I. Meeting Packet



State of Florida

Public Service Commission INTERNAL AFFAIRS AGENDA

Tuesday – September 15, 2020 9:30 am Room 148 – Betty Easley Conference Center

- 1. Electric Vehicles and EV Charging Current Issues: David Farnsworth, Regulatory Assistance Project (Attachment 1)
- 2. PSC staff update on EV Master Plan activities
- 3. Draft 2020 Regulatory Plan (Attachment 2)
- 4. General Counsel's Report
- 5. Executive Director's Report
- 6. Other Matters

BB/aml

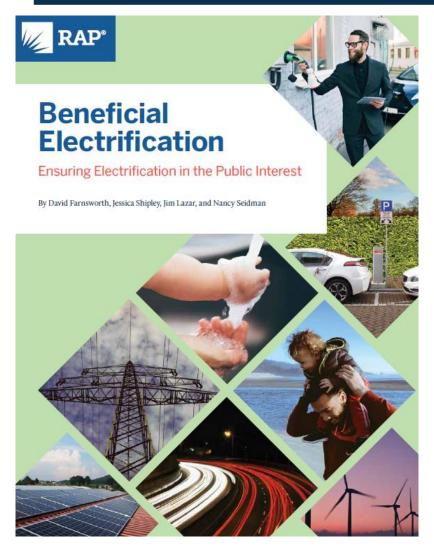
OUTSIDE PERSONS WISHING TO ADDRESS THE COMMISSION ON ANY OF THE AGENDAED ITEMS SHOULD CONTACT THE OFFICE OF THE EXECUTIVE DIRECTOR AT (850) 413-6463.

Insights for States Preparing for Electric Transportation

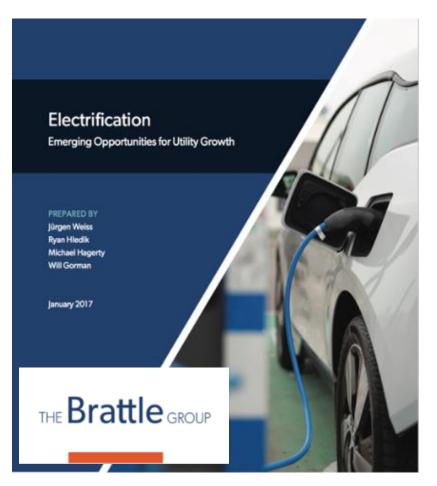
Presentation to the Florida Public Service Commission

David Farnsworth
Regulatory Assistance Project
September 15, 2020

Part I - Beneficial Electrification



Isn't all electrification created equal?



- Brattle: "Utility sales could nearly double by 2050"!
- Isn't it all about load growth?

Beneficial Electrification (BE) - Three Conditions



1. Saves Customers Money Over Long-Term



2. Reduces Environmental Impacts

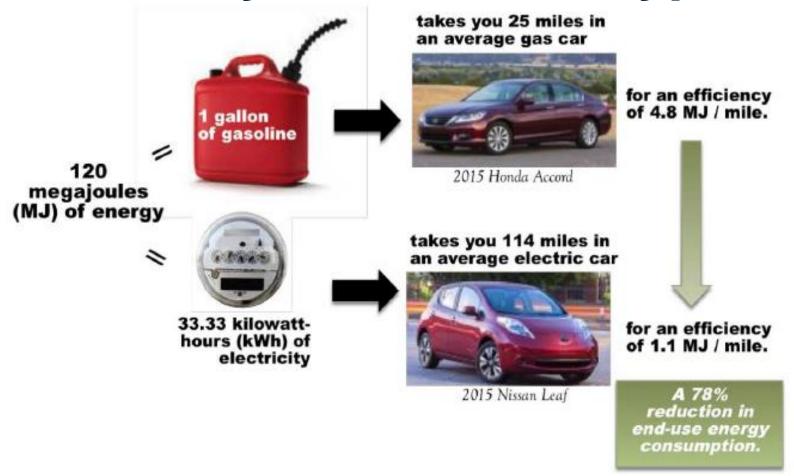


3. Enables Better Grid Management



Long-Term

Efficiency Across Fuel Types

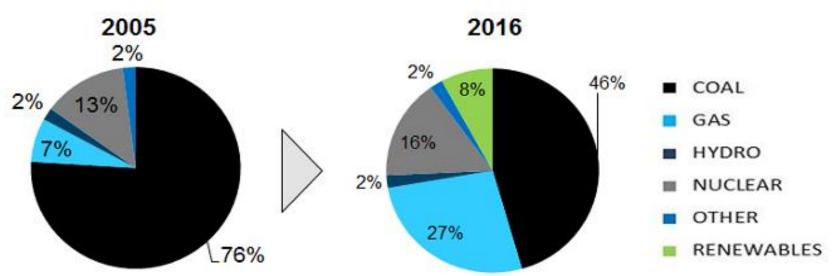


Source: JJ MCoy, "Building "good load" to reduce carbon emissions", 2016. https://www.chargevc.org/ev-calculator/



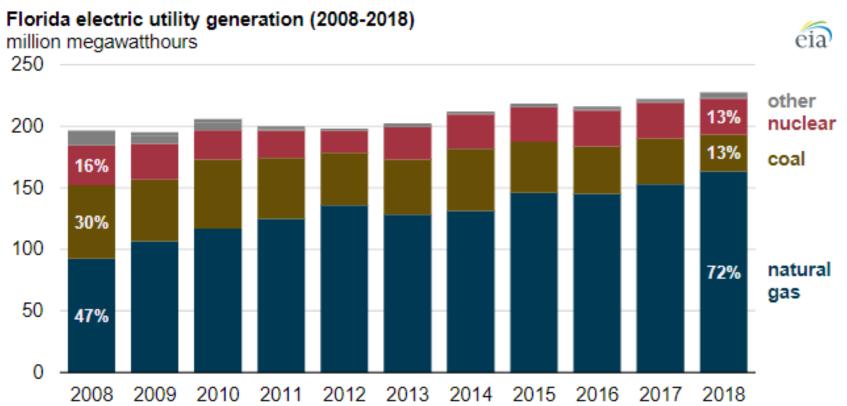
Power sector fuel mix is changing: MISO example

MISO Generation Portfolio Evolution



http://www.misomatters.org/2017/03/3-electricity-industry-issues-weare-watching-in-2017/

Power sector fuel mix is changing



Source: U.S. Energy Information Administration, Electric Power Monthly

Note: Other includes petroleum liquids.



Managing Load

EVs can be a **benefit** ... or a **problem** for the electric grid.

Draw high amounts of power for short periods of time.



Managing Load

EV load must be managed effectively, otherwise all ratepayers will share in the expensive costs of upgrading and maintaining the distribution system to accommodate increased load on the system.

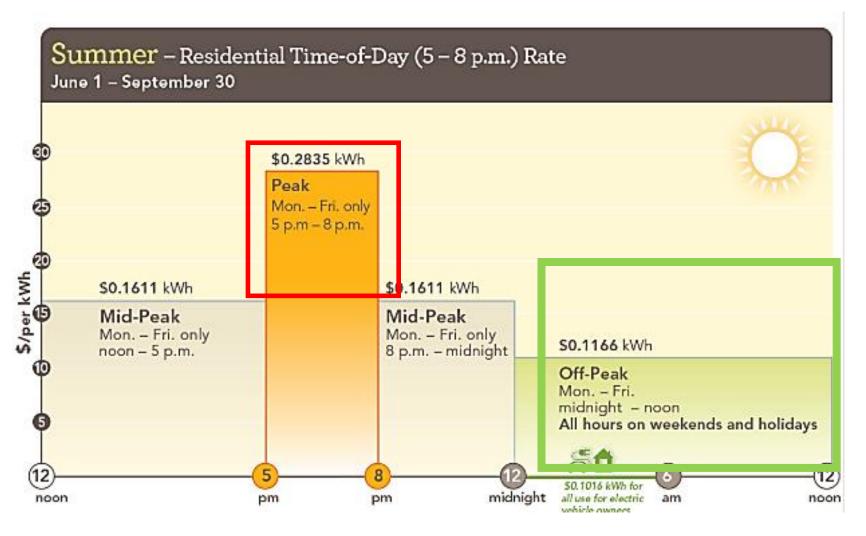
Public Service Commission of Maryland. (2019, January 14). Order No. 88997, In The Matter Of The Petition Of The Electric Vehicle Work Group For Implementation Of A Statewide Electric Vehicle Portfolio, CASE NO. 9478, p. 49.

Managing Load

Pairing EV adoption and EV charging with intelligent rate design can **improve** electric distribution **system utilization** and create **downward pressure on rates** through load management and system peak reduction.

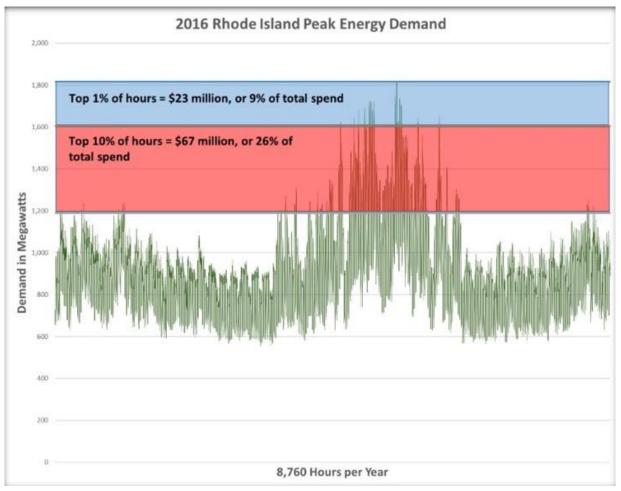
Public Service Commission of Maryland. (2019, January 14). Order No. 88997, In The Matter Of The Petition Of The Electric Vehicle Work Group For Implementation Of A Statewide Electric Vehicle Portfolio, CASE NO. 9478, p. 43-44.

Rates



Source: Sacramento Municipal Utility District https://www.smud.org/en/Rate-Information/Time-of-Day-Rates/Time-of-Day-5-8pm-Rate

At Least, Avoid High-Cost Hours



Source: Rhode Island Power Sector Transformation, Phase One Report to Governor Gina M. Raimondo (November 2017)

Part II – Taking First Steps



Taking First Steps: Insights for States Preparing for Electric Transportation

By David Farnsworth, Jessica Shipley, Joni Sliger, Mark LeBel and Megan O'Reilly



State Processes

- Coordination with other Parts of Government
- StakeholdersCan Help



Managing EV Load

- Understanding EVs means appreciating the <u>flexibility</u> that they possess and can add to the power grid.
- This can
 - Increase reliability,
 - Improve capabilities of other resources on the grid, and
 - Create conditions for lower rates.

Rate Design

- Regardless of the type of charging residential, fleet or multi-unit dwellings — it is critical for utilities to manage EV load to benefit all ratepayers and the state.
- Effective rate designs can also protect non-EV customers (and EV customers who charge off-peak) from subsidizing the system costs imposed by the EV customer who charges during peak periods.

EV Charging

- Each charging sub-market (residential; multiunit; workplace and commercial; public; and transit) has its own characteristics including:
 - Power levels, optimal charging times, and degree of market penetration by competitive suppliers.
- Consequently, there are various models for EVSE investment and ownership.

The Importance of Programs

- The Consumer perspective -- programs are what customers see.
 - Are they accessible and helpful?
- There is a difference between implementing a (utility) program and successfully selling a service.

Using Pilots

- Pilot programs are transitional arrangements.
 - They allow experimentation under time and budget limitations.
 - They provide opportunities for learning and gaining experience, a key to scaling up to more permanent programs.

Recommendations

- 1. Find opportunities and be willing to learn as you go:
 - Coordinate with other parts of state government,
 - Informally convene stakeholders.

Recommendations

2. Consider encouraging pilot programs that provide you with relevant EV-related information regarding costs and benefits, and that would support moving to scale.

Recommendations

Example – for a fixed budget, time frame and number of customers, gather data related to a TOU rate design for managed EV charging, including:

- Avoided utility costs (e.g., supply, dist. system upgrades), and
- Customer response, and savings.

Electrification: Some RAP Resources

- Roadmap for Electric Transportation
- <u>Taking First Steps: Insights for States Preparing for Electric Transportation</u>
- Beneficial Electrification: Ensuring Electrification in the Public Interest
- Beneficial Electrification of Transportation
- Getting From Here to There: Regulatory Considerations for Transportation Electrification
- BLOG: <u>We All Wish We Were More Flexible: Electrification Load as a Grid Flexibility Resource</u>



About RAP

The Regulatory Assistance Project (RAP)[®] is an independent, non-partisan, non-governmental organization dedicated to accelerating the transition to a clean, reliable, and efficient energy future.

Learn more about our work at raponline.org



David Farnsworth Principal

Level 2 EV charging is a lot like... an electric water heater!





Really!

Electric Vehicle

- 3.3 6.6 kW
- 2,000 4,000 kWh/year
- Can avoid morning and early evening peak charging
- Batteries likely equal a full day's supply

Water Heater

- 4.4 5.5 kW
- 2,000 4,000 kWh/year
- Can avoid morning and early evening peak charging
- Tank usually covers a full day's supply

State of Florida



Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: September 3, 2020

TO: Braulio L. Baez, Executive Director

FROM: Kathryn G.W. Cowdery, Senior Attorney, Office of the General Counsel

RE: Florida Public Service Commission 2020 Regulatory Plan

CRITICAL INFORMATION: Please place on the 09/15/20 Internal Affairs.

Commission approval is sought

Pursuant to Section 120.74(1), Florida Statutes (F.S.), the Commission must prepare a regulatory plan by October 1 of each year. The plan must include a listing of each law enacted or amended during the previous 12 months that creates or modifies the duties or authority of the agency. The Commission must also include a listing of each statute which the Commission expects to implement by rulemaking before July 1, 2021, and must include any update to the 2019 Regulatory Plan. The plan must also include a certification verifying that the persons executing the certification have reviewed the plan and that the agency regularly reviews its rules to determine consistency with the agency's rulemaking authority and the laws implemented.

Section 120.74(2), F.S., requires that by October 1 of each year, the regulatory plan must be published on the Commission's website and electronically delivered to the Joint Administrative Procedures Committee (JAPC). Also by October 1, the Commission must publish a notice in the Florida Administrative Register that gives the date the Regulatory Plan was published on the Commission's website.

In order to comply with the statutory October 1, 2020 deadline, staff is seeking Commission approval of the 2020 Regulatory Plan at the September 15, 2020 Internal Affairs. The transmittal letter to JAPC contains the certification required by Section 120.74(1)(d), F.S. The list of laws that create or modify the Commission's duties or authority is attached to the certification letter as Attachment A. Attachment B to the certification letter is the Commission's list of laws that it expects to implement through rule adoption, amendment, or repeal before July 1, 2021. The Commission's report that it has no laws or updates to the 2019 Regulatory Plan is Attachment C to the certification letter.

Cc: Keith Hetrick, General Counsel
Apryl Lynn, Deputy Executive Director, Administrative
Mark Futrell, Deputy Executive Director, Technical

STATE OF FLORIDA

GARY F. CLARK CHAIRMAN



Capital Circle Office Center 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850 (850) 413-6038

Public Service Commission

September _____, 2020

DELIVERED VIA E-MAIL

DRAFT

Kenneth J. Plante Coordinator Joint Administrative Procedures Committee 680 Pepper Building 111 W. Madison Street Tallahassee, FL 32399-1400

Re: Florida Public Service Commission's 2020 Regulatory Plan

Dear Mr. Plante:

The Florida Public Service Commission (Commission) hereby files its 2020 Regulatory Plan pursuant to Section 120.74, Florida Statutes (F.S.).

Section 120.74(1)(a), F.S., requires a listing of each law enacted or amended during the previous 12 months which creates or modifies the duties or authority of the agency. For each law listed under paragraph (a), the plan must state whether rule adoption is required to implement the law, and if so, whether a notice of rule development has been published and the date by which the agency expects to publish the notice of proposed rule. The Commission's report of laws pursuant to Section 120.74(1)(a), F.S., is attached hereto as Attachment A.

Section 120.74(1)(b), F.S., states that the regulatory plan must also include a listing of each law not listed pursuant to Section 120.74(1)(a), F.S., that the agency expects to implement by rulemaking before the following July 1. For each law listed under paragraph (b), the plan must state whether the rulemaking is intended to simplify, clarify, increase efficiency, improve coordination with other agencies, reduce costs, or delete obsolete, unnecessary, or redundant rules. The Commission's report of laws pursuant to Section 120.74(1)(b), F.S., is attached hereto as Attachment B.

Section 120.74(1)(c), F.S., requires an identification and listing of laws that were previously identified in a prior year's regulatory plan as requiring rulemaking to implement, but for which a notice of proposed rule has not been published. The Commission has no laws or updates to report pursuant to Section 120.74 (1)(c), F.S. The Commission's report that it has no laws or updates to the 2019 Regulatory Plan is attached hereto as Attachment C.

Kenneth Plante September ___, 2020 Page 2

Section 120.74(1)(d), F.S., requires the plan to include a certification. Pursuant to Section 120.74(1)(d), F.S., we hereby verify that we have reviewed the attached regulatory plan. We further verify that the Commission regularly reviews all of its rules and that the Commission's rules were most recently reviewed for the period July 2, 2017, through July 1, 2020, to determine if the rules remain consistent with the Commission's rulemaking authority and the laws implemented.

GARY F. CLARK

Chairman Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399 (850) 413-6770

KEITH HETRICK

General Counsel Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399 (850) 413-6770

Enclosures

KGWC

Laws	Rulemaking Necessary	Notice of Rule Development Published	Expected Date of Notice of Proposed Rule	Reason Why Rulemaking Is Not Necessary
Section 119.071, F.S., General exemption from inspection or copying of public records; concerning security and fire safety (Ch. 2020-013, Laws of Florida)	No	N/A	N/A	Applies to all agencies. The statute is specific as to public record exemptions and is self executing.
Section 286.0113, F.S., General exemptions from public meetings; concerning exemption for information and documents concerning security and fire safety (Ch. 2020-013, Laws of Florida)	No	N/A	N/A	Applies to all agencies. The statute is specific as to public meeting exemptions and is self executing.
Section 339.287, F.S., Electric vehicle charging statons; infrastructure plan development, requires the Florida Department of Transportation to prepare a master plan on electric vehicle charging infrastructure development. The Commission is required to consult with FDOT on certain aspects of the plan, along with the Department of Agriculture and Consumer Services and the Office of Energy. (Ch. 2020-21, Laws of Florida)	No	N/A	N/A	The statute is specific and contains all necessary requirements, and therefore rulemaking is not necessary to implement the statute.
Section 350.113, F.S., Florida Public Service Regulatory Trust Fund, moneys to be deposited therein; obsolete language deleted (Ch. 2020-002, Laws of Florida)	No	N/A	N/A	A Revisor's Bill deleted obsolete language, and no rulemaking is necessary.

Laws	Rulemaking Necessary	Notice of Rule Development Published	Expected Date of Notice of Proposed Rule	Reason Why Rulemaking Is Not Necessary
Section 367.022, F.S., Exemptions, creates exemption from Commission regulation for owners of mobile home parks operating both as a mobile home park and a mobile home subdivision providing service to both tenants and lot owners if service to tenants is without specific compensation; and clarifies language for resale exemption (Ch. 2020-027, Laws of Florida)	No	N/A	N/A	The statute is specific as to the exemption created, contains all necessary requirements for exemption, and therefore rulemaking is not necessary to implement the statute.

ATTACHMENT B

Laws	Intent of Rulemaking
Section 120.52, F.S.	To consider whether to repeal Rule 25-22.107, F.A.C., Plan for Making Orders Available to the Public, and move to the Commission's Statement of Agency Organization and Operations
Section 120.53, F.S.	To consider whether to repeal Rule 25-22.100, F.A.C., Authority, and move to the Commission's Statement of Agency Organization and Operations
	To consider whether to repeal Rule 25-22.101, F.A.C., Purpose, and move to the Commission's Statement of Agency Organization and Operations
	To consider whether to repeal Rule 25-22.1035, F.A.C., Official Reporter for Final Orders, and move to the Commission's Statement of Agency Organization and Operations
	To consider whether to repeal Rule 25-22.104, F.A.C., Numbering of Orders, and move to the Commission's Statement of Agency Organization and Operations
	To consider whether to repeal Rule 25-22.105, F.A.C., Electronic Database of Orders and Other Records, and move to the Commission's Statement of Agency Organization and Operations
Section 120.569, F.S.	To consider whether to amend or repeal Rule 25-22.033, F.A.C., Communications Between Commission Employees and Parties, to eliminate language which duplicates language in the Commission's Administrative Procedures Manual, Uniform Rules of Procedure, and Section 120.66, F.S.
	To amend Rule 25-22.0407, F.A.C., Notice of and Public Information for General Rate Increase Requests by Water and Wastewater Utilities, to update rule requirements
Section 120.57, F.S.	To consider whether to amend or repeal Rule 25-22.033, F.A.C., Communications Between Commission Employees and Parties, to eliminate language which duplicates language in the Commission's Administrative Procedures Manual, Uniform Rules of Procedure, and Section 120.66, F.S.
	To amend Rule 25-22.0407, F.A.C., Notice of and Public Information for General Rate Increase Requests by Water and Wastewater Utilities, to update rule requirements

Laws	Intent of Rulemaking
Section 350.042, F.S.	To consider whether to amend or repeal Rule 25-22.033, F.A.C., Communications Between Commission Employees and Parties, to eliminate language which duplicates language in the Commission's Administrative Procedures Manual, Uniform Rules of Procedure, and Section 120.66, F.S.
Section 350.115, F.S.	To amend Rule 25-6.0141, F.A.C., Allowance for Funds Used During Construction, to remove outdated language
	To amend Rule 25-6.0142, F.A.C., Uniform Retirement Units for Electric Utilities, to update the Code of Federal Regulations reference in subsection (1) and to include a link to the F.A.C. website for the List of Retirement Units that is incorporated by reference in subsection (3)
	To amend Rule 25-6.0143, F.A.C., Use of Accumulated Provision Accounts 228.1, 228.2, and 228.4, to add clarity and specificity to rule language and requirements
	To repeal Rule 25-6.082, F.A.C., Records and Reports, as obsolete To amend Rule 25-7.0141, F.A.C., Allowance for Funds Used During Construction, to specify rule requirements
	To adopt Rule 25-7.0143, F.A.C., Use of Accumulated Provision Accounts 228.1, 228.2, and 228.4, to provide an industry-specific standard for application of accounts 228.1, 228.2, and 228.4 in the natural gas industry
	To amend Rule 25-30.116, F.A.C., Allowance for Funds Used During Construction, to update and clarify rule requirements
Section 350.121, F.S.	To amend paragraph (4)(a) of Rule 25-22.006, F.A.C., Confidential Information, to change the number of copies required to be filed to be consistent with current filing requirements
Section 364.03, F.S	To amend Rule 25-14.013, F.A.C., Accounting for Deferred Income Taxes Under SFAS 109, to replace obsolete references to accounting standards with current standards; to update language in the rule to reference the Tax Cuts and Job Act of 2017; and to determine whether references to the IRS code and Revenue Procedure 88-12 need to be replaced with updated references
	To amend Rule 25-14.014, F.A.C., Accounting for Asset Retirement Obligations Under SFAS 143, to replace the obsolete reference to SFAS 143 with the current standard

ATTACHMENT B

Laws	Intent of Rulemaking
Section 364.035, F.S.	To amend Rule 25-14.013, F.A.C., Accounting for Deferred Income Taxes Under SFAS 109, to replace obsolete references to accounting standards with current standards; to update language in the rule to reference the Tax Cuts and
	Job Act of 2017; and to determine whether references to the IRS code and Revenue Procedure 88-12 need to be replaced with updated references
	To amend Rule 25-14.014, F.A.C., Accounting for Asset Retirement Obligations Under SFAS 143, to replace the obsolete reference to SFAS 143 with the current standard
Section 364.17, F.S.	To amend Rule 25-14.012, F.A.C., Accounting for Postretirement Benefits Other Than Pensions, to replace obsolete references to Statement of Financial Accounting Standards 106 and 71 with current accounting standards
Section 364.183, F.S.	To amend paragraph (4)(a) of Rule 25-22.006, F.A.C., Confidential Information, to change the number of copies required to be filed to be consistent with current filing requirements
Section 364.33, F.S.	To amend Rule 25-4.511, F.A.C., Application for Original or Transfer of Pay Telephone Certificate, to remove language concerning transfers of Pay Telephone Certificates as unnecessary to implementation of the statute
Section 364.335, F.S.	To amend Rule 25-4.511, F.A.C., Application for Original or Transfer of Pay Telephone Certificate, to remove language concerning transfers of Pay Telephone Certificates as unnecessary to implementation of the statute
Section 364.3375, F.S.	To amend Rule 25-4.511, F.A.C., Application for Original or Transfer of Pay Telephone Certificate, to remove language concerning transfers of Pay Telephone Certificates as unnecessary to implementation of the statute
Section 366.02, F.S.	To consider whether to amend Rule 25-6.065, F.A.C., Interconnection and Net Metering of Customer-Owned Renewable Generation, to update rule requirements
Section 366.03, F.S.	To amend Rule 25-6.0406, F.A.C., Notice of and Public Information for General Rate Increase Requests and Petitions for Limited Proceedings by Electric and Gas Utilities, to update rule requirements
	To consider whether to amend Rule 25-6.0455, F.A.C., Annual Distribution Service Reliability Reports, to conform with new storm protection rules adopted pursuant to Section 366.96, F.S. (2019), Public Utility Transmission and Distribution Storm Protection Plans

ATTACHMENT B

Laws	Intent of Rulemaking
Section	To repeal Rule 25-6.047, F.A.C., Constant Current Standards, as obsolete
366.03, F.S. (Cont.)	To amend Rule 25-6.064, F.A.C., Contribution-in-Aid-of-Construction for Installation of New or Upgraded Facilities, to conform with new storm protection rules adopted pursuant to Section 366.96, F.S. (2019), Public Utility Transmission and Distribution Storm Protection Plans
	To amend Rule 25-6.074, F.A.C., Applicability, to delete unnecessary language and to clarify rule requirements
	To amend 25-6.078, F.A.C., Schedule of Charges, Installation of Underground Distribution Systems Within New Subdivisions, to conform with new storm protection rules adopted pursuant to Section 366.96, F.S. (2019), Public Utility Transmission and Distribution Storm Protection Plans
	To repeal Rule 25-6.081, F.A.C., Construction Practices, as unnecessary and obsolete
	To repeal Rule 25-6.082, F.A.C., Records and Reports, as obsolete
	To amend Rule 25-6.104, F.A.C., Unauthorized Use of Energy, to clarify the rule requirements
	To amend Rule 25-6.115, F.A.C., Facility Charges for Conversion of Existing Overhead Investor-owned Distribution Facilities, to conform with new storm protection rules adopted pursuant to Section 366.96, F.S. (2019), Public Utility Transmission and Distribution Storm Protection Plans
	To amend Rule 25-22.0406, F.A.C., Notice and Public Information on General Rate Increase Requests and Petitions for Limited Proceedings by Electric and Gas Utilities, to update rule requirements
Section 366.04, F.S.	To amend Rule 25-6.0141, F.A.C., Allowance for Funds Used During Construction, to remove outdated language
	To amend Rule 25-6.0143, F.A.C., Use of Accumulated Provision Acciounts 228.1, 228.2, and 228.4, to add clarity and specificity to rule language and requirements
	To amend Rule 25-6.0343, F.A.C., Municipal Electric Utility and Rural Electric Cooperative Reporting Requirements, to conform with new storm protection rules to be enacted pursuant to Section 366.96, F.S. (2019), Public Utility Transmission and Distribution Storm Protection Plans

ATTACHMENT B

Laws	Intent of Rulemaking
Section	To amend Rule 25-6.043, F.A.C., Invester-Owned Electric Utility Minimum
366.04, F.S.	Filing Requirements: Commission Designee, to update rule requirements
(Cont.)	
	To consider whether to amend Rule 25-6.0455, F.A.C., Annual Distribution
	Service Reliability Reports, to conform with new storm protection rules
	adopted pursuant to Section 366.96, F.S. (2019), Public Utility Transmission
	and Distribution Storm Protection Plans
	To repeal Rule 25-6.047, F.A.C., Constant Current Standards, as obsolete
	To consider whether to amend Rule 25-6.065, F.A.C., Interconnection and Net
	Metering of Customer-Owned Renewable Generation, to update rule
	requirements
	requirements
	To amend Rule 25-6.078, F.A.C., Schedule of Charges, Installation of
	Underground Distribution Systems Within New Subdivisions, to to conform
	with new storm protection rules adopted pursuant to Section 366.96, F.S.
	(2019), Public Utility Transmission and Distribution Storm Protection Plans
	To amend Rule 25-6.082, F.A.C., Records and Reports, to clarify rule
	requirements
	To amend Rule 25-6.115, F.A.C., Facility Charges for Conversion of Existing
	Overhead Investor-owned Distribution Facilities, to conform with new storm
	protection rules adopted pursuant to Section 366.96, F.S. (2019), Public Utility
	Transmission and Distribution Storm Protection Plans
	Transmission and Distribution Storm Protection Frans
	To adopt Rule 25-7.0143, F.A.C., Use of Accumulated Provision Accounts
	228.1, 228.2, and 228.4, to provide an industry-specific standard for
	application of accounts 228.1, 228.2, and 228.4 in the natural gas industry
	To amend Rule 25-14.012, F.A.C., Accounting for Postretirement Benefits
	Other Than Pensions, to replace obsolete references to Statement of Financial
	Accounting Standards 106 and 71 with current accounting standards
a i	
Section	To amend Rule 25-6.0142, F.A.C., Uniform Retirement Units for Electric
366.041, F.S.	Utilities, to update the Code of Federal Regulations reference in subsection (1)
	and to include a link to the F.A.C. website for the List of Retirement Units that
	is incorporated by reference in subsection (3)
	To consider whether to amend Rule 25-6.065, F.A.C., Interconnection and Net
	Metering of Customer-Owned Renewable Generation, to update rule
	requirements
	1 reducements

Laws	Intent of Rulemaking
Section	To amend Rule 25-22.0406, F.A.C., Notice and Public Information on General
366.041, F.S.	Rate Increase Requests and Petitions for Limited Proceedings by Electric and
(Cont.)	Gas Utilities, to update rule requirements
Section	To consider whether to amend Rule 25-6.0455, F.A.C., Annual Distribution
366.05, F.S.	Service Reliability Reports, to conform with new storm protection rules
300.03, 1.3.	adopted pursuant to Section 366.96, F.S. (2019), Public Utility Transmission and Distribution Storm Protection Plans
	To amend Rule 25-6.054, F.A.C., Laboratory Standards, to clarify rule requirements
	To amend Rule 25-6.064, F.A.C., Contribution-in-Aid-of-Construction for
	Installation of New or Upgraded Facilities, to conform with new storm
	protection rules adopted pursuant to Section 366.96, F.S. (2019), Public Utility Transmission and Distribution Storm Protection Plans
	To consider whether to amend Rule 25-6.065, F.A.C., Interconnection and Net
	Metering of Customer-Owned Renewable Generation, to update rule requirements
	To amend Rule 25-6.104, F.A.C., Unauthorized Use of Energy, to clarify rule requirements
	To amend Rule 25-6.115, F.A.C., Facility Charges for Conversion of Existing
	Overhead Investor-owned Distribution Facilities, to conform with new storm protection rules adopted pursuant to Section 366.96, F.S. (2019), Public Utility Transmission and Distribution Storm Protection Plans
	To amend Rule 25-7.0141, F.A.C., Allowance for Funds Used During
	Construction, to specify rule requirements
	To adopt new in Chapter 25-9, F.A.C., Effective Date of Approved Rates and
	Charges, to address the date on which a utility may begin applying approved rates and charges to a customer's bill for service renedered
	To amend Rule 25-14.013, F.A.C., Accounting for Deferred Income Taxes
	Under SFAS 109, to replace obsolete references to accounting standards with
	current standards; to update language in the rule to reference the Tax Cuts and Job Act of 2017; and to determine whether references to the IRS code and
	Revenue Procedure 88-12 need to be replaced with updated references
	r

Laws	Intent of Rulemaking
Section	To amend Rule 25-14.014, F.A.C., Accounting for Asset Retirement
366.05, F.S.	Obligations Under SFAS 143, to replace the obsolete reference to SFAS 143
(Cont.)	with the current standard
	To amend Rule 25-22.0406, F.A.C., Notice and Public Information on General
	Rate Increase Requests and Petitions for Limited Proceedings by Electric and
	Gas Utilities, to update rule requirements
Section	To amend Rule 25-6.0141, F.A.C., Allowance for Funds Used During
366.06, F.S.	Construction, to remove outdated language.
	To amend Rule 25-6.0142, F.A.C., Uniform Retirement Units for Electric
	Utilities, to update the Code of Federal Regulations reference in subsection (1)
	and to include a link to the F.A.C. website for the List of Retirement Units that
	is incorporated by reference in subsection (3)
	To amend Rule 25-6.043, F.A.C., Invester-Owned Electric Utility Minimum
	Filing Requirements: Commission Designee, to update rule requirements
	To amend Rule 25-6.064, F.A.C., Contribution-in-Aid-of-Construction for
	Installation of New or Upgraded Facilities, to conform with new storm
	protection rules adopted pursuant to Section 366.96, F.S. (2019), Public Utility
	Transmission and Distribution Storm Protection Plans
	To amend Rule 25-6.078, F.A.C., Schedule of Charges, Installation of
	Underground Distribution Systems Within New Subdivisions, to conform with
	new storm protection rules adopted pursuant to Section 366.96, F.S. (2019),
	Public Utility Transmission and Distribution Storm Protection Plans
	To amend Rule 25-7.0141, F.A.C., Allowance for Funds Used During
	Construction, to specify rule requirements
	To amend Rule 25-7.039, F.A.C., Natural Gas Utility Minimum Filing
	Requirements; Commission Designee, to update Sectionrule requirements
	To adopt new rule in Chapter 25-9, F.A.C., Effective Date of Approved Rates
	and Charges, to address the date on which a utility may begin applying
	approved rates and charges to a customer's bill for service renedered
	To amond Dula 25 22 0406 EAC Notice and Dublic Information on Course
	To amend Rule 25-22.0406, F.A.C., Notice and Public Information on General
	Rate Increase Requests and Petitions for Limited Proceedings by Electric and
	Gas Utilities, to update rule requirements
	1

Laws	Intent of Rulemaking
Section 366.071, F.S.	To amend Rule 25-6.043, F.A.C., Invester-Owned Electric Utility Minimum Filing Requirements: Commission Designee, to update rule requirements
	To amend Rule 25-7.039, F.A.C., Natural Gas Utility Minimum Filing Requirements; Commission Designee, to update rule requirements
Section 366.076, F.S.	To amend Rule 25-22.0406, F.A.C., Notice and Public Information on General Rate Increase Requests and Petitions for Limited Proceedings by Electric and Gas Utilities, to update rule requirements
Section 366.08, F.S.	To amend Rule 25-6.0141, F.A.C., Allowance for Funds Used During Construction, to remove outdated language
Section 366.093, F.S.	To amend paragraph (4)(a) of Rule 25-22.006, F.A.C., Confidential Information, to change the number of copies required to be filed to be consistent with current filing requirements
Section 366.81, F.S.	To consider whether to amend Rule 25-6.065, F.A.C., Interconnection and Net Metering of Customer-Owned Renewable Generation, to update rule requirements
Section 366.82, F.S.	To consider whether to amend Rule 25-6.065, F.A.C., Interconnection and Net Metering of Customer-Owned Renewable Generation, to update rule requirements
	To amend Rule 25-17.0021, F.A.C., Goals for Electric Utilities, to update rule requirements
Section 366.91, F.S.	To consider whether to amend Rule 25-6.065, F.A.C., Interconnection and Net Metering of Customer-Owned Renewable Generation, to update rule requirements
Section 366.92, F.S.	To consider whether to amend Rule 25-6.065, F.A.C., Interconnection and Net Metering of Customer-Owned Renewable Generation, to update rule requirements
Section 367.071, F.S.	To amend Rule 25-30.0371, F.A.C., Acquisition Adjustments, to update the rule to address current industry practices
Section 367.081, F.S.	To amend Rule 25-22.0407, F.A.C., Notice of and Public Information for General Rate Increase Requests by Water and Wastewater Utilities, to update rule requirements

Laws	Intent of Rulemaking
Section 367.081, F.S. (Cont.)	To consider whether to adopt a new rule in Chapter 25-30, F.A.C., to address water transmission distribution and wastewater collection used and useful considerations
	To amend Rule 25-30.0371, F.A.C., Acquisition Adjustments, to update the rule to address current industry practice
	To amend Rule 25-30.116, F.A.C., Contributions in Aid of Construction, to update and clarify rule requirements
	To amend Rule 25-30.436, F.A.C., General Information and Instructions Required of Class A and B Water and Wastewater Utilities in an Application for Rate Increase, to update rule requirements
	To amend Rule 25-30.437, F.A.C., Financial, Rate and Engineering Information Required of Class A and B Water and Wastewater Utilities in an Application for Rate Increase, F.A.C., to update rule requirements
	To repeal Rule 25-30.438, F.A.C., Information Required in Application for Rate Increase From Utilities with Related Parties, as obsolete
	To amend Rule 25-30.4385, F.A.C., Additional Rate Information Required in Application for Rate Increases to update rule requirements
	To repeal Rule 25-30.440, F.A.C., Additional Engineering Information Required of Class A and B Water and Wastewater Utilities in an Application for Rate Increase; the rule requirements are moved to different, appropriate rules and duplicative language deleted.
	To amend Rule 25-30.443, F.A.C., Minimum Filing Requirements for Class C Water and Wastewater Utilities, to update rule requirements
	To amend Rule 25-30.460, F.A.C., Application for Miscellaneous Service Charges, to add clarity and specificity to rule language and to update the rule to address the various miscellaneous service charges
Section 367.0812, F.S.	To amend Rule 25-30.440, F.A.C., Additional Engineering Information Required of Class A and B Water and Wastewater Utilities in an Application for Rate Increase, to update rule requirements
Section 367.0814, F.S.	To amend Rule 25-22.0407, F.A.C., Notice of and Public Information for General Rate Increase Requests by Water and Wastewater Utilities, to update rule requirements

Laws	Intent of Rulemaking
Section 367.0817, F.S.	To amend Rule 25-22.0407, F.A.C., Notice of and Public Information for General Rate Increase Requests by Water and Wastewater Utilities, to update rule requirements
Section 367.082, F.S.	To amend Rule 25-30.437, F.A.C., Financial, Rate and Engineering Information Required of Class A and B Water and Wastewater Utilities in an Application for Rate Increase, F.A.C., to update rule requirements
	To repeal Rule 25-30.443, F.A.C., Minimum Filing Requirements for Class C Water and Wastewater Utilities; the rule requirements are moved to different, appropriate rules and duplicative language deleted.
Section 367.083, F.S.	To amend Rule 25-30.436, F.A.C., General Information and Instructions Required of Class A and B Water and Wastewater Utilities in an Application for Rate Increase, to update rule requirements
Section 367.091, F.S.	To amend Rule 25-22.0407, F.A.C., Notice of and Public Information for General Rate Increase Requests by Water and Wastewater Utilities, to update rule requirements
	To amend Rule 25-30.335, F.A.C., Customer Billing, to update the rule and to clarify applicability of charges during a customer's absence
Section 367.121, F.S.	To amend Rule 25-14.012, F.A.C., Accounting for Postretirement Benefits Other Than Pensions, to replace obsolete references to Statement of Financial Accounting Standards 106 and 71 with current accounting standards
	To amend Rule 25-14.013, F.A.C., Accounting for Deferred Income Taxes Under SFAS 109, to replace obsolete references to accounting standards with current standards; to update language in the rule to reference the Tax Cuts and Job Act of 2017; and to determine whether references to the IRS code and Revenue Procedure 88-12 need to be replaced with updated references
	To amend Rule 25-14.014, F.A.C., Accounting for Asset Retirement Obligations Under SFAS 143, to replace the obsolete reference to SFAS 143 with the current standard
	To amend Rule 25-22.0407, F.A.C., Notice of and Public Information for General Rate Increase Requests by Water and Wastewater Utilities, to update rule requirements
	To amend Rule 25-30.0371, F.A.C., Acquisition Adjustments, to update rule to address current industry practices

ATTACHMENT B

Laws	Intent of Rulemaking
Section	To amend Rule 25-30.116, F.A.C., Constributions in Aid of Construction, to
367.121, F.S. (Cont.)	update and clarify rule requirements
	To amend Rule 25-30.117, F.A.C., Accounting for Pension Costs, to replace the obsolete reference to SFAS 143 with the current standard
	To amend Rule 25-30.335, F.A.C., Customer Billing, to update the rule to include guidance regarding the applicability of charges during a customer's absence
	To amend Rule 25-30.436, F.A.C., General Information and Instructions Required of Class A and B Water and Wastewater Utilities in an Application for Rate Increase, to update rule requirements
	To amend Rule 25-30.4385, F.A.C., Additional Rate Information Required in Application for Rate Increase, to update rule requirements
	To amend Rule 25-30.460, F.A.C., Application for Miscellaneous Service Charges, to add clarity and specificity to rule language and to update the rule to address the various miscellaneous service charge s
Section	To amend paragraph (4)(a) of Rule 25-22.006, F.A.C., Confidential
367.156, F.S.	Information, to change the number of copies required to be filed to be consistent with current filing requirements
Section	To amend paragraph (4)(a) of Rule 25-22.006, F.A.C., Confidential
368.108, F.S.	Information, to change the number of copies required to be filed to be consistent with current filing requirements

UPDATES TO 2019 REGULATORY PLAN – SECTION 120.74(1)(c), F.S..

The Commission has no laws or updates to the 2019 Regulatory Plan to report pursuant to Section 120.74(1)(c), F.S.

III.Supplemental Materials for Internal Affairs

<u>Note</u>: The records reflect that there were no supplemental materials provided to the Commission during this Internal Affairs meeting.

IV. Transcript

1	FI _I ORTDA	BEFORE THE PUBLIC SERVICE COMMISSION
2	1 20111211	
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8	PROCEEDINGS:	INTERNAL AFFAIRS
9	COMMISSIONERS PARTICIPATING:	CHAIRMAN GARY F. CLARK
10		COMMISSIONER ART GRAHAM COMMISSIONER JULIE I. BROWN
11		COMMISSIONER DONALD J. POLMANN COMMISSIONER ANDREW GILES FAY
12	DATE:	Tuesday, September 15, 2020
13	TIME:	Commenced: 10:15 a.m. Concluded: 12:00 p.m.
14	PLACE:	Betty Easley Conference Center
15		Room 148 4075 Esplanade Way
16		Tallahassee, Florida
17	REPORTED BY:	ANDREA KOMARIDIS WRAY Court Reporter and
18		Notary Public in and for
19		the State of Florida at Large
20		
21		PREMIER REPORTING
22		114 W. 5TH AVENUE TALLAHASSEE, FLORIDA
23		(850) 894-0828
24		
25		

1	PROCEEDINGS
2	CHAIRMAN CLARK: All right. It looks like we
3	have all the players here this morning. We're
4	going to go ahead and call our Internal Affairs
5	meeting to order.
6	Before we begin, I want to thank
7	Mr. Farnsworth for joining us this morning. I want
8	to take just a moment to introduce him. David is a
9	principal with the Regulatory Assistance Project.
10	He advises regulators and advocates on energy and
11	environmental policy and regulations.
12	Prior to working with RAP, he served as a
13	hearing officer and staff attorney with the Vermont
14	Public Service board from 1995 to 2008.
15	Mr. Farnsworth is joining us today to provide
16	a presentation on insights for states preparing for
17	electric transportation.
18	Welcome, Mr. Farnsworth. It's great to have
19	you with us this morning.
20	MR. FARNSWORTH: Thank you very much. Are you
21	able to hear me okay?
22	CHAIRMAN CLARK: Yes, sir, we can hear you
23	fine.
24	MR. FARNSWORTH: I can't tell if you're I
25	can't tell exactly what slide you're on or if

1 you're about to move it ahead, but --2. CHAIRMAN CLARK: If you're ready, we will put 3 you in presentation mode. 4 MR. FARNSWORTH: That's great. I -- I'm ready 5 to start when you are. Something magic should be 6 CHAIRMAN CLARK: 7 happen momentarily. 8 There we go. 9 MR. FARNSWORTH: That's great. Those are my 10 slides. 11 Well, so, good morning, Commissioners, 12 Chairman Clark. It's a -- it's a pleasure to be 13 with you this morning. Thanks so much for this 14 opportunity to talk with you. 15 As you all can see, I'm wearing a wool 16 turtleneck sweater. It was 36 degrees here in 17 Vermont this morning. And so, I'm -- I'm not --18 I'm not quite at the point of breaking out my 19 hockey -- ice-hockey gear yet, but it's still 20 another reason I wish I -- I were with you in 21 Florida this morning instead of up here, but we can 22 move right ahead all -- all the same. 23 I -- I would like to talk with you all about 24 They're related, but the first one two topics. 25 will be the difference between electrification and

1 beneficial electrification, what we think of as 2. bene- -- as electrification in the public good. And the second topic, I will be talking about 3 a handful of issues that come up when states start 4 5 thinking about transportation electrification; in other words, topics that I -- I would imagine that 6 7 you all, as you engage in this, will be -- will be 8 facing and considering. And I think it's -- it's a 9 good way to start -- recognize that, as you take 10 first steps, you're probably going to run into 11 these issues. 12 Before we get rolling, I just want to ask you 13 to stop me at any time if you have questions. That 14 shouldn't be too difficult. And I'll try to 15 clarify as I qo. 16 So, next slide, please. Okav. This is part 17 We're talking about beneficial 18 electrification. 19 Next slide: Isn't all electrification created 20 Well, the answer is definitively no, it is equal? 21 not created equal. When you electrify, you add 22 load on a power grid and that can cause cost. 23 That's just very basic observation here, but as the

24

25

name would suggest, beneficial electrification is

about how to electrify in a way that will secure

1 you the most benefits and do so at the lowest cost.

Next slide, please. Here is a way of discussing electrification that we have found useful at RAP. Sort of three parts to this and the first part of this presentation is just going to explore those three parts.

A project or a measure represents beneficial electrification if it meets one or more of the following three conditions without adversely affecting the other two: saves consumers money over the long run; reduces environmental impacts; and it enables better grid management. Let's take a look at each one of these conditions a little bit more closely.

Next slide, please. So, the first condition is saving customers money. And in this context, that means saving customers money over the life of that investment in the electric vehicle that resulted in lower cost to provide that energy and use to the consumer, which is basically moving a mile down the road.

And that's accomplished by looking at the life -- over the life of the electric vehicle, including the cost of acquiring and maintaining that EV, including any incentives provided and

2.

savings associated with this, like avoiding fossilfuel costs, utility-bill savings from electricity
pricing, or other uses of an electric vehicle for
purposes of helping to manage the grid.

Next slide, please. I don't think this observation about saving customers money getting an electric vehicle is anything that you don't already understand. We understand, at -- at various levels, the difference between an internal-combustion-engine vehicle and an electric vehicle.

If you take -- if you think about the energy being used, I think it's a good way to -- to look at these two and make a comparison. A gallon of gasoline is a -- is 120 megajoules of energy. And that's equal to about 33 kilowatt hours of electricity.

So, if you use a similar-sized passenger vehicle -- here, I've got a 2015 example. I could update that, but we're talking about a Honda Accord and comparing that to a Nissan Leaf. So, if you take a similarly-sized passenger vehicle, we see that, where the gasoline vehicle will get you 25 or 35 or so miles down the road on a gallon, an electric vehicle will get you over a hundred miles down the road.

2.

So, the customer savings -- immediate customer savings are available associated with one of these choices being far more efficient than the other.

So, that's the first of the three beneficial-electrification conditions.

Let's consider the -- let's go to the next slide, please. The second condition, reduces environmental impacts, means that the emissions of the grid, where you're getting the fuel from -- for an electric vehicle, along with the efficiency of the EV, itself, will result in lower emissions than the emissions from a fossil-fuel-fired vehicle that you were getting before.

Again, that's over the life of that EV. It's based on accepted resource-planning criteria, takes into account the grid flexibility created through electrification that I'm going to discuss in a minute.

I -- I would note that, typically, you'll see EV/internal-combustion-engine comparisons focusing on carbon, meas- -- measuring the CO2 emissions.

And that's done for clarity, convenience. I think it's helpful, but it's also important to remember that there are criteria pollutants like NOx and SOx, particulate matter, as well as other air

2.

1	pollutants, effects on water, land use, that sort
2	of thing.
3	Next slide, please. So, electrifi
4	electrification can reduce air pollution for
5	several reasons: First, due to the relative
6	efficiency of an EV compared with an internal-
7	combustion-engine vehicle that I just discussed,
8	but also because of the general trend out there in
9	the fuel, itself; that is, in the electricity that
10	can be accessed for an EV.
11	There's been a general trend across the U.S.
12	over the last decade and a half or so, the power
13	sectors becoming far more carbon-intensive. The
14	trend is illustrated in this figure showing changes
15	in the mid-continent ISO.
16	As you can see the general trend from
17	'05 compared to 2016 where coal was three-
18	quarters a little bit more than three-quarters
19	of the generation portfolio in '05 that's been
20	reduced. Natural gas and renewables have pushed
21	back on that market share.
22	Natural gas, for example a megawatt hour of
23	natural gas is about a half of ton of CO2 per
24	megawatt hour compared to coal, which is roughly a
25	ton. So, that's that's halved. Renewables,

1	obviously, don't come with the same carbon
2	footprint.
3	Next slide, please. Looking at Florida more
4	closely, this EIA figure and the data suggests a
5	similar trend with respect to coal and natural gas.
6	As illustrated here, over about the same time, '08
7	to 2018, Florida saw coal and natural gas,
8	respectively, go down from 30 percent and
9	47 percent in '08 to 13, and 72 percent in 2018.
10	The point here is that the EV's efficiency
11	plus the trend in electric generation point towards
12	significantly less air pollution associated with
13	electrified transportation.
14	And I should emphasize that I'm just
15	illustrating this. I haven't talked about heavy-
16	duty vehicles, but when you look at trucks step
17	vans, trucks, heavy-duty vehicles replacing
18	diesel with electric trucks will produce even
19	greater avoided emissions, especially for purposes
20	of air quality, reducing particulate matter, things
21	like that.
22	Next slide, please. So, I'd like to talk
23	about the third of those three beneficial-
24	electrification conditions here: Enables better
25	grid management. Beneficial electrification

1 provides grid operators with greater flexibility. 2. And if you take anything away from this 3 presentation this morning, it's recognizing that electrification provides flexibility. 4 It helps 5 grid operators manage load. It can improve demand You can integrate higher levels of 6 response. 7 variable renewable-energy resources because of this 8 flexibility. 9 Given the short time that I have with you all 10 this morning, my comments about grid management are 11 going to be really, really basic, very simple. The 12 grid is highly complex. It's very dynamic. 13 don't mean to make it look really simple here, but 14 I -- I want to make a few points. 15 At the bottom of this slide, you can see two 16 links that I think could be useful here. 17 them is to a Lawrence Berkeley National Labs study 18 that looked at -- it's kind of cut off on my slide, 19 but it looks at demand response, potential study 20 for California. And what it does is talk about how 21 electrification can make the grid more flexible. 22 The other link is simply a blog about the 23 study, itself. So, you have a fairly 24 straightforward blog of a couple of pages and the 25 study, which I think is an excellent study.

1 written very well and -- and worth -- worth looking 2. at. 3 Still, the key point here is that electrification load -- they're -- that's -- we're 4 5 talking about batteries. They're in the form of 6 EVs or, when you're talking about water heaters, 7 it's in the form of thermal storage. 8 That can make the power grid become more 9 flexible because charging those things can happen 10 at any time of day and moving that load around all 11 of a sudden allows grid operators to do things that 12 we really have never done before. 13 Typically, in the past, load was pretty static 14 and we managed supply to meet that load. 15 the opposite is true to the degree that you're 16 electrifying. You're able to move that load 17 around. 18 And so, when you hear somebody -- the next 19 time you hear somebody say, renewable resources --20 they're great, but they're intermittent -- when the 21 sun doesn't shine, when the wind doesn't blow, 22 they're just not helpful -- remember, that the flip 23 side of that pancake is that, well, the grid is not 24 as flexible as it can be, but we know that 25 electrification allows for flexibility we've never

1	had and all sorts of opportunities.
2	COMMISSIONER BROWN: David, do you mind if I
3	interrupt you right there?
4	MR. FARNSWORTH: Please.
5	COMMISSIONER BROWN: And thank you for being
6	here. And thank you, Mr. Chairman, for hosting
7	this.
8	Quick question. You're referencing
9	California, who is currently having rolling
10	blackouts. I'm curious, what type if you have
11	any knowledge about what type of rules California
12	has in place, promulgated by the Commission, to
13	address managing better grid management
14	pardon me.
15	MR. FARNSWORTH: Yeah. So, they've just
16	had they've just come to the end of a I
17	believe its staff-driven workshop has taken place
18	over roughly the last year. It has to do with
19	vehicle-grid integration.
20	They have put together a big tent and I
21	mean a big tent. They have come to a number of
22	conclusions and recommendations, and not everybody
23	is on the same page. You'll see recommendations
24	with a majority of support, these sort of caveats,
25	but what they've been looking at is how electric

1 vehicles can contribute to managing the grid. They've also -- there's also practice in the 2. 3 last several years -- I apologize, I don't know 4 with great precision -- where they've been bringing 5 on stationary batteries to fill in at certain points. And I think they found those opportunities 6 7 to be useful, but I think they're still studying 8 them. 9 When -- when we step back and look at the 10 challenges that California has had, I think it's --11 it's very sensible for you to bring it up and to 12 ask yourself just what benefits they're getting 13 here. 14 I would -- I would add this one final point, that my colleague, Carl Linvill -- who lives in 15 16 California, is a former Nevada Commissioner -- is 17 just coming out with a blog. And he -- he says, 18 when people look at what's just happened with the 19 California blackouts, he said it's sort of like a 20 Ror- -- Rorschach -- Rorschach test; in other 21 words, everybody sees something that they find to 22 be distasteful. 23 And what his blog does is set out a number of 24 questions. He said, before you start drawing 25 conclusions, ask these following questions.

1	don't think people have really figured out
2	precisely what happened recently in California. I
3	know there's a concern about wildfires, but they do
4	have huge reserve requirements of the California
5	ISO in case there's greater demand. I I just
6	know there are a lot of moving parts there.
7	And I hope I've answered your question.
8	COMMISSIONER BROWN: Thank you. I I mean,
9	I could spent a lot of time with with you on
10	this grid-management issue around the country
11	and and how other states are doing, but I
12	appreciate you your discussion here.
13	MR. FARNSWORTH: Thank you.
14	I guess, just as a as a closing observation
15	with this first slide, grid management is possible
16	where electrification load can be controlled by
17	grid operators. This is the distinction really
18	between electrification on its own and beneficial
19	electrification.
20	Where grid operators can control this load,
21	they can make their system more flexible. And they
22	can encourage they can control load directly or
23	they can encourage consumers through pricing, for
24	example, to move their charging to certain times of
25	day.

1 Next slide, please. It's a pretty obvious 2. statement here, but I think it's a good -- good 3 place to start: EVs, managed properly, as you will 4 see, can be useful to the grid. If they're not 5 managed, they're obviously going to be a problem. This slide and the following 6 Next slide. 7 slide capture two quotations from, I -- I think, an 8 excellent order that came from the Maryland Commission, January 2019. You'll see the citations 9 10 Load from EVs has to be managed 11 effectively; otherwise, you're going to make 12 more -- make it more costly for other ratepayers 13 and make it more costly for the grid to be run if 14 you don't manage that. 15 Next slide. Here, they conclude that pricing 16 is one way to do that and to make greater use of --17 greater utilization of the system and, to the 18 degree that you make better use of the existing 19 system -- in other words, we're not investing 20 additionally; we're just using the existing system. 21 If you can manage the use of that better 22 and -- in improved ways, then you can put downward 23 pressure on rates. In the next rate case, those 24 savings can be captured. 25 I wasn't sure if I was going to raise this

1	point here. I I do this when I talk with folks.
2	I I refer to I ask folks in the audience,
3	have you ever been to Florida and gone out to
4	dinner at 4:30 in the afternoon with your
5	grandmother. People look at me like I'm an
6	oddball, first, but then they start looking around
7	and about half the hands go up.
8	And the point here is grandma is really smart.
9	Restaurants at 4:30 in the afternoon are preparing
10	for dinnertime, 7:00 through 9:00 or 10:00, but
11	they're already ev the rent has been paid,
12	the electricity has been paid, the tables are set,
13	the food is there, the prep cooks are there,
14	everybody is ready.
15	And so, what they do is take advantage of
16	everything being in place to sell a little bit
17	more. And so, they lower the price a little bit
18	because it is 4:30 in the afternoon, but you see, a
19	lot of senior citizens really smart, penny-
20	pinching, who take advantage of these
21	opportunities.
22	This is sort of what I'm talking about here.
23	Electricity in the middle of the night is cheaper
24	and it's not inconvenient, in fact, because you can
25	set charging on your vehicle just like you set the

alarm on -- on your telephone or on your clock radio, if you will, to take advantage of that. EVs sit around 95 percent of the time, and so, this is why there's an oppor- -- big opportunity here.

Next slide. This is one example of -- of a rate design. It's a whole-house rate design for residential ratepayers. Again, California, example -- this is the summertime time-of-use rate with peak, mid-peak, and off-peak prices to manage residential load.

This, obviously, encourages EV charging at certain times of the day. Midnight to noon, when there's otherwise-low demand and when there is more solar resources when they're more plentiful -- that's priced at 11 or 12 cents per kilowatt hour, whereas, the peak price, you see, is closer to 29 cents.

That's when everybody gets home and turns on everything in the house and washes dishes and prepares dinner, that kind of thing. There's no need for EVs to charge then. There's no pos- -- imposition, actually, for them to charge then. If they're -- you can set it and forget it, that kind of thing.

So, rate designs are -- are a typical way of

2.

1	encouraging that EV load, that flexible load, to
2	simply move to times of the day when prices are
3	lower and where, at least today and for the
4	foreseeable future, additional significant
5	additional investment is not necessary.
6	Next slide, please. One last point about grid
7	management. This is a graphic that shows annual
8	load profile in Rhode Island from 2016. On the
9	horizontal, you have 8,760 hours, and the demand in
10	megawatts is on the vertical axis.
11	The key here is that the top 1 percent of
12	hours, over 2016, within the blue line up top,
13	involved 9 percent of the spending on electricity
14	in 2016 in Rhode Island.
15	And the red bar represents 10 percent the
16	top 10 percent of the time involved over a quarter
17	of the spending in Rhode Island for electricity.
18	Thus, the point here, and the heading, "At least,
19	avoid high-cost hours," is the point. If we can
20	move usage away from those times that fall under
21	the red bar, then there are cost savings associated
22	with basic grid management.
23	So, what I've just done here in the first half
24	of this presentation is set out three conditions.
25	I think they're helpful in understanding the

1	difference between electrification and beneficial
2	electrification. They they're not a perfect
3	framework for analysis I will admit that right
4	up front but it's a way of understanding, should
5	I buy this EV or not, or should I approve this
6	project or not.
7	It's it's a sort of a first blush
8	framework for understanding things: Can it save
9	consumers money over the long term, does it reduce
10	environmental impacts, and does it enable better
11	grid management.
12	So, with that, I'd like to move to the second
13	half of this. So, next slide, please I should
14	stop here. Are there any questions before I move
15	on?
16	CHAIRMAN CLARK: Any questions?
17	All right. Commissioner Polmann.
18	COMMISSIONER POLMANN: Thank you,
19	Mr. Chairman.
20	And thank you for being here. This is very
21	interesting. Mr. Farnsworth, I've got a couple of
22	questions up to this point, so maybe we can address
23	those here since you you're taking a pause.
24	Let let me point back to Slide 12 and 13 in
25	general. And you you were talking about

1	effective management of the EV load. And what I'm
2	wondering is have you identified specific best
3	practices or or that concept in other states
4	that and as we're looking at the management
5	concept, do you have suggestions what we should be
6	considering maybe at a high level with regard to
7	policy-type initiatives on on EV load
8	management?
9	Do you have some suggestions on that in terms
10	of where we might be looking around the country for
11	practices established in other states; maybe not
12	states in particular, but sort of the best-practice
13	concepts?
14	MR. FARNSWORTH: Yes, sir. Commissioner
15	Polmann, I I mentioned and cited twice to that
16	Maryland order. I think Maryland set a really
17	COMMISSIONER POLMANN: Okay.
18	MR. FARNSWORTH: good real they've
19	done a really good job.
20	As I mentioned, they had a huge tent
21	participation. This was part of a larger effort
22	for them to do grid modernization. It looked at a
23	number of things, but electric vehicles were part
24	of that. Not only did they bring in different
25	stakeholders to get their viewpoints, they ended up
i	

1	putting it putting it in the lap of the
2	stakeholders themselves saying, okay, why don't you
3	all propose things that you think we, the
4	Commission, ought to be doing.
5	As it turned out, that group of stakeholders
6	organized. They ended up proposing about a dozen
7	different things. The Commission reviewed them,
8	chose about five. I think, what you had, in other
9	words, is an exhaustive policy discussion, informal
10	policy discussion, but really informed. I think
11	stakeholders can be very helpful here.
12	A couple of things they concluded and
13	that's why I quoted them there is that, at
14	certain times of day, electricity is just going to
15	be less expensive. If
16	COMMISSIONER POLMANN: Okay.
17	MR. FARNSWORTH: there is less-expensive
18	fuel out there to run an EV, then it makes sense to
19	encourage a utility to find out when those times
20	are to make those times available.
21	As it turns out and I think it's a general
22	practice utilities are out there taking
23	advantage of that lower-cost electricity and
24	turning around and it making it available to EV
25	customers. I think they're sharing savings, so
i .	

customers get some benefit, utilities get some benefit.

And what they're doing is getting up -they're basically selling more lemonade -- this
is -- that's my simple, basic economic example all
the time. They're selling more electricity for the
existing investment that they've made.

And they're selling -- not -- it's not just electrification, but it's electrification at a smart time of day. And so, what you have is that basic management -- it's done with rate design.

And so, there are times of day when electricity is lower cost and they're taking advantage of that.

It depends on where you are in the country as to whether that electricity is cleaner or not. In other words, what's the marginal unit at 2:00 in the morning in PGM? I can't tell you that right off the -- the top of my head. Or what's the marginal unit going to be at 2:00 a.m. in California or in Florida or in Texas or in Minnesota -- but that's the lower cost and the opportunity for potentially cleaner generation.

The states with best practices -- I would refer you, as I did, to Maryland. I would say

Minnesota is another state that's given us a lot of

1	thought, as has Michigan. I would look at those
2	three states.
3	COMMISSIONER POLMANN: Okay.
4	MR. FARNSWORTH: California has as well, but
5	I'm going to avoid talking about California where I
6	can.
7	COMMISSIONER POLMANN: Okay. Well, that's
8	very helpful. I think what you've described is
9	a is a very thorough, comprehensive process with
10	all the stakeholders engaged and and then
11	identifying some specific out of that, in that
12	focus.
13	You had mentioned in your in your comment
14	here the rate issue. And that that brings me to
15	your Slide 14. And it kind of raises the question
16	on how we look at and how the utilities consider
17	their baseload units compared to other types of
18	generation and and I don't know that this is
19	being done elsewhere, but should there be
20	consideration and it and it comes back to
21	your your time-of-day question.
22	Should there be any consideration or have you
23	seen this elsewhere done effectively with different
24	rates associated with different generation units,
25	application of real baseload versus time of day,

1	peaking units, for example, or how that how that
2	matches up with the the EV as a as a demand
3	base, demand type.
4	It it would seem a very interesting
5	question, but I I don't know how that would come
6	into play. Certainly we know it it occurs.
7	Have you seen anyone really tackle that question?
8	MR. FARNSWORTH: Well yes, but assuming
9	economic dispatch and one doesn't have to be in
10	an organized, wholesale market to for that to
11	happen. Baseload plants, by definition, are going
12	to continue running. They don't get turned on and
13	off, run up and down like, for instance, fast-
14	ramping natural-gas plants that are brought on at
15	peak times or
16	COMMISSIONER POLMANN: Yeah.
17	MR. FARNSWORTH: So, they will continue
18	running. And and they're out there overnight.
19	It really depends the an the ultimate answer
20	to your question depends on how how your load is
21	served in your state or parts of your state over a
22	24-hour period, whether it's December or June.
23	But economic dispatch would argue that the
24	the less-expensive plants are going to run more
25	often and, as demand loads up, as you ramp up to

that peak that -- that we see in that Slide 14 -you know, 5:00 to 8:00 at night, you're bringing
everything on and -- and, as you add more units,
they may run less -- less time over the course of
the day, over 24 hours, but as you bring them on,
they're more expensive, but you're adding them up
to meet that demand.

And so, to the degree that you're adding resources to -- to charge your car at peak time, you're -- you're paying for those added resources and you're also adding demand to require more.

The opposite is true. If you're moving to other times of day where there is very little demand, you will be picking up what's out there in the case of baseload running. You'll be picking up what's out there, to the degree you have renewables.

For instance, there's a lot of wind running overnight in Texas. They have -- they have a big market for renewables. And most of us are asleep at night. Most of us are not using electricity at night, but the wind is blowing and those plants are running -- those -- those wind plants are running. Same in Minnesota, for example. The wind blows a lot more at night, let's say.

So, what happens is most rate designs that
you'll see around the country for electric vehicles
aren't quite as -- as broken down in a granular
manner as that Sacramento example. They just have
on-peak and off-peak rates.

And so, what you see is an opportunity in

Texas -- if the wind is blowing at night and you

move stuff to the middle of the night, will that be
picking up that.

The National Labs have looked at how much renewable energy is curtailed; in other wo- -- in other words, thrown away because there's no demand even though the wind is blowing or the sun is shining. And that's -- it's in fairly-low percentages over the last five years across the country, you know, 2, 3, 4 percent.

But if you can move this demand to those times, then you're able to -- to pick that up. And so, it can be through direct load control or -- or pricing, given the example I just provided you there.

One last point. Navigant has put out a number of studies that reflect this. They did a study with RAP a few years ago that looked at time-of-use rate design and found that you could really change

1	behavior with a time-of-use rate design where
2	there's an on-peak/off-peak difference of two-to-
3	one, three-to-one, something like that, and
4	furthermore, that you influence behavior even
5	more even more if you combine technology with a
6	rate design.
7	In this case, if you've got a charging meter
8	that allows that to happen along with pricing, that
9	encourages that to happen.
10	COMMISSIONER POLMANN: Well, thank you for
11	that answer. It's very thorough. And I think
12	to that last point, I think this potentially
13	matches up very well with smart meters that are
14	being widely installed. So so, thank you for
15	your answers, Mr. Farnsworth.
16	MR. FARNSWORTH: You're welcome.
17	COMMISSIONER POLMANN: Yeah, thank you.
18	Mr. Chairman. I appreciate the time.
19	CHAIRMAN CLARK: Thank you.
20	MR. FARNSWORTH: I can you give a sense
21	of of the time that I have, if there are no
22	other questions?
23	CHAIRMAN CLARK: We're we're good on time
24	right now. If the second half is as long as the
25	first, we'll be in good shape.

1	MR. FARNSWORTH: Very good. Thank you.
2	So, here we go. Let's talk about taking first
3	steps towards transportation electrification. Now,
4	the paper the discussion I just gave you is
5	based on a paper called "Beneficial
6	Electrification," and there's citations to it at
7	the end. I hope it's fairly readable. It's not
8	too long. It's about 30 pages.
9	The following discussion is based on a paper
10	called "Taking First Steps," and it's it's from
11	looking at what utility commissions have been doing
12	in in this regard. PUCs all over the country
13	are taking first steps. And we've typically seen a
14	handful of topics that arise in in this context.
15	Next slide, please. We've discussed this a
16	little bit. The first is simply meeting with
17	others in state government and then with
18	stakeholders to get a sense of their positions, get
19	a sense of their understanding and their interests
20	in this.
21	Typically, for example, in states you with
22	Volkswagen settlement money, there's been a big pot
23	of money. The environmental regulators in states
24	have been the ones that have been overseeing the
25	allocation of Volkswagen money, but that's really

1	part and parcel of the discussion we've had here.
2	So, coordinating with other parts of state
3	government, I think, is really important, as well
4	as bringing in as bringing in stakeholders
5	earlier on.
6	There's one there's one power that a key
7	power that utility commissions have and that's the
8	power to convene. You can bring people together.
9	People snap to if you ask them to come to a
10	meeting.
11	And this is an opportunity to learn. You can
12	proceed informally. You don't have to put yourself
13	out there. You can get a third-party facilitator
14	to organize and conduct these meetings, but it's a
15	great opportunity to proceed informally and
16	learn learn from each other because I personally
17	think it's okay to recognize that this is a
18	learning process and that it's quite appropriate to
19	be engaged in that way at at this point.
20	COMMISSIONER FAY: Mr. Farnsworth, I
21	MR. FARNSWORTH: Yes.
22	COMMISSIONER FAY: Can I jump in and ask a
23	quick question? So, you men you mentioned the
24	Volkswagen settlement. I know different states
25	have taken different approaches to the distribution

1 of that. I think some are -- are sort of battling 2. it out between the Legislature and the Governor. 3 Some have plans that go far beyond what the 4 settlement funds provide, and others have just 5 pinpointed on certain areas, like buses and diesel issues. 6 7 In Florida, we have -- as you probably know, 8 we have a -- a first stage of our electronic-9 vehicle infrastructure that's been approved and the 10 operation is moving forward under our Department of 11 Economic Regulation. 12 So -- so, we essentially have multiple steps 13 that we'll use to roll out electronic -- or 14 electric in- -- infrastructure. And I think, when 15 you look at that, it makes a lot of sense. We're a 16 large state. There's clearly conversations and 17 thoughts about range anxiety and the ability to 18 travel around the state without those Level --19 Level 3 chargers. 20 But I think for the -- for the Commission, it 21 raises a really good question because you and 22 your -- your slides -- and you're going to continue 23 to talk about this a little bit -- there's 24 opportunities for the Commission to engage in 25 different roles and, in Florida, we -- the

Legislature, as you know, this past year, passed

Senate Bill 7018, which essentially said the

Department of Transportation would be coming up

with a plan for electric-vehicle infrastructure,

what they deem a master plan. And the Commission

has been included in that -- that legislation, to

be part of the discussion.

And so, as I take all that into account for what we can do or -- or not do going forward, it seems to me that we -- since we have a state and -- and our Governor and leadership in the Legislature that are actually moving forward with building these stations quicker than some other states are doing so, I think it -- it could likely give us an opportunity to see what's working, what's not working, and then maybe what's missing, from a regulatory standpoint.

And I think that's advantageous for us because the others who are not invest— — not investing those funds into EV chargers will sort of limit their ability to decide what is right for their state, and I think we might have the opportunity to build on that.

So, could you just maybe address the -- the idea that we should be looking at that process now

1	to help us make decisions for the future.
2	MR. FARNSWORTH: I think that's I I
3	agree with all the the points you've just made.
4	I think it's you've laid out things very
5	clearly. I agree with that, especially with your
6	central point is, are there opportunities here,
7	what can we we do with that.
8	When I think about what 7018 sets out, I think
9	it's a great opportunity to work with the
10	Department of Transportation because this is a a
11	time when as as the power sector changes
12	and it's changing around the country in different
13	ways you've got a clear intersection between
14	transportation needs and electric-system needs.
15	There are implications for planning and how you all
16	plan.
17	When I think about the the requirements of
18	7018 that call for evacuation planning and making
19	sure that EVs contribute to making evacuation work
20	more smoothly in in your state, I think this is
21	a great again, an opportunity to use the
22	utilities that you work with to get them to help
23	you realize how best they can contribute to the
24	work that's being done.
25	And in in sort of crude terms, the question

1 How can you leverage what the utilities can do is: 2. with what the -- the other branches of state 3 government -- I apologize for not remembering the precise organization -- what they've done with 4 5 Volkswagen money and investment fast chargers; how can you take advantage of what's already happening, 6 7 where investment is likely to occur; and how can 8 utilities contribute to furthering state -- the 9 state policy that's reflected in how they're 10 rolling things out, the state policy that's 11 reflected in how planning for evacuation is rolled 12 out. 13 One very simple observation might be what 14 would -- what would happen if you were to overlay 15 the distribution-system maps over the 16 transportation-system maps. The transportation 17 planning might say we have to build -- we have to 18 build a DC fast charger here, but if you overlay 19 the distribution-system map, you might realize, 20 well, if you just move a quarter of a mile away, 21 there's already a substation there. 22 sufficient -- there's sufficient infrastructure 23 already in place. 24 You could save money and get some charging 25 that you need that's relatively close without

1	spending more money. So, it it's simply
2	leveraging what each other is doing to to
3	achieve those goals. That's just a simple example.
4	But I I would I would say that, as far
5	as the way you go about planning and the way the
б	Department of Transportation goes about planning,
7	for them for them, it's the transportation
8	system; for you, it's the electric system. You can
9	probably realize other efficiencies and and
10	synergies like like that one example I just
11	gave.
12	COMMISSIONER FAY: Yeah, I appreciate that.
13	And you and you think, based on the the
14	reality that we already have approved stations
15	going out in this first tier that's something
16	that I mean, do you see that as something that
17	we can look to to build on that master plan to help
18	sort of make better decisions when when we
19	engage with DOT on that?
20	MR. FARNSWORTH: Yes, sir, I would hope so.
21	Yes.
22	COMMISSIONER FAY: Okay. Great.
23	Well, I appreciate the help. I I think
24	there's so much information on this and the content
25	is constantly coming out that we're as a
	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Commission, we're trying to do our best to make

sure we stay engaged and informed. And this is a

great example of that because you've got a number

of different perspectives, including recognizing

some of the other states and what they've done that

might be helpful to us.

And I know Commissioner Brown and I both have worked with NARUC and their resources to look at what the different regulatory commissions have done going forward. And I just -- you know, my concern is that there's so much coming out so quickly and there's some uncertainty to us that we could, as a Commission, miss an opportunity to support some policies that would, in your words, help us leverage what is going to be put forward in the near future in our state.

And so, I just want to make sure that we're doing everything in our power to inform on that master plan, but also just to look at, as these units move forward -- like your example about near a substation is a good one -- that we are finding ways to be supportive of growing that because we -- we constantly hear the issue of -- the chicken and the egg. I mean, are you going to go get an EV if the infrastructure is not there to

1	charge.
2	And my my belief is that when the prices of
3	EVs become cheaper than a combustion engine, we'll
4	see a significant tipping point. And one of the
5	only things that would be in the way of that would
6	be a lack of infrastructure charging
7	infrastructure. And when we get to that point, I
8	want to make sure we've done reasonably everything
9	that we can to support having that in place and
10	encourage customers to make that switch.
11	So, I appreciate all the time today.
12	MR. FARNSWORTH: Thank you. That's very
13	encouraging.
14	So, I guess my point here is that coordinating
15	with other parts of state government, useful;
16	getting the most getting the most out of
17	stakeholders they can be really helpful.
18	I I've seen in processes where stakeholders
19	submit comments. Then you give them a chance
20	people a chance to submit responsive comments. Not
21	everybody has to do that, but all of a sudden, it
22	brings things into focus and and it's very
23	helpful and gives your staff a good entry point.
24	They don't have to figure out everything. They can
25	use stakeholders to to get them part of the way.

1 Those are all good opportunities.

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But my point here is that, as you bring together folks in these processes, you'll -- you'll -- you can expect to engage on certain topics. Let's just talk about those now.

We've already discussed Next slide, please. managing EV load, but, boy, it comes up. States recognize the need to tackle this issue early. And it's not like, well, when we get 10-percent penetration of EVs, we'd better start thinking about this because the importance of coordinating this and organizing it not only avoids unnecessary costs, but it -- it allows you to get benefits to EV users and benefits to others on your grid in a way that's -- that's just useful and conducive to expanding the market for EVs. managing EV charging rather than simply drawing on the system allows you to deploy those -- these resources in a way that benefits the system.

Next slide, please. Rate design we've also talked about here. States recognize that rate design is a good way to secure these benefits and -- and to affect charging behavior. Not -- not so difficult to do and there is a lot of literature out there and there's a lot of experience in doing

1 rate designs to get these results at -- that you 2. might want to produce with EVs. 3 Next slide, please. EV charging is a really 4 broad topic because what -- what happens is, when 5 you start looking at it closely, you realize there are many different submarkets for EV charging. 6 7 There are residential -- there's 8 residential charging. I have a -- I have a single 9 home and I have a garage next door and I can charge 10 my EV in a certain way. Okay. But loads of 11 Americans live in multi- -- multi-unit dwellings, 12 okay, and condominiums. Charging there is a little 13 different, not quite so easy. Many people live in 14 multi-unit dwellings that are -- that don't have 15 the access to parking spaces. That's a different 16 submarket. 17 Charging for transit systems -- another thing. 18 FedEx wants to open up a depot where a bunch of its 19 vehicles are going to be electrified. That's a 20 different charging issue as well. 21 So, when states look -- are looking at various 22 models for EV supply equipment, called EVSE, there 23 are different approaches that states have taken to 24 ownership. 25 On the one hand, the way utilities do it

1	today you know, you can you build a house
2	and and they drop a line. They do a line drop.
3	And part of the price of that is the cost,
4	rather, is socialized across the entire system.
5	Ratepayers pay for part of that.
6	If there's a a longer line extension, well,
7	there are arrangements for the first person out
8	there to pay for more of it, but when the next
9	person comes on that line extension to share some
10	of the costs that that the first party would
11	have paid had they been the sole owner, et cetera.
12	There is a still an additional model that's
13	pretty comprehen it's pretty commonly been
14	adopted across the country. It's called
15	Make-Ready, which sort of looks like a line drop
16	plus a little bit more.
17	And so, what it does is allow the utility a
18	return on the investment in a typical manner, but
19	what they're doing is providing maybe a little bit
20	more beyond the meter beyond the meter, itself,
21	to I'm sorry beyond the the panel that
22	lets you in the house.
23	But there's a little encouragement for
24	there for them to participate in this program
25	and that allows the cost of connecting an EV

charger to the grid to happen a little bit more easily.

As I mentioned, states are approaching this topic in very different ways. Some feel that utilities should be focused only on monopoly services and that this could be competitive. While that may be true, experience has borne out that you don't see a lot of this activity occurring until utilities are allowed to participate in this.

On the other extreme, there are just hard-toserve areas where utilities are perfectly suited to
providing these -- this charging infrastructure.

Think about -- I'm dating myself a little bit -but think about phone booths. Okay. Tele- -telecommunications providers back in the day were
required to put phone booths up, public phone
booths.

There probably was not a business case for putting phone booths everywhere. Some places didn't -- phone booths didn't make any money, but the public interest was served by giving access to everybody. And so, this is a sort of a balancing test.

And I simply want to point out that there are many submarkets for EV charging. There are

1	different rationales for providing for allowing
2	utilities to make these investments and recover
3	them in rates.
4	And that's something this sort of balancing
5	and analysis something that utility commissions
6	are eminently suited to doing. And I I wish you
7	luck as you engage on those topics. It's going to
8	be quite fact-specific.
9	COMMISSIONER BROWN: Mr. Farnsworth, if I may,
10	I'd just like to ask you a question.
11	MR. FARNSWORTH: Yeah.
12	COMMISSIONER BROWN: I really appreciate the
13	dialogue, the point that you just made, too.
14	I want to get back to, though, the rate
15	design. And I know you have knowledge about what
16	all of the states are doing and what the most-
17	effective rate designs that are out there to
18	protect non-EV customers.
19	And I I'd love to hear your thoughts on
20	what what type of rate design which states
21	should we be looking at in terms of rate design to
22	insulate the non-EV customers from subsidizing
23	those EV customers.
24	MR. FARNSWORTH: That's a great question. I
25	think there are are lots of good examples out

1	there. It turns out that EV charging and EV
2	customers aren't necessarily subsidized on being
3	subsidized by other customers. In fact, what
4	they're doing is providing benefits to the system,
5	if they're managed properly.
6	There is evidence of that in California.
7	California has been at this for a long time, and
8	frankly, when when we have national discussions
9	about what states are doing, California comes up
10	and and people sort of shift in their seats.
11	And I I have to laugh because I think of
12	California as sort of one of like the really
13	interesting you know, if this is a classroom,
14	they're a really smart student.
15	As as is pointed out sometimes, they
16	they move ahead and they run into lots of problems.
17	There's a Enron problem. There's recently been
18	blackouts. How is that happening, right? So, I'm
19	not saying they're perfect, but they have engaged
20	in this in lots of ways with IOUs. Southern Cal
21	Edison, Pacific Gas and Electric, San Diego Gas and
22	Electric have really interesting rate designs that
23	are worth considering.
24	The paper there's some resources here that
25	I'll point you to that explore those rate designs.

1	We also refer to lots of other organizations
2	that that have that have looked at this topic
3	as well.
4	As I mentioned, typically, a lot you see a
5	lot of rate designs are on-peak and off-peak. To
6	the degree you're charging off-peak, at least
7	today, you're you're returning revenues to a
8	utility. You're not adding any investment. And
9	that's put that puts downward pressure on rates.
10	If you're allowing consumers, through no
11	management or you're allowing consumers through a
12	not-very-well-designed rate, to charge on peak,
13	what you're doing, arguably, is costing other
14	customers money.
15	So, a rate design needs to needs to
16	capture, as best possible, the cost associated with
17	charging at different times of day. There's
18	COMMISSIONER BROWN: I agree. I agree.
19	MR. FARNSWORTH: time-of-use rates.
20	There there's critical-peak pricing, which
21	which says, look, you can charge on peak, if you
22	want, Mr. Electric Vehicle, but you're going to pay
23	for it.
24	There's a very simple example here in Vermont.
25	There there's an on- and off-peak program that

1	Green Mountain Power has provided. They use
2	ChargePoint. I have a ChargePoint app on my
3	telephone. They notify me 24 hours ahead of
4	time they say, you know, tomorrow, starting at
5	4:00, for example, they'll say, that's a that's
6	going to be an on-peak period. We want you to know
7	that. They don't say, Farnsworth, you can't charge
8	then. You can, but they want you to know that.
9	Well, I won't charge then because, in my
10	agreement with them, I've got a good rate when I
11	don't have to charge when I I've got a good
12	rate when I charge at better times that they've
13	notified me about.
14	And I've got all sorts of time to charge.
15	There's no need to charge on-peak, but if I do, I
16	pay four times what my basic electricity rate would
17	be, 15-cent kilowatt hour times four. So, I pay 60
18	cents a kilowatt hour. So, that's not going to
19	kill me, but it's really annoying if I can charge
20	at, you know, far-less expense other times of the
21	day effortlessly and I didn't do anything to avoid
22	that peak.
23	COMMISSIONER BROWN: Very interesting. Thank
24	you so much.
25	MR. FARNSWORTH: I would add that, again, the

1	states that I mentioned in response to Commissioner
2	Polmann's question have developed really sensible
3	rate designs. And, like I said, these papers that
4	we put out cite to other papers that go into rate
5	design in far greater detail.
6	COMMISSIONER FAY: Mr. Farnsworth, I've got a
7	follow-up question.
8	MR. FARNSWORTH: Yes.
9	COMMISSIONER FAY: Unless Commissioner
10	Brown, unless you have anything else.
11	COMMISSIONER BROWN: No, thank you.
12	COMMISSIONER FAY: So, I appreciate you
13	talking about the different times and rates of
14	of charging. In a similar position, if you charge
15	at night, you in Tallahassee, you get a better,
16	reasonable rate. And if you need to taking a
17	trip somewhere, you have to use a Level 3 charger.
18	It costs significantly more.
19	And I think, to your point, that for some
20	people, that's that's not an option. If you're
21	traveling and you've got to jump off the highway
22	and charge your vehicle on a Level 3, you're going
23	to pay that price.
24	And I think it's important that, when we talk
25	about all this, we include the reality that the
	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

owners of these vehicles do have some additional
costs. And that's -- that's part of the process.

You obviously don't have to stop at a gas station
to fill up, but you still need to charge at those
Level 3 charging stations.

And I think there's, like -- there's a difference -- and I don't know if I'd call it rate design, necessarily, but there's just a reality that, depending on the setup, that you might have a third party and/or a utility charging those -- those different rates, which seems to be effective.

But I was wondering if you have seen an example of the -- the demand being satisfied by a state that -- that hasn't engaged with the utilities. It seems extremely challenging to have a structure that would satisfy demand and encourage consumers to buy green vehicles if the utilities aren't investing on their end.

MR. FARNSWORTH: I -- I think I -- I agree with your observations. It's -- sometimes charging is going to be expensive. And when you think about gasoline, you may be -- so, out in the countryside and you want -- you need some gasoline because you just don't want to run out of gas. And you stop, and you say, wow, this place is expensive. Well,

you might not fill up. You might just enough to
get to a place where the station is not so
expensive and you sort of manage things that way.

I think over -- over time, it's likely that batteries are going to get bigger or they're going to have greater capacity that will allow for more flexibility, but at -- but at the moment, I think you've described the -- the situation -- I think you've described the situation correctly. And people have to figure out how to best manage their travel. And they're going to run into some expensive -- to run into expensive examples.

I think any state that hasn't started to have these discussions will have a situation where charging works the way -- the way it -- the way it happens to work today; and that is, it might be just flat rates paying for -- paying for electricity.

In my example, in Vermont, it will be 15 cents, if -- if Green Mountain Power didn't control this, it would be 15 cents at 5:00 at night, it would be 15 cents a kilowatt hour again at 2:00 in the morning. And until states get ahold of that, there's a problem associated with charging during peaks that can add costs to others. And there's

1 the missed opportunity of charging off-peaks when 2. somebody can get really far-less-expensive fuel to 3 get a mile down the road. 4 And so, the sooner that states take on this 5 topic and explore this and understand that, the sooner they -- they can put in whatever approach 6 7 they -- they think is suitable, whether it's fixed 8 management or whether it's rate design to -- to 9 manage EV charging in a way that's -- that's most 10 useful and advantageous to everybody on the system. 11 COMMISSIONER FAY: Yeah, thank you. I -- I 12 appreciate that. And I'm probably overly 13 optimistic, right. I -- I'm hopeful that we're 14 going to see growth at a rate that is significant, 15 but I guess with that -- that, you know, optimism 16 comes the reality that there might need to be load 17 adjustments and -- and that question is going to 18 come up on the back end, but I almost -- I hope 19 that we have that -- that issue come to us because 20 that means the growth of the EVs and the use of the 21 load on -- on our grid is growing. 22 So, I guess only time will tell, but I do 23 appreciate the feedback. 24 MR. FARNSWORTH: Okay. 25 And if I may add another COMMISSIONER BROWN:

1	quick little question after Commissioner Fay's
2	thoughtful discussion with you, regarding the grid
3	benefits and whether we've you've been able to
4	see actual, quantifiable grid benefits in states
5	around the country, whether it's through the
6	battery storage or load management I mean, can
7	you quantify that in some of the states that you
8	are looking at?
9	MR. FARNSWORTH: You know, the the best and
10	most accessible characterization of this that I
11	have seen was a paper put out by Synapse Energy
12	Economics about charging in California. They did
13	this about two and a half or three years ago.
14	(Simultaneous speakers.)
15	MR. FARNSWORTH: Just recently. Well, see,
16	California has been at this since 2011. And what's
17	really interesting is they spent for example,
18	they spent several years waiting for something to
19	happen. And then the Legislature said, no, let
20	utilities invest in this infrastructure and then
21	then things started to happen.
22	But this is an example of rate designs because
23	you have big IOUs, the ones I mentioned earlier,
24	developing rate designs to see to see whether or
25	not charging could be managed and and seeing
1	

1 what the economic results of those rate designs 2. would be. 3 Synapse came out with a study about two and a 4 half years ago, as I mentioned, a short paper. 5 then they updated that, I think, in the last six I can -- I'll make a point of months or so. 7 getting you that paper. 8 But what they found out was that -- and I 9 apologize for not having the precise numbers -- but 10 for many, many hours, hundreds of thousands of 11 hours of charging EVs, a minuscule amount of 12 distribution system has had to be upgraded to 13 accommodate the growth of EVs there. 14 They've been able to manage to the times of 15 day when nobody is using the electric -- well, 16 relatively speaking, no one is using the 17 There's all this capacity out electricity system. 18 there available, and they haven't had to invest 19 large amounts. 20 I think that's a huge lesson for states 21 because, oftentimes -- and I made the same mistake 22 when I started thinking about this. I -- you're, 23 all of a sudden, sort of solving for 2050 or you're 24 solving for 50-percent penetration of EVs. 25 You don't have to do that. You should start

1	thinking about 2024, 2025. You should be thinking
2	about 1-percent penetration, 3-percent penetration
3	and solve for that.
4	It's a manageable effort that you can
5	undertake to manage this charging, to see how
6	investment works, to see to find out the things
7	you need to learn about, what sort of what
8	how do customers behave to a rate design that is
9	that that gives you an energy charge that's half
10	of what the normal charge is or that's a third of
11	what the normal charge is. How how do they
12	behave. What do their load shapes look like. What
13	does that do for the power system.
14	COMMISSIONER BROWN: Thank you.
15	MR. FARNSWORTH: These are all the things you
16	need to learn.
17	COMMISSIONER BROWN: Thank you. I like
18	Commissioner Fay, I am also optimistic that the
19	growth in Florida will exceed expectations. So,
20	having that information about how the grid is
21	managed is effectively with that growth is very
22	important for us.
23	MR. FARNSWORTH: I understand. I I agree
24	with you both in that respect. Certainly do.
25	So, EV charging is a topic you're going to be

1	running into. I believe that you've already dealt
2	with the question that most states have to deal
3	with: Is a charging EV-charging provider a
4	utility. Do they need to be regulated. Most
5	states either administratively or legislatively
6	have said, no, this is a service. This is
7	different than regulating a utility.
8	So, it it it's still as I mentioned,
9	you still have a number of different submarkets for
10	charging to consider and they come with their
11	special aspects.
12	Next slide, please. I have a couple more of
13	these questions to these common questions to
14	to deal with here. What I want to do is emphasize
15	the importance of programs. If you want consumers
16	to be able to navigate this, utility programs are
17	going to be very, very important.
18	I want to give you sort of two anecdotes to
19	to think about. So, at a NARUC meeting about ten
20	years ago, there was there was an a utility
21	executive who ran that large IOU's energy-
22	efficiency programs. And he was he was a good
23	speaker, really provocative, kind of fun.
24	And he said he got up and said to a room-
25	full of regulators he said, regulators think
1	

that I implement energy-efficiency programs. And
then he just paused because, of course, that's what
everybody thought he does.

He said, I don't implement energy-efficiency programs; I sell energy efficiency. And he went on to explain, I sell energy efficiency just like I — just like I sell automobiles or outboard motors or condominiums. My job is to sell, to make customers comfortable with my product, make them understand, to make them comfortable with paying what I'm asking them to pay for.

And I think that's a really important point for regulators because you are not marketing specialists. You don't have the contact with customers. You're sort of looking at programs from the implementation side, which I think is the appropriate point of view to take.

But when you think about, for example -- let's just -- you know, a young woman, she wants to buy her first new car. She's been driving a used Honda -- like the Honda from my example, right. She's been driving that for five years. She wants to buy an electric vehicle.

Where is she going to learn about what cars are available to her. Where is she going to learn

1 about what rebates are available. Where is she 2. going to learn about the charging resources 3 available to her or if there's a good charging rate 4 that would allow her to charge her car in a -- in a 5 useful way that would save her some money. Where is all this information? 6 7 Is -- is there a pro- -- will the utilities 8 provide a program that provides that information and that will enable her to make an informed 9 10 decision or is she just going to be overwhelmed and 11 fall back on, you know, another Honda, that kind of 12 thing. So, programs are -- I think are really 13 14 important and -- and for regulators to understand 15 that really means that they -- they have to allow 16 utilities the ability to market and -- and I'm not 17 saying just giving utilities free rein, but they 18 have to be able to allow utilities to market and to 19 sell this in the same way that that efficiency 20 director from the IOU said, I sell efficiency; I 21 don't implement programs. I think that's really 22 important. 23 By the same token, it's critical that, as 24 regulators, you get plans from utilities that say,

25

These are our

this is what we're going to do.

goals. This is our budget. This is the time
frame. These are the metrics by which you can
measure -- measure our reasonable progress at
achieving these goals.

There's a distinction here, but I think it's really important that the consumer, the customer, gets put at the center here if you want to see things move ahead and you want utilities to be part of this market development.

Next slide, please. As I mentioned earlier, it's -- I encourage you to be comfortable with learning about this topic. You don't have to know it at all.

And one way of learning about this is to use pilot projects. There's a learning facet to it, but pilot projects are also an on-ramp to an actual program that the utility can run. I think of pilot programs as just transitional arrangements.

It will -- but they allow for experimentation. They allow for you to learn and for the utility to learn and for the public to learn because this is all new to -- it -- new to all of you. And, like I said, pilots can be a transitional arrangement for you to scale -- to the degree that you want to see that happen, scaling up to large programs.

I -- I've talked with a number of staff at utility commissions who say, so, what should this cost, what should a charger cost, what should it cost to install a charger, what should the rate design be to get customers to -- to not charge on-peak. All these questions come up.

And I think some of the answers are out there, but I think some are not because it's just going to be different in Minnesota maybe than it is in Florida, and it's going to be different in rural Florida than it is in -- in the cities in Florida.

And pilots allow you to learn and they allow you to scale up as -- and I think it's really important to consider -- to consider how -- how you go about doing this and taking on this -- this larger challenge. You can limit the budget. You can limit the time frame. You can build in next steps.

So, a 24-month pilot -- after 18 months, you can be moving to the point where the utility is telling you how they're going to build up this program -- this pilot into a real program or how they need to make changes in order to build up into a real program that -- that affects more than maybe a hundred or several-hundred customers.

2.

1	CHAIRMAN CLARK: Mr. Farnsworth, I know we've
2	got several the Commissioners are going to have
3	several questions. If we could wrap it up pretty
4	quick, we can move into questions. We still have
5	several other items we need to cover this morning,
6	please.
7	MR. FARNSWORTH: Certainly.
8	Next slide, please. I'm I'm going to
9	provide you a couple of recommendations and
10	you've already heard them: Take the opportunities
11	to learn about this. Coordinate with your the
12	rest of the organizations in in state
13	government. Use those stakeholders. They can be
14	very useful to you.
15	Next slide. Consider using pilots to learn
16	about this and to learn about how Florida can do
17	this.
18	Next slide, please. I've already mentioned
19	this, a simple example: Fixed budget, fixed time
20	frame, number of customers, gather data related to
21	time-of-use rate design, for example. Okay. Put
22	in metrics so you get reporting.
23	Don't do a pilot with an annual report. Get a
24	spreadsheet every three months or every six months
25	looking for six or eight things to make sure that

1	you're just keeping track of this. And share this
2	with stakeholders so they can help you take these
3	steps.
4	Next slide, please. Here are some resources.
5	I think all those links are live, so you can go to
6	these resources. Hope they're they're useful to
7	you.
8	Next slide, please. Thank you very much for
9	listening. This I've really enjoyed talking to
10	you all please. It's been a pleasure.
11	CHAIRMAN CLARK: Thank you, Mr. Farnsworth. I
12	know we've had you've generated a lot of
13	questions and a lot of excitement. I'm afraid
14	there's probably going to be several more questions
15	that you're going to have to endure here. So, all
16	right. Guys, opening up. Any any questions?
17	Commissioner Polmann.
18	COMMISSIONER POLMANN: Thank you, sir. I
19	I'm sorry we have to endure this. It sounds
20	painful, Mr. Commissioner Mr. Chairman.
21	Just one one point. Thank you very much
22	for for raising the issue of pilot programs.
23	We we have a great enthusiasm here in Florida
24	for pilot programs, and maybe more than we should,
25	in some regards.

1	And from your experience, if if if you
2	can, I I know there's no real way to
3	characterize the length you had mentioned some
4	number of months, but it really is, you know,
5	project-program specific.
6	Have you seen any any general experience
7	around the country I appreciate the comments in
8	particular about the fact that, you know, there
9	should be regular reporting, don't wait until the
10	end of the project, but but can you be more
11	specific about the types of data, the types of
12	analysis? What is the purpose of a pilot in this
13	particular type of program?
14	MR. FARNSWORTH: Certainly.
15	COMMISSIONER POLMANN: I feel I agree with
16	you, you know, it's something to do, but what are
17	we looking for? That's the key. That's always
18	been the key, in my mind, you know, let's we're
19	going to measure something, we're going to learn
20	something, we're going to come out of that with a
21	result, but what is that result?
22	MR. FARNSWORTH: Sure. That's that's
23	those are exactly the questions to be asking. So,
24	that that rate-design example I gave you I
25	suppose we could use that as an example.

Instead of doing a pilot, you could simply assume that a rate design, a time-of-use rate design, that has a differential price, like an off-peak price that is three times less expensive for energy charge -- energy costs than an on- -- than a typical 24-hour standard price -- that might be suitable.

And you could encourage the utilities -utilities could come in and say, we want to do this
for all -- all our ratepayers, whole house; or they
could come in and say, we want to do this for EV
ratepayers; or they might not want to do this, but
I would encourage you to ask yourself what -- what
sort of things do you want to learn.

Is -- is off-peak charging as -- as useful as possible? If that's one of the things you want to learn, then you could have a pilot where the utilities come in and propose a pilot and where you let stakeholders look at their proposal, give them 30 days to review it and comment on it.

And you're not writing a blank check. You're saying, here is the budget. You're not applying it to everybody because you don't -- if it goes -- if it goes sideways on you, you don't want to upset a bunch of people. Do it with a hundred people and

2.

you find out if the rate design with a three-to-one differential or two-to-one differential changes behavior.

If you have -- well, there's one example in Xcel, in Minnesota, for example. They had a charging pilot. I mentioned that Navigant found that time-of-use rate designs with differentials change behavior, but time-of-use rate designs with technology resulted in even more change in behavior.

Xcel had a -- had a program where they wanted to do a time-of-use rate and, in addition to the first meter, they required a second meter. A second meter can cost as much as a couple-thousand dollars. Well, the pilot didn't really take off because people weren't that interested in shelling out money, a lot of money, to maybe save a little bit of money.

The advocates kicked the tires on the program, talked with the company and said, look, you can come in with a ChargePoint -- it's a non-revenue-grade meter -- for purposes of collecting utility data, but it's a meter that customers are willing to work with. It's -- it's Wi-Fi-enabled, so you can send signals about when is a good time to

1 charge, when is not. And it's far-less expensive. 2. Try that. Try a pilot with that. 3 So, avoiding a \$2,000 process, what they --4 what they did was go ahead with that pilot. 5 were simply measuring whether customers would go ahead with a ra- -- an off-peak rate design using 6 7 that configuration of meters. It turns out it was 8 a real positive success. There were 94 percent of 9 the customers charging off-peak. 10 It was a great success to the point where the 11 utility came in and said -- before the end 12 of the -- the pilot term, they said, Commission, we 13 want you to -- to approve this approach and rate 14 design because we think this works really well 15 and --16 COMMISSIONER POLMANN: All right. Thanks --17 well, thank you. I -- I think what you're saying 18 is, without sounding specific, but be -- be open to 19 creativity and --20 MR. FARNSWORTH: Be open, yes --21 COMMISSIONER POLMANN: -- and pretty -- pretty 22 broad about it. 23 MR. FARNSWORTH: I -- I think using 24 stakeholders to help with this is -- is really 25 helpful because, oftentimes, NGOs have -- that have

1	been working around the country will bring lessons
2	that they've learned from other states to to
3	your state. And that can be useful, not always,
4	but it can be useful.
5	COMMISSIONER POLMANN: Well, thank you very
6	much. I appreciate the comment.
7	MR. FARNSWORTH: You're welcome.
8	COMMISSIONER POLMANN: Very helpful.
9	CHAIRMAN CLARK: Thank you, Commissioner
10	Polmann.
11	Commissioner Brown.
12	COMMISSIONER BROWN: Thank you, Mr. Chairman.
13	I'll just real briefly, I appreciate all
14	the time that you have afforded us today here.
15	Very interesting, Mr. Farnsworth. Appreciate the
16	whole discussion, too.
17	Just, if you could do this real quickly,
18	though, because I know we have limited time,
19	what you kind of touched on it a little bit in
20	terms of but I'd like to hear it from you. What
21	role can electric transportation play in energy
22	efficiency and conservation?
23	MR. FARNSWORTH: Oh, that's a good question,
24	but you don't want me to take a long time, so
25	I'll I'll try to be really

1	CHAIRMAN CLARK: Short answer.
2	COMMISSIONER BROWN: We'll go offline later.
3	MR. FARNSWORTH: This shouldn't take more than
4	15 minutes to answer.
5	Well, the first point is, go back to the
6	you know, the 120-megajoules example. That's an
7	EV is just far more efficient, 60-percent more
8	efficient, 70-percent more efficient at
9	transferring energy to get the job done, right, but
10	getting down the mile down the road.
11	There's a study that was done by a subgroup
12	from EPRI on chargers. Level 2 chargers are about
13	10-percent more efficient than Level 1 chargers.
14	That is just the extension cord plugged into the
15	wall, taking, you know, 12 hours to charge your car
16	versus a Level 2 charger that might take two,
17	three, four hours to charge your car.
18	But so, there are efficiency opportunities
19	here, but the way efficiency is analyzed by utility
20	commissions around the country gets in the way of
21	you recognizing these things.
22	For instance, there are electricity-efficiency
23	programs. There are gas-company efficiency
24	programs. Okay. And, for instance, there may be a
25	really efficient way to heat water with

electricity, but the gas program is only going to look at the gas examples of that.

Your electricity program might include the effects on rates when you do the analysis, and it might look at the potential savings associated with a heat-pump water heater, but it might not include other things.

Currently, the way efficiency is analyzed is probably not going to include, unless you have a societal cost test, the fact that I'm no longer paying for gasoline. You're not going to recognize those savings. Okay. If you go more broadly, you can recognize those savings.

So, my quick answer is there -- there are many opportunities. The analyses that states are doing need -- need some works. There has been some work done by the National Standard Practice Manual folks, which a number of efficiency folks from around the U.S. -- which I would recommend you take a look at.

The quick takeaway from that is they're saying, if your state has a policy and efficiency investments are -- are -- are promoting that policy, you should recognize those benefits and include them when you're doing the accounting, the

1	cost and the benefit accounting. And to not
2	include them is is not particularly rational
3	and and won't provide you with the benefits or
4	will provide you with a skewed view of the costs
5	and benefits.
6	Sorry to run through that so quickly, but
7	those are some opportunities.
8	COMMISSIONER BROWN: Thank you. Thank you,
9	again, for your time today.
10	CHAIRMAN CLARK: Thank you, all.
11	Okay, guys, Mr. Farnsworth has agreed to make
12	himself available to offline for any additional
13	questions or discussion that you guys would like to
14	have. So, please feel free to to carry on those
15	conversations.
16	Mr. Farnsworth, thank you so much. It's been
17	a fantastic presentation, a lot of information, a
18	lot of really good information for the the
19	Commission to take into consideration as we move
20	forward with Florida's plan. So, thank you, again,
21	for being with us today.
22	MR. FARNSWORTH: You're very kind. Thanks.
23	Thanks so much. It's been my pleasure. And please
24	follow up with me with any any questions you may
25	have. Thank you.

1	CHAIRMAN CLARK: Thank you.
2	COMMISSIONER FAY: Thank you.
3	CHAIRMAN CLARK: Okay. With that in mind, the
4	second part of our Internal Affairs today is an
5	update on the EV master-plan activities from our
6	staff, Mr. Ben Crawford with IDM.
7	Are you on the line, Ben?
8	MR. CRAWFORD: Yes, I am. Can you hear me
9	okay?
10	CHAIRMAN CLARK: Yes, sir, we can. You want
11	to give us your report, please.
12	MR. CRAWFORD: Great. Yes, I'd be happy to.
13	Good morning, Commissioners. My name is Ben
14	Crawford. I'm a public utilities supervisor in the
15	Office of Industry Development and Market Analysis.
16	I'm here to provide a status update on staff's
17	activities related to the PSC's obligations of
18	Senate Bill 7018.
19	Senate Bill 7018 was passed by the Legislature
20	on March 11th, 2020, and approved by the Governor
21	on June 9th, 2020. The bill requires the Florida
22	Department of Transportation, in consultation with
23	the Florida Public Service Commission and the
24	Energy Office of the Florida Department of
25	Agriculture and Consumer Services, to coordinate,

develop, and recommend a master plan for the
development of electric-vehicle charging-station
infrastructure along the state highway system.

This plan is due to the Governor, the President of
the Senate, and the Speaker of the House of
Representatives by July 1st, 2021.

Senate Bill 7018 assigned numerous duties to the Commission in support of the development of the master plan. These duties include projecting the deployment of electric vehicles in Florida over the next 20 years and determining how to ensure an adequate supply of charging stations; evaluating and comparing the types of electric-vehicle charging stations available now and in the future and any advantages for developing particular types or uses of these stations; considering strategies to develop the supply of charging stations, including partnerships with other governmental and private stakeholders; identifying regulatory structures necessary for the delivery of electricity to charging stations; and reviewing emerging technologies in the electric and alternative-vehicle market, including alternative fuel sources.

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Over the past few months, Commission staff has

been meeting with the Department of Transportation
and Energy Office staff in order to coordinate the
activities of the respective agencies and to
establish a time line for meeting the obligations
of the bill.

Through this process, staff has agreed to supply our contribution to the Department of Transportation in early February of 2021 for incorporation into a draft master-plan final report.

From there, the DOT has plans to submit the draft final report for public review and a webinar as well as a com- -- comment period before finalizing the report for submission to the Governor by July 1st.

Because it will take a mix of research and stakeholder engagement to -- in order to develop any information we're responsible for, staff is taking a two-track approach. For these questions that can be best answered through research, staff has already begun examining available information to ensure that our knowledge of the subject is as up to date as possible.

For those matters that we feel are best developed with stakeholder input, Commission staff

1	sent out a request for comment on September 2nd,
2	2020, to stakeholders that included Florida's
3	investor-owned utilities as well as other
4	organizations and EV-industry groups.
5	Staff has asked for comments to be submitted
6	by October 2nd, 2020. We've also scheduled a staff
7	workshop on October 21st, 2020, to discuss the
8	stakeholder comments and the issues raised therein.
9	If necessary, to further flesh out discussion
10	from the workshop, we have built in time for a
11	round of post-workshop comments as well. Following
12	this process, staff will develop our contribution
13	to the DOT report.
14	Thank you for the opportunity to update you
15	all on all of this, and I'll be happy to answer any
16	further questions that you have.
17	CHAIRMAN CLARK: Great. Thank you, Ben.
18	Commissioners, any questions for Mr. Crawford?
19	Mr. Fay Commissioner Fay.
20	COMMISSIONER FAY: Thank you, Mr. Chairman.
21	Just real quick for Mr. Crawford, how how
22	do you determine who the stakeholders should be to
23	reach out to?
24	MR. CRAWFORD: We have a mix of potential
25	people. Some of them have commented before when

1	we've done the workshops and the comment processes
2	for our past EV reports. And some you know,
3	some of them are just obvious stakeholders in the
4	industry like the IOUs, like some of the the big
5	EV charging groups.
6	And some of them, we got in consultation with
7	the other agencies, with DOT and DACS. We spoke to
8	them and they had some recommended stakeholders to
9	send the questionnaire out to.
10	So, we've cultivated a very nice list and I
11	think it represents a good mix of stakeholders and
12	people whose voices we'd like to hear on the
13	subject. And I think we're going to get some very
14	useful information.
15	COMMISSIONER FAY: Yeah, that that's great.
16	I appreciate it. You answered my follow-up
17	question, that you're communicating can DOT and
18	their their stakeholders, so there's continuity
19	there. I appreciate it, Ben. Thank you.
20	CHAIRMAN CLARK: Thank you, Commissioner Fay.
21	Commissioner Polmann.
22	COMMISSIONER POLMANN: Thank you,
23	Mr. Chairman.
24	Mr. Crawford, excellent overview. I
25	appreciate that. I had a a question about the

1	forecasts. I believe you indicated a 20-year
2	forecast; was that correct?
3	MR. CRAWFORD: That's correct, sir.
4	COMMISSIONER POLMANN: Just very briefly,
5	could you respond in terms of the the source of
6	the information? I think it's very broad in terms
7	of your your speaking with various stakeholders.
8	It's the entire group will be involved in
9	developing methods for the forecasts; is that
10	correct?
11	MR. CRAWFORD: Yes, Commissioner. What
12	we're what we're doing is we've got a baseline
13	that we're starting with, which relies on
14	information we've gotten primarily from the
15	Department of Transportation.
16	We're also going to communicate with you
17	know, the various stakeholders will have different
18	methods of estimating this. A lot of this these
19	forecasts are going to be very dependent on what
20	the growth rate is, what the what you know,
21	the rate at which new models are are introduced.
22	And a lot of this is going to be the sort of
23	circular arrangement, whereas, the more charging
24	infrastructure we get, the more encouragement
25	there's going to be for people buying EVs without

having concerns about ra- -- range anxiety or, you know, they'll be able to get a charge when they need to.

When we've done this in the past, we've primarily reached out to the -- the IOUs and other stakeholders and they've provided us with their estimates, but it's always provided a large range. And, in some ways, that's a good thing. It gives us a sense of what people are seeing is the high end of the potential deployment and what the low end is.

When we did this in 2012, we had a -- a very extensive range of estimates. And the actuals that we -- you know, we started to see in the last few years were actually below the bottom of the range at that time.

At the same time, I think we have much better information now than we did then and a lot of that was based on estimates that -- you know, we're in the very early stages of EV development.

So, what we're hoping we do is by reaching out to all of these very different stakeholders in the process, that we're just going to get a very good range and based on much better knowledge than we've had in the past, and that that will help us really

1 try and narrow in on what we can expect to see over 2. the next 20 years. 3 We're -- we're not necessarily going to be 4 developing our own estimates just because that -- a 5 lot of that speaks to things that are -- that other parties have a little more expertise or a lot more 6 7 expertise in, but we're going to be trying to sort 8 of synthesize the responses we get from the 9 stakeholders in the process and try and develop a 10 good number based on that. 11 COMMISSIONER POLMANN: Certainly. Thank you. 12 The -- the follow-up to that, is there -- I'm 13 just not familiar with the detail. Is there 14 legislative intent or -- or executive intent 15 through this bill to update these forecasts? Is 16 there a periodic update requirement other than this 17 initial report for next year? 18 Looking at a 20-year forecast, is there an 19 expectation this will be reviewed at some point in 20 the future -- you know, a five-year review -- or is 21 that just not specified at this point? 22 MR. CRAWFORD: The bill, itself, did not 23 specify any kind of recurring -- recurring process 24 for this, that I recall anyway. I -- I -- I think 25 it was the way that most of these have been -- when

1	we did this initially in 2012, it was just a
2	singular report that we were asked to do.
3	And 7018, as I recall, has the same situation.
4	It's simply, this is a master plan we're going to
5	be putting together and and submitting to the
6	Legislature and, if history is a guide, they'll
7	probably
8	COMMISSIONER POLMANN: Okay.
9	MR. CRAWFORD: repeat this at some point,
10	possibly with a different set of requirements
11	because they've changed a little bit who's involved
12	and who's running it every time. So, that may
13	COMMISSIONER POLMANN: Okay.
14	MR. CRAWFORD: That it may well be
15	revisited, but it's not scheduled right now.
16	COMMISSIONER POLMANN: All right. Thank you,
17	Mr. Crawford.
18	Thank you, Mr. Chairman. That's all I have.
19	CHAIRMAN CLARK: Thank you, Commissioner
20	Polmann.
21	Any other Commissioners have any questions?
22	Commissioner Graham.
23	COMMISSIONER GRAHAM: Thank you, Mr. Chairman.
24	Mr. Crawford, you said the request for comment
25	went out Septem September 2nd?

1	MR. CRAWFORD: Yes, Commissioner.
2	COMMISSIONER GRAHAM: Have we received any
3	comments in yet?
4	MR. CRAWFORD: I haven't seen anything yet. I
5	did a quick glance of the it's that we filed
6	to the undocumented to the un-docketed file or
7	sent to me directly. I haven't received anything
8	directly. I didn't see anything in the un-docketed
9	docket, but at the same time, I didn't do a deep
10	dive on it.
11	I wouldn't anticipate anything this early.
12	It's been less than two weeks. They've got
13	they've got, I think, two weeks from this coming
14	Friday, if I recall the date correctly, to submit.
15	So, I I imagine we'll starting seeing stuff
16	closer to the end of the month.
17	COMMISSIONER GRAHAM: Now, when this request
18	for comment went out, that's for this is just
19	us; that wasn't Ag going out for comments and DOC
20	going out for comments, as well; this is just our
21	staff reaching out for comments?
22	MR. CRAWFORD: That's correct, Commissioner.
23	This was we something we sent out. We
24	now, we we had consulted with DOT and with DACS
25	on on the questions, but they're very much

1	focused on the areas of the report that we're
2	responsible for and with the intent of leading
3	into fostering the discussion for the workshop
4	we'll be doing on October 21st.
5	COMMISSIONER GRAHAM: Okay. I'm just a little
6	concerned if we don't haven't received anything
7	yet. Now, granted, we're only halfway through
8	this. I just don't want to come another two weeks
9	and find out we only had one comment and, for some
10	reason, find out there was a disconnect somewhere.
11	MR. CRAWFORD: In in my experience,
12	Commissioner, we've we're more than likely to
13	get more than we know what to do with than than
14	not get enough to take action on, but we've got a
15	little bit of time if we need to if we need to
16	try and figure out a different approach to this.
17	We we there's a reason we built in that
18	that gap between the submission of the comments and
19	the workshop, itself.
20	So, I'm I have confidence we'll be able
21	I have confidence we'll get enough responses to
22	build a meaningful workshop out of, but if not,
23	we'll we'll just have to look at what our
24	options are.
25	COMMISSIONER GRAHAM: All right. I appreciate
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1	it.
2	Thanks, Mr. Chairman.
3	CHAIRMAN CLARK: Thank you, sir.
4	All right. Any other comments? Any other
5	questions?
6	All right. Well, thank you very much,
7	Mr. Crawford. We appreciate your presentation this
8	morning. Thanks for being with us.
9	Item No
10	MR. CRAWFORD: Thank you, Commissioners.
11	CHAIRMAN CLARK: Thank you, sir.
12	Item No. 3, the draft 2020 regulatory plan.
13	Ms. Cowdery, are you on the phone?
14	MS. COWDERY: I am. Thank you, Mr. Chairman.
15	CHAIRMAN CLARK: Thank you.
16	MS. COWDERY: This is Kathryn Cowdery with the
17	Office of General Counsel. Staff is seeking
18	approval for the Commission's 2020 regulatory plan
19	reporting on rulemaking in the upcoming year.
20	Section 120.74, Florida Statutes, requires the
21	Commission to prepare a regulatory plan and submit
22	the plan to the Joint Administrative Procedures
23	Committee by October 1st of each year.
24	A certification by the Chairman and the
25	general counsel that they have reviewed the plan

1	and that the plan that the Commission regularly
2	reviews its rules for correctness is also required.
3	The plan must be posted on the Commission website
4	and the certification submitted to the Joint
5	Administrative Procedures Committee by October 1st,
6	2020.
7	We plan to work with the Chairman's office to
8	submit the certification letter to the Joint
9	Administrative Procedures Committee. And we ask
10	the for administrative authority to correct any
11	scrivener's errors as necessary before posting the
12	plan.
13	Staff is available to answer any questions.
14	CHAIRMAN CLARK: Thank you, Ms. Cowdery.
15	Okay. Commissioners, conversation?
16	Discussions?
17	Commissioner Polmann.
18	COMMISSIONER POLMANN: Thank you,
19	Mr. Chairman.
20	At the at the risk of going off the deep
21	end, I'm just curious if if there's any appetite
22	anywhere not necessarily in this list, but at
23	any point in the future, if the Commissioners are
24	interested in reviewing the the notion of
25	confidential hearings. We've had a recent

1 experience that -- that challenged this. Well, let's -- let's discuss 2. CHAIRMAN CLARK: 3 it. Ms. Helton or Mr. Hetrick, from a statutory 4 perspective of the statutes, as we're -- related to 5 the regulatory plan, looking at those statutes that -- that are -- would define confidential 6 7 hearings, is that something we would have any 8 regulatory authority in -- over? Let me state that --9 10 Mr. Chairman, I -- we have MR. HETRICK: 11 looked at that. And actually, we -- we believe 12 that it would require a statutory change first 13 before we could get into any form of rulemaking, 14 that being specifically an exemption to the state's 15 Sunshine Law to specify circumstances under which 16 the Commission may be justified or wish to go into 17 a special closed-hearing-type scenarios --18 We've actually given that thought. We have 19 some information on that, if -- if the Commission 20 is interested in -- in dealing with this from a 21 legislative perspective, but right now, I don't 22 think, pursuant to this regulatory plan, there's 23 much room for us -- based on the current statute, 24 for us to do anything to do a meaningful way to 25 address Commissioner Polmann's concern without

1	going to the Legislature first.
2	CHAIRMAN CLARK: Okay. Other comments,
3	Commissioners?
4	No comment. Okay. Let's discuss the
5	regulatory plan. Any comments or questions on the
6	regulatory plan? I assume we do need a motion to
7	approve this; is that correct? I'll entertain a
8	motion to approve the regulatory plan as presented
9	with authority to give staff administrative leave
10	for any errors.
11	COMMISSIONER BROWN: So moved.
12	CHAIRMAN CLARK: I have a motion. Do I
13	have
14	COMMISSIONER POLMANN: Second.
15	CHAIRMAN CLARK: a second? I have a motion
16	and a second. Any discussion?
17	On the motion, all in favor, say aye.
18	(Chorus of ayes.)
19	CHAIRMAN CLARK: Opposed?
20	Motion carries unanimously. All right. Thank
21	you very much.
22	Let's look to Item No. 4, General Counsel's
23	report. Mr. Hetrick, do you have anything?
24	MR. HETRICK: Nothing at this time, Mr. Chair.
25	Thank you.

1	CHAIRMAN CLARK: Thank you.
2	Mr. Baez.
3	MR. BAEZ: Thank you, Mr. Chairman and
4	Commissioners. One brief item, but before I get
5	into it, I as always, I want to send my
6	heartfelt thanks and encouragement to our staff of
7	professionals both here in town and and across
8	the state.
9	They continue to give their greatest efforts
10	on our mission as an agency. And I just want them
11	to to know how much, certainly, I appreciate it.
12	I hope you can join me in those sentiments as well.
13	And we also keep their safety in mind them and
14	their families. Thank you.
15	My item today is it's going to be brief.
16	As you know, we are filing agencies are supposed
17	to file their legislative budget requests for the
18	'21-'22 budget year by October 15th.
19	Staff is now just putting the finishing
20	touches on last-minute instructions and
21	requirements that came down recently. None of
22	these impact the bottom line of the budget
23	requests.
24	I've discussed with each of you individually
25	what our plans for the coming or for the for

1	next budget year are. As is pretty common has
2	been pretty common, of late, we we believe that
3	submitting a flat budget request for '21-'22 is
4	is the most prudent way to go.
5	I say that in light of legislation that
6	that has come recently. The storm-protection-plan
7	legislation gave us three positions last budget
8	cycle. So, we're going to hold the line on that.
9	The the number for the legislative budget
10	request is just shy of 26 million that's
11	25.9 million. And we will keep you abreast of any
12	changes to the circumstances as they are now, but
13	we're we'll be ready to go.
14	What we're asking for you today is, as always,
15	some consensus as to the filing of the LBR. If you
16	have a questions, I'm happy to answer them.
17	CHAIRMAN CLARK: All right. Any questions on
18	the LBR?
19	Commissioner Fay.
20	COMMISSIONER FAY: Thank you, Mr. Chairman.
21	Just real quick, Braulio, there's no component
22	of that budget that is general revenue, correct?
23	It's all trust fund.
24	MR. BAEZ: Not at not at the not not
25	at this time. Not for this budget year, no.

1	COMMISSIONER FAY: Okay. Great.
2	MR. BAEZ: And we're not running any issues,
3	as as I mentioned before.
4	COMMISSIONER FAY: Okay. Great.
5	That's all I have, Mr. Chairman. Thank you.
6	CHAIRMAN CLARK: Thank you, Commissioner Fay.
7	Any other questions regarding the budget?
8	All right. If there are no other questions,
9	just a couple of comments as we close today. I
10	would just like to remind everyone to keep those
11	that are in the path of Hurricane Sally in our
12	thoughts and prayers.
13	This is Florida may have avoided the bulk
14	of an impact, but I do believe that some of our
15	close friends on our most-western end of the state,
16	Escambia, Santa Rosa County, are probably going to
17	be feeling some impacts over the next day or so.
18	I know the resources are out and available to
19	those guys. The EOC has been properly manned and
20	staffed. And we're providing and taking care of
21	those resources, but thank you to all of our staff,
22	all of our utility workers that are preparing
23	themselves to step into harm's way to make sure
24	that we all have this thing that we've come to love
25	and enjoy called energy.

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               So, thank you for the work that you're doing
2
          in the field. Thank you to all of our staff for
 3
          your contributions.
 4
               Anybody have anything else before we conclude
5
          today?
 6
               All right.
                            Seeing none, we stand adjourned.
7
          Thank you so much. See you on Thursday.
8
               (Whereupon, the proceedings concluded at 12:00
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    p.m.)
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1	CERTIFICATE OF REPORTER
2	STATE OF FLORIDA)
3	COUNTY OF LEON)
4	I, ANDREA KOMARIDIS WRAY, Court Reporter, do
5	hereby certify that the foregoing proceeding was heard
6	at the time and place herein stated.
7	IT IS FURTHER CERTIFIED that I
8	stenographically reported the said proceedings; that the
9	same has been transcribed under my direct supervision;
10	and that this transcript constitutes a true
11	transcription of my notes of said proceedings.
12	I FURTHER CERTIFY that I am not a relative,
13	employee, attorney or counsel of any of the parties, nor
14	am I a relative or employee of any of the parties'
15	attorney or counsel connected with the action, nor am I
16	financially interested in the action.
17	DATED THIS 28th day of September, 2020.
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19	
20	()/ ()
21	Mulie
22	ANDREA KOMARIDIS WRAY NOTARY PUBLIC
23	COMMISSION #GG365545 EXPIRES February 9, 2021
24	
25	