & Delaware Association of Electric
Cooperatives



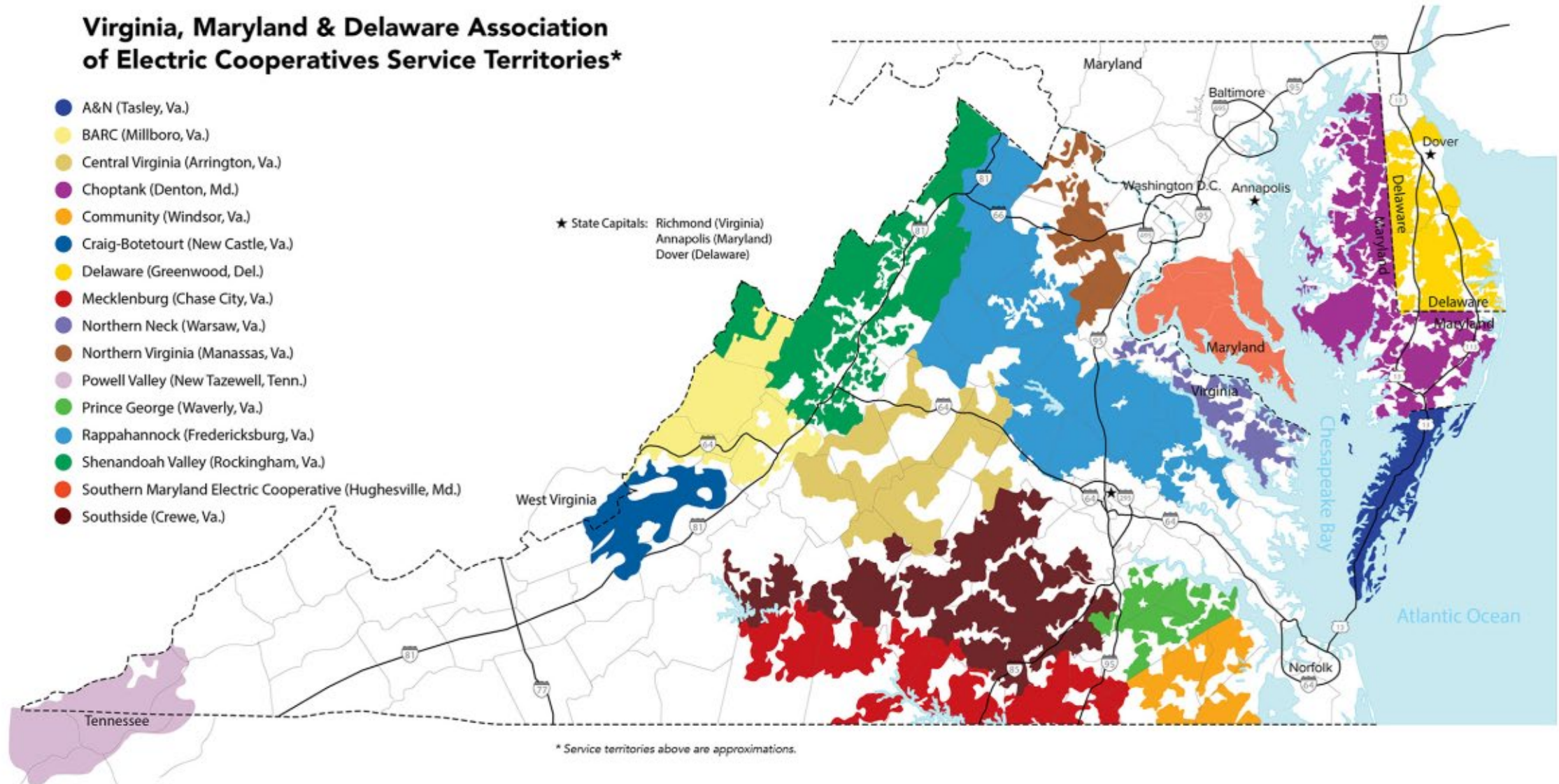
About Me & Disclaimer

Information shared in this presentation represents the presenter's personal views, and not necessarily those of his client, VMDAEC, or its members. Information shared in this presentation is deemed reliable but not guaranteed.

Virginia, Maryland & Delaware Association of Electric Cooperatives Service Territories*

- A&N (Tasley, Va.)
- BARC (Millboro, Va.)
- Central Virginia (Arrington, Va.)
- Choptank (Denton, Md.)
- Community (Windsor, Va.)
- Craig-Botetourt (New Castle, Va.)
- Delaware (Greenwood, Del.)
- Mecklenburg (Chase City, Va.)
- Northern Neck (Warsaw, Va.)
- Northern Virginia (Manassas, Va.)
- Powell Valley (New Tazewell, Tenn.)
- Prince George (Waverly, Va.)
- Rappahannock (Fredericksburg, Va.)
- Shenandoah Valley (Rockingham, Va.)
- Southern Maryland Electric Cooperative (Hughesville, Md.)
- Southside (Crewe, Va.)

★ State Capitals: Richmond (Virginia)
Annapolis (Maryland)
Dover (Delaware)



Energy Issues

- Current State of Regulatory Policies & Our Commission
- Solar (...and storage...and EV batteries...)
 - And Schools
- Solar Siting & Land Use (Agriculture & Forestry)
- Communication with Local First Responders
 - Fire Departments
 - Police Departments
- Electric Supply Chain & Other Post-COVID Impacts



State of Energy Regulatory Policy

Virginia's Unique
Commission: Court & PSC

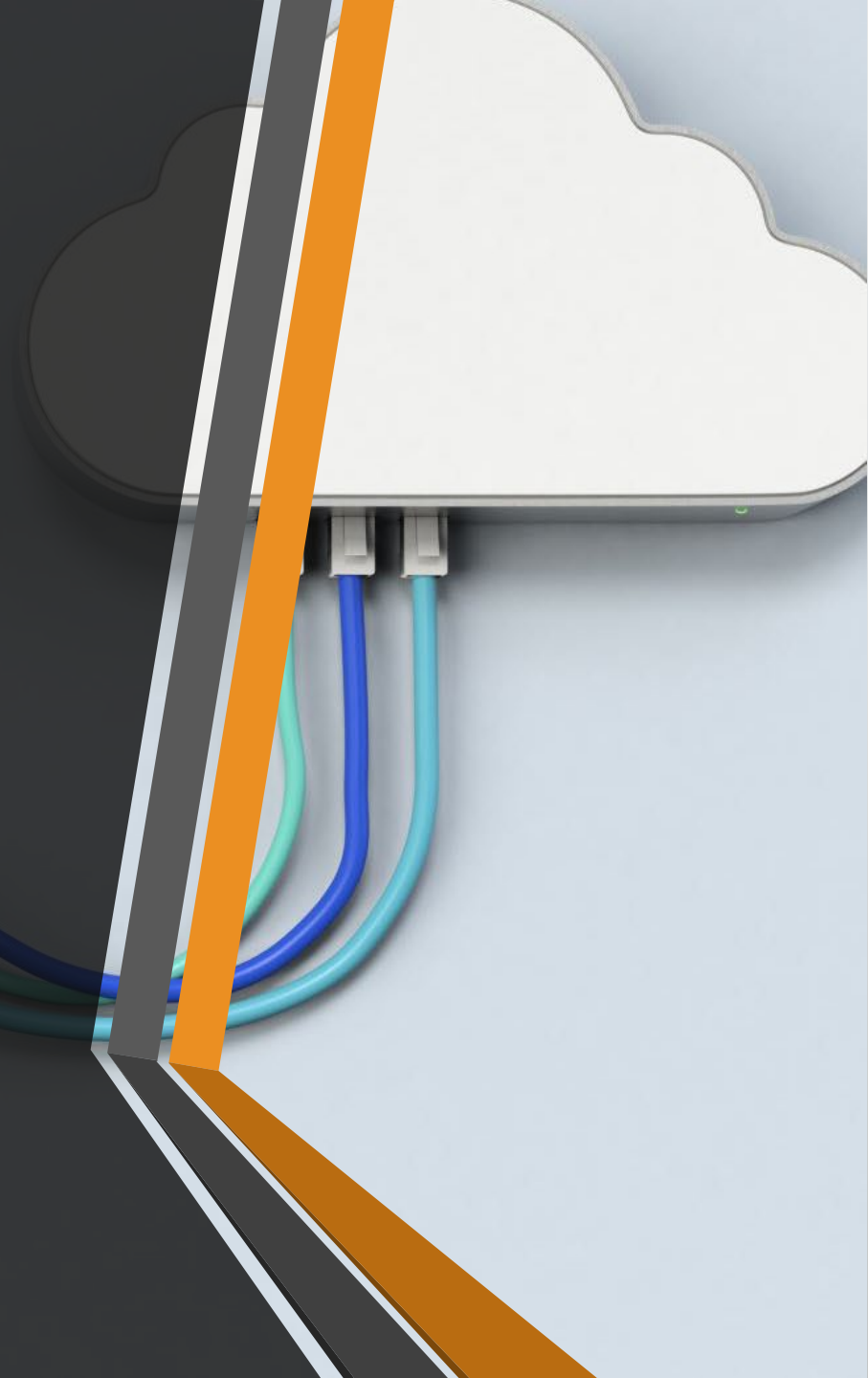
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graph TD; A[Virginia's Unique Commission: Court & PSC] --> B[The Hollowing Out of the Commission]; B --> C[Making Policy at the General Assembly];
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The Hollowing Out of the
Commission

Making Policy at the
General Assembly

Data Centers

- Incredibly Huge Users of Electricity
- Could Double, then Double Again
- Highly Sophisticated, Competitive, Precise
- Financial Impacts; New Ecosystems?
- Protections for or from a POLR Obligation
- Transmission Capacity Constraints
- Generation Constraints?



Solar as Green Technology

- Solar Panels—Getting More Efficient; Cost-Competitive
- Clear Consumer Demand for Solar Technology; Financing Options
- Storage and EV Batteries
 - Competing for Rare Earth Minerals
 - Mining/Environmental Impacts
 - Silicon Steel
- Solar on Schools—Beware the Sales Pitch!
 - Impact of Demand Charges
 - “No Electric Bill” or Pie-In-The Sky Savings
 - Oversizing



Utility-Scale Solar Siting

- Increasing Competition between Solar and Agriculture & Forestry Lands
- Rural Areas Particularly Affected
- Ongoing Work Groups/Study Groups: HB 206
- Getting the Balance Right: Agriculture as Virginia's #1 Industry
- Have a Policy—Not a Ban
- Need Broad Community Engagement
- Broadband Impact & Rural Areas



Local First Responders: Security & Safety

Fire Risks from EV & Storage Batteries

- Hotter
- Longer
- Resistant to Traditional Agents
- Hazardous Chemicals Emitted During Burning
- Overall Risk Low for EVs vs. Traditional Cars
- Know Where Emergencies Likely to Occur

Security Risks for Infrastructure

- Substations – Critical vs. Radial?
- Moore County, NC Attack
- Connect Sheriff's Departments & Local LEOs with Utilities; Know Your Area

Supply Chain & Wider Impacts Post-COVID

- COVID Impacts; Rate Revenue Losses
- Public Assistance vs. Current Situation
- Physical Infrastructure Challenges
 - Large Transformers – Lead Times
 - Residential Transformers – Cost, Lead Times
 - Other Equipment: Poles, Mounting Brackets
- Impacts on Reliability
- Impacts on Development
- CARES Coalition:
www.ReliabilityCoalition.com



CARES

Coalition for the Advancement of **Reliable Electric Systems**

Questions & Thank You!

Keep in touch!

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