



CEIP Considerations for Georgia – ERCs and Timeline

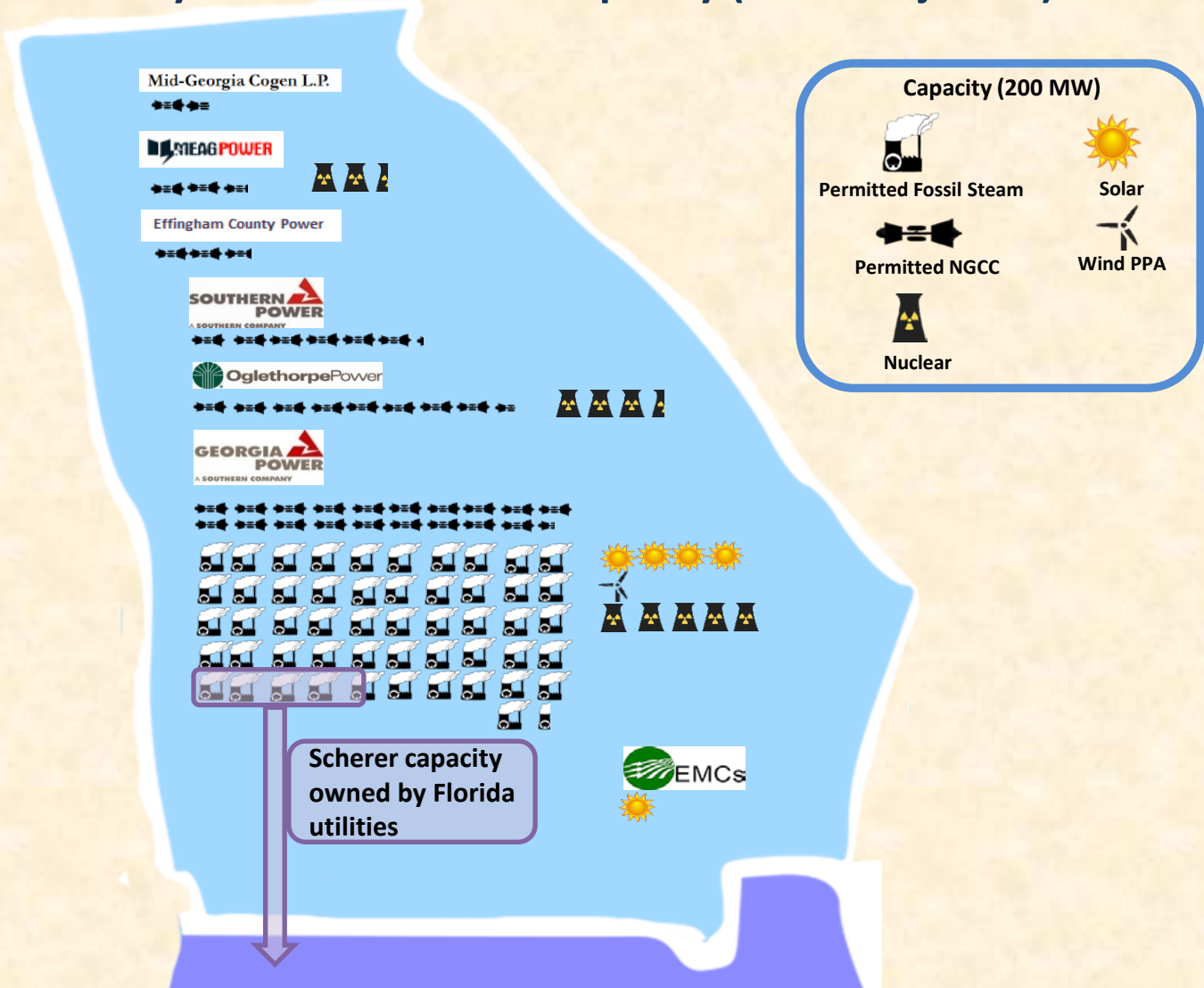
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Presentation Overview

- Georgia Background
- ERCs
- CEIP Earnings Scenario
- CEIP Timeline Scenarios

CPP Utility-Scale Generation Capacity (2020 Projected)



Georgia Has Already Made Progress

For Comparison	Emission Performance (lbs CO2/MWh)
2012 Baseline Used by EPA	1,600
2020 – Estimate based on announced projects	1,204

Compliance Period	Emission Rate Goal (lbs CO2/MWh)
2022 – 2024 (Interim Step 1)	1,290
2025 – 2027 (Interim Step 2)	1,173
2028 – 2029 (Interim Step 3)	1,094
2030 Final Goal	1,049



What is an ERC?

- emission rate = (lbs CO₂/MWh)
- ERC = emission rate credit
- 1 ERC = 1 MWh credit
- Add ERC to rate denominator, reduce rate
- Requires Process: Must do EM&V for RE Generation, EE Savings

EM&V – evaluation, measurement, and verification



What is an Allowance?

- **Allowance is a Compliance Instrument:**
“Permission” to Emit One Ton of CO₂
 - States can trade with other states using a mass-based plan approach.
 - Allocated to affected EGUs based on historical generation (or alternative)
 - Some allowances can be “set aside” to create incentives (RE, Clean Energy Incentive Program).



Clean Energy Incentive Program (CEIP)

- Optional Program to Incentivize Early Action for RE (Metered Wind & Metered Solar) and Low-income EE Projects
- ERCs/Allowances Generated in 2020 & 2021

Eligible Resource	Generation or Savings in 2020 or 2021	EPA Match 8.4 M Ton pool (EPA estimate for GA)	State Match * 8.4 M Ton pool (EPA estimate for GA)
RE	2 MWh	1 ERC	1 ERC
Low-inc EE	2 MWh	2 ERC	2 ERC

* Borrowed from post-2021 ERCs? Up for comment.



Credit Earnings Scenario

– assumptions

- ballpark frame of reference
- rate-based approach
- 1 ERC = 0.8 ton
- Total EPA match = 8.4 M tons CO₂ or 10.5 M ERCs
- Total GA match = 10.5 M ERCs



Credit Earnings Scenario

— assumptions continued

- Low-income EE CEIP savings = 0.050 M MWh per year x 2 yrs
- *EE baseline reference:*
 - Georgia DOE prog estim 0.016 M MWh in 2015
 - GPC cert. residential 0.070 M MWh in 2014
- RE CEIP generation = 5.2 M MWh per year x 2 yrs (approx. 2000 MW at 30% CF)
- *RE baseline reference:*
 - planned/existing utility solar = 1000 MW

CEIP Credit Earnings Scenario

		2020	2021	2022	2023	2024
RE	gen (M MWh)	5.2	5.2	5.2	5.2	5.2
	EPA CEIP MERCs	2.6	2.6			
	GA CEIP MERCS	2.6	2.6	2.6	2.6	5.2
Low-inc EE	M MWh	0.05	0.05	0.05	0.05	0.05
	EPA CEIP MERCs	0.05	0.05			
	GA CEIP MERCS	0.05	0.05	0	0	0.05

Earned EPA M ERCs = 5.3 out of pool of 10.5; return 5.2 to EPA

CEIP Credit Earnings Scenario (cont.)

		2020	2021	2020 - 2029
RE (CEIP)	gen (M MWh)	5.2	5.2	52
	Total M ERCs	2.6	2.6	47
Low-inc EE (CEIP)	svgs (M MWh)	0.05	0.05	0.5
	Total M ERCs	0.05	0.05	0.5
Existing solar (1000 MW)	Total M ERCs			21
New nuclear (2200 MW)	Total M ERCs			141

CEIP Timeline Scenario #1

Assumptions

EPA

- Allot states' CEIP credits by Sept. 2017
- Approve GA state plan in Sept. 2019

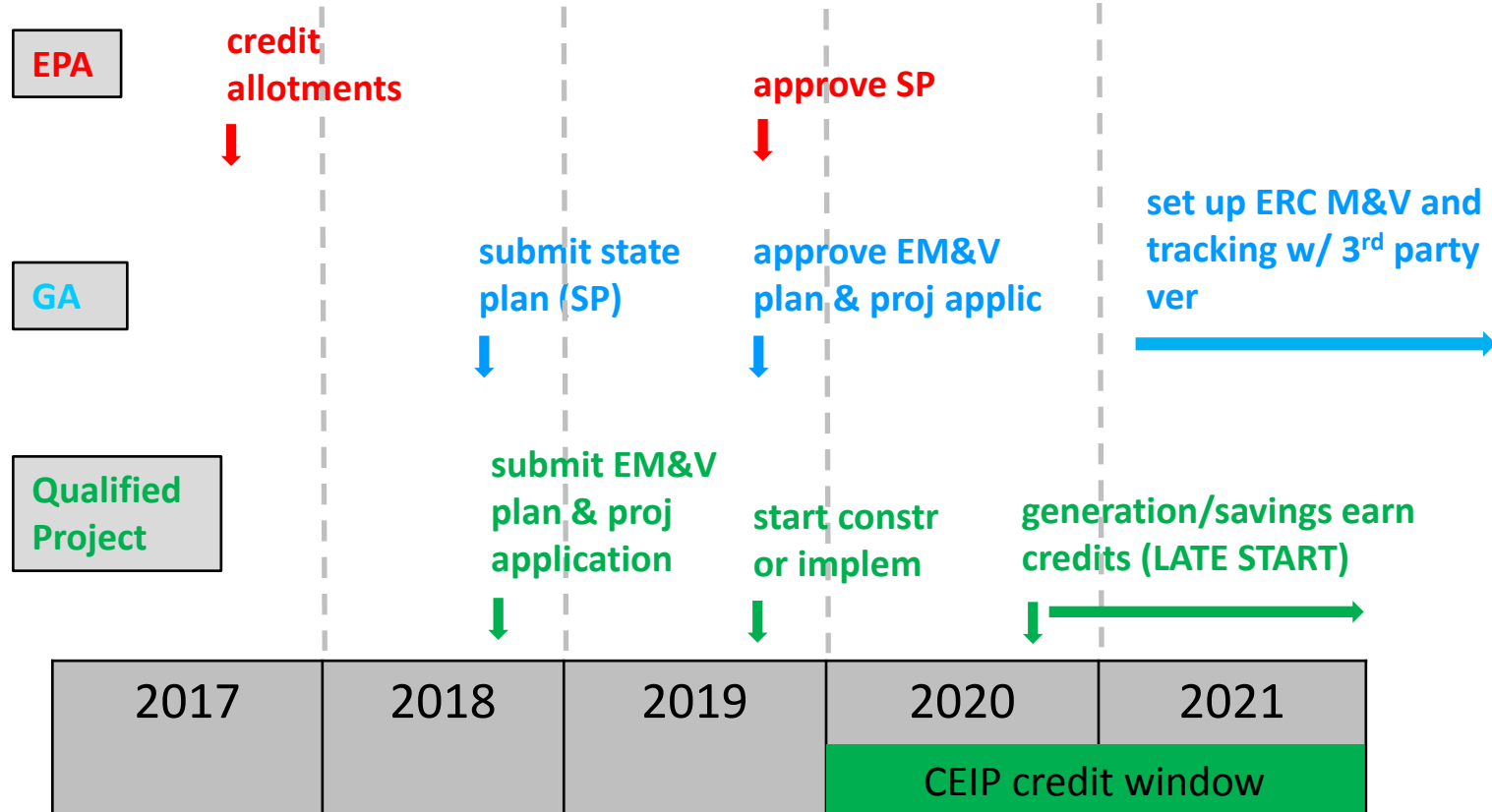
Georgia

- Submit state plan Sept. 2018
- Approve EM&V (eval/meas/verif) plan & project applic Sept. 2019

Qualifying Project

- Submit EM&V plan & project applic (includes 3rd party verification) Sept. 2018
- Start contracting/construction/implementation Sept. 2019 (**reg requirement**), takes 12 mos for RE to start generation or for EE to reduce demand; **LATE START**

CEIP Timeline Scenario #1



CEIP Timeline Scenario #2

Assumptions

EPA

- Allot states' CEIP credits by Sept. 2017
- Approve GA state plan in Sept. 2019

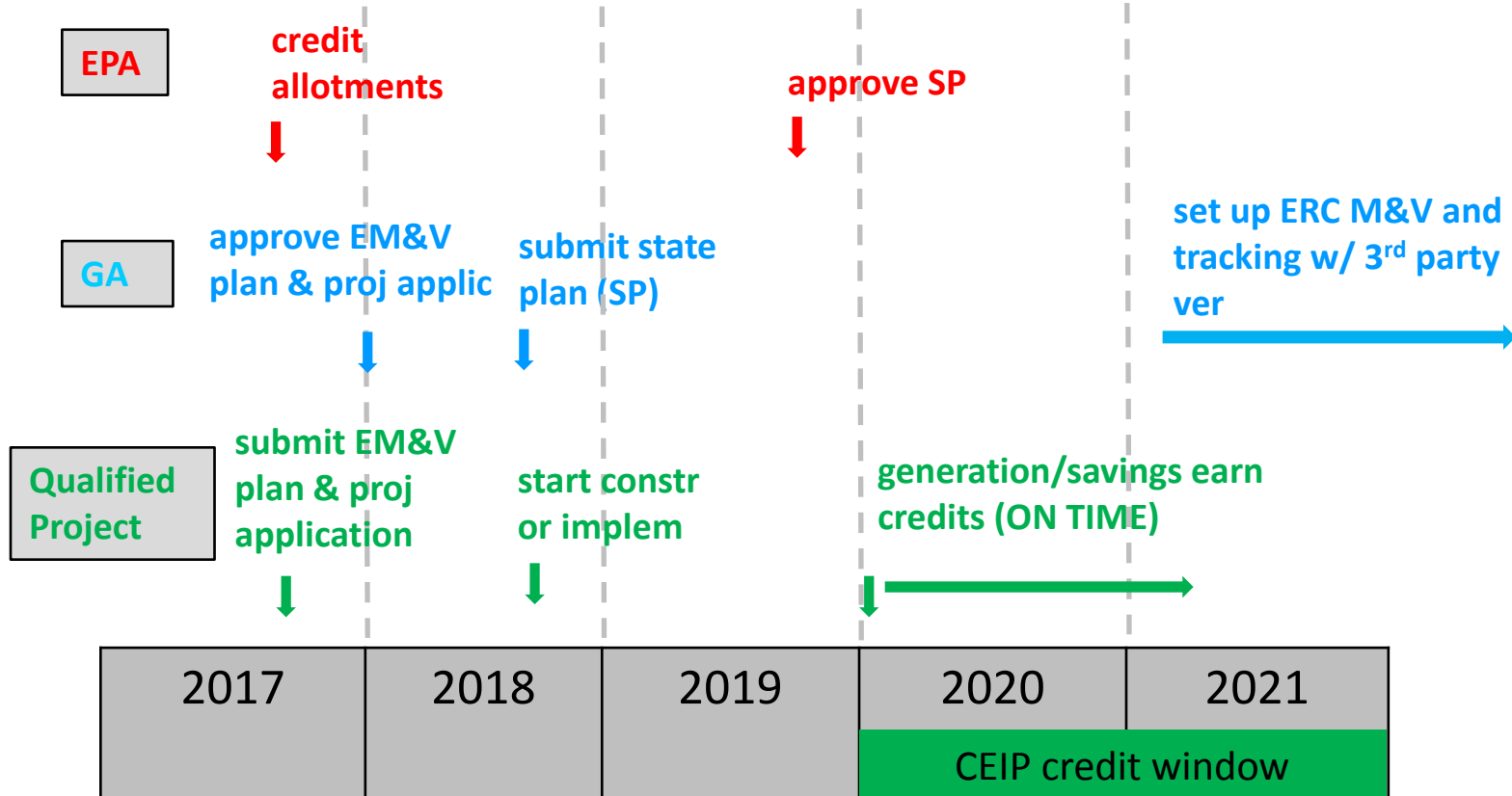
Georgia

- Submit state plan Sept. 2018
- Approve EM&V (eval/meas/verif) plan & project applic Jan. 2018

Qualifying Project

- Submit EM&V plan & project applic (includes 3rd party verification) June 2017 (*Caveat: app modification possible*)
- Start contracting/construction/implementation Sept. 2018 (one year earlier than Scenario 1)

CEIP Timeline Scenario #2





Additional CPP Information

Information on GA EPD's Stakeholder Process

<https://epd.georgia.gov/air/111dstakeholdermeetings>

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EPA's Clean Power Plan Website

<http://www2.epa.gov/cleanpowerplan>