

Agenda

Florida Public Service Commission Staff Workshop on Electric Vehicle Charging Stations

September 6, 2012

The purpose of this workshop is to gather information on electric vehicle charging stations. Section 366.94, Florida Statutes, requires the Commission to conduct a study of the potential effects of public charging stations and privately owned electric vehicle charging on both energy consumption and the impact on the electric grid in Florida. The Commission is also required to investigate the feasibility of using off-grid solar photovoltaic power as a source of electricity for the electric vehicle charging stations. The study is due to the President of the Senate, the Speaker of the House of Representatives, and the Executive Office of the Governor by December 31, 2012.

A. Opening Remarks by FPSC Staff – 9:30 am to 9:45 am

Staff presentation – Ben Crawford

B. Presentations by Stakeholders – 9:45 am to 12:30 pm

Mark Duvall, Electric Power Research Institute
Britta Gross, General Motors
Joshua Caillavet, GE Energy Management
Charlie Yankitis, SPX
Bob Reedy, Florida Solar Energy Center
Brian Hanrahan, Florida Power and Light Company
Christopher Gillman, Progress Energy Florida, Inc.
Keith Gruetzmacher, Tampa Electric Company
Robert McGee, Gulf Power Company
Jennifer Szaro, Orlando Utilities Commission

Lunch Break – 12:30 pm to 1:30 pm

C. Open Discussion – 1:30 pm to 4:30 pm

Topics for Discussion:

1. Background Data for Electric Vehicles

- a. Types of electric vehicles in Florida
- b. Types of electric vehicle charging stations in Florida
- c. Numbers of electric vehicles and chargers in Florida
- d. Future deployment of electric vehicles and chargers in Florida

2. Effects on Energy Consumption

- a. Effect on demand from electric vehicle charging now and in the future
- b. Need for new generation due to electric vehicle deployment
- c. Effect on peak demand from electric vehicles
- d. Effect on rates from electric vehicle charging
- e. Effect of electric vehicles on vehicle fuel consumption

3. Impact on the Electric Grid

- a. Impact of private charging on the transmission and distribution network
- b. Impact on residential transformers from clustering of electric vehicles
- c. Impact of public charging stations, especially quick-charge stations, on the transmission and distribution network
- d. Impacts and differences from at-work charging
- e. Impact on costs or savings to consumers

4. Feasibility of Solar PV for off-grid charging

- a. Generation needed per station
- b. Potential for energy storage
- c. Relationship between solar production times and charging demand times
- d. Battery swaps as an option

D. Public Comment – 4:30 pm to 5:00 pm or following Open Discussion

E. Closing Remarks/Post-workshop Comments – 5:00 pm