The Florida Senate

COMMITTEE MEETING EXPANDED AGENDA

TRANSPORTATION
Senator Harrell, Chair
Senator Perry, Vice Chair

MEETING DATE: Wednesday, September 22, 2021
TIME: 4:00—5:00 p.m.
PLACE: Pat Thomas Committee Room, 412 Knott Building

MEMBERS: Senator Harrell, Chair; Senator Perry, Vice Chair; Senators Berman, Bracy, Gainer, Jones, Rodriguez, and Wright

<table>
<thead>
<tr>
<th>TAB</th>
<th>BILL NO. and INTRODUCER</th>
<th>BILL DESCRIPTION and SENATE COMMITTEE ACTIONS</th>
<th>COMMITTEE ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Presentation by the Florida Department of Transportation on the Electric Vehicle Infrastructure Master Plan</td>
<td>Presented</td>
<td></td>
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<tr>
<td></td>
<td>Presentation by Florida Power &amp; Light Company on Electric Vehicle Charging Initiatives</td>
<td>Presented</td>
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<td></td>
<td>Update by the Department of Highway Safety and Motor Vehicles on Digital Driver Licenses and Identification Cards</td>
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<td></td>
<td>Other Related Meeting Documents</td>
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ELECTRIC VEHICLE INFRASTRUCTURE MASTER PLAN

September 22, 2021
Statutory Charge
Section 339.287, F.S.

- Identify EVSE Locations
- Identify Adoption Barriers
- Quantify Funding Impacts
- Provide Implementation Strategies

Key Partners
Key Objectives

- Support Short- and Long-Range Travel and Emergency Evacuation
- Adapt State Highway Infrastructure
- Ensure Availability of Charging Stations
## Electric Vehicle Infrastructure

<table>
<thead>
<tr>
<th>Level 1 Charger</th>
<th>Level 2 Charger</th>
<th>DCFC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slower charging speed – 8 hours full charge</td>
<td>Slower charging speed – 2 hours full charge</td>
<td>Fast charging speed – 30 minutes full charge</td>
</tr>
</tbody>
</table>

Focus of EVMP is Direct Current Fast Charging (DCFC)

### Future Infrastructure: Wireless Power Transfer (WPT)

- In road (highway) or in route (transit)
- Uses inductive loop technology
- Currently in research and development phase

*Florida’s managed lanes provide an excellent opportunity to pilot in-lane charging*
Existing and Future EVSE Locations

For more information visit: https://storymaps.arcgis.com/stories/ee330a41ee4b458e8e17587a17e53387

Existing Publicly Accessible EVSE Locations

Potential Future DCFC Locations

For more information visit: https://storymaps.arcgis.com/stories/ee330a41ee4b458e8e17587a17e53387
EV Market Adoption

VOLVO
50% of its vehicle offerings will be EV.

FORD
40% of global sales will be EV.

GENERAL MOTORS
all light-duty cars and SUVs will be EV.

<table>
<thead>
<tr>
<th>All Registered LD Vehicles</th>
<th>Other Fuel Types</th>
<th>HEV</th>
<th>PHEV</th>
<th>BEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>16,529,219</td>
<td>16,218,211</td>
<td>244,323</td>
<td>22,617</td>
<td>44,068</td>
</tr>
<tr>
<td>% Total</td>
<td>100%</td>
<td>98.12%</td>
<td>1.48%</td>
<td>0.14% + 0.27%</td>
</tr>
</tbody>
</table>

.41%
all LD vehicles registered in Florida

Source: FIHSMV VIN Registrations as of July 28, 2020
As of early 2021, 28 states have implemented an EV registration fee. Several road usage fee pilot projects are underway. Some states adopted Zero Emission Vehicle regulations to promote EV sales.
Recommendation

CATEGORIES

Adapt
Facilitate
Educate
Coordinate
Adapt transportation infrastructure to **advance electrified** mobility.

- **Anticipate Market and Industry Trends**
- **Adapt Transportation Policy Framework**
- **Expand EVSE Network along Transportation Infrastructure**
- **Support Municipal and Local Agencies with Implementation of the EVMP**
- **Support Research and Testing of Next Generation EVSE like WPT and HD EVSE**
Facilitate

Facilitate the transition of next generation infrastructure through strategic investments and partnerships.

Promote EVSE Infrastructure to Support Long-Range Corridor Travel and Emergency Evacuation

Identify and Pursue a Variety of Funding Options with Partners to Support EVSE Implementation

Promote Installation of Community Charging Infrastructure
Educate
Provide resources to share information and knowledge that **enhance educational and outreach** efforts to support the state’s electrification goals.

- **Support EVSE-Focused Education and Outreach**
- **Support Local Jurisdictions and Agencies**
- **Increase Awareness of Publicly Available EVSE Locations**
Coordinate

Engage other states, communities, agencies and stakeholders to **coordinate best practices** on EV infrastructure deployment.

Advance a Regionally and Comprehensive Approach to EVSE

Continuously Coordinate Stakeholders to Support EVSE Planning and Implementation Efforts

Establish State, Regional and Local Agency Roles and Responsibilities

Coordinate Utility Roles and Rates to Support the Goals
Brad Thoburn
Assistant Secretary, Strategic Development
Phone: 850-414-5211
Email: brad.thoburn@dot.state.fl.us

www.fdot.gov/planning/fto/ev
The Florida Senate

APPEARANCE RECORD

Deliver both copies of this form to
Senate professional staff conducting the meeting

Bill Number or Topic

Amendment Barcode (if applicable)

Phone 860 - 414 - 5235

Email Brad.Thoburn@dot.state.fl.us

Name Brad Thoburn

Address 605 Suwannee St.

State FL

City Tallahassee

Zip 32399

Meeting Date 09/22/21

Committee Transportation

Speaking: □ For □ Against □ Information OR Waive Speaking: □ In Support □ Against

I am appearing without compensation or sponsorship.

I am a registered lobbyist, representing:

Florida Dept. of Transportation

I am not a lobbyist, but received something of value for my appearance (travel, meals, lodging, etc.), sponsored by:

While it is a tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this hearing. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard. If you have questions about registering to lobby please see Fla. Stat. §11.045 and Joint Rule 1, 2020-2022JointRules.pdf (flsenate.gov)

This form is part of the public record for this meeting.
Driving a Clean Energy Future

Matt Valle
Vice President, Development
Florida Power & Light Company
September 2021
With EV growth ubiquitous, charging will become an increasingly significant contributor to utility peak load

► Florida continues to rank 2nd in the U.S. for EVs on the road
► In FPL territory EV registrations are expected to grow 5X by 2025
► With 70-90% of EV charging expected to occur at home, garage will replace the gas station for FPL’s 1.9 MM homeowners
► Unchecked, the adoption of EVs will contribute to system peak
► Utilities have a critical role to play in helping advance EV adoption

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Automakers are committing to EV investments

<table>
<thead>
<tr>
<th>OEM</th>
<th>EV Investment</th>
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<tbody>
<tr>
<td>Tesla</td>
<td>Market cap $800B; 1.4 MM EVs sold globally</td>
</tr>
<tr>
<td>VW AG</td>
<td>$86 B by 2025; 130 new models by 2030</td>
</tr>
<tr>
<td>Daimler</td>
<td>$47 B; 50 new models by 2022</td>
</tr>
<tr>
<td>Honda</td>
<td>$46 B; 40%-80% electric between 2030-2035</td>
</tr>
<tr>
<td>GM</td>
<td>$35 B; 30 new models by 2025; 100% EV by 2035</td>
</tr>
<tr>
<td>Stellantis</td>
<td>$35 B; 55 new models by 2025</td>
</tr>
<tr>
<td>Ford</td>
<td>$22 B; New EVs and autonomous vehicles by 2025</td>
</tr>
<tr>
<td>BMW</td>
<td>$18 B; 25 new models by 2023</td>
</tr>
<tr>
<td>Toyota</td>
<td>$13 B; 70 new models by 2025</td>
</tr>
<tr>
<td>Hyundai</td>
<td>$10 B; 12 new models by 2025</td>
</tr>
<tr>
<td>Nissan</td>
<td>$9 B; 100% electric in 2030</td>
</tr>
<tr>
<td>Kia</td>
<td>9 B; 11 new models by 2025</td>
</tr>
</tbody>
</table>
FPL EVolution pilot, made possible by supportive regulatory environment, is enabling FPL to learn ahead of mass adoption.

- Over 1,000 ports across 100+ locations
- Increases availability of public EV charging in FL by 50%
- Pilot insights will ensure continued reliability for customers
- DC fast charging in high-traffic areas every 50 miles along highway
- Fleet charging for commercial and municipal customers
- Level 2 workplace, destination and home charging

FPL EVolution pilot, made possible by supportive regulatory environment, is enabling FPL to learn ahead of mass adoption.
FPL EVolution pilot is supporting sustainable transportation for Florida’s youth

Piloting first vehicle-to-grid activity buses in Florida

Supporting electrification of >175 school buses by 2023
FPL EVolution pilot is increasing range confidence, mobile app makes it easier to find locations and nearby amenities.

Feature rich mobile app plus support.

Highway fast charge sites located every 50 miles.

14 sites operating, many more on the way.
Long term, FPL’s strategy is to enable a cohesive customer charging experience at home, at work and on the go.

- **Public fast charging**: In metro areas and along highway
- **Home charging tariff**: Faster, unlimited charging
- **Fleet charging tariff**: Advisory service and analytics
- **Workplace & destination**: Level 2 chargers
- **Education & outreach**: to increase awareness
- **Mobile App**: Unified, feature rich experience

1) Programs subject to Florida PSC approval
Given nascent state of the market, utility investment (UI) in charging infrastructure will be critical to filling gaps

- UI expands access to EVSE by filling gaps and ensures equitable access and access in underserved or rural areas
- UI ensures evacuation routes are adequately served and resilient
- UI optimizes the grid to better manage network congestion and reduce grid stabilization costs
- UI supports high reliability and resiliency and long-term ownership of this new critical infrastructure for the public
- UI encourages transportation electrification, benefitting all customers through reduced carbon emissions and improved air and noise quality ensuring Florida remains a beautiful place to live, work and raise a family for decades to come
- EVs can benefit all customers as the additional electricity demand from EVs, added to the grid in an efficient manner, puts downward pressure on rates for all customers
Establish Florida as a leader by adopting robust statewide EV and EVSE deployment goals or adopt a Zero Emission Vehicle (‘’ZEV‘’) standard

• Majority of approved utility EV programs in other states are the result of state legislative action or goals

Codify utility role and utility ownership of EVSE to help spur utility investment

• Current recommendations lack objectives and strategies to affirm the role of the utility and ensure utility participation and ownership

Affirm PSC’s authority to approve innovative rate structures that evolve with EV industry growth

• Meaningful accomplishments at the utility level will only occur with the PSC’s continued support
EVolution Home tariff (1) provides faster, unlimited at-home charging, making it easier affordable to go electric

<table>
<thead>
<tr>
<th>Offer</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Low, flat rate on monthly electric bill</td>
<td>✓ No upfront cost necessary</td>
</tr>
<tr>
<td>✓ Unlimited off-peak charging at home</td>
<td>✓ Flexibility to charge on peak if needed</td>
</tr>
<tr>
<td>✓ Level 2 residential charger</td>
<td>✓ Faster, more convenient charging</td>
</tr>
<tr>
<td>✓ Smart charging with FPL mobile app</td>
<td>✓ FPL app provides control and visibility (defaults to off-peak)</td>
</tr>
<tr>
<td>✓ Full install or equipment only installation options</td>
<td>✓ Hassle-free installation with design flexibility</td>
</tr>
<tr>
<td>✓ Operations and maintenance</td>
<td>✓ No unforeseen costs</td>
</tr>
</tbody>
</table>

Subscription rewards participants with savings for charging off-peak, thus reducing system peak (managed charging)

1) Subject to Florida PSC approval
<table>
<thead>
<tr>
<th>Meeting Date</th>
<th>Transport Committee</th>
<th>Name</th>
<th>Address</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/22/21</td>
<td></td>
<td>Matt Valle</td>
<td>700 Universe Blvd., Juno Beach, FL 33408</td>
<td>603-218-9638</td>
<td><a href="mailto:matt.valle@fpl.com">matt.valle@fpl.com</a></td>
</tr>
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</table>

**Speaking:**  
☐ For ☐ Against ☒ Information  

OR  

**Waive Speaking:**  
☐ In Support ☐ Against

**PLEASE CHECK ONE OF THE FOLLOWING:**

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This form is part of the public record for this meeting.
Florida Smart ID

- Application-based version of driver license (DL) or identification card (ID). Not a digital image of DL/ID.
- Must be used with a Verifier app.
- Meets American Association of Motor Vehicle Administrators (AAMVA) and International Organization for Standardization (ISO) standards.
- For use on iOS and Android smart devices (phones and tablets).
- Will be available in the App Store and Google Play.
Benefits

- Convenient **option** for proof of age or driving privilege.
- DL/ID credential required by law.
- Up-to-date status verified by FLHSMV.
- Can’t be faked or falsified.
- Consent-based... *only show what they need to know*
- Contactless communication (device never leaves your hand).
- Will be expanded for more use cases.
Timeline

2014
Florida Legislative authority for mDL discovery

2018
AAMVA draft standards released
States can begin implementing

2019
ISO 18013-5 draft standards released

2020
Legislative budget authority for CSP
Florida Smart ID project begins

2021
Florida legislation to implement/use Florida Smart ID Pilot
Final standards published*

*ISO 18013-5 final and AAMVA implementation guidelines ETA 10/2021.
How does it work?
The Handshake (device to device)

Florida Smart ID Customer

Florida Smart ID Verifier

Bluetooth, NFC or WiFi
Offline and Online Verification

- Offline Verification (Device-to-Device)
  - Bluetooth, NFC or WiFi

- OnlineVerification
  - Bluetooth, NFC or WiFi

Florida Smart ID Customer
Florida Smart ID Verifier

Florida Smart ID Law Enforcement Verifier
PRESENT
CONSENT
VERIFY
Proof of Age Verification

21 or OVER
18-20
UNDER 18
INVALID

OVER 18
Last Updated: 06/15/2021
Use Cases

1. Law Enforcement Roadside Stops
2. +18 and +21 Age Verification
3. DL/MV Customer Notifications
4. Car Rental Transactions
5. Voting or Voter Registration
6. Airport Security
7. Hotel CheckIn
8. Secure Building Access
9. Ride Sharing Driver Verification
10. Online Insurance Verification
11. Identity Verification for State Agencies and Other Stakeholders
Thank you!
September 7, 2021

The Honorable Wilton Simpson  
Senate President  
409 The Capitol  
404 S. Monroe Street  
Tallahassee, FL 32399-1100

Dear President Simpson:

I am kindly requesting to be excused from our first committee week, September 20-24, 2021. I will be attending my daughter’s wedding in New York.

Thank you for your consideration and understanding.

Sincerely,

Lori Berman

cc: Senate Administration
September 15, 2021

The Honorable Gayle Harrell  
Chair, Senate Committee on Transportation  
401 Knott Building  
404 South Monroe Street  
Tallahassee, FL 32399-1100

Dear Chair Harrell:

I write to respectfully request that my absence for the Sept. 22nd Transportation Committee hearing be excused due to an unavoidable scheduling conflict that will preclude my attendance. I regret that I cannot be present for the meeting during that day, and appreciate your consideration.

Sincerely,

Senator Randolph Bracy

cc: Rob Vickers, Staff Director  
Marilyn Hudson, Committee Administrative Assistant
4:02:28 PM Meeting called to order by Chair Harrell
4:02:33 PM Roll call by CAA Marilyn Hudson
4:02:57 PM Quorum present
4:03:09 PM Senator Berman and Bracy are excused
4:03:20 PM Comments from Chair Harrell
4:05:29 PM Introduction of Mr. Brad Thoburn, Assistant Secretary, Strategic Development, Florida Department of Transportation on the Electric Vehicle Infrastructure Master Plan by Chair Harrell
4:06:58 PM Presentation by Mr. Thoburn
4:21:11 PM Comments from Chair Harrell
4:21:19 PM Question from Senator Jones
4:21:25 PM Response from Mr. Thoburn
4:22:31 PM Follow-up question from Senator Jones
4:22:41 PM Response from Mr. Thoburn
4:23:46 PM Question from Senator Gainer
4:23:57 PM Response from Senator Thoburn
4:24:59 PM Comments from Senator Gainer
4:25:16 PM Response from Mr. Thoburn
4:25:28 PM Follow-up question from Senator Gainer
4:25:45 PM Comments from Chair Harrell
4:26:07 PM Response from Mr. Thoburn
4:26:33 PM Comments from Chair Harrell
4:26:58 PM Comments from Senator Gainer
4:27:35 PM Comments from Chair Harrell
4:27:40 PM Question from Senator Gainer
4:27:49 PM Response from Mr. Thoburn
4:28:42 PM Comments from Chair Harrell
4:30:10 PM Comments from Mr. Thoburn
4:31:31 PM Comments from Chair Harrell
4:31:39 PM Question from Senator Perry
4:31:45 PM Response from Mr. Thoburn
4:32:20 PM Follow-up question from Senator Perry
4:32:27 PM Response from Mr. Thoburn
4:33:46 PM Follow-up question from Senator Perry
4:33:54 PM Response from Mr. Thoburn
4:34:41 PM Follow-up question from Senator Perry
4:35:03 PM Response from Chair Harrell
4:36:13 PM Introduction of Tab 2, Mr. Matt Valle, Vice President, Florida Power & Light Company on Electric Vehicle Charging Initiatives
4:37:13 PM Presentation by Mr. Valle
4:50:49 PM Comments from Chair Harrell
4:51:14 PM Question from Senator Gainer
4:51:19 PM Response from Mr. Valle
4:52:06 PM Comments from Senator Gainer
4:52:13 PM Response from Mr. Valle
4:52:28 PM Follow-up question from Senator Gainer
4:52:36 PM Response from Chair Harrell
4:52:59 PM Question from Senator Perry
4:53:03 PM Response from Mr. Valle
4:53:54 PM Follow-up question from Senator Perry
4:54:18 PM Response from Mr. Valle
4:55:47 PM Comments from Senator Perry
4:57:34 PM Comments from Mr. Valle
4:58:39 PM Comments from Chair Harrell
4:59:00 PM Senator Perry moves to rise, meeting adjourned