

# NUTC Workshop – Electrification of Transportation



Terry L. Komlos  
Manager, Zero Emission Mobility  
Corporate Planning





# Challenges of Electric Vehicle Adoption



# Key Challenges

Electric Vehicle Price

Driving Range

Availability of  
Public Infrastructure



# Making Zero Emissions Affordable



2012 Nissan LEAF – \$27,700 after \$7,500 Federal Tax Credit

- Additional incentive examples:
  - West Virginia: tax credit up to \$7500
  - Georgia: tax credit up to \$5,000
  - Hawaii: rebate up to \$4,500
  - Illinois: rebate up to \$4,000

Incentives are an important bridge until mass production can bring down price through economies of scale



# Localized Nissan LEAF Production

- New state-of-the-art facility currently under construction
- Electric Motor Powertrain to be built at the Decherd Powertrain Assembly Plant



# Understanding Driving Range



**On average 90% of the U.S. population drives less than 100 miles a day**



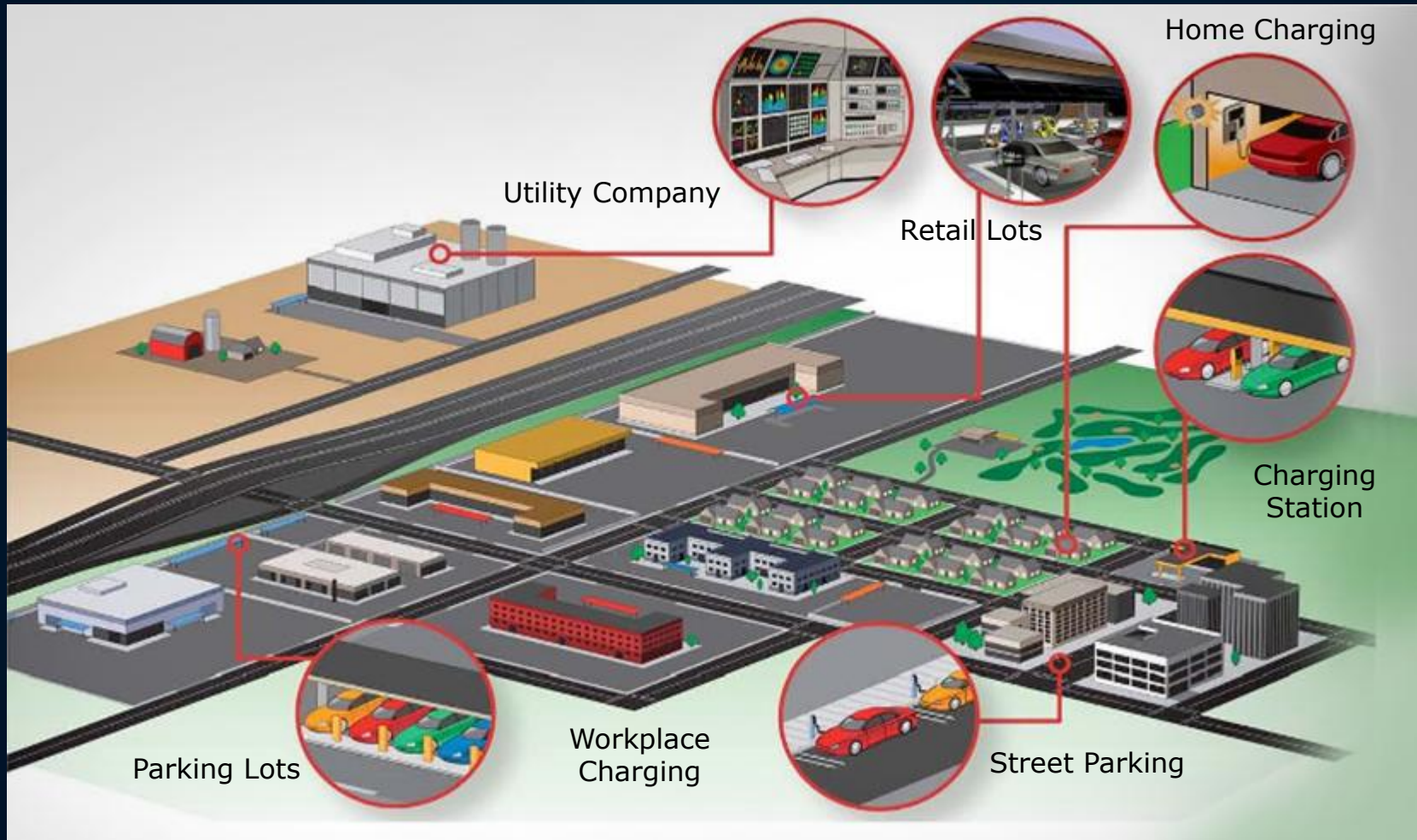
## Typical consumer driving patterns:

- Weekday – 73% drive less than 50 miles per day
  - 27% drive 5-10 miles per day
- Weekend – 66% drive less than 50 miles per day
  - 24% drive 20-29 miles per day

# Life with an EV: Infrastructure Eco System



Charging an EV will be much more convenient than most people think.



# Public (Planned) Infrastructure

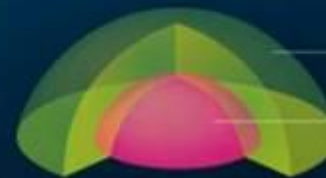


More than 13,000 EV Charge Stations on the way by the end of 2012...



## The infrastructure of the future.

Electric vehicle infrastructure is growing rapidly, with plans to have more than 13,000 charging stations online in 2012. Use this interactive map to see how many charging stations are planned for your market.

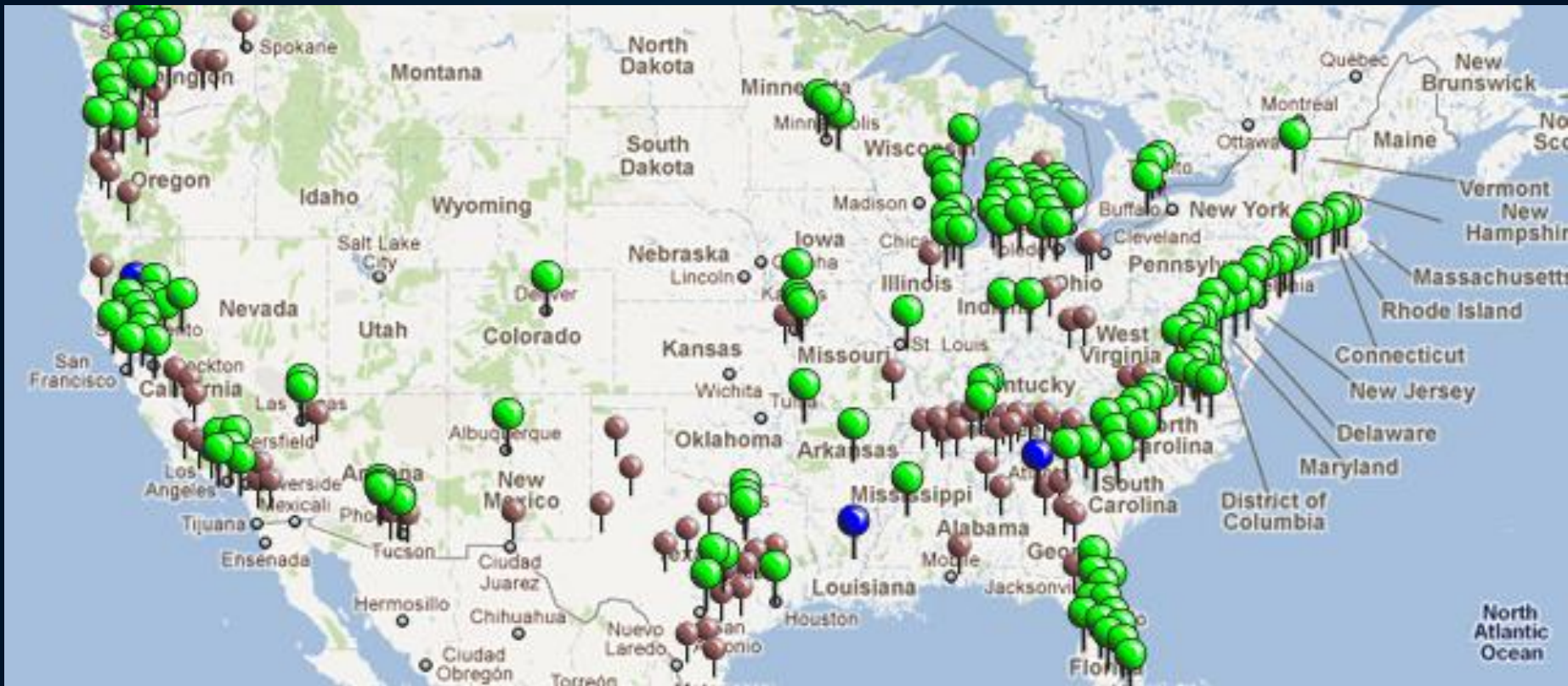


Planned Level 2 chargers offering 7 hour charge

Planned DC Quick Chargers offering a 30 minute charge up to 80%



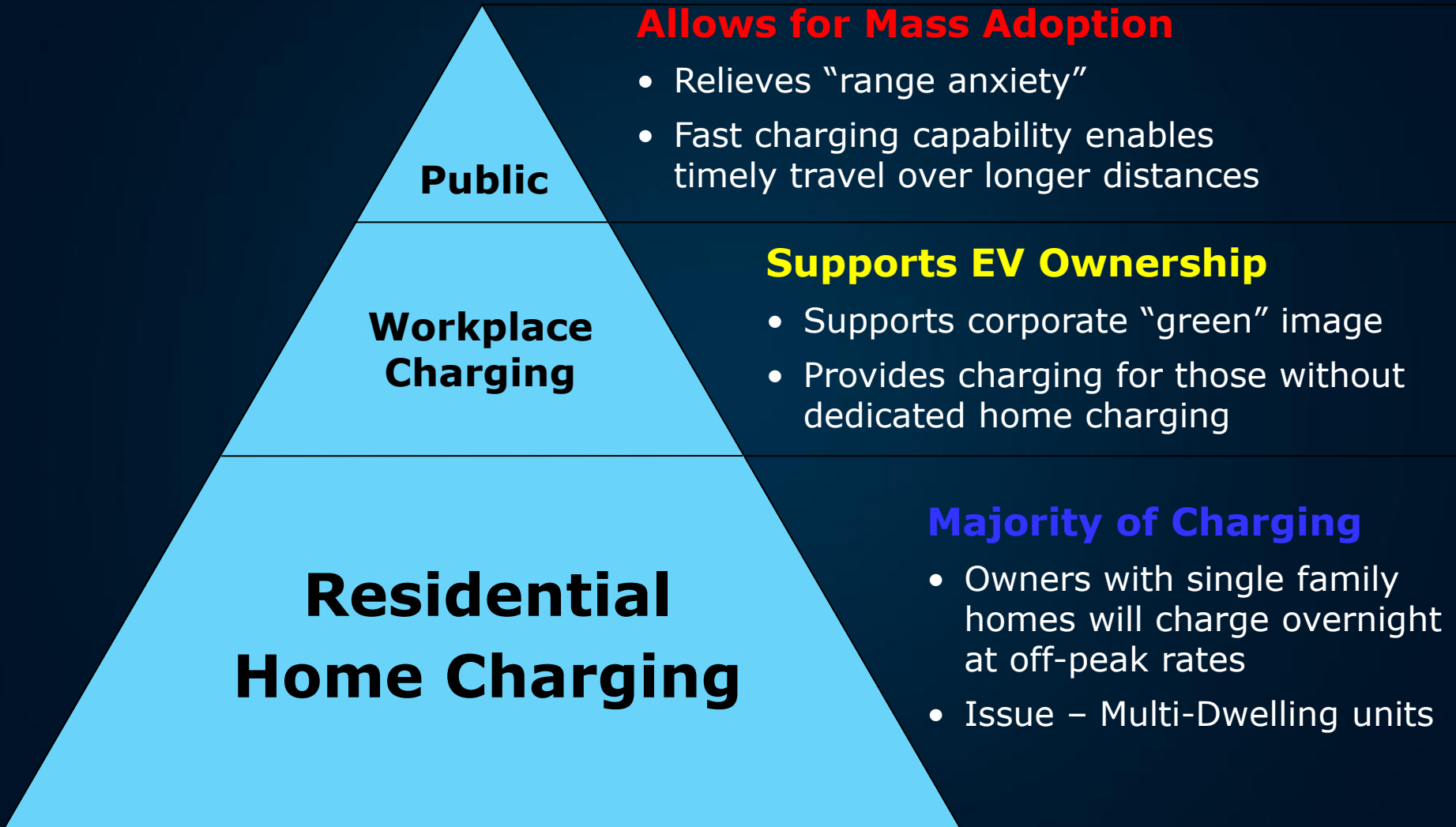
# Installed Public Infrastructure



Station map legend:

- Available ChargePoint
- In use ChargePoint
- Out of Network
- Future ChargePoint
- Unresponsive ChargePoint

Estimated Number Of Public Charging Stations:  
Level 2 (240V): 5,300  
DC Fast Charge (480V): 50





# The Nissan Vision

*"A new era is beginning in the global automotive industry. At Nissan and Renault, we are working together to lead the way to mass-market zero-emission mobility."*

—Carlos Ghosn, Chairman & CEO, Renault-Nissan Alliance

