

CLEAN POWER PLAN UPDATE

SEPTEMBER 20, 2016

FINAL CLEAN POWER PLAN BASICS

- ▶ **Final Plan released on August 3, 2015**
- ▶ **Published in Federal Register on October 23, 2015**
- ▶ **Employs different method to develop state goals than the proposed rule**
- ▶ **Uses the proposal's first three building blocks**
 - **BB1 – Increased power plant efficiency**
 - **BB2 – Shift of generation to NGCC**
 - **BB3 – Increase renewable energy**
- ▶ **Fourth proposed building block (energy efficiency) is not included in developing final rule's state targets**
- ▶ **EE can be used for compliance purposes**

Clean Power Plan Timeline

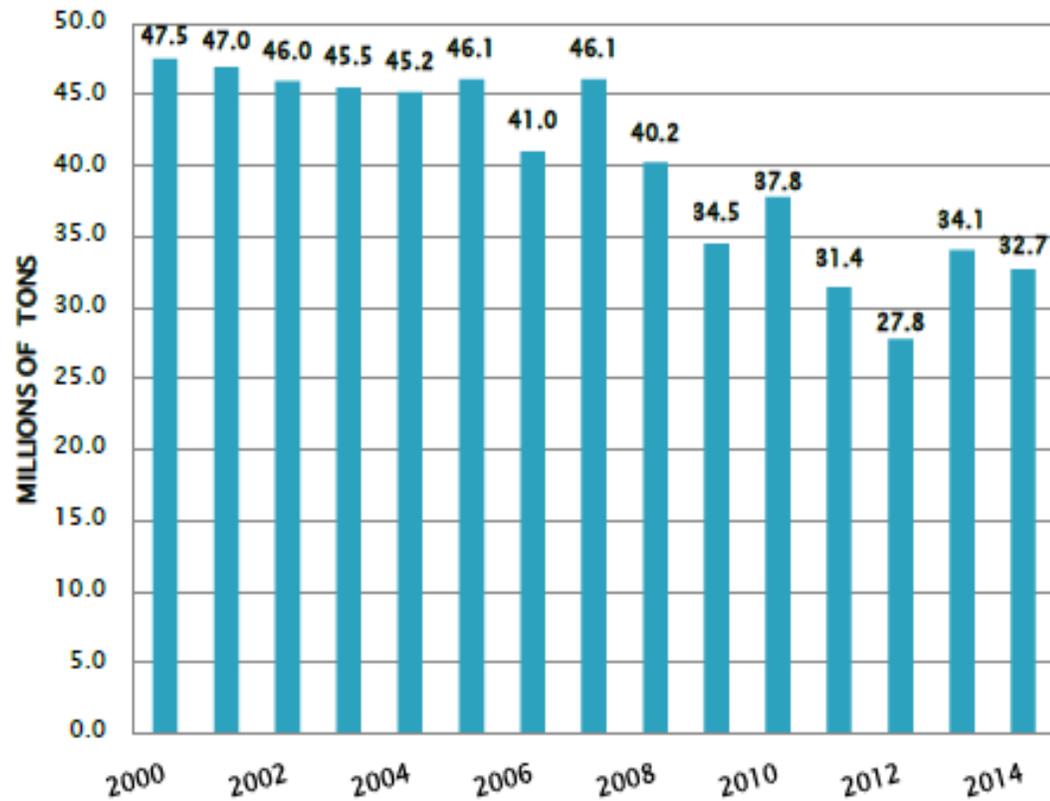


POSSIBLE COMPLIANCE OPTIONS

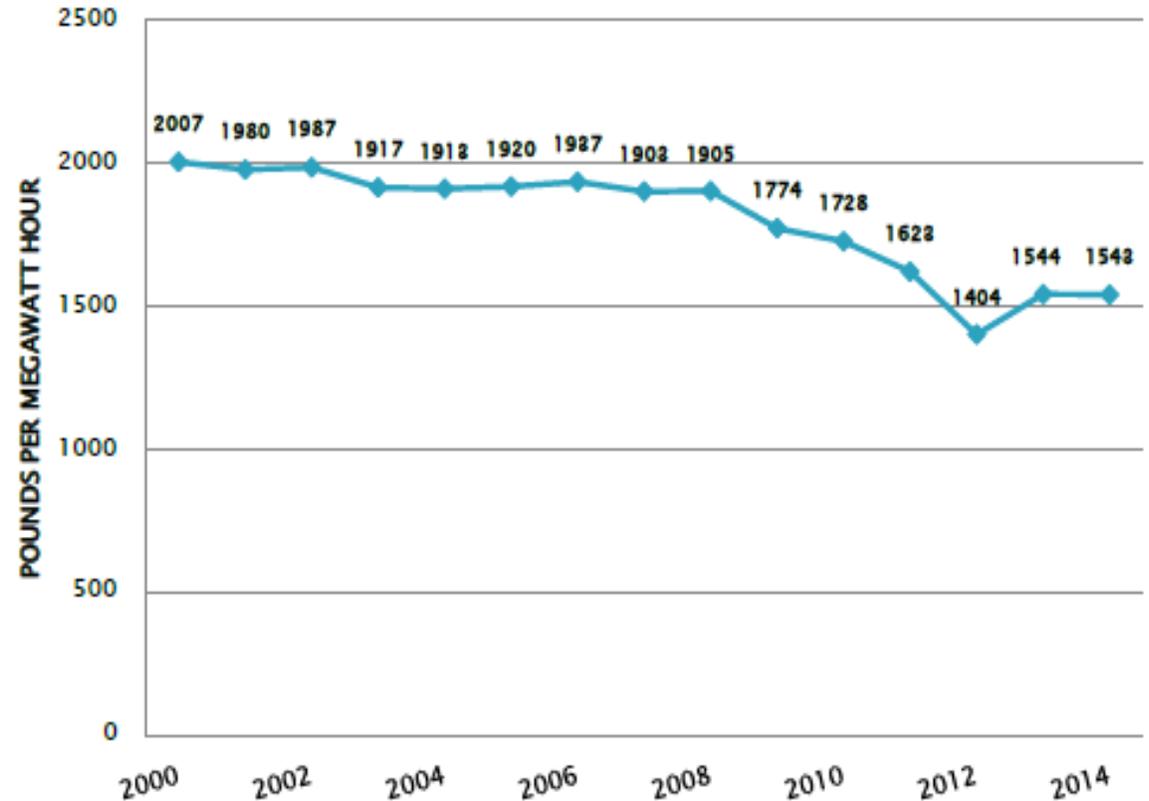
- Heat rate improvements
- Fuel switching to a lower carbon content fuel
- Integration of renewable energy into EGU operations
- Combined heat and power
- Qualified biomass co-firing and repowering
- Renewable energy (new & capacity uprates)
 - Wind, solar, hydro
- Nuclear generation (new & capacity uprates)
- Demand-side energy efficiency programs and policies
- Demand-side management measures
- Electricity transmission and distribution improvements
- Carbon capture and utilization for existing sources
- Carbon capture and sequestration for existing sources

VIRGINIA EGU CO2 EMISSION & RATE TRENDS

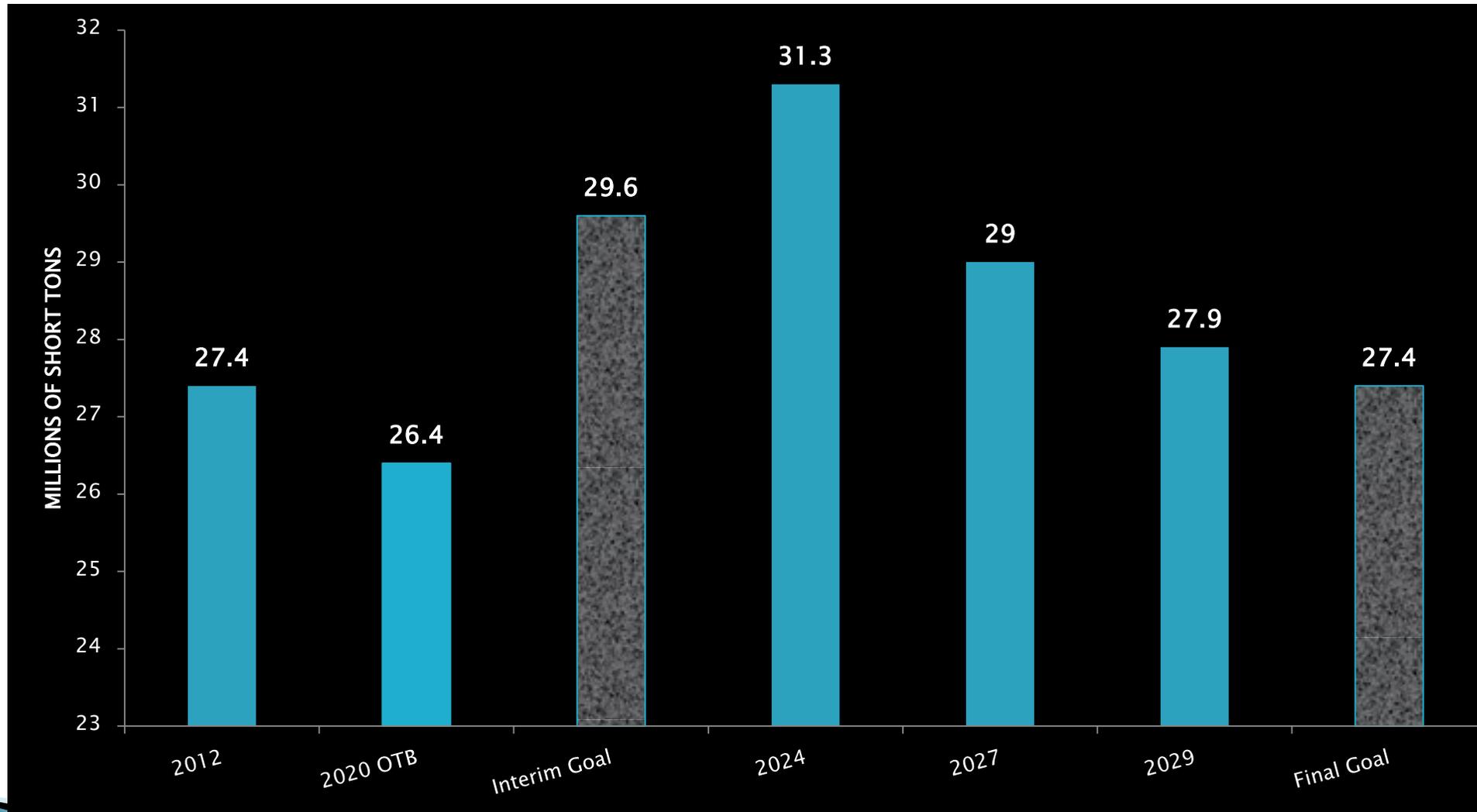
VIRGINIA EGU CO2 EMISSIONS



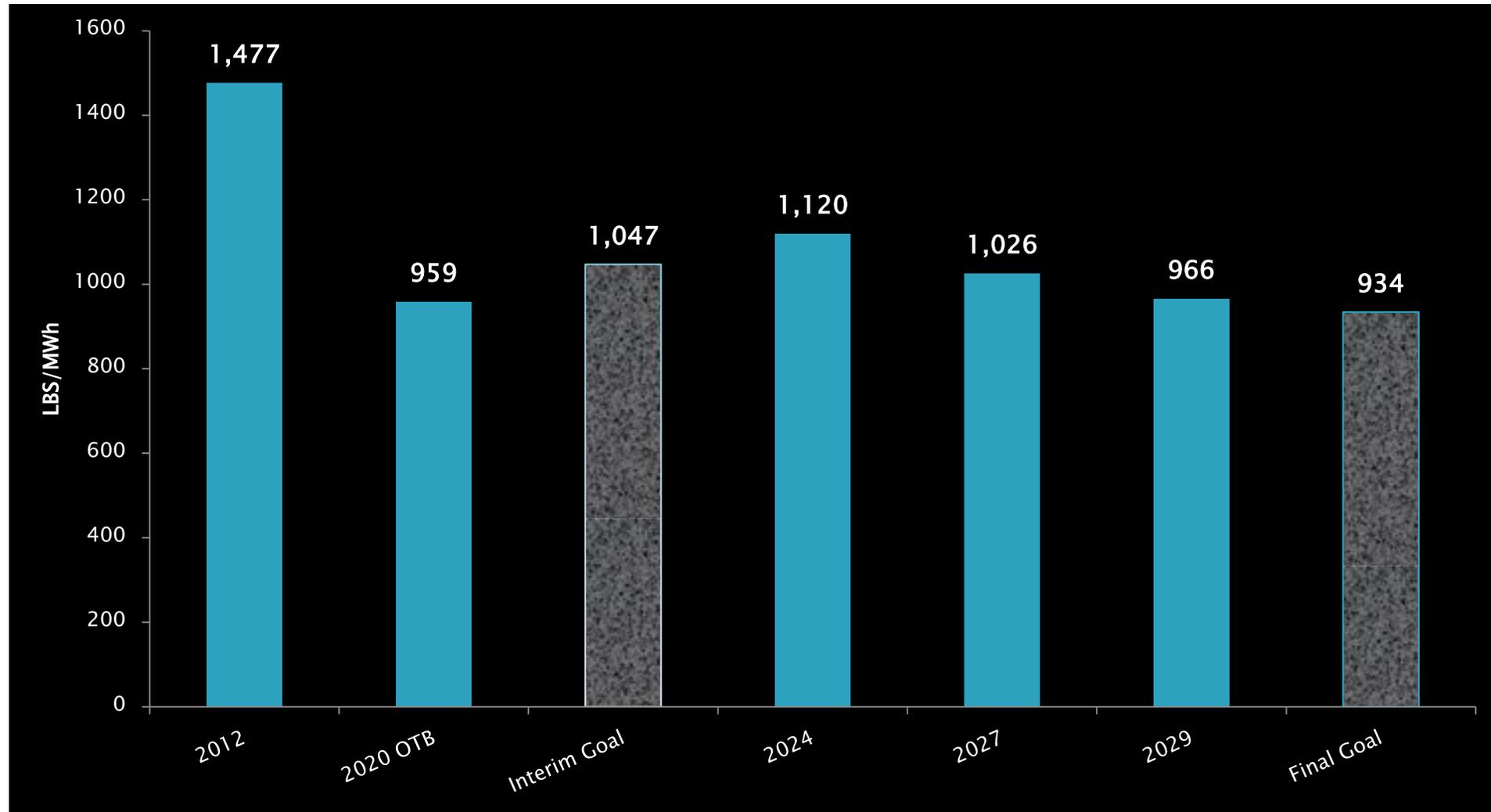
VIRGINIA EGU CO2 EMISSIONS RATES



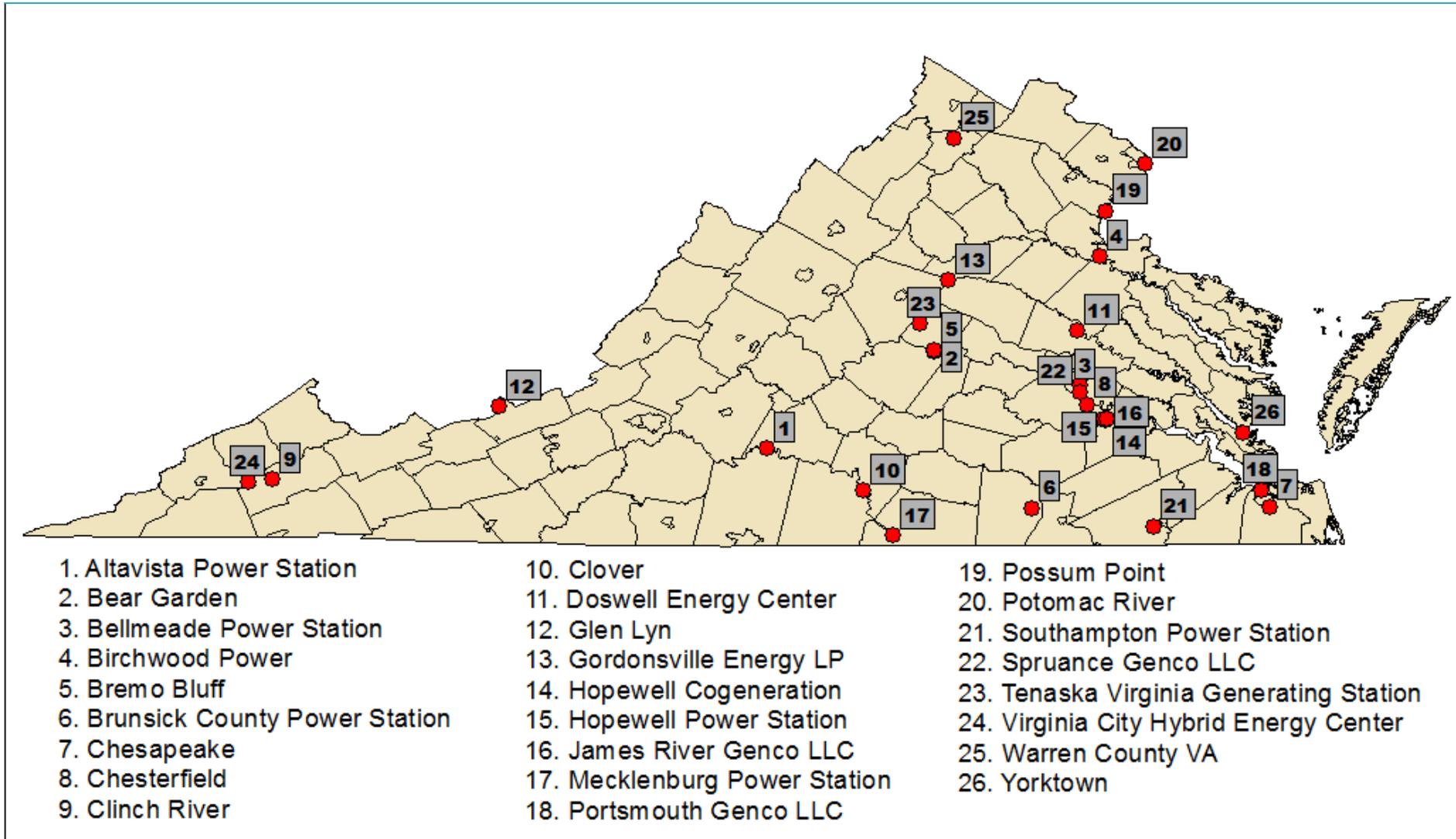
VIRGINIA MASS EMISSION GOALS



VIRGINIA EMISSION RATE GOALS



Affected Sources in Virginia



DEQ Outreach

- **Listening sessions in all the DEQ regions – fall 2015**
- **Stakeholder group established at met – Nov 2015 to Mar 2016**
- **Goal: seek common ground and elements that could be included in a state plan**
- **Included all major interested parties (utilities, environmental groups, industry, and other advocates)**

Summary of Main Compliance paths

▶ Four major compliance paths

- **Rate-based compliance plan (dual rate)**
 - Pro – appears to be least cost option for some states, gas shift ERCs
 - Cons – administrative burden of ERC process
- **Mass-based compliance plan (existing sources)**
 - Pro – well known program (CAIR, CSAPR)
 - Cons – contentious allocation process
- **Rate-based compliance plan (blended rate)**
 - Pro – uniform compliance requirement
 - Con – less flexible and could restrict trading
- **Mass-based compliance plan (existing & new)**
 - Pro – most environmental benefit
 - Con – appears to be highest cost option

External Considerations

- ▶ **Final Clean Power Plan stayed by the Supreme Court**
- ▶ **Final state budget language prohibits the use of funds to “prepare or submit” a plan**
- ▶ **EPA’s next moves are uncertain – continue work on the CEIP and final model rules?**
- ▶ **SNR workgroup established and underway**