
ARE WE READY TO PLUG IN?

Project Get Ready: A collaborative effort to help your organization achieve success with emerging transportation technologies



Efficiency and Innovative Technology



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Overview

- What is the value proposition of vehicle electrification?
- How is Progress Energy supporting electric transportation?
- Sense of urgency: Plug-in electric vehicles are on the way
- An invitation for your organization to partner with us
 - ◆ Project Get Ready
 - ◆ Get Ready Tampa Bay
 - ◆ Get Ready Central Florida



What is the value proposition of vehicle electrification?

- Lower transportation costs
- Cleaner emissions
- Reduced dependence on foreign oil
- Economic development opportunities

Plug-in electric vehicles provide a wide range of benefits

Ford Transit Connect EV:
28 kWh battery; 80 mile range



\$3.86 for a full charge

What is the value proposition of vehicle electrification? Less expensive at the plug than at the pump

Future Plans:

Fast Charge: 80% charge in 26 minutes

Cost to Charge: 24 kWh x \$0.138 = \$3.31

Range: 100 miles



Level 1: 120 VAC and 16 – 18
hour charge time

Level 2: 208/240 VAC SAE J1772 plug
and 6 – 8 hour charge time

What is the value proposition of vehicle electrification? Cleaner Emissions (100 mile profile)

$$\text{24 kWh charge}^* \times \text{1.171 lbs CO}_2 / \text{kWh}^{**} = \text{28.10 lbs CO}_2$$

Nissan LEAF EV:

$$\text{3.571 gal fuel} \times \text{19.4 lbs CO}_2 / \text{gal} = \text{69.28 lbs CO}_2$$

Nissan Versa***:

Reduction of greenhouse gas = 59.4%

* Assumes charge depleted battery module

** Assumes 2009 Progress Energy Florida system average emissions

*** Fuel economy based on 24/32 mpg automatic transmission vehicle

How is Progress Energy Supporting Electric Transportation?

- Progress Energy is partnering with our communities through Project Get Ready.
- Advanced vehicle technologies are an important part of our balanced solution.
- We are committed to developing the technology and infrastructure necessary to support the widespread usage of plug-in electric vehicles (PEVs).
- Progress Energy is investing now to ensure that there are few obstacles to consumers when PEVs arrive.

How is Progress Energy Supporting Electric Transportation?

- Edison Electric Institute Market Readiness Pledge
- Plug-In Hybrid Electric Vehicle (PHEV) demonstration and research
 - ◆ 7 converted Priuses, 6 currently in fleet, 2 Ford Escapes, 1 bucket truck
 - ◆ University of Florida Prius conversion
 - ◆ City of St. Petersburg Ford Escape conversion
- Customer-focused public outreach and education: Sharing what we know
- Technical consultant and strong collaborative efforts (Project Get Ready)
- Research and development (EPRI, Advanced Energy, GridPoint / V2Green, etc.)
- Evaluating vehicle charging solutions and relationship to peak, infrastructure, and renewables
- Research and demonstration of 12 Chevy Volts (GM grant)
- Deployment of ~300 charging stations in FL and ~300 in NC

Northpoint: Lvl I and Lvl II Charging with DSM and Surge/Lightning Protection



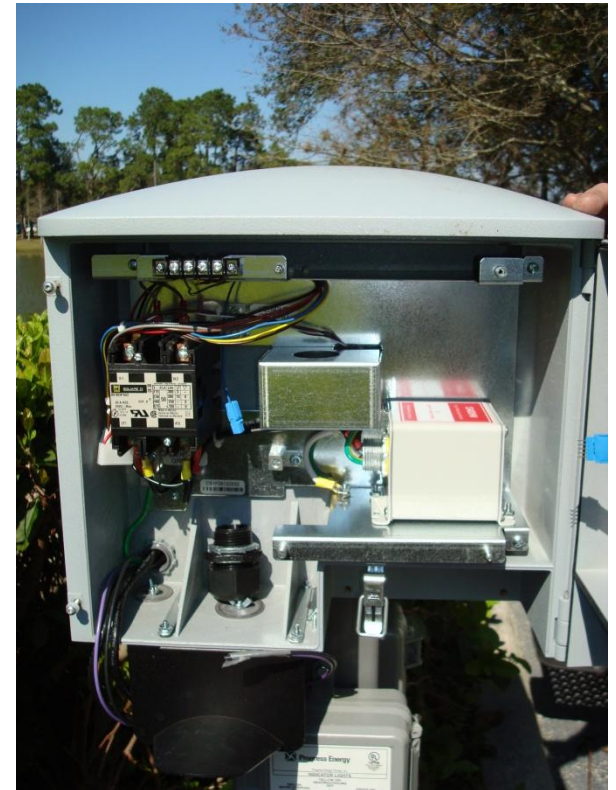
What type of infrastructure will we need to ensure success?



What are others doing to streamline permitting?

Project Get Ready provides the resources and collaboration to help streamline permitting.

<http://projectgetready.com/category/resources>



Preparing for tomorrow: Effective, low-cost solution



Sense of urgency: Plug-In Electric Vehicles are on the way

PHEV or EREV

ALL ELECTRIC

Production



GM PHEV



Chevrolet Volt



Toyota Prius



Nissan Leaf



Smart



Mitsubishi iMIEV



Cadillac Converj



BYD 3DFM



Fisker Karma



Ford Focus



Ford Transit
Connect



Tesla

Demo/Concept



Ford Escape PHEV



BMW Concept



VW Golf
TwinDrive



Chrysler/Fiat EV



Mini-E



Subaru R1e



Hyundai Blue-Will



Volvo C30



Toyota FT-CH



Mercedes BlueCell



Tesla Model S



Toyota FT-EV

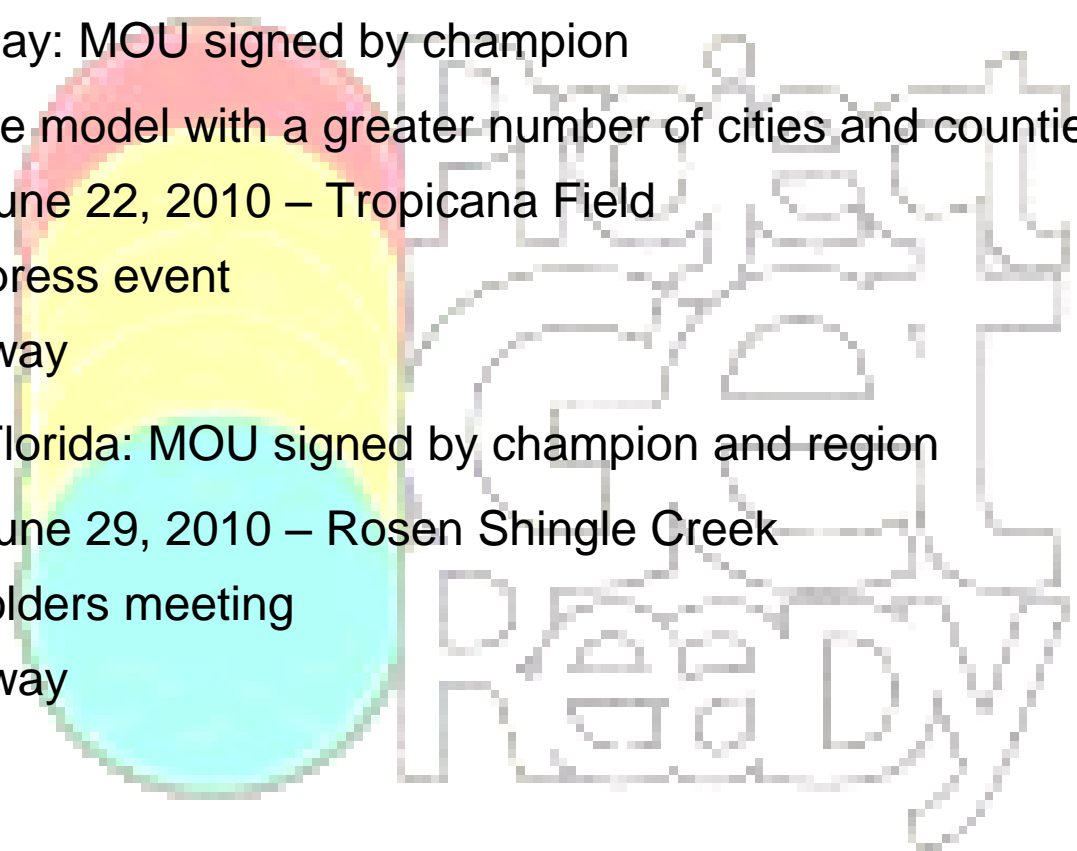
Project Get Ready: Education, Outreach and Collaboration

- Utilize Project Get Ready expertise and leadership role to improve success
- Project Get Ready model provides:
 - ◆ Best practices
 - ◆ Networking
 - ◆ Leadership
 - ◆ “Action templates”
 - ◆ “Menu”: http://www.projectgetready.com/docs/Project_Get_Ready_Menu_Mar16.pdf
- Leverage Project Get Ready experience, secure manufacturer participation with early technology release, and engage key stakeholders to enable and accelerate the adoption of electric vehicles in an efficient, collaborative manner.



Project Get Ready: Florida Partnership Regions

- Get Ready Tampa Bay: MOU signed by champion
 - ◆ New collaborative model with a greater number of cities and counties
 - ◆ Special Event: June 22, 2010 – Tropicana Field
 - ◆ Kickoff and press event
 - ◆ Initiatives underway
- Get Ready Central Florida: MOU signed by champion and region
 - ◆ Special Event: June 29, 2010 – Rosen Shingle Creek
 - ◆ First stakeholders meeting
 - ◆ Initiatives underway



Get Ready Tampa Bay: Preparing your organization for the future of transportation

- What are your organizational interests/needs pertaining to electrification?
- A value proposition from Get Ready Tampa Bay:
 - ◆ Subject matter experts: vehicular, emissions, charging, permitting, lightning/surge protection, etc.
 - ◆ Presentations, vehicle demos/ride and drive, collateral material, etc.
 - ◆ Lessons learned, data, national and local contacts, vehicle manufacturers, etc.
 - ◆ Charging station deployment in the GRTB region
- An opportunity to share what you know and what your organization is doing
- An invitation to join our team and grow with us

Thank you!



Ford Escape PHEV Prototype