Pace of Infrastructure Deployment

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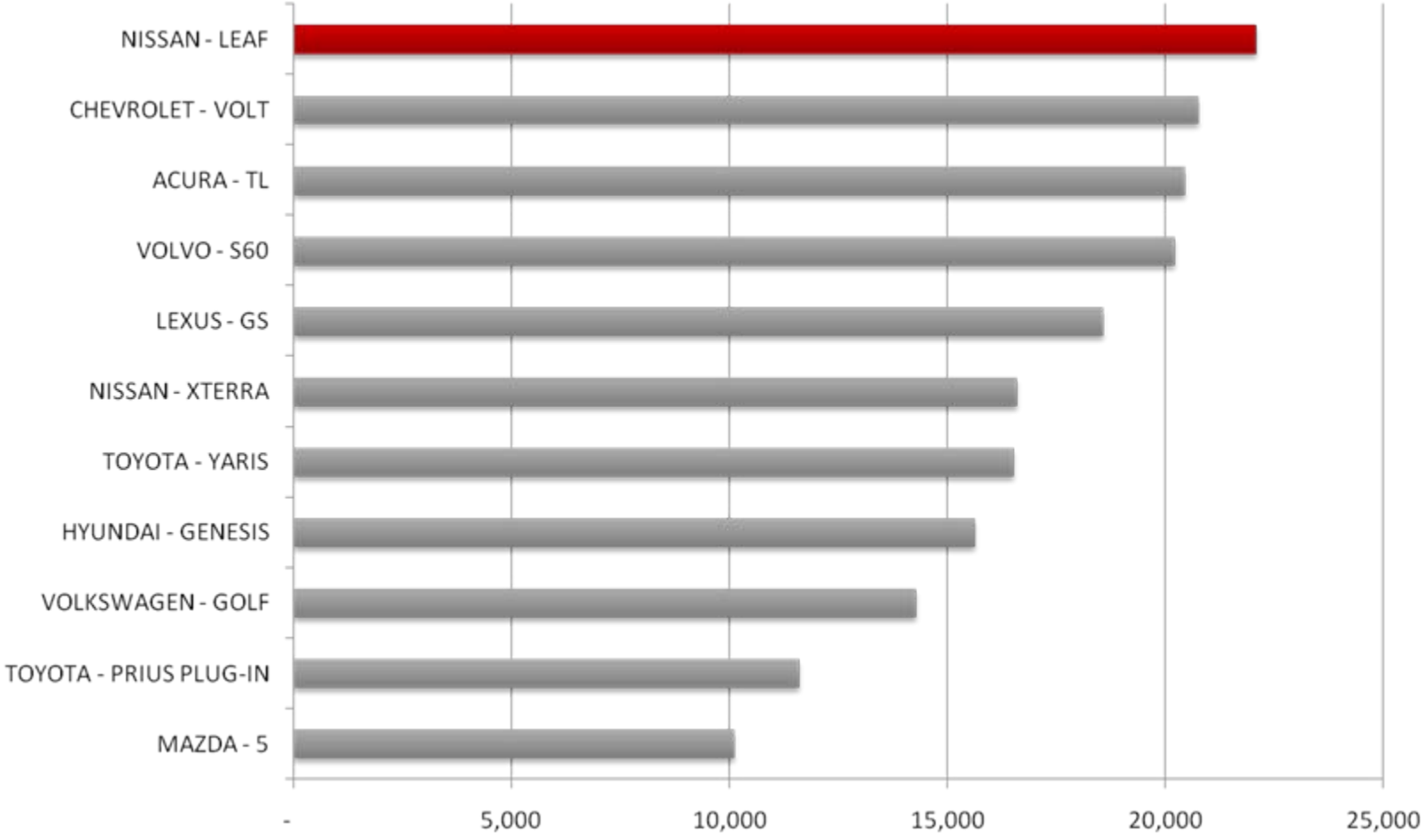
Nissan North America

Nissan LEAF growth

- Nissan LEAF continues to be the best-selling 100% electric vehicle in the U.S. & globally
- Global sales: 115,000+
- Over 50,000 on U.S. roads today
- LEAF is #1 Nissan vehicle sold in Atlanta, Portland, San Francisco & Seattle.

LEAF outsold many other popular car models in 2013



March '14 FYTD Sales Volume

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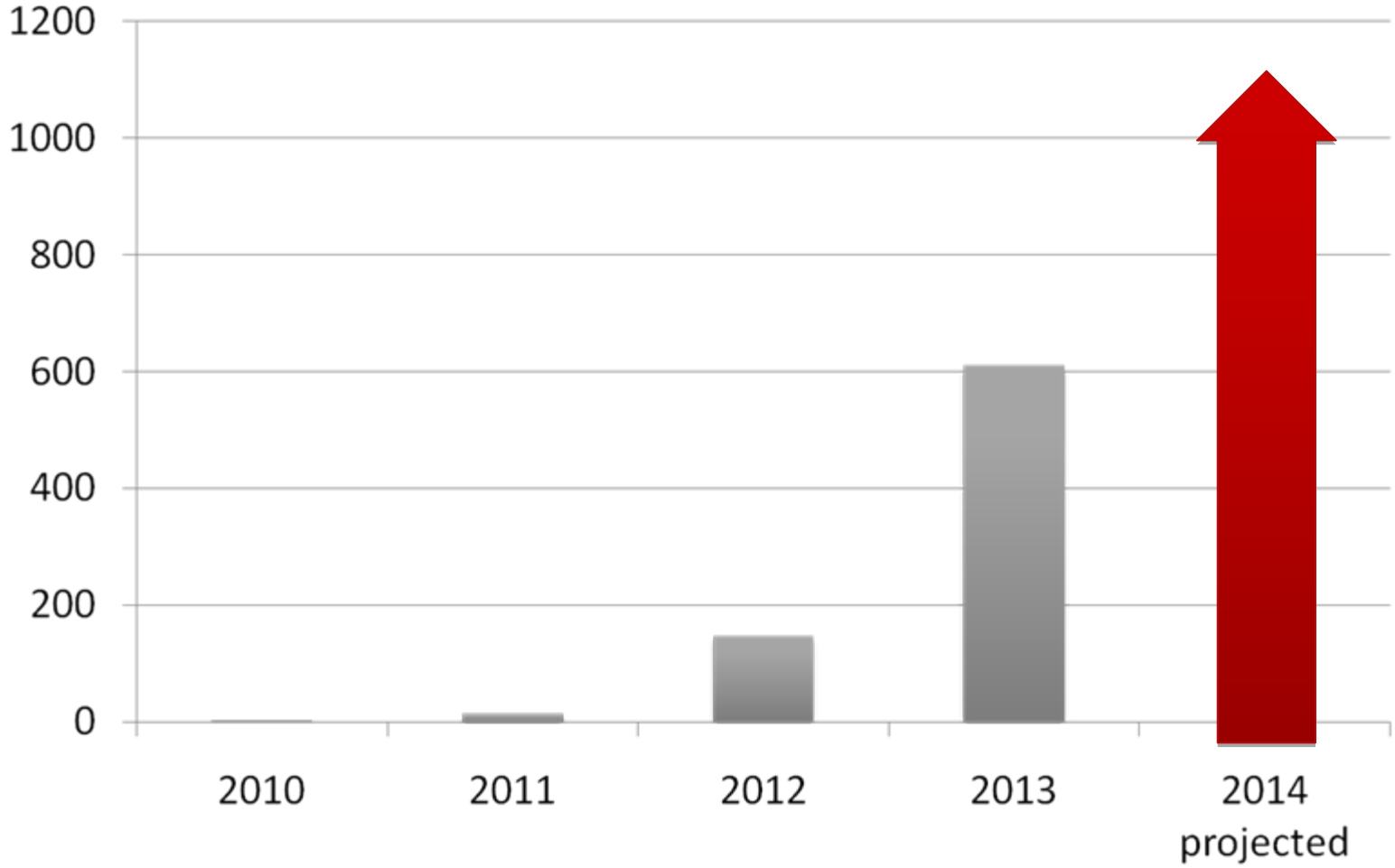
Fast Charger infrastructure growth in the US



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Nissan Fast Charger Approach

Build 'Range Confidence' in target markets by deploying Infrastructure in population centers to support extending in-town range

1 Dealership

- DC Fast Charger Dealer Program
- Creates community anchor for charging infrastructure
- Answers purchase question on "where do I charge my car?"
- Creates sales tool and links community infrastructure

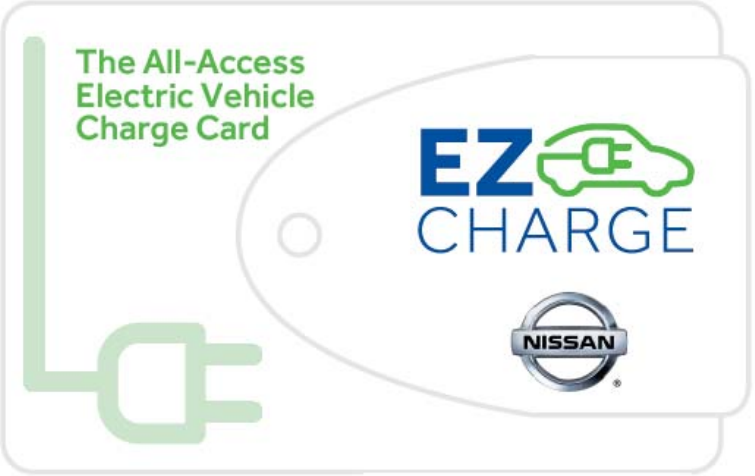
2 Community

- Deployment via key stakeholder groups
- Builds confidence through community awareness
- Local and State Governments
- Utilities and energy providers
- Site hosts: Retail, commercial, destinations, gas stations etc.
- Research & Environmental Organizations

3 Workplace

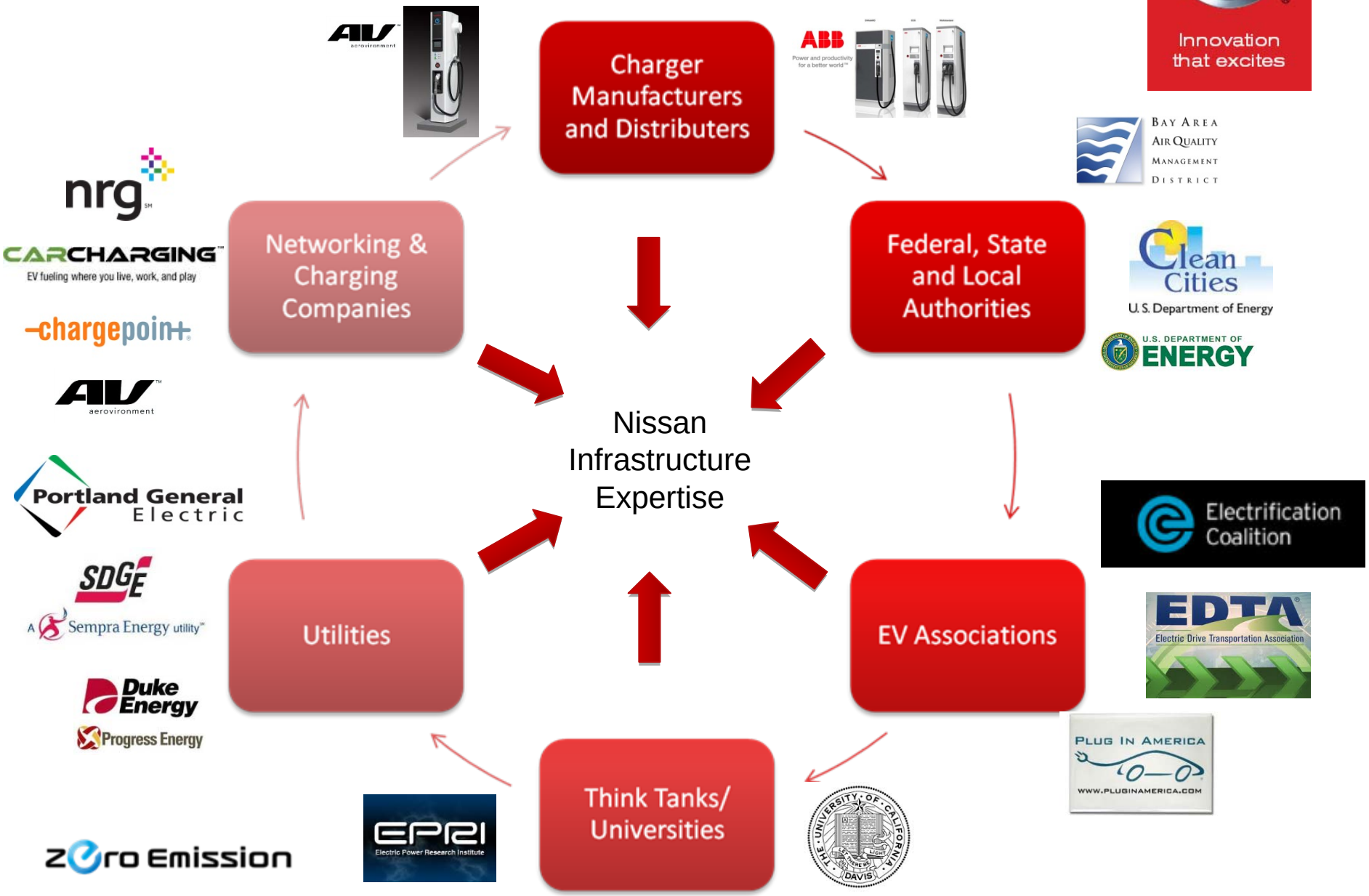
- Supports employer incentives for sustainable mobility
- Supports business fleet needs
- Employee benefit used to attract and retain top talent, increase productivity and workplace harmony
- Promotes energy efficiency and environmental co-benefits

New EZ Charge Platform



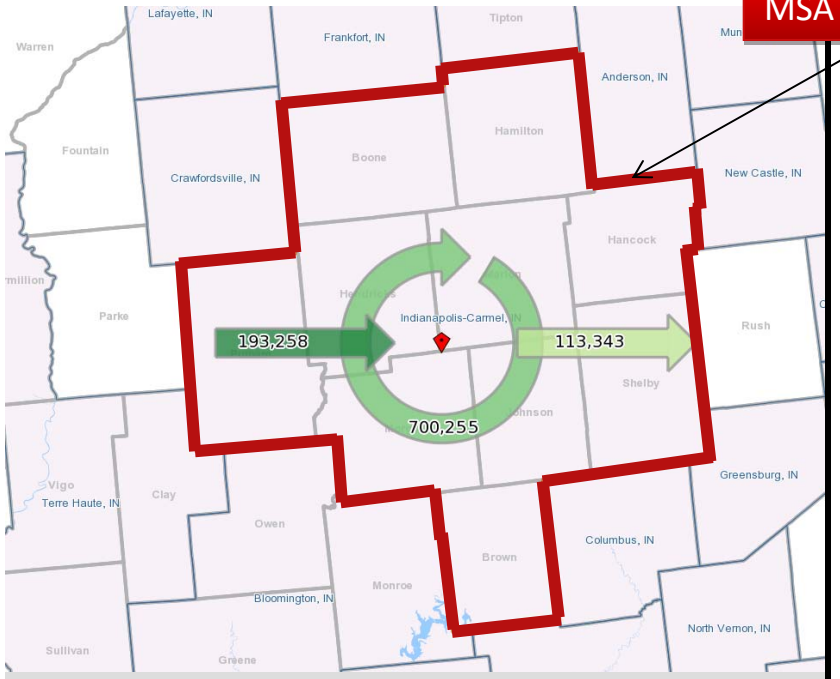
- EZ-Charge is a new program providing LEAF owners ability to charge across charging networks with single card.
- Networks included:
  - NRG eVgo
  - Blink Network by CarCharging Group
  - ChargePoint
  - AeroVironment
- EZ-Charge launches in 10 US markets starting in July 2014, with an additional 15 US markets planned in the next year.

Industry engagement necessary to achieve joint infrastructure goals

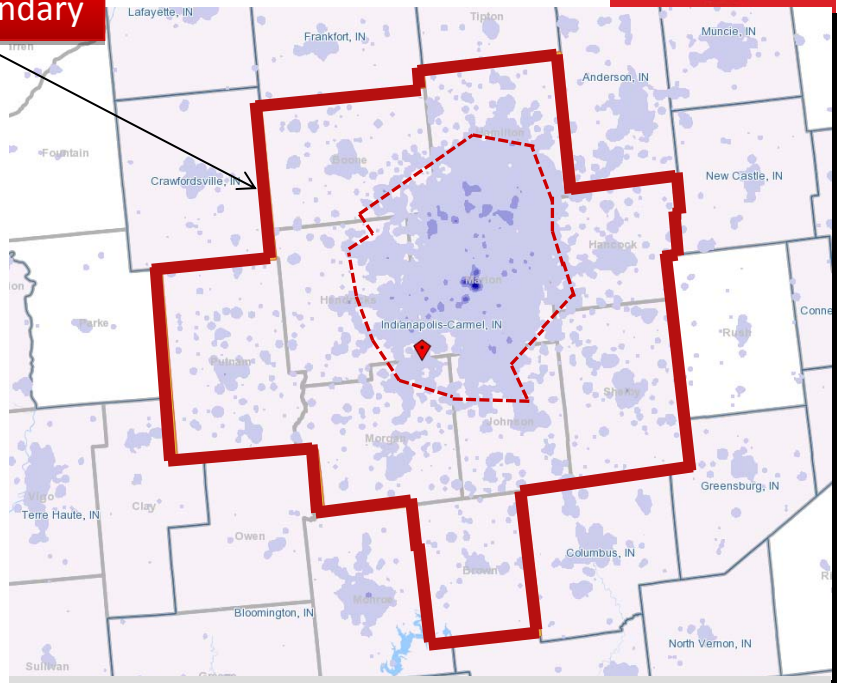


Community Strategy: Example Indianapolis

MSA Boundary



86% of MSA Residents
Commute within the MSA



Commute Destination
Area = 1,177 Miles^2

QC Today = 3 (excl. dealers)

QC Coverage Target = 8

1. Calculate geographic area of commute destinations of residents within MSA
2. Capture majority of resident commute travel
3. Calculate benchmark 'coverage factor' (e.g. Seattle)
4. Apply coverage factor to other markets to determine basic coverage number
5. Align markets with EV sales potential

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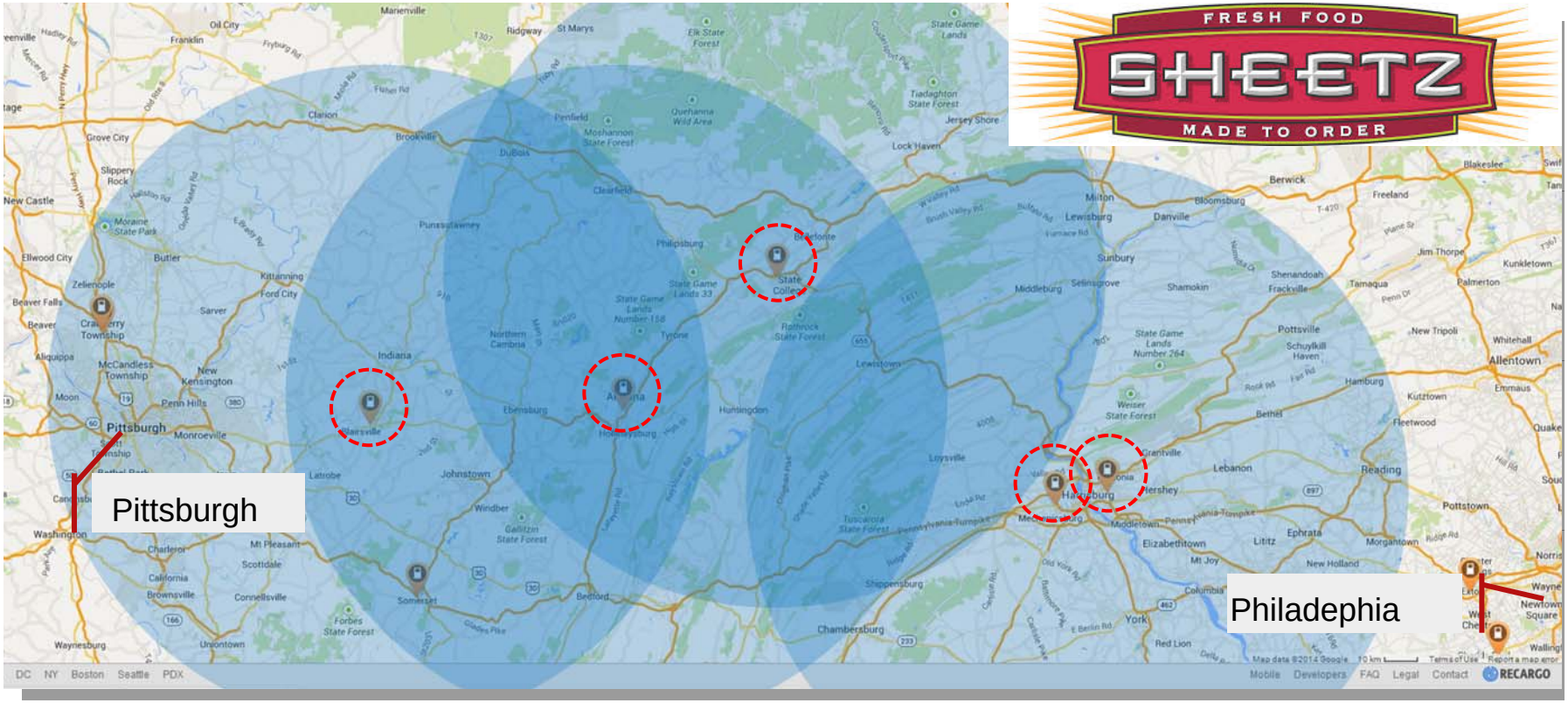
Case Study: SHEETZ, INC.

- Family-owned chain of gas stations/convenience stores
- 5 QCs covering Pittsburgh to Philadelphia
- Nissan provided strategic guidance and financial assistance

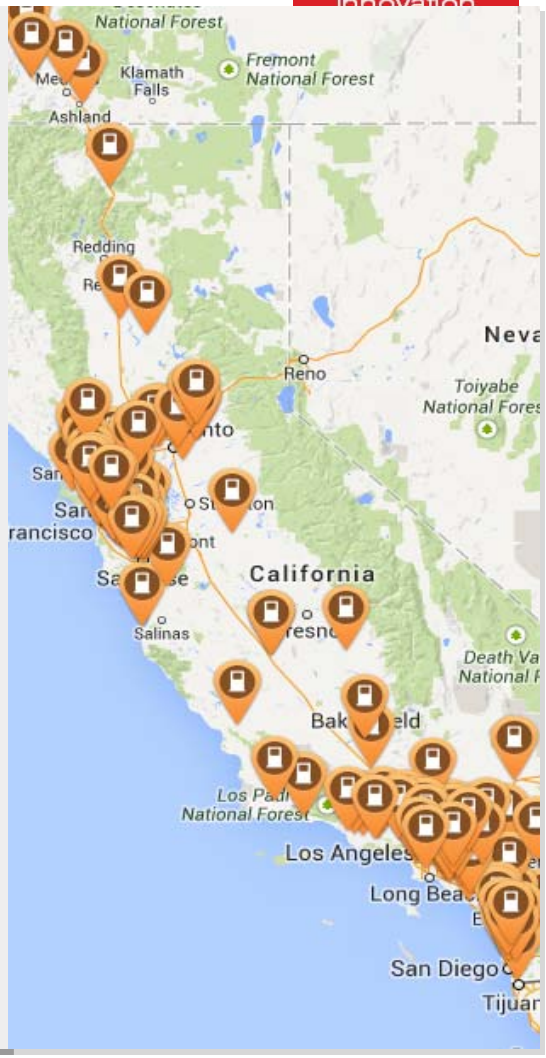


Case Study: SHEETZ, INC.

- Motivation:
  - Provide charging for customers – attraction & retention
  - Community environmental leadership
- Expectation:
  - Revenue generation (store sales & charging sessions)
  - Patient ROI – realistic market growth expectations
- Nissan Strategic Guidance:
  - Equipment selection
  - Networking solution
  - Monetization benchmarking
  - Stakeholder relationships
  - Marketing

Charging Infrastructure Research

- Two thirds of LEAF drivers use public charging infrastructure, one quarter regularly
- Top 5 locations for charging preference include:
  1. Shopping malls
  2. Big box retailers
  3. Grocery stores
  4. Public parking lots
  5. Sit down restaurants
- Drivers expect to wait 60 minutes or less to charge at public stations
- Average charging time at a DCFC is 15-20 minutes
- Drivers want to travel less than 4 miles to access a charger
- Strong 0.75+ correlation between DCFC infrastructure and EV sales



Zero Emission *Source: Nissan LEAF owners and intenders survey, Market Intelligence, 2014*

Growing the pace of infrastructure deployment: Key takeaways

- Research and usage data indicates customer preference for a fast and convenient charging experience
- Efficiency and speed is required from all stakeholders working together (utilities, regulators, networks, site hosts)
  - Reduce permitting time
  - Align utility rates to reduce financial hurdles to deployment
- Dual Fast Charger products now available. OEMs can invest together to grow overall infrastructure for EVs

Atlantic Station, Atlanta, GA

Questions?