

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

TAB	BILL NO. and INTRODUCER	BILL DESCRIPTION and SENATE COMMITTEE ACTIONS	COMMITTEE ACTION
	Presentation by the Florida Department of Transportation on the Electric Vehicle Infrastructure Master Plan		Presented
	Presentation by Florida Power & Light Company on Electric Vehicle Charging Initiatives		Presented
	Update by the Department of Highway Safety and Motor Vehicles on Digital Driver Licenses and Identification Cards		
	Other Related Meeting Documents		



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

Level 1

Charger

Slower charging
speed – 8 hours
full charge

Level 2

Charger

Slower charging
speed – 2 hours
full charge

DCFC

Fast charging
speed – 30 minutes
full charge

Focus of EVMP is Direct Current Fast Charging (DCFC)

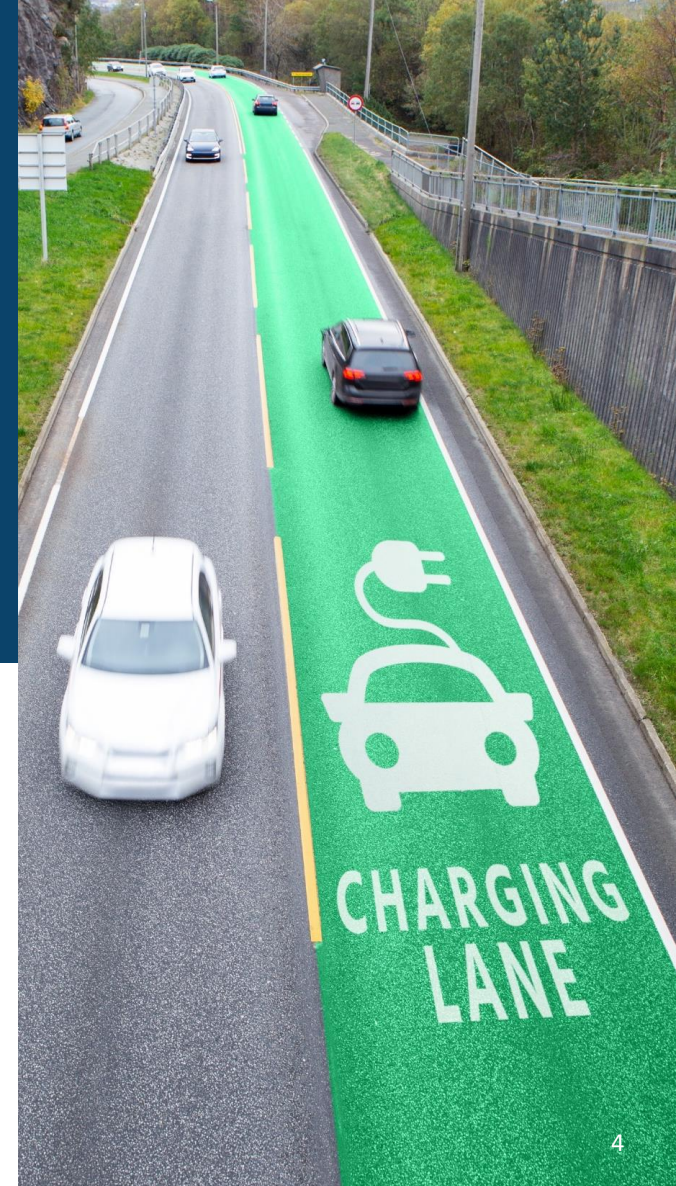
Future Infrastructure: Wireless Power Transfer (WPT)

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

Existing Publicly Accessible EVSE Locations

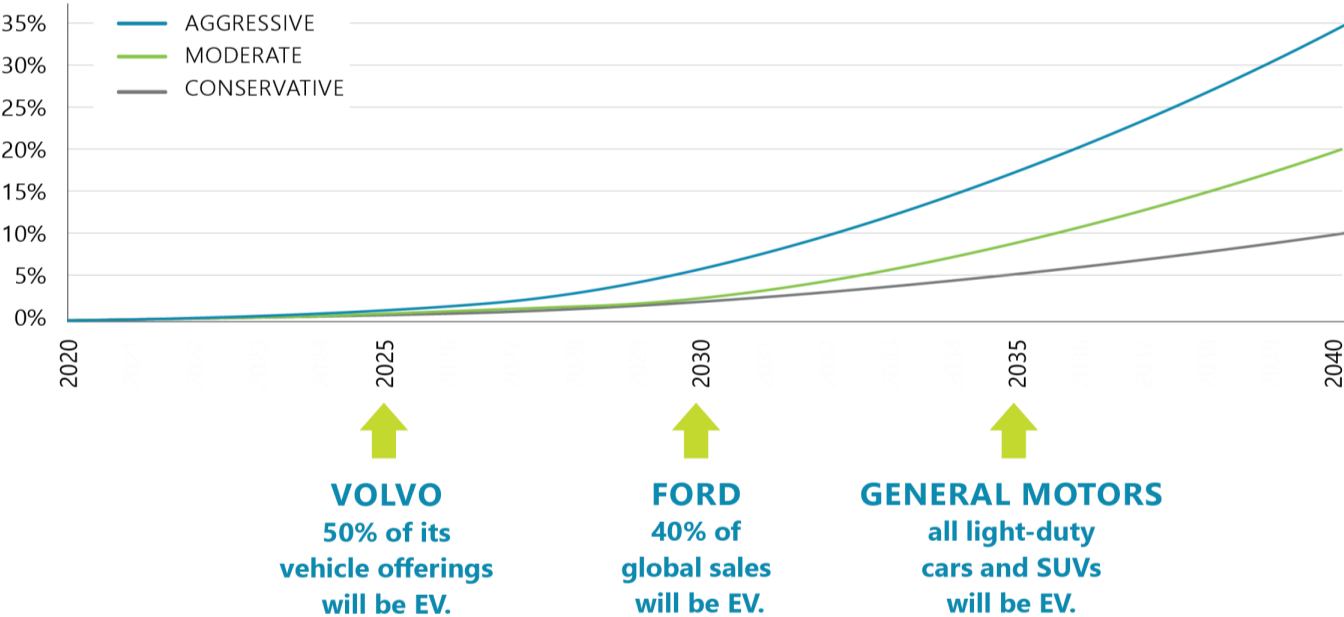


Potential Future DCFC Locations



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

EV Market Adoption



	All Registered LD Vehicles	Other Fuel Types	HEV	PHEV	BEV	
Vehicles	16,529,219	16,218,211	244,323	22,617	44,068	
% Total	100%	98.12%	1.48%	0.14%	0.27%	.41% all LD vehicles registered in Florida

Source: FLHSMV VIN Registrations as of July 28, 2020



Transportation Funding Impacts

2040 Net Revenue Loss Projections

Conservative
Growth Scenario
-5.6%

Moderate
Growth Scenario
-11.1%

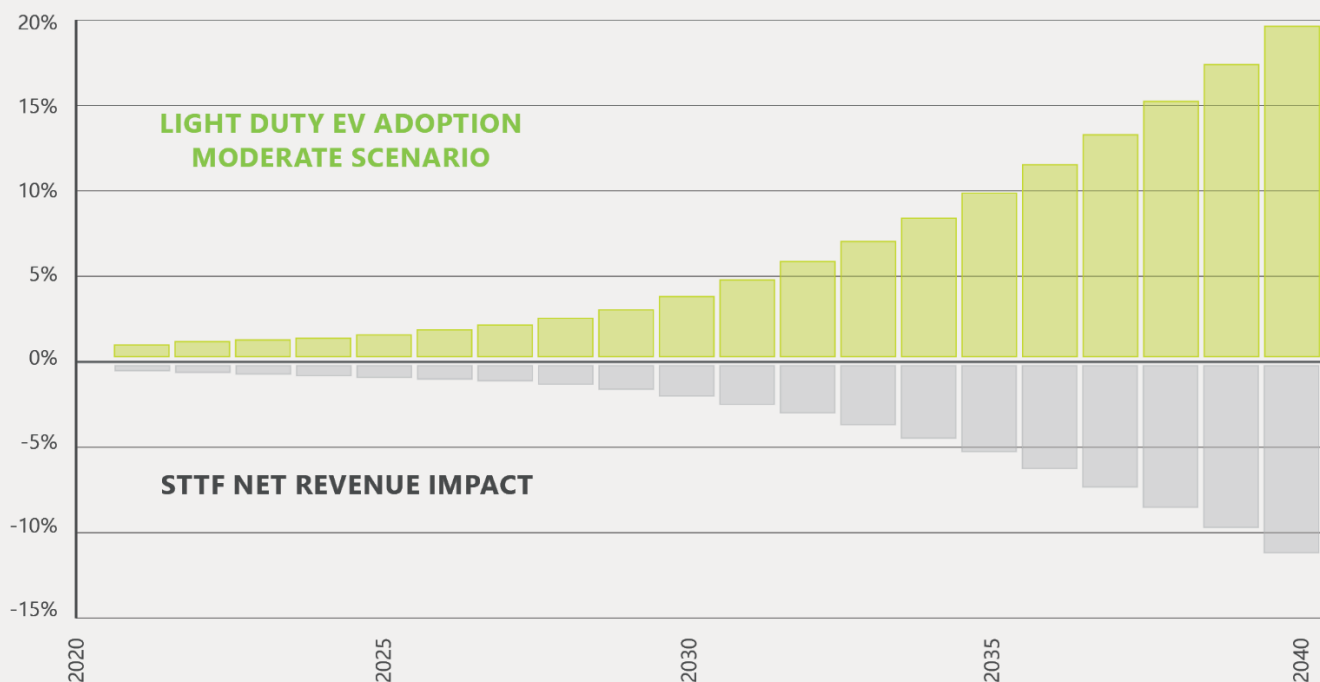
Aggressive
Growth Scenario
-20.0%

20-Year Cumulative Total Projections

Conservative
Growth Scenario
-2.2%

Moderate
Growth Scenario
-3.8%

Aggressive
Growth Scenario
-7.0%



Policy Actions of Other States

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

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

09/22/21

Meeting Date

Transportation

Committee

Bill Number or Topic

Amendment Barcode (if applicable)

Name Brad Thoburn

Phone 850 - 414 - 5235

Address 605 Suwannee St.

Street

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

Tallahassee

City

FL

State

32399

Zip

Speaking: ☐ For ☐ Against ☒ Information

OR

Waive Speaking: ☐ In Support ☐ Against

PLEASE CHECK ONE OF THE FOLLOWING:

☐ 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. [2020-2022 Joint Rules.pdf \(flsenate.gov\)](#)

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



Driving a Clean Energy Future

Matt Valle

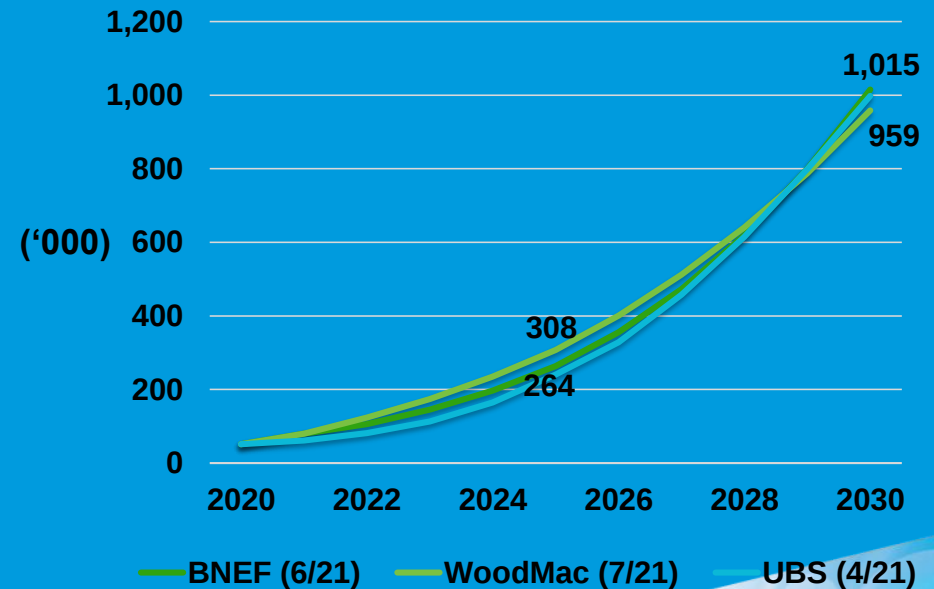
Vice President, Development
Florida Power & Light Company
September 2021

CHANGING THE CURRENT..  **FPL**

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

Passenger EV Forecast – FPL Territory⁽¹⁾



1) FPL TYSP April 2021 based on BNEF May 2020 Outlook. Wood Mackenzie | April 2021 projections preliminary. Revised EV outlooks from Wood Mackenzie and BNEF to be published May 2021.

Automakers are committing to EV investments

OEM	EV Investment
Tesla	Market cap \$800B; 1.4 MM EVs sold globally
VW AG	\$86 B by 2025; 130 new models by 2030
Daimler	\$47 B; 50 new models by 2022
Honda	\$46 B; 40%-80% electric between 2030-2035
GM	\$35 B; 30 new models by 2025; 100% EV by 2035
Stellantis	\$35 B; 55 new models by 2025
Ford	\$22 B; New EVs and autonomous vehicles by 2025
BMW	\$18 B; 25 new models by 2023
Toyota	\$13 B; 70 new models by 2025
Hyundai	\$10 B; 12 new models by 2025
Nissan	\$9 B; 100% electric in 2030
Kia	9 B; 11 new models by 2025

Over
\$300B
in global
investments

Worldwide
Transition
Underway

Florida
#2 State
for EVs



FPL EVolution pilot, made possible by supportive regulatory environment, is enabling FPL to learn ahead of mass adoption

Level 2
workplace,
destination
and home
charging

DC fast
charging in
high-traffic
areas every
50 miles along
highway

Fleet
charging for
commercial
and municipal
customers

Over
1,000 ports
across
100+
locations

Increases
availability of
public EV
charging in FL
50%

Pilot insights will
ensure
**continued
reliability**
for customers



FPL EVolution pilot is supporting sustainable transportation for Florida's youth

Supporting
electrification of
**>175 school
buses**
by 2023

Piloting
**first vehicle-
to-grid**
activity buses in
Florida



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



FPL

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

The EV Master Plan was a commendable and important first step, the work is just beginning, and FPL is here to support

Goals

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

Utility

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

PSC

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



FPL®

EVolution Home tariff ⁽¹⁾ provides faster, unlimited at-home charging, making it easier affordable to go electric

Offer

- ✓ Low, flat rate on monthly electric bill
- ✓ Unlimited off-peak charging at home
- ✓ Level 2 residential charger
- ✓ Smart charging with FPL mobile app
- ✓ Full install or equipment only installation options
- ✓ Operations and maintenance

Benefit

- ✓ No upfront cost necessary
- ✓ Flexibility to charge on peak if needed
- ✓ Faster, more convenient charging
- ✓ FPL app provides control and visibility (defaults to off-peak)
- ✓ Hassle-free installation with design flexibility
- ✓ No unforeseen costs

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

1) Subject to Florida PSC approval

The Florida Senate
APPEARANCE RECORD

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

9/22/21

Meeting Date

Transportation

Committee

Bill Number or Topic

Amendment Barcode (if applicable)

Name

Matt Valle

Phone

603-218-9638

Address

700 Universe Blvd.

Email

matt.valle@fl.com

Street

Juno Beach

State

FL

Zip

33408

Speaking:

☐

For

☐

Against

☒

Information

OR

Waive Speaking:

☐

In Support

☐

Against

PLEASE CHECK ONE OF THE FOLLOWING:



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S-001 (08/10/2021)

**Smart.
Secure.
Convenient.**



Senate Transportation Committee | 22 September 2021

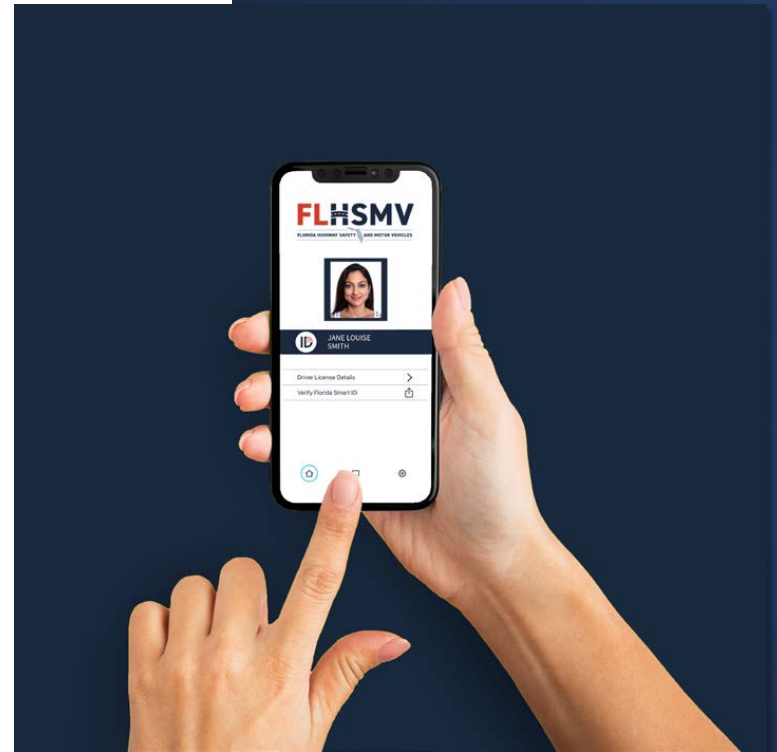
Florida Smart ID

- 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.

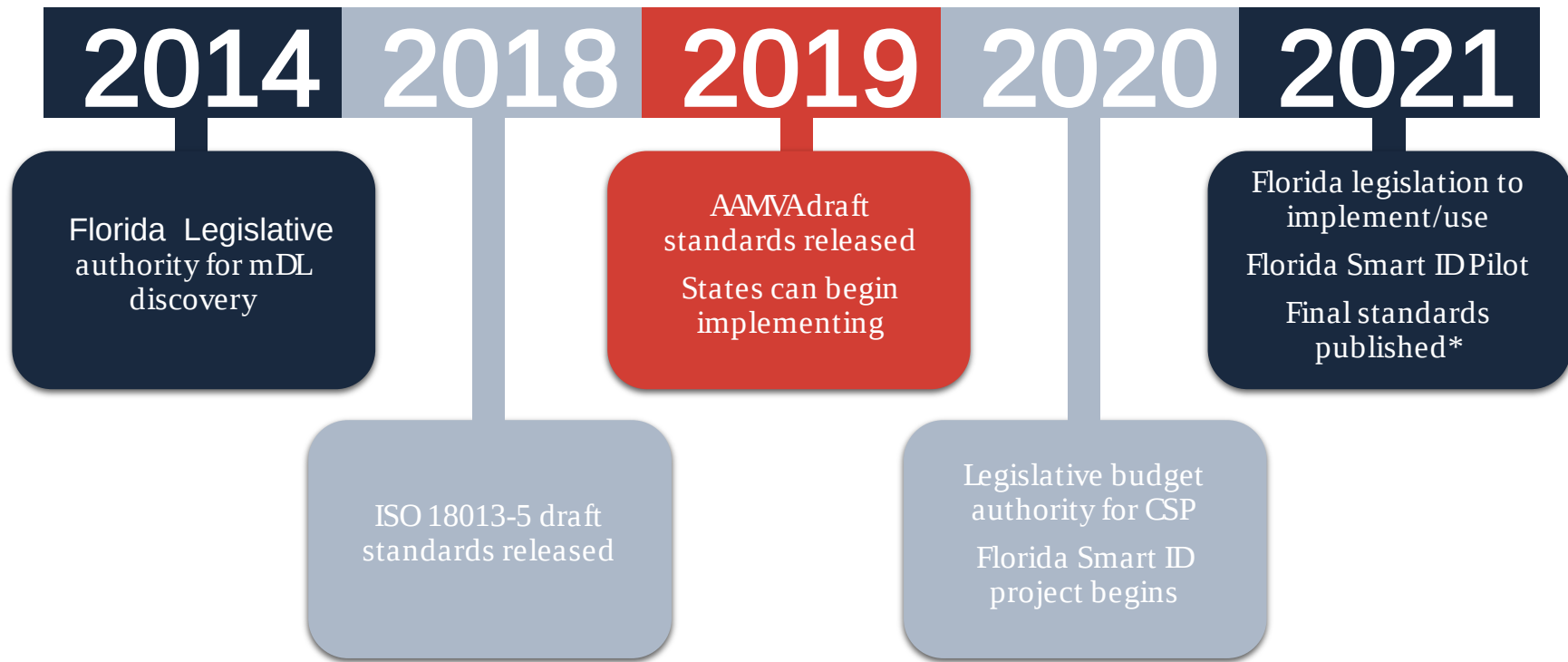


Benefits

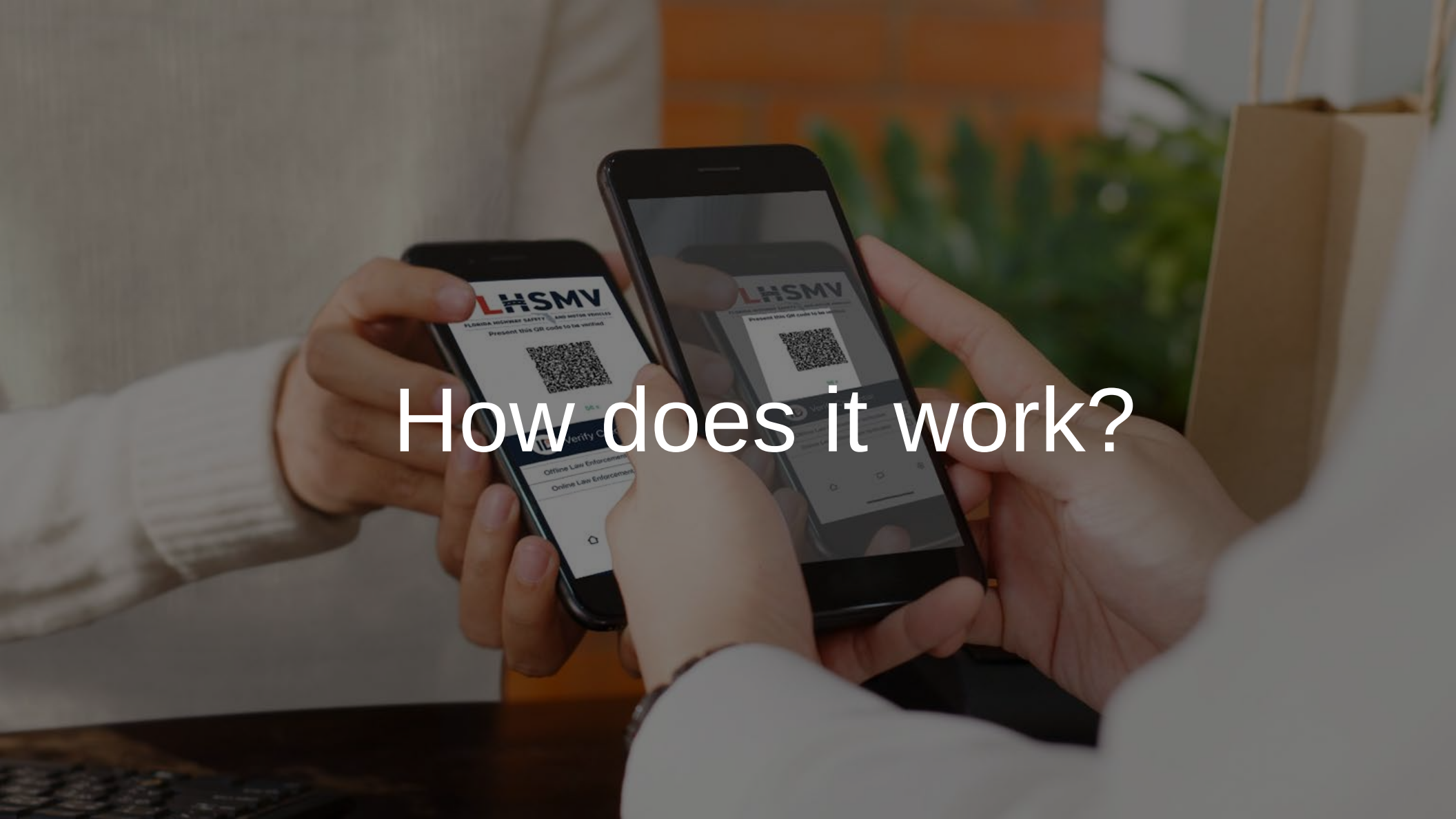
- Convenient *option* for proof of age or driving privilege.
- DL/ID credential required by law.
- Up-to-date status verified by FLHSMV.
- Can't be faked or falsified.
- Consent-based... *only show what they need to know*
- Contactless communication (device never leaves your hand).
- Will be expanded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



Timeline



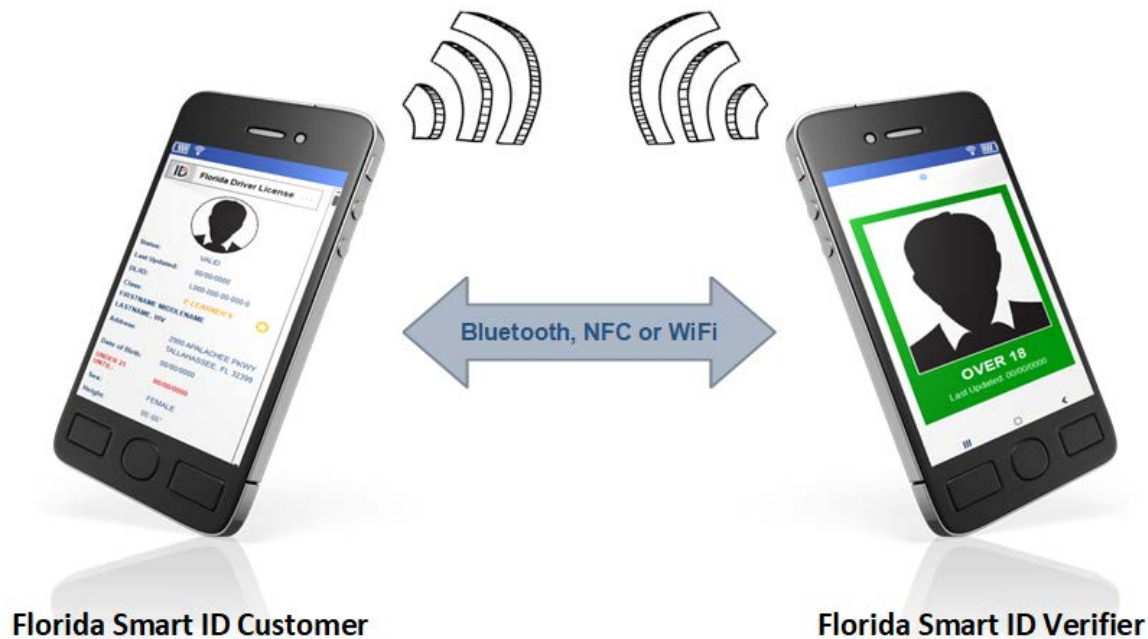
**ISO 18013-5 final and AAMVA implementation guidelines ETA 10/2021.*



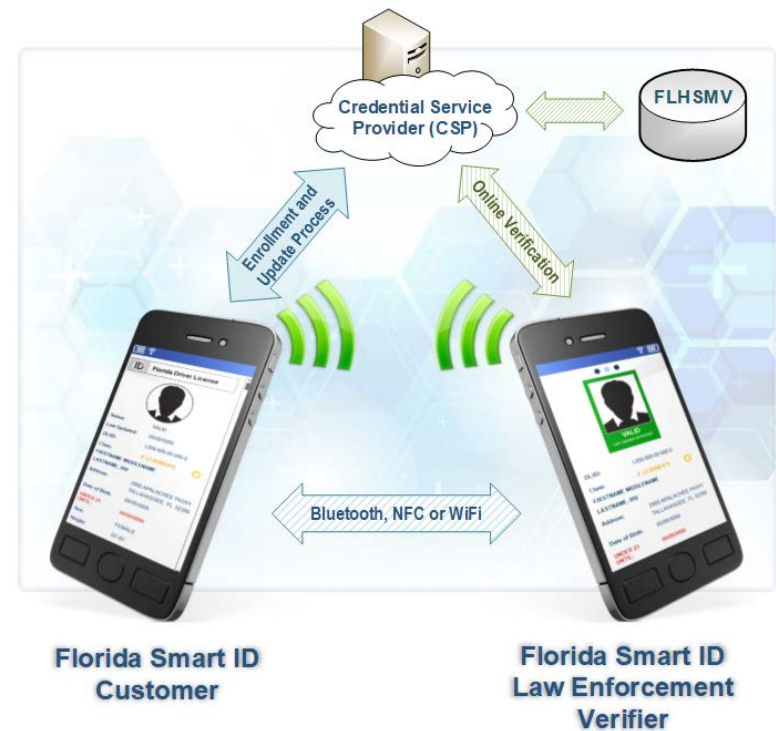
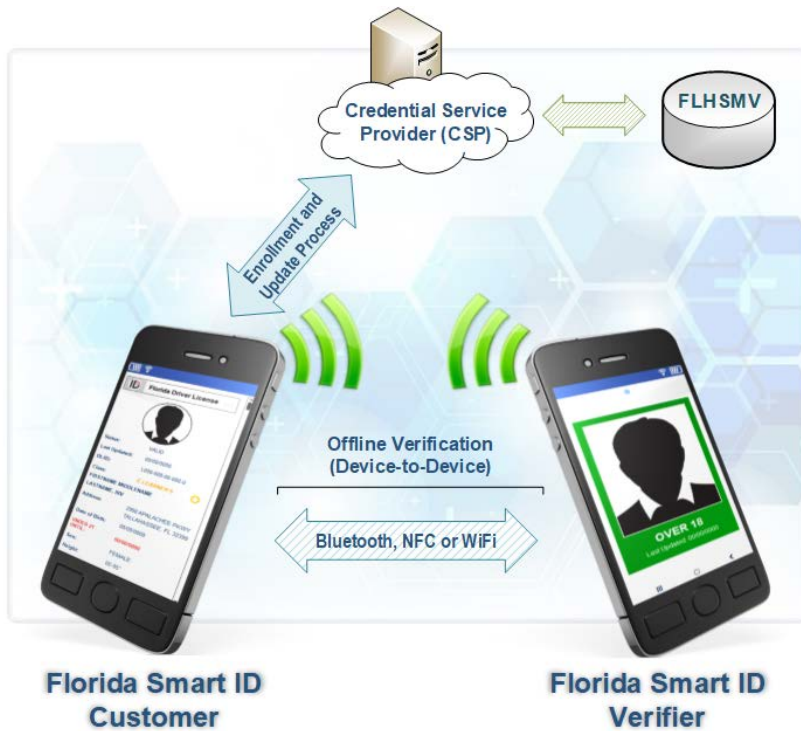
The image shows two hands holding smartphones. The phone on the left displays the LHS MV app interface, which includes the text "LHS MV", "FLORIDA HIGHWAY SAFETY AND MOTOR VEHICLES", "Present this QR code to be verified", a QR code, and a "Verify Code" button. Below the button are links for "Offline Law Enforcement" and "Online Law Enforcement". The phone on the right displays a similar interface but with a QR code that is being scanned by the phone on the left. The background is blurred, showing a brown paper bag and some greenery.

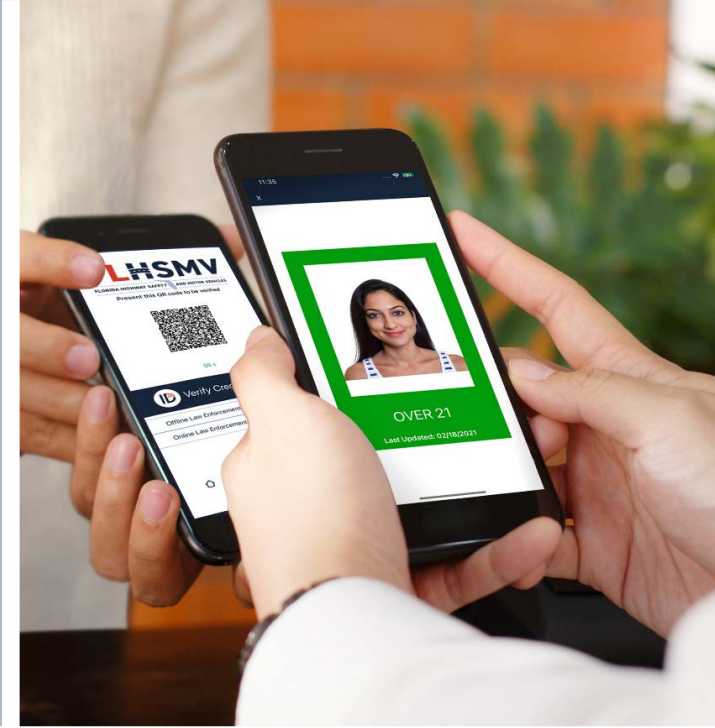
How does it work?

The Handshake (device to device)



Offline and Online Verification





PRESENT+CONSENT+VERIFY

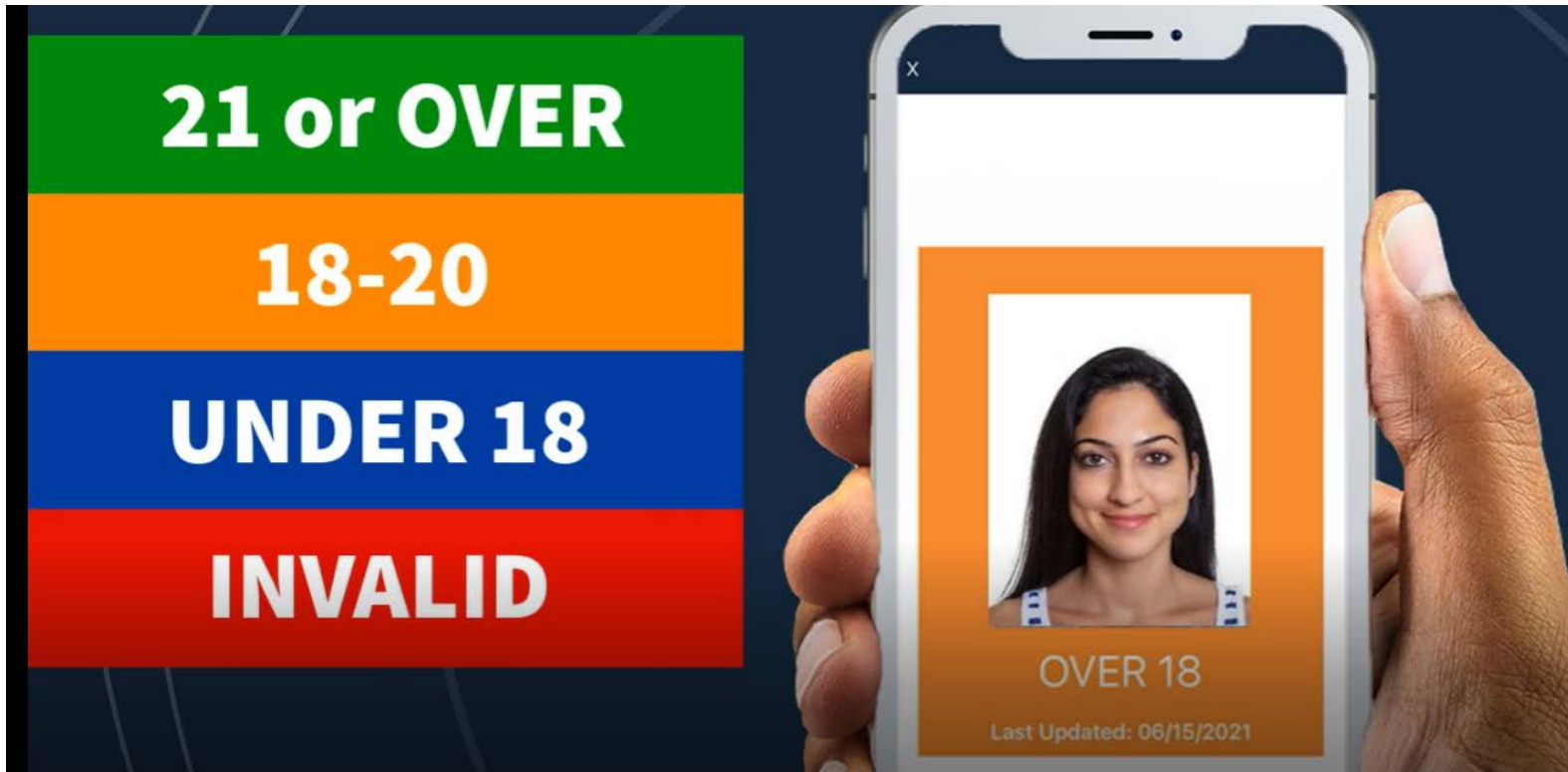
Florida Smart ID (Holder)



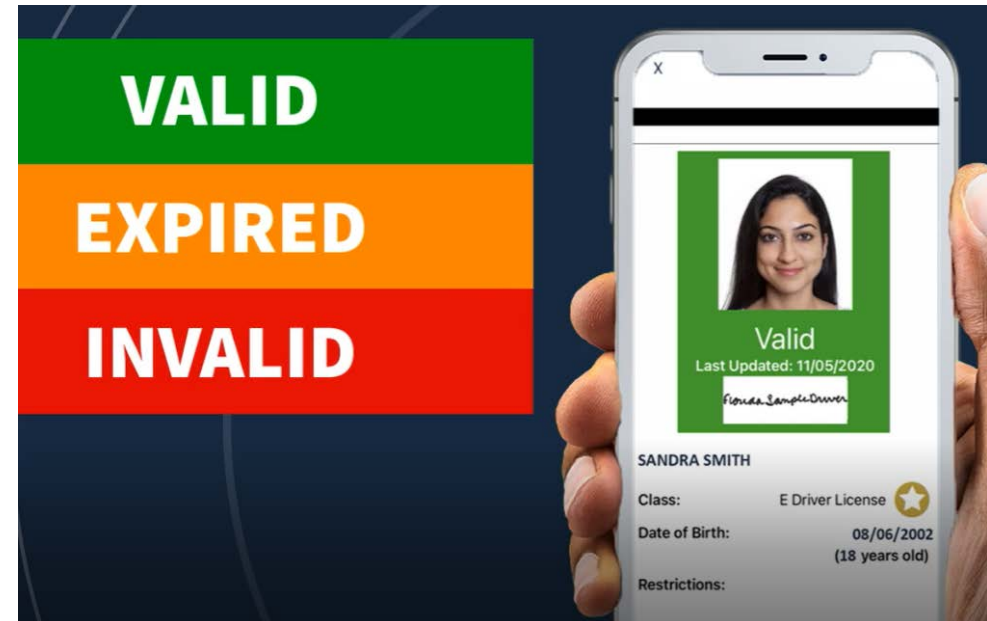
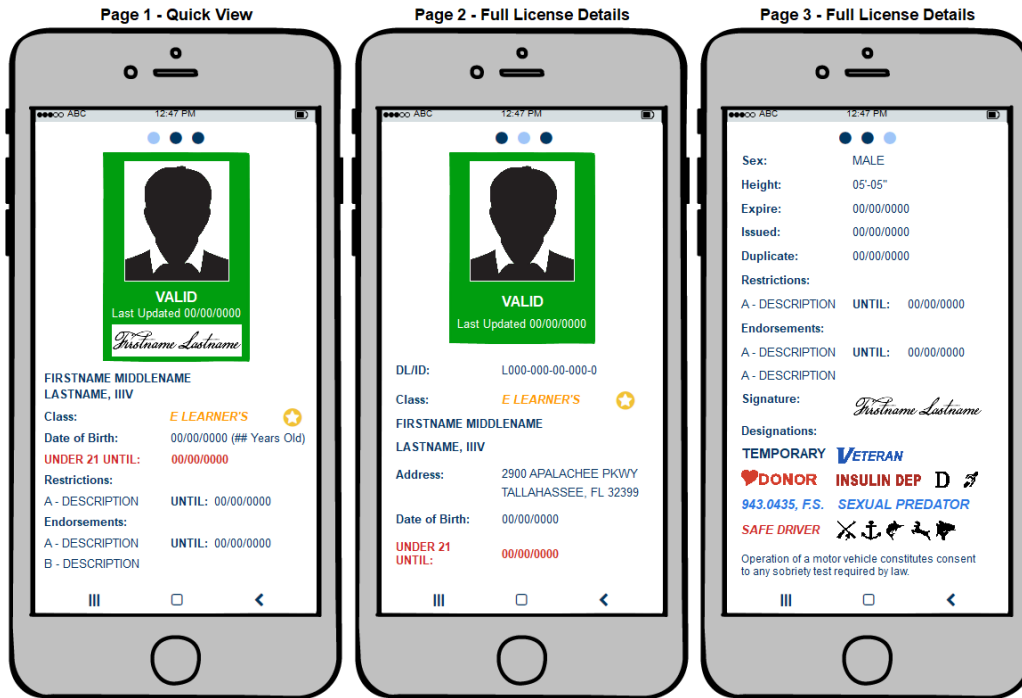


Verification Use Case

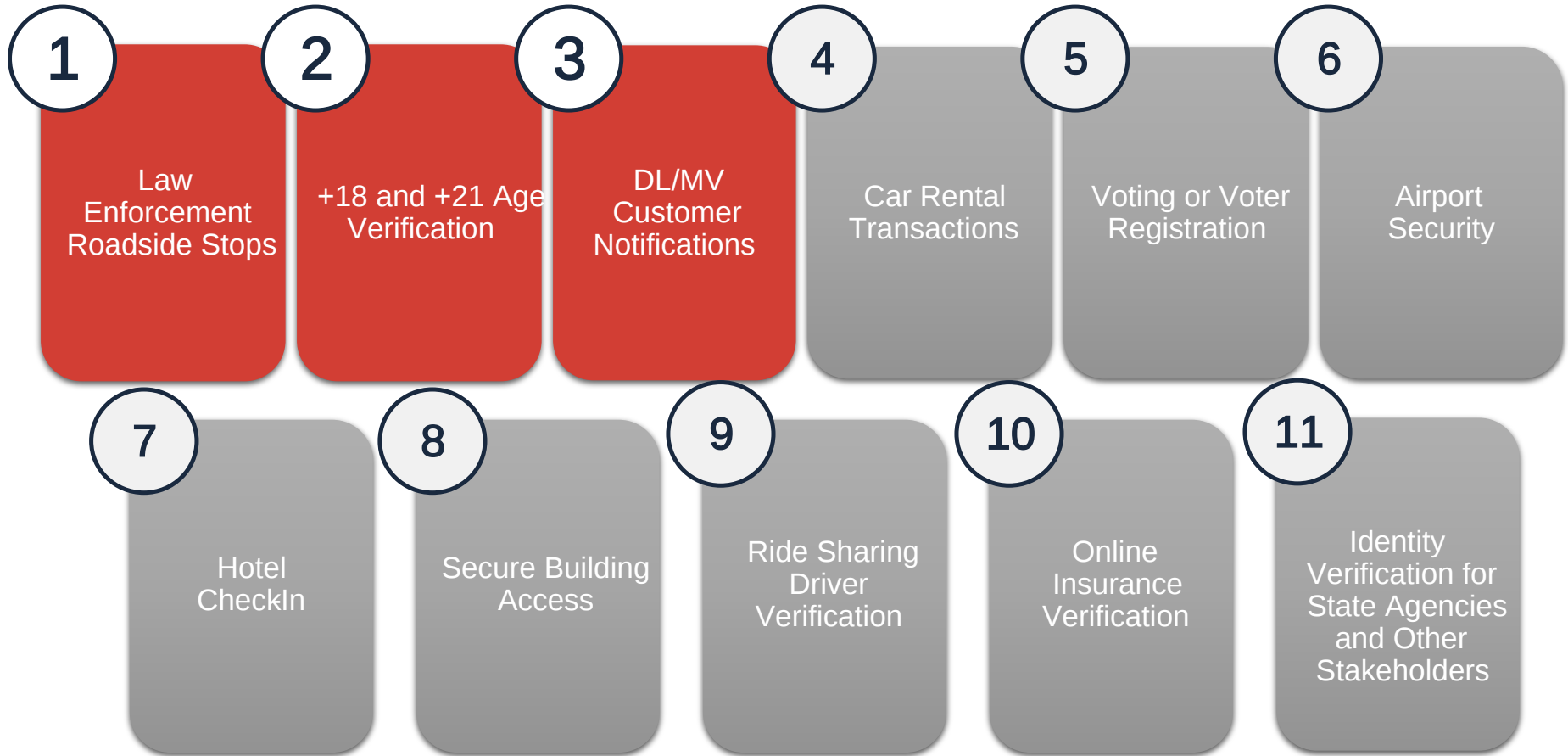
Proof of Age Verification

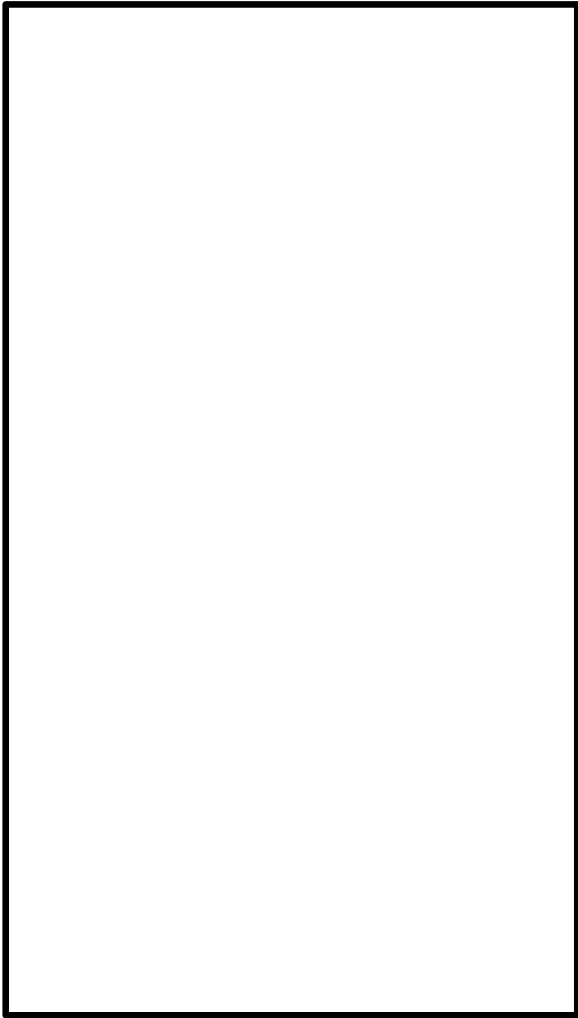


Law Enforcement Verification

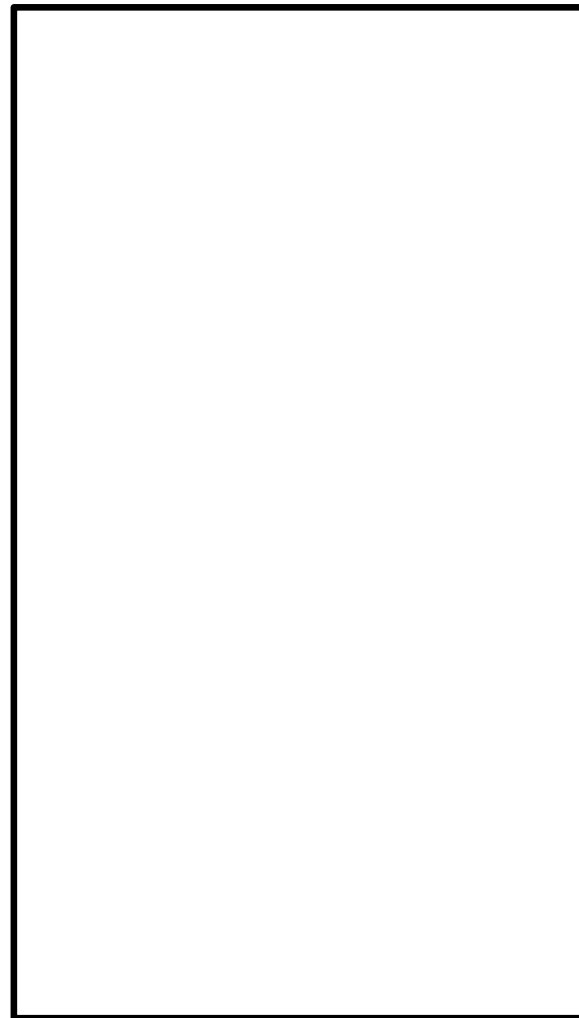


Use Cases





Law Enforcement



Proof of Age



Thank you!



THE FLORIDA SENATE

Tallahassee, Florida 32399-1100

COMMITTEES:

Appropriations Subcommittee on Agriculture,
Environment, and General Government
Education
Ethics and Elections
Finance and Tax
Transportation

SENATOR LORI BERMAN

31st District

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,

A handwritten signature in cursive script that reads "Lori Berman" followed by a horizontal line.

Lori Berman

cc: Senate Administration

REPLY TO:

- ☐ 2300 High Ridge Road, Suite 161, Boynton Beach, Florida 33426 (561) 292-6014 FAX: (888) 284-6491
- ☐ 218 Senate Building, 404 South Monroe Street, Tallahassee, Florida 32399-1100 (850) 487-5031

Senate's Website: www.flsenate.gov

WILTON SIMPSON
President of the Senate

AARON BEAN
President Pro Tempore



THE FLORIDA SENATE

Tallahassee, Florida 32399-1100

COMMITTEES:

Appropriations
Appropriations Subcommittee on Criminal and
Civil Justice
Ethics and Elections
Rules
Transportation

SENATOR RANDOLPH BRACY

11th District

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,

A handwritten signature in cursive script, appearing to read "Randolph Bracy".

Senator Randolph Bracy

cc: Rob Vickers, Staff Director
Marilyn Hudson, Committee Administrative Assistant

REPLY TO:

☐ 6965 Piazza Grande Avenue, Suite 302, Orlando, Florida 32835 (407) 297-2045 FAX: (888) 263-3814
☐ 213 Senate Building, 404 South Monroe Street, Tallahassee, Florida 32399-1100 (850) 487-5011

Senate's Website: www.flsenate.gov

WILTON SIMPSON
President of the Senate

AARON BEAN
President Pro Tempore

CourtSmart Tag Report

Room: KB 412

Case No.: -

Type:

Caption: Senate Transportation Committee

Judge:

Started: 9/22/2021 4:02:30 PM

Ends: 9/22/2021 4:59:16 PM

Length: 00:56:47

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
4:25:58 PM Follow-up question from Senator Gainer
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
4:52:38 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