

# Keeping the Roads Open and the Lights On

## Updates on Connecticut's Transportation and Electric Utility Infrastructure



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# Presentation Outline

- Transportation System
  - Current challenges and recent action
  - Funding outlook
- Electric Utilities
  - Recent laws and regulatory actions
  - Ratesetting

A photograph of a high-speed train station at night. A train is moving rapidly from right to left, creating long, bright orange and white light trails that emphasize its speed. The platform on the left is illuminated by several tall, modern light poles with multiple bright lights. The tracks and gravel bed are visible in the foreground and middle ground. The overall scene is dynamic and modern.

# Transportation System



# Infrastructure Ratings

American Society of Civil Engineers (ASCE)



**D+**  
Poor, At Risk

*National Average: D*



**C**  
Mediocre, Requires Attention

*National Average: C*



**B**  
Good, Adequate for Now

*National Average: B*



# Condition



79%

State's road network  
built before 1980



7.5%

Inventoried bridges  
in poor condition  
(by bridge deck area)



27%

Metro-North rail  
bridges rated in  
poor condition



# Raising the Grades

CT-ASCE recommends:

**Increase investment** – develop permanent additional revenue sources

**Improve resilience** – projects must meet recent regulations requiring:

- emergency contingency plans,
- vulnerability assessments, and
- physical upgrades

**Labor recruitment**

- create workforce development programs for engineers;
- expand apprenticeship programs for building trades;
- promote engineering and building trade careers in schools



# Increased Federal Investment

## Infrastructure Investment and Jobs Act (IIJA)

- Reauthorizes federal surface transportation programs for FYs 22-26
- Provides \$5.38B in formula-based funding (**\$1.62B increase** above last authorization (FAST Act))
  - Includes \$561M in new funding to repair, replace, and rehab aging bridges
- Provides an additional \$100B in competitive grant opportunities for states and local governments
  - DOT has created a new unit to identify opportunities and submit applications



# Improving Resilience

## New Federal Formula Funding

- 1) Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) Program
  - \$90M over 5 years
  - [New DOT Sustainability & Resiliency Unit](#)

## Federal Requirements

- 1) Periodically evaluate facilities needing repeated emergency repair
  - [No roads, highways, or bridges identified \(1997-2017\)](#)
- 2) Develop a risk-based management plan to improve and preserve the condition of National Highway assets
  - [Completion of 1<sup>st</sup> state-wide vulnerability assessment](#)







# Labor Recruitment

## Factors Driving Shortage

- Competition with private sector
- IIJA funding increasing demand nationwide
- State workforce retirements

## Legislative Response - PA 22-46

- Ongoing recruitment of entry-level engineers through FY25
- Job offer or rejection within 120 days
- Qualified candidates can be considered for other DOT positions without re-applying
- Annually increases intern pay beginning FY 24

# Legislative Role

- DOT annually updates its Capital Plan, through a federally-required process, with **input from a variety of stakeholders, including legislators**
- State matching dollars and state-funded transportation projects are paid for with bonds
  - **Legislature authorizes bonds** in its annual bond package developed by the **bonding subcommittee** and evaluated through the **Finance Committee** process

## **Transportation Capital Infrastructure Program**

### **Capital Plan Update Report**

**2022 - 2026**



**August 2022**

**Prepared by the Bureau of Engineering and Construction**

**Chief Engineer's Office**





# Transportation Funding

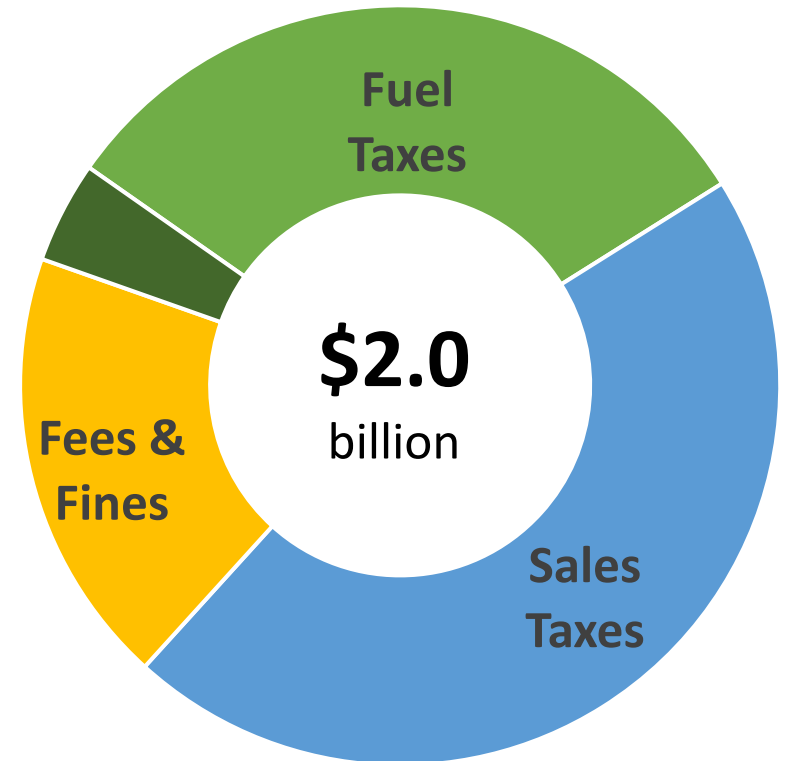
Office of Fiscal Analysis

# SPECIAL TRANSPORTATION FUND

## QUICK FACTS:

- Separate fund dedicated to transportation
- Law directs specified revenue sources to fund
- Constitutional “lockbox” requires that these sources be deposited in STF and used for transportation purposes

## Revenue Breakdown



Source: OFA FY 23 est.



# RECENT CHANGES TO GAS TAX

## Special Act 22-2

- Suspended the state's 25 cent/gallon gas tax from April 1 through June 30, 2022. STF revenue loss of \$90M.

## Public Act 22-118 (FY 23 Revised Budget)

- Extended the suspension through November 30, 2022. STF revenue loss of \$150M, fully offset by ARPA allocation.

## Public Act 22-1, November Special Session

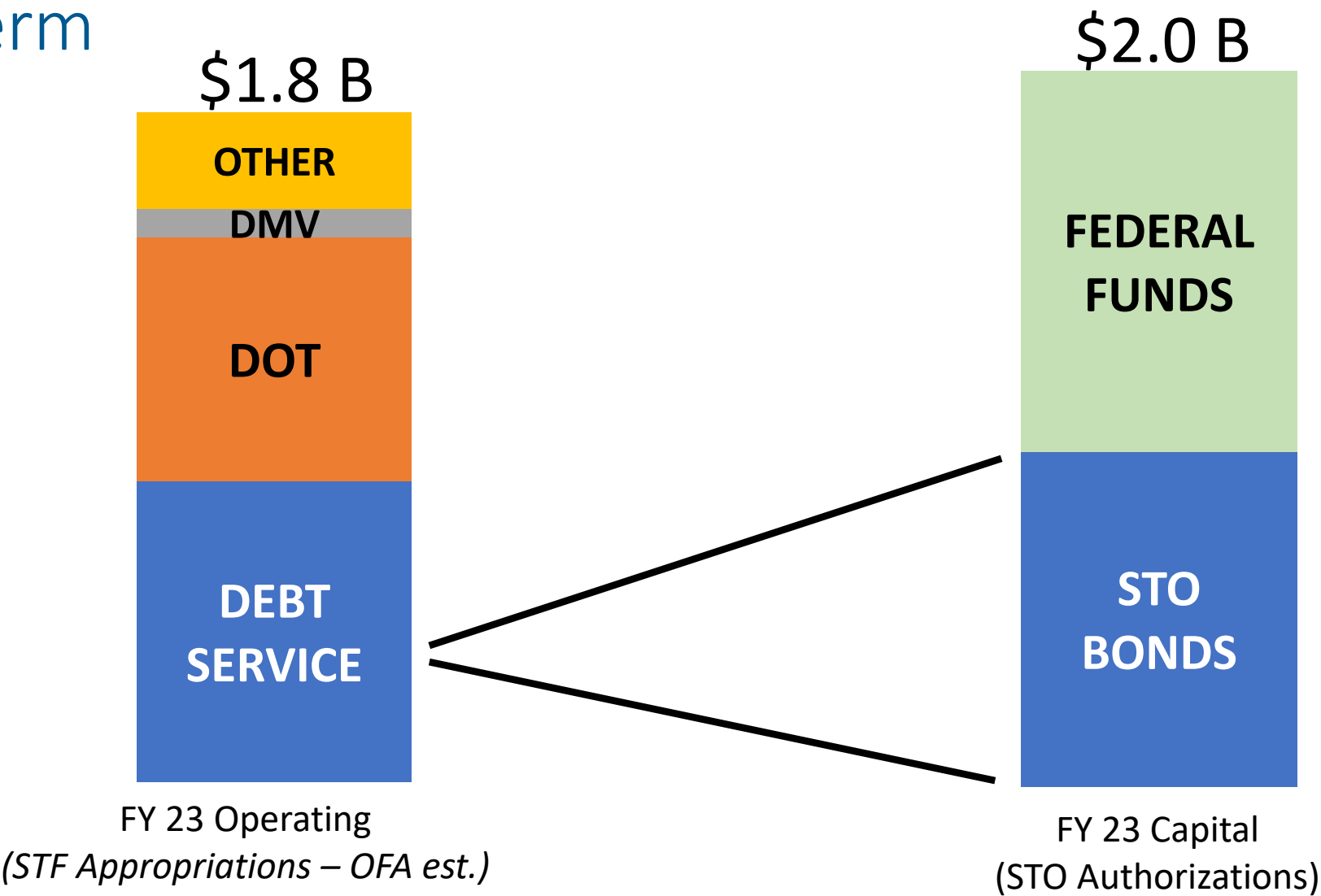
- Further extended the suspension through December 31, 2022 (\$30M STF revenue loss).
- Raises gas tax 5 cents per month beginning January 1, 2023 until reaching statutory rate of 25 cents/gallon on May 1, 2023 (\$60M STF revenue loss).

### **Connecticut's Gas Tax**

Since July 2000, Connecticut's gas tax has been 25 cents per gallon. Prior to that the rate had fluctuated frequently and was as high as 39 cents per gallon in 1997.

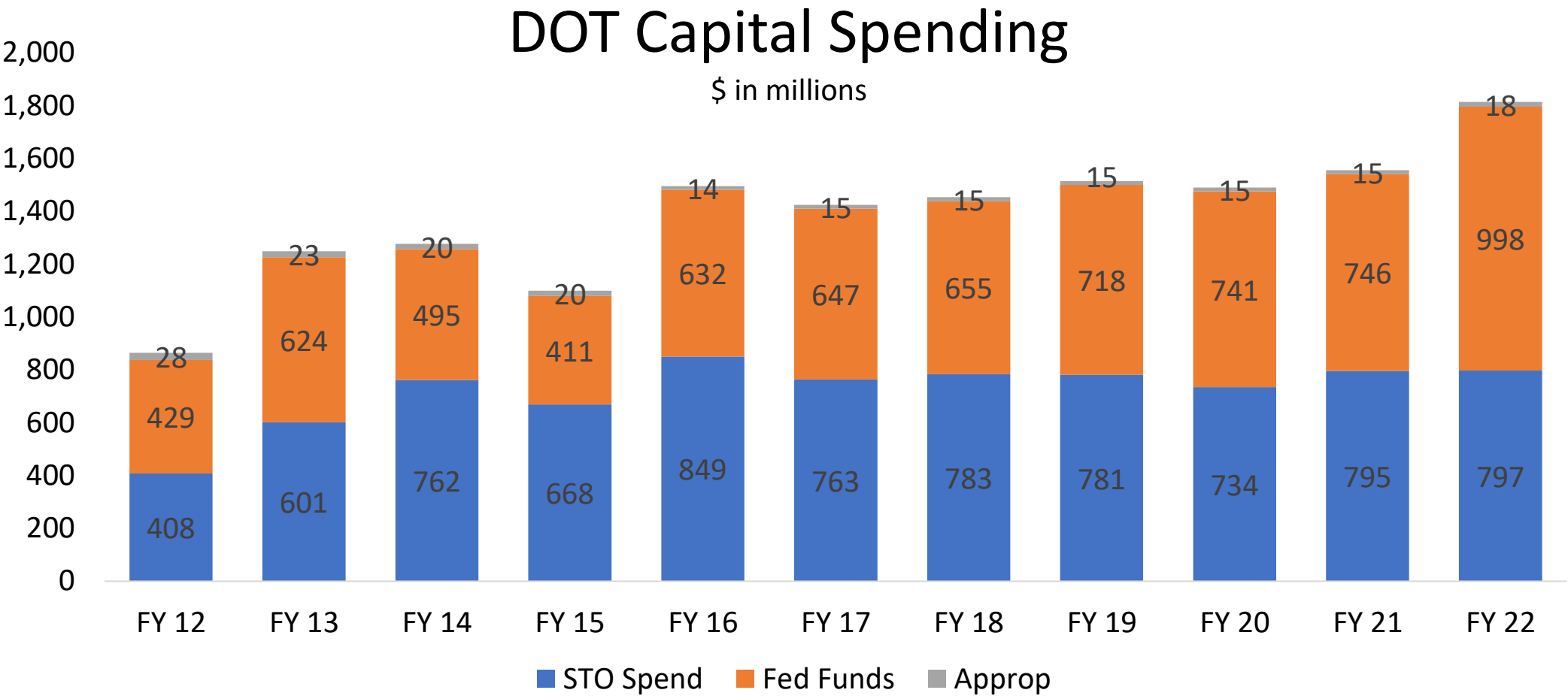
# TRANSPORTATION SPENDING

## Near Term





# TRANSPORTATION SPENDING



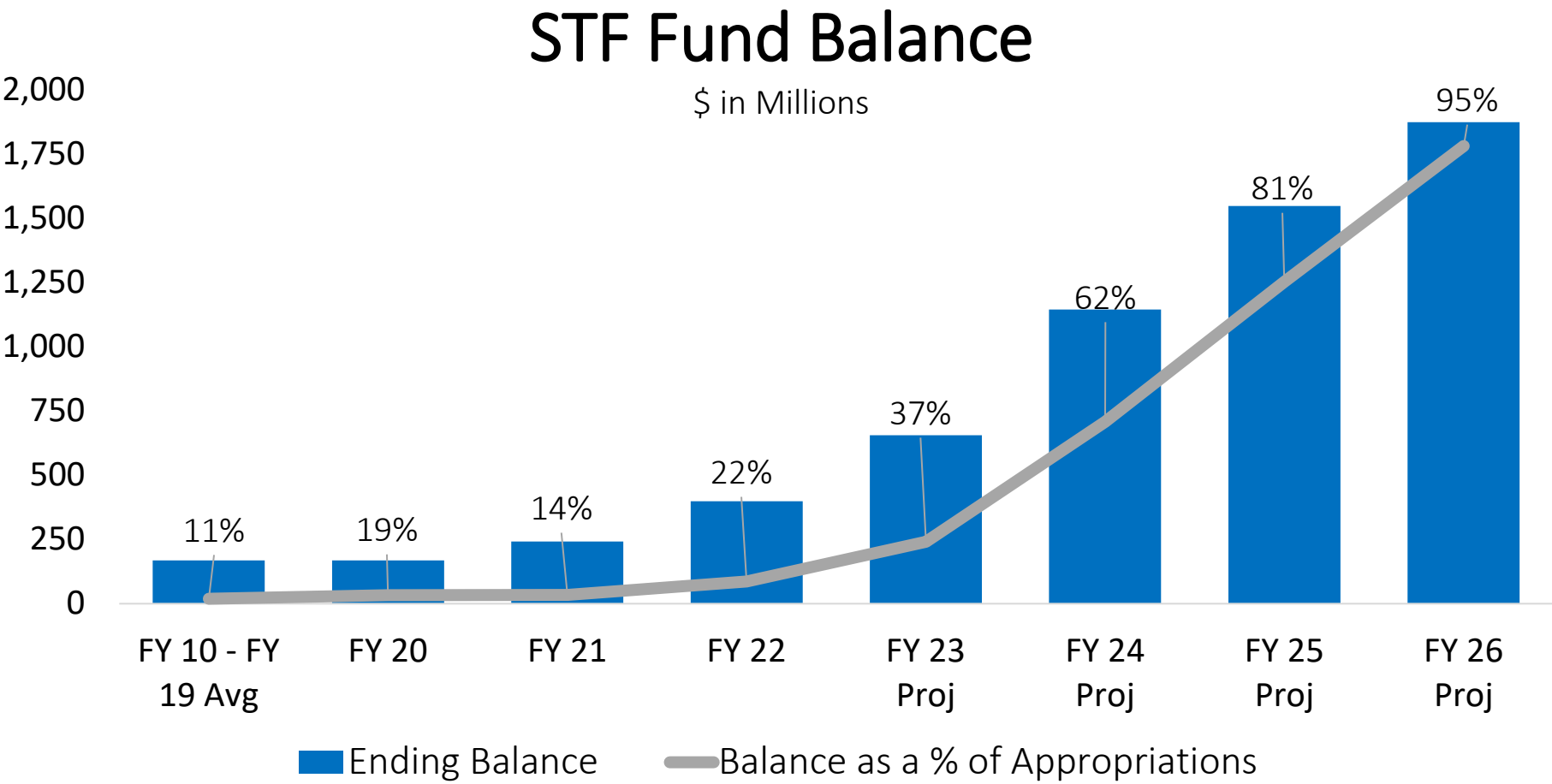
# STF Summary

STF Operating (\$ In Millions)	Actual			OFA Estimates*			
	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26
Expenditures	1,668	1,705	1,844	1,785	1,853	1,911	1,972
Revenues	1,517	1,778	2,001	2,043	2,342	2,313	2,299
Operating Surplus/ (Deficit)	(151)	73	157	258	489	402	327
Year End Cumulative Balance	168	241	398	655	1,145	1,547	1,874

\*Source: OFA's FY 23 – FY 26 FAR report, which uses the statutorily required fixed cost methodology, and updated to reflect November special session changes.



# STF Fund Balance

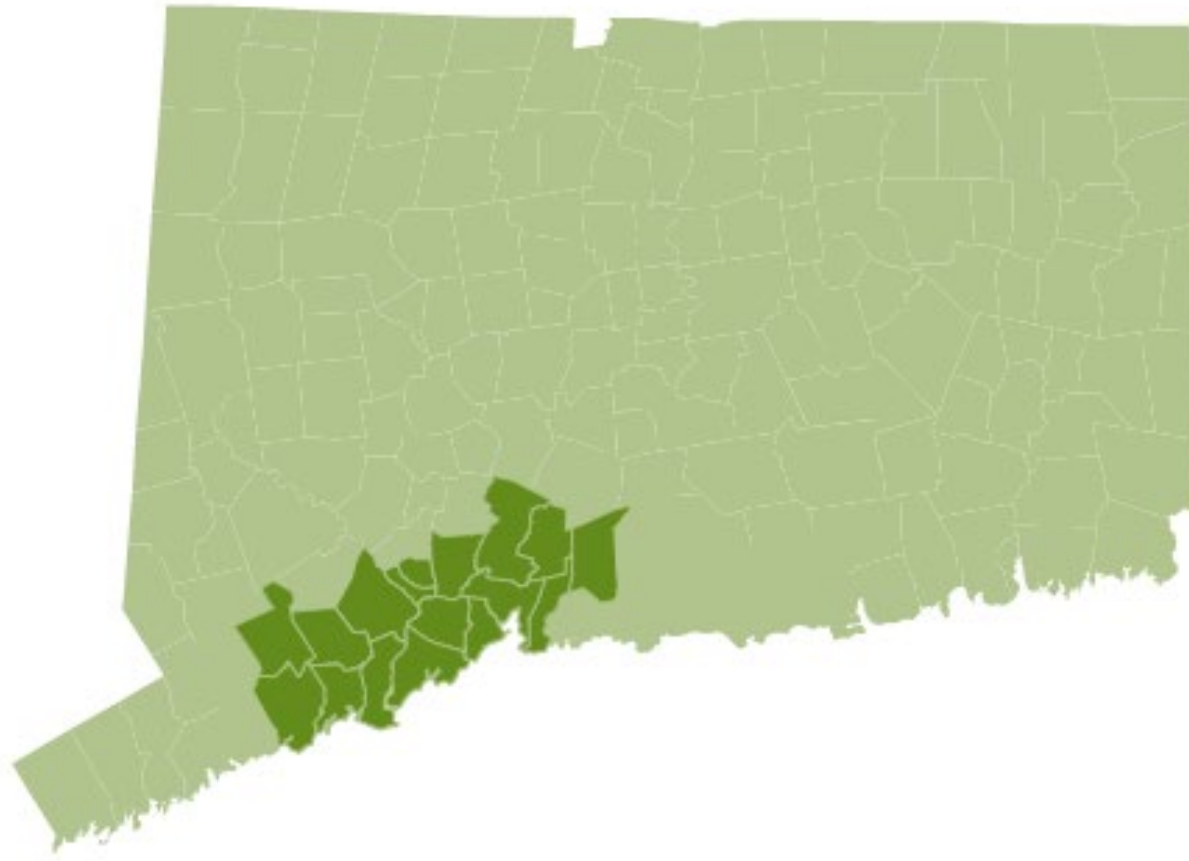


# Electric Utilities

The background of the slide features a low-angle shot of several wooden utility poles with numerous power lines stretching across a bright blue sky filled with soft, white clouds. The image is partially framed by green horizontal bars at the top and bottom.



# Investor-Owned Electric Utilities



# Existing Law

- Electric utilities must provide safe and reliable service to all customers in its service territory, subject to rates, terms, and conditions that PURA approves (CGS § 16-244i)
- PURA approves company rates (CGS § 16-19) and periodically reviews them (CGS § 16-19a)
- PURA must oversee quality and reliability for each company (CGS § 16-244i) and stay informed about the condition of equipment and how it's operated (CGS § 16-11)
  - Annual reports on service interruptions (CGS § 16-245y)
  - Annual maintenance plans for poles and wires (CGS § 16-32g)
  - Annual reports on whether they met standards for emergency preparedness and response (CGS § 16-32h)
- Mandatory and discretionary performance reviews for outages (CGS § 16-32i)
- Emergency response plans (ERPs) (CGS § 16-32e)



# Event Level Matrix

Eversource	Up to 125,000 customers out	125,000 to 380,000 customers out	375,000 to 650,000 customers out	625,000 to 870,000 customers out	Over 870,000 customers out
	1-3 days to restoration	2-6 days to restoration	5-10 days to restoration	8-21 days to restoration	over 18 days to restoration
	5	4	3	2	1
UI	Up to 31,356 customers out	31,356 to 95,799 customers out	96,800 to 159,967 customers out	159,967 to 223,549 customers out	Over 223,549 customers out
	Up to 2 days to restoration	2-5 days to restoration	5-7 days to restoration	7-9 days to restoration	Over 9 days to restoration

# Tropical Storm Isaias

- August 4-5, 2020
- 60 mph wind gusts damaged and uprooted trees
- Widespread outages, half the state without power
- Blocked roads and power outages for more than a week





# Regulatory Response: PURA's Isaias Decision

- Liaisons and line resources for municipalities
- Communication with life support customers
- Communication with municipalities
- Penalties and fines

# The “Take Back Our Grid Act”

## *Increased Penalties*

- Raised the cap on emergency response penalties from 2.5% to 4% of company annual distribution revenue

## **Current Status**

- PURA assessed civil penalties of over \$98 million for Eversource
- Prior law capped them at \$28.4 million
- Future penalties will be subject to the higher cap

# The “Take Back Our Grid Act”

## *Spoiled Food and Medicine*

- Residential customers
- Outage over 96 hours after an emergency
- \$25/day account credit
- \$250 total for spoiled food or expired medication

### Current Status

- PURA decision establishes related standards
  - When the clock starts
  - How the credits are paid
  - How waivers work



# The “Take Back Our Grid Act”

## *Report on Infrastructure*

- Infrastructure, facilities, and equipment
- Age, condition, capability
- Operation and Maintenance

### **Current Status**

- Equipment meets standards
- No repair delays
- Age distributions

# The “Take Back Our Grid Act”

## *Report on Staffing*

- Staffing deployed in recent storms
- Cost-benefit analysis
- PURA must review the report and establish minimum standards

### **Current Status**

- Challenges to increased internal staff
- One crew for each municipality standard in PURA’s Isaias decision
- Still a resilience measure
- Evaluated as part of each company’s resilience program

# Equitable Modern Grid

Energy  
Affordability

Advanced Metering  
Infrastructure

Electric Storage

Zero Emission  
Vehicles

Innovation Pilots

Interconnection  
Standards and  
Practices

Non-Wires  
Alternatives

Resilience and  
Reliability  
Standards and  
Programs

Distributed Energy  
Resource Analysis  
and Program  
Reviews

Resource Adequacy  
and Clean Electric  
Supply

New Rate Designs



# Equitable Modern Grid: Resilience and Reliability

- Statewide undergrounding strategy
- Vegetation Management Working Group
- Reliability Framework
- Resilience Framework



# Event Level Matrix

Eversource	Normal operations	Up to 125,000 customers out 1-3 days to restoration	125,000 to 380,000 customers out 2-6 days to restoration	375,000 to 650,000 customers out 5-10 days to restoration	625,000 to 870,000 customers out 8-21 days to restoration	Over 870,000 customers out over 18 days to restoration
	No Event	5	4	3	2	1
UI	Normal operations	Up to 31,356 customers out Up to 2 days to restoration	31,356 to 95,799 customers out 2-5 days to restoration	96,800 to 159,967 customers out 5-7 days to restoration	159,967 to 223,549 customers out 7-9 days to restoration	Over 223,549 customers out Over 9 days to restoration

# Equitable Modern Grid: Resilience and Reliability (cont'd)

## Reliability Framework

- Good reliability currently
- Statutory requirement (CGS § 16-244i(d))
- Plan for 5% reduction in metrics
- Other factors (e.g., cost)

## Resilience Framework

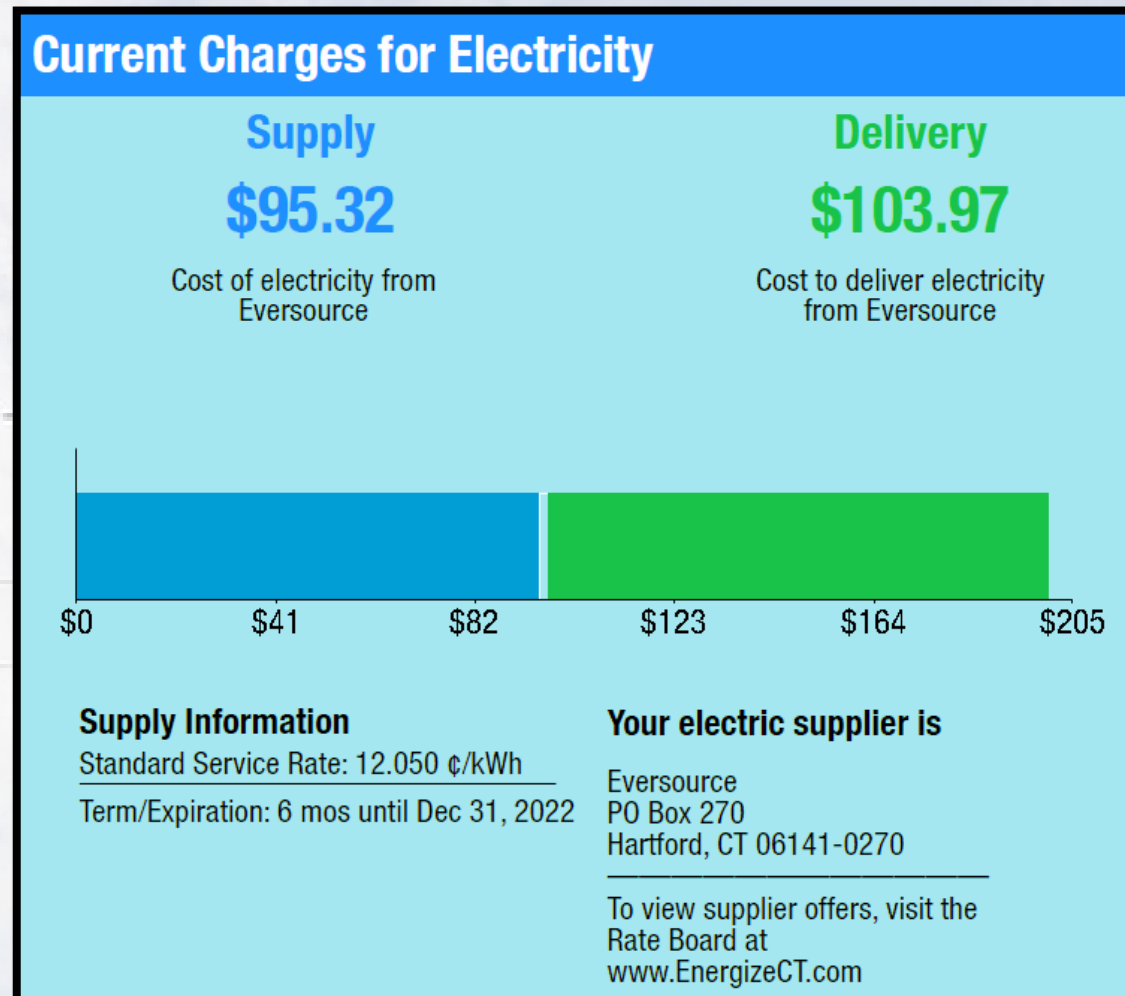
- Identify vulnerable portions of the distribution system
- Enable selection of mitigation measures



# Equitable Modern Grid: Resilience and Reliability (cont'd)

Mitigation	Preparedness	Response	Recovery
Infrastructure hardening	Coordination with other responders	Mutual aid agreements	Restoration
Automation	Response plans	Pre-staging	After-action reports
On-site backup generation	Training	Activating incident command	Lessons learned
System redundancies		Control room operations	

# How it's Paid For: Electric Rates



# How it's Paid For: A Rate Case

## Process

- Initiated by company or per schedule
- Contested proceeding with a Docket #
- Participants include the company, PURA, the Attorney General, the Office of Consumer Counsel, other interested parties
- Public comments

## Method

- Prudently incurred costs
- Reasonable rate of return



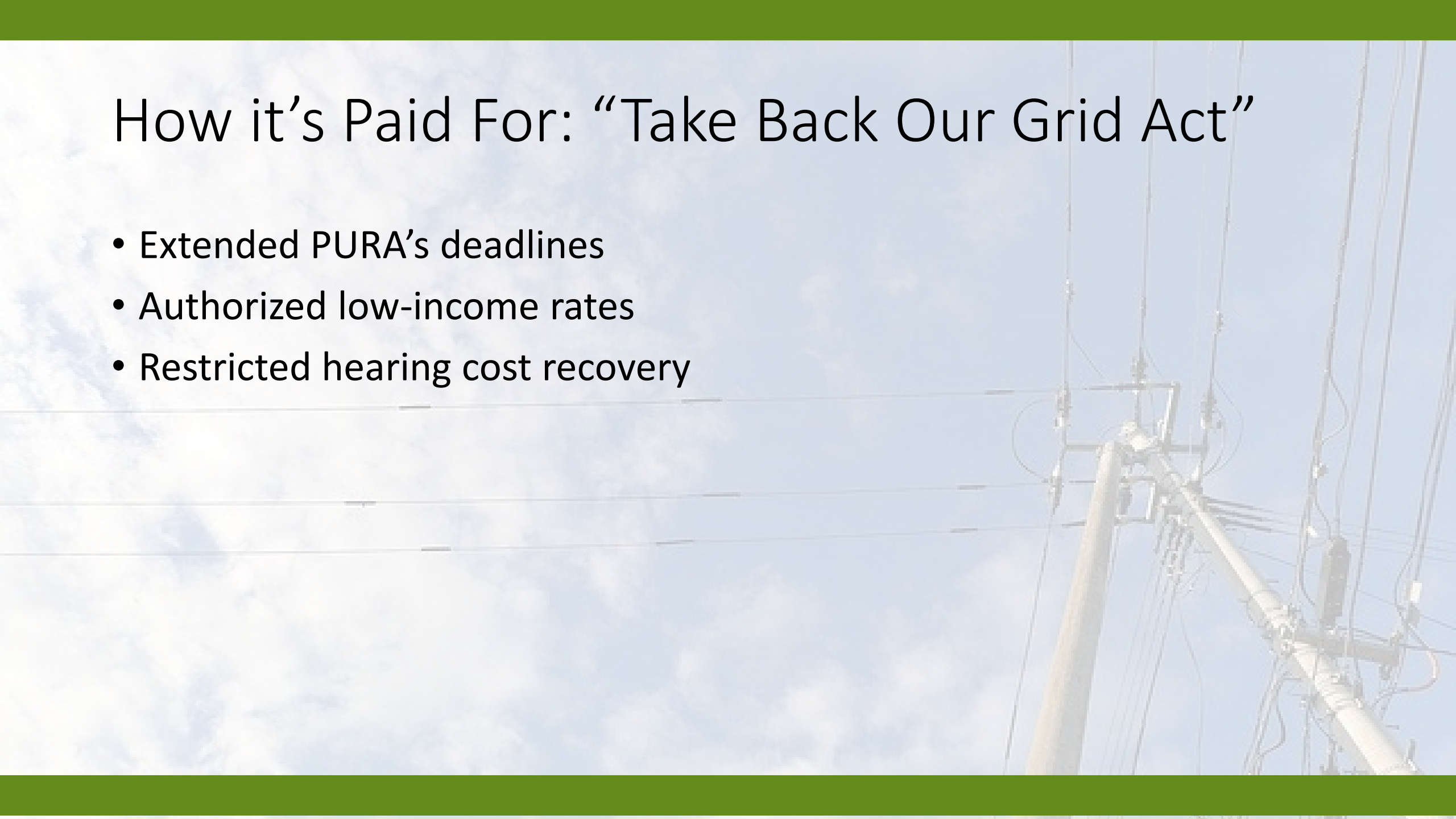
# How it's Paid For: Electric Rates

- “Cost of service” methodology
- “Performance Based Regulation” (PBR)
  - Authorized under Take Back Our Grid Act
  - Ties utility returns to performance-based metrics
  - Docket 21-05-15



# How it's Paid For: “Take Back Our Grid Act”

- Extended PURA's deadlines
- Authorized low-income rates
- Restricted hearing cost recovery



# Questions

