Building a 21st Century Truck Stop -

The Eco Travel Plaza

March 1, 2011 --- TREEDC Crossville Forum

East Tennessee Clean Fuels Coalition

ETCleanFuels.org

Reducing foreign oil dependence one fleet at a time.
Agenda

1. The Vision
2. The largest piece – adding the TSE
3. Adding Solar
4. Adding DC Fast Charging
5. Pictures
The Vision

✓ Don Demko, owner of the Plateau Travel Plaza (as it was named), decided he wanted to build a different kind of plaza for the truckers, the community & the plaza itself
✓ Include cleaner fuels and options for truckers, energy-efficient bldg, sustainable operations, & healthier foods

✓ Install Truck Stop Electrification (called “TSE”)
✓ Install biofuels (E85, B20)
✓ Add solar – 3 roofs as options
✓ Make energy-using systems in bldg more efficient
✓ Improved recycling
Demko & Partners approached ETCleanFuels in Spring 2009
ETCleanFuels submitted EPA, ARRA grant for ~$580,000 with ~$240,000 in total cost share in late Spring 2009
We won the grant, and begin the project in Fall 2009
Project started then; multiple delays along the way, but on-course to finish in the March 2011
All 50 spaces to be electrified
2 different types of TSE equip. offered – with HVAC, and without HVAC (just elec. plugs, and WiFi)
Significant portion of use will be ZERO EMISSIONS - SOLAR
Adding Solar

- Utilized partial funding from TSE grant, partial funding TN Solar Initiative grant & federal tax credit
- 35 kW system will be installed taking up all of the usable roof space on both of the refueling canopies (car canopy and truck canopy)
- Reducing emissions from the idling trucks from 70-90% to 100%!
- Both canopies having to be structurally reinforced before solar installed
- Significant ROI for Eco Travel Plaza
The “EV Project” – Charging Stations

- **1,000 Residential Charging Stations (Level 2 – 220V)**
  - Installed at “home” of each LEAF purchased

- **1,200 Commercial Chargers (Mostly Level 2; 60 “DC Fast Chargers”)**
  - Installed at strategic business parking lots

- **150 Public Chargers**
  - For public use at municipally-owned locations (airports, parking garages)

- **1,000 LEAFs**
  - Private Drivers
  - Commercial/
    Municipal Fleets
Adding DC Fast Charging at ETP

- No contract in place, but expected to be an approved “EV Project” **DC Fast Charge** location
- 25 min. “refuel” for Nissan LEAF
- Enabling corridor travel for pure EVs
Pictures

Shorepower units

AireDock units