Clean Power Plan
Meeting the Challenge

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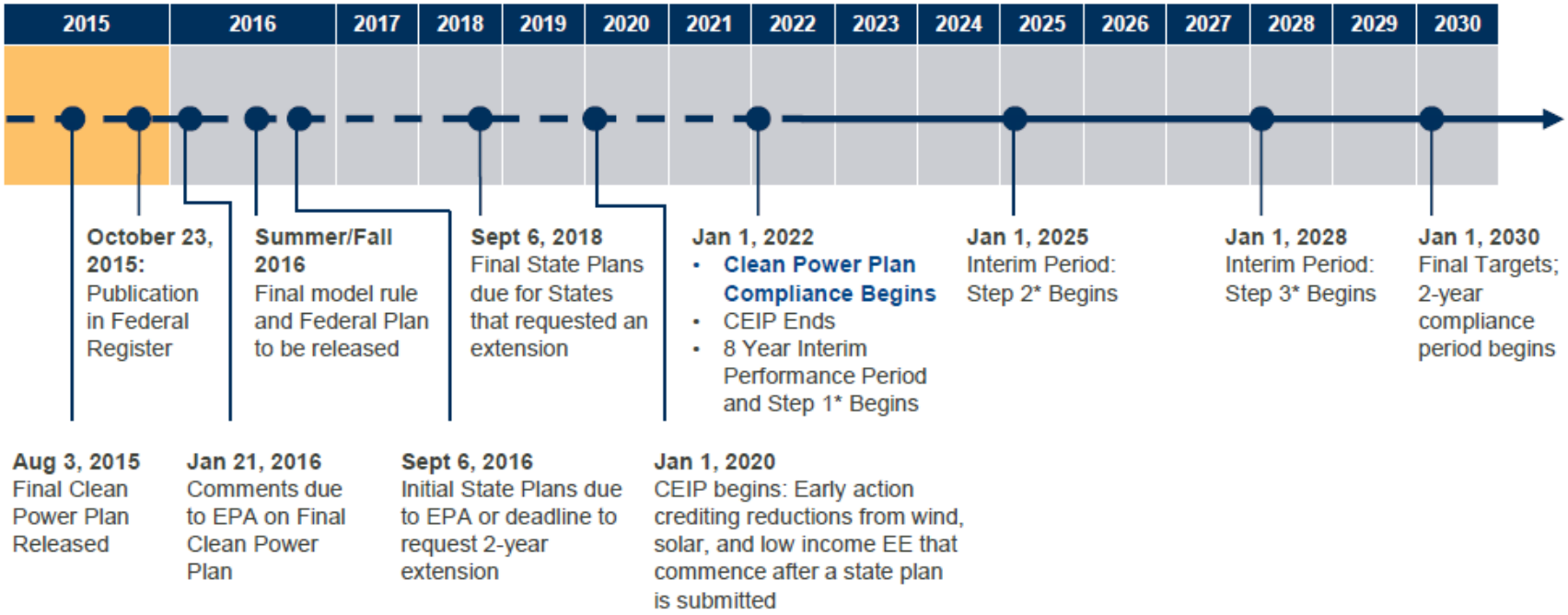
Dominion®

Clean Power Plan Compliance Timeline

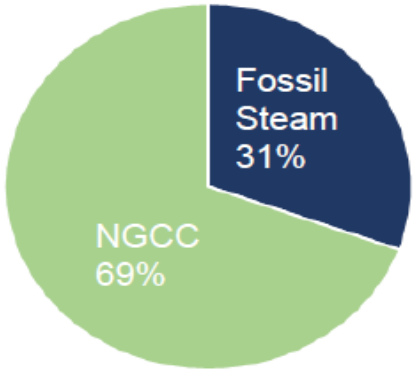


Option 1: Nationwide Dual Emissions Standards

Subcategory	Interim Standards	Final Standards
Fossil Steam Units	1,534 lb/MWh	1,305 lb/MWh
NGCC	832 lb/MWh	771 lb/MWh

Option 2: Rate - State "Blended" Fossil Standards

VA

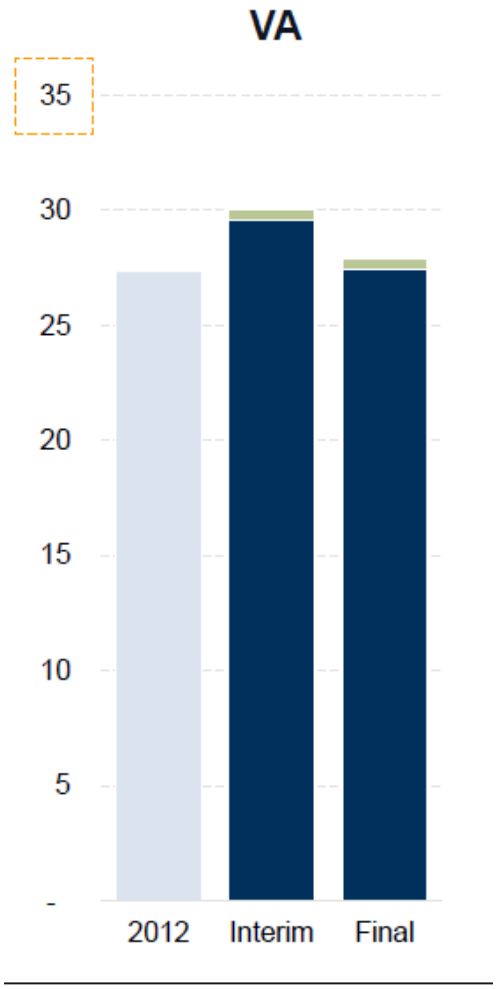


*2012 State Generation**

Category	Interim Standards	Final Standards
All Affected EGUs	1,047 lb/MWh	934 lb/MWh

Options 3 & 4: Mass – Existing Sources Only & including New Sources

VA	2012 Baseline	Interim Targets	Final Targets
Existing Sources	27.37	29.61	27.47
New Source Complement	–	0.45	0.40

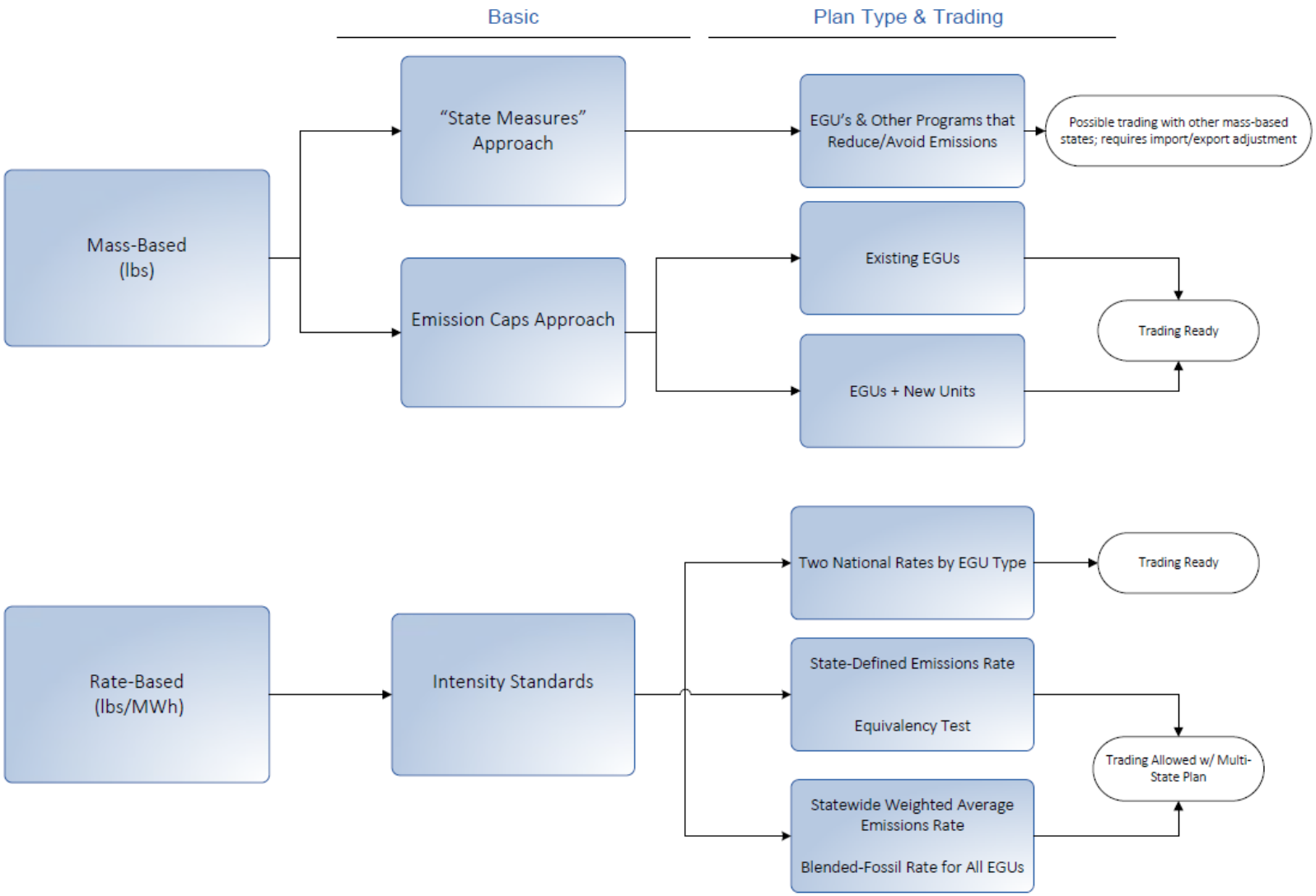


Final CPP – Six Compliance Options

- Rate-Based (Intensity) Compliance # CO_2 / MWh
  1. State average emissions performance rate (VA = 934 #/MWh)
  2. Subcategorized national performance rates (dual rate)
     - 771 #/MWh gas CC units
     - 1305 #/MWh steam units (coal, gas boiler, heavy oil)
  3. Unique emission performance rates (not to exceed state limit)

- Mass-Based Compliance Ton Cap
  1. Emissions Cap: existing units only
     - Leakage
  2. Emission Cap: all units
     - Includes new CCs
     - Apprx 1.4 % increase in total cap (not per year but total entire period)
  3. State measured approach (Unique approach)

State Plan Options



State Plan Design Components

- Rate base or mass base compliance regime
- Alternate Interim reduction goals
- Allocation of emission reduction credits in rate based plan
- Allocation of allowances in mass based plan
- ERC tracking system required for rate-based plan
- Address “leakage” from new units in mass based plan
- Credit or allowance set-asides for renewable energy and energy efficiency programs
- Participation in the Clean Energy Incentive Program – early credits or allowances awarded 2021-2022
- Biomass – eligible for compliance; “qualifying” biomass?
- Accept allowances or credits from out-of-state sources
- Establish Evaluation, Measurement & Verification (EM&V) plans with annual reports

Dominion Considerations

- Key Considerations for State Engagement and Comments to EPA
  - Load growth
  - Construction of new NGCC
  - Potential retirement of existing nuclear and construction of new nuclear
  - Rate- and mass-based trading markets
  - Open for comment/uncertain:
    - Leakage
    - Allocation approaches
    - ERC crediting
    - Mount Storm

ERC Creation – Overview

Under the dual-rate structure in the proposed state model rule for rate-based trading, ERCs can be created by three categories of activities:

1 Incremental Zero-Emitting Energy and Energy Efficiency

- Renewable & nuclear capacity installed post-2012
- Energy efficiency projects begun post-2012
- Each MWh generated / saved creates one ERC

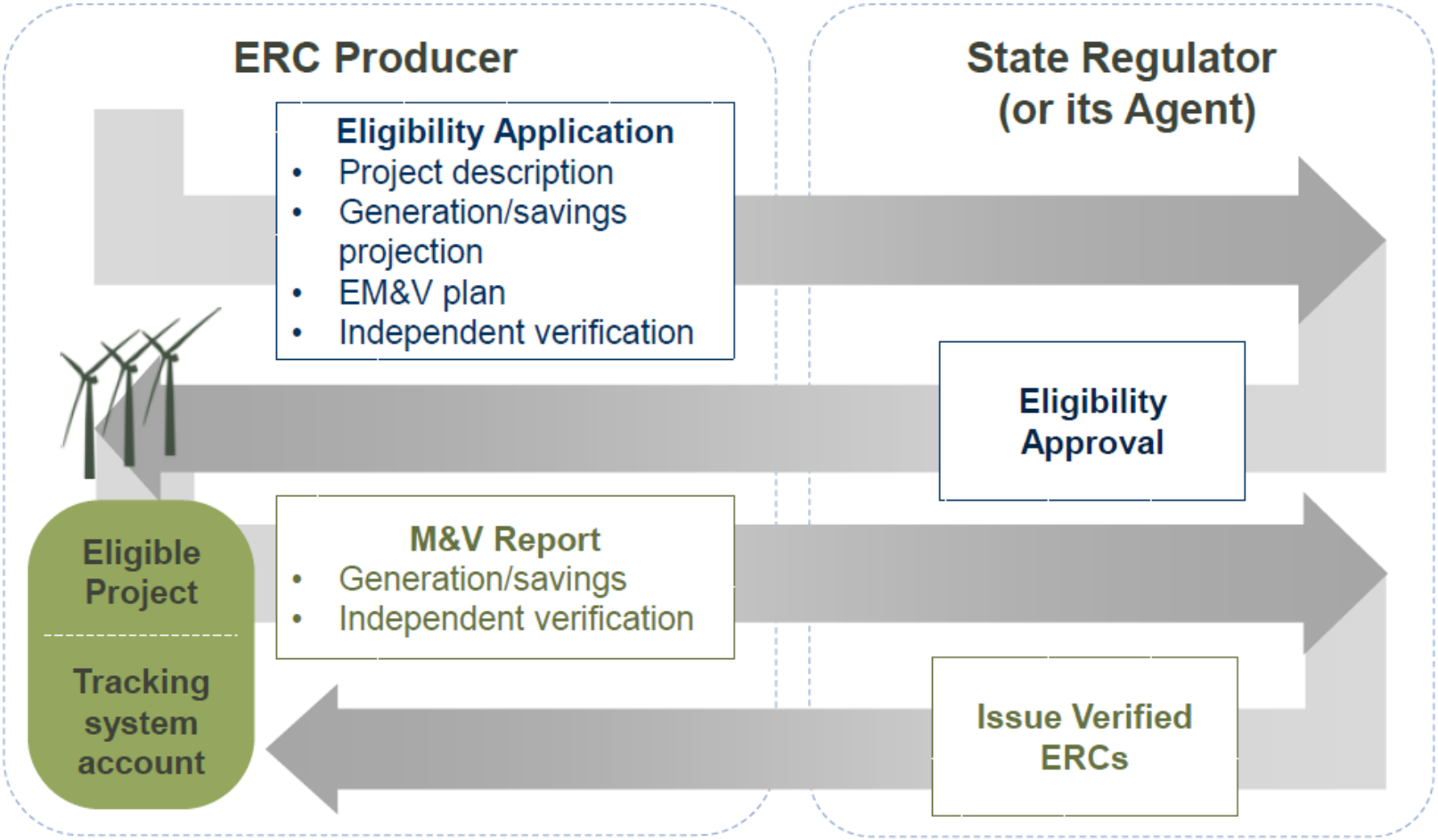
2 Affected EGUs

- Any affected EGU that emits at a rate below its compliance target
- Number of ERCs generated per MWh based on difference between EGU rate and compliance rate

3 Existing NGCC

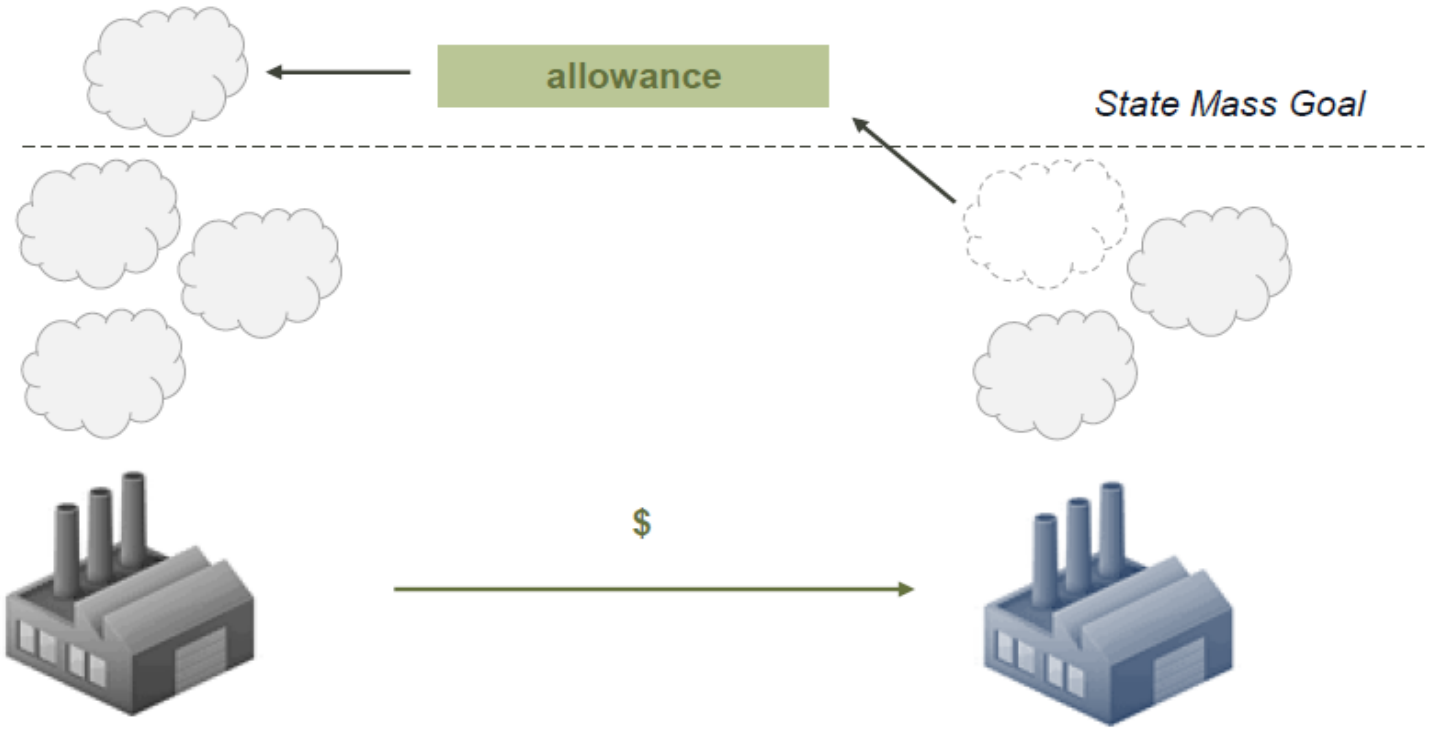
- All NGCCs earn partial "Gas Shift ERCs" for every MWh
- Provide credit for increases in NGCC generation projected to displace coal-fired generation
- GS-ERCs can only be used by fossil steam sources for compliance

ERC Issuance Process: Non-Regulated Sources



Mass-Based Approach

One allowance = one ton of CO_2 emissions



A facility that produces more emissions than it has allowances may purchase allowances from another facility that has extra allowances

CPP- Virginia Best Compliance Options

- Rate-Based (Intensity) Compliance # CO2 / MWh

  Subcategorized national performance rates (dual rate)
  - Allows for growth within Virginia
  - Trading Ready
  - Can earn Gas Shift ERCs
  - Beneficial to Renewable Generators and Energy Efficiency
  - Helps preserve option of new nuclear
  - Stakeholders can plan
  - Implementation: EM&V and unit tracking

- Mass-Based Compliance Ton Cap

  Emissions Cap: existing units only
  - Allows for growth within Virginia
  - Trading Ready
  - Can earn Gas Shift Allowances (assuming set aside)
  - Implementation: Less EM&V but Set Asides and Leakage

A rate based approach is better for economic growth, better for promoting renewables and energy efficiency, and better for customers and VA's economy.

Summary

- CPP rule details will not be final until Summer 2016.
  - Model Trading Rules
    - Leakage (nuclear retirements)
    - Set asides (particularly EE and nuclear)
    - GS ERCs and GS Allowances (Calculations)
  - Renewable definition (especially biomass)
  - Trading ability between states
  - CEIP (Clean Energy Incentive Program) Rules
- CPP implementation will be uncertain until the final State Plan is filed.
- Critical items in VA State Plan:
  - Path chosen: Mass or Intensity plus sub category
  - If Mass, “leakage” prevention, set asides percentages
- The path chosen by other states (Intensity, Mass): Trading implications