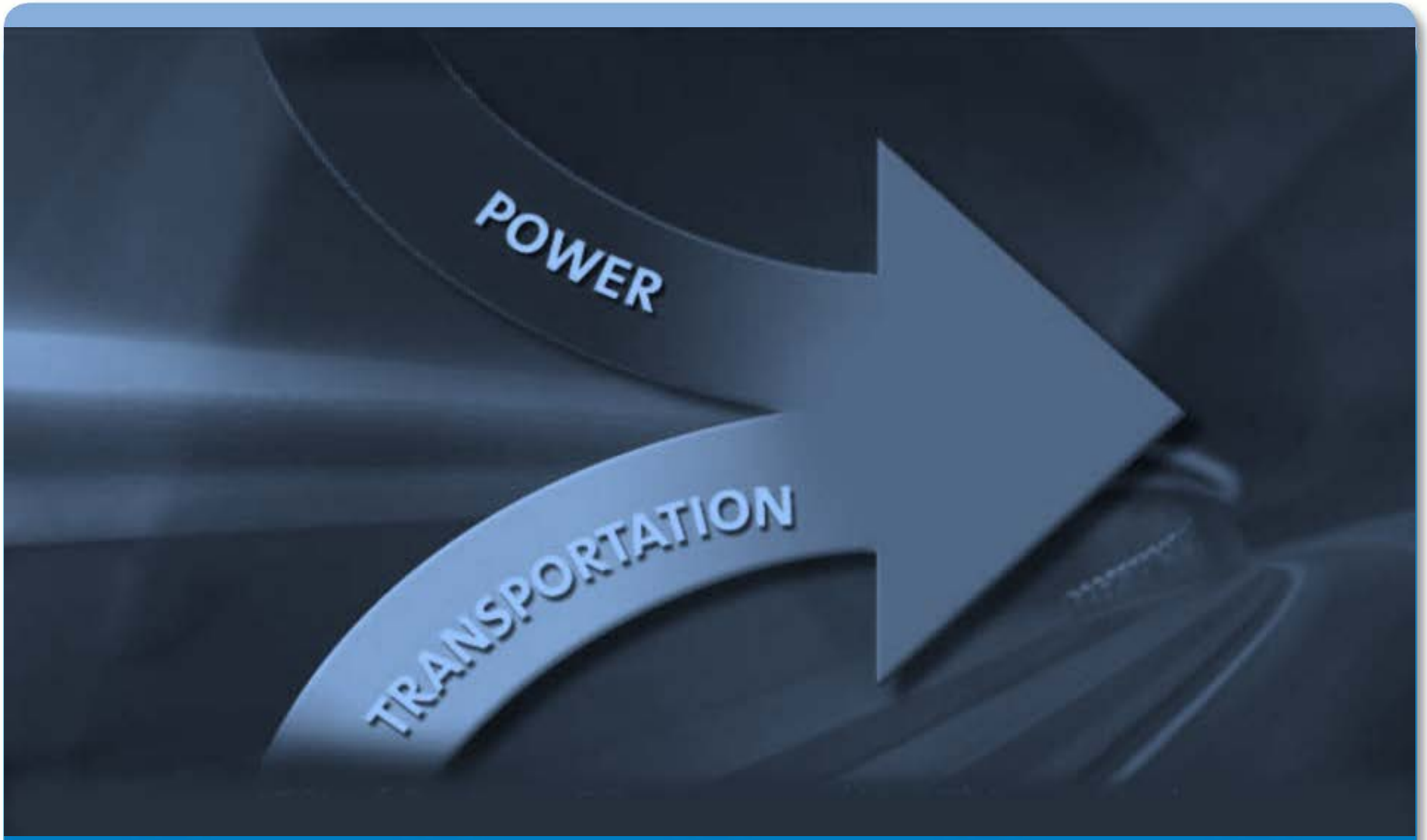


ELECTRIFIED TRANSPORTATION

Rohit Nair, P.E.

ROCKY MOUNTAIN POWER

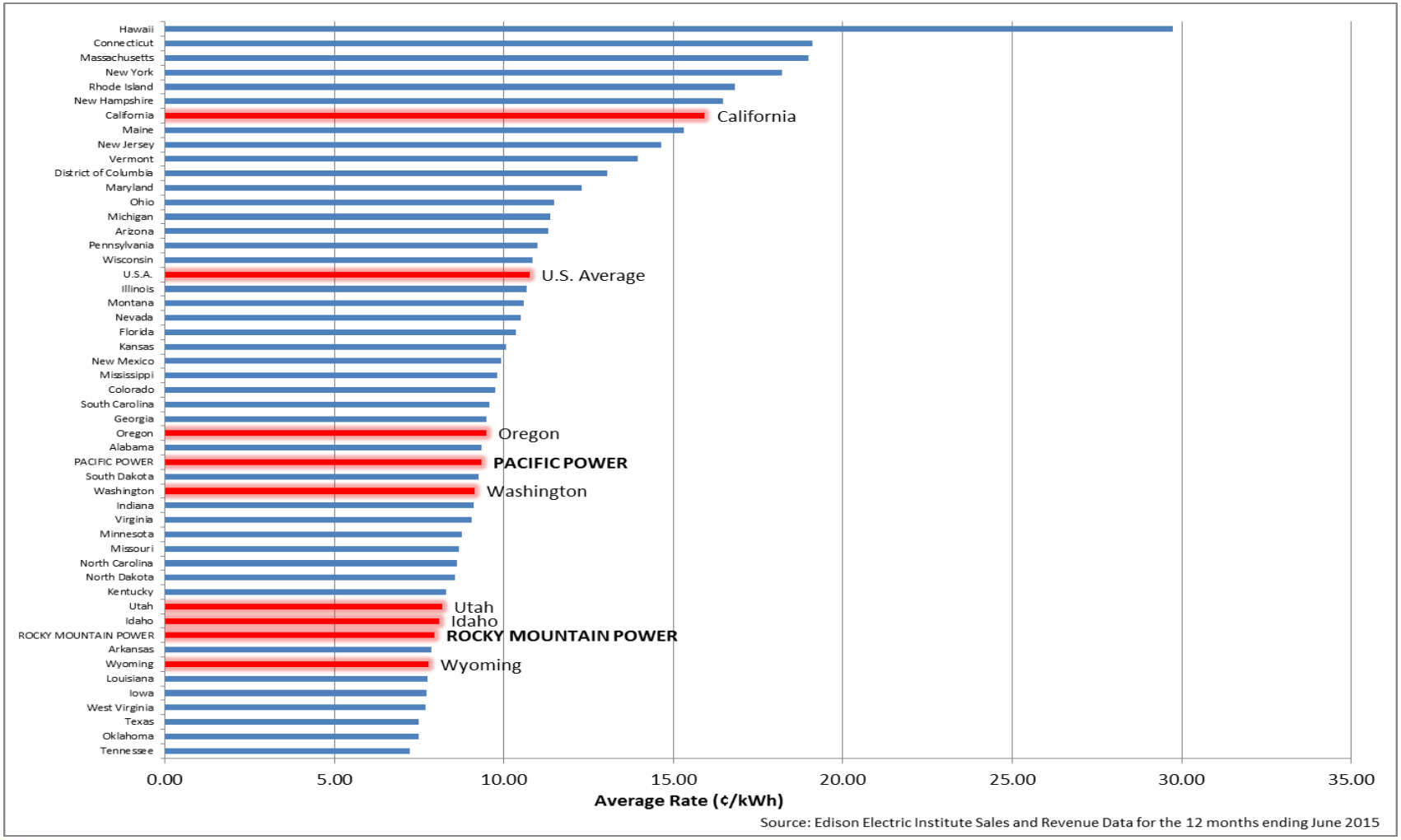
Let's turn the answers on.

A Century of Service

- Salt Lake City was the fifth city in the world to have central station electricity behind only London, New York City, San Francisco and Cleveland.
- The Company was formed in 1912 with 39,700 customers
- Now, Rocky Mountain Power serves over
  1 million customers
  - 837,000 in Utah
  - 144,000 in Wyoming
  - 75,000 in Idaho

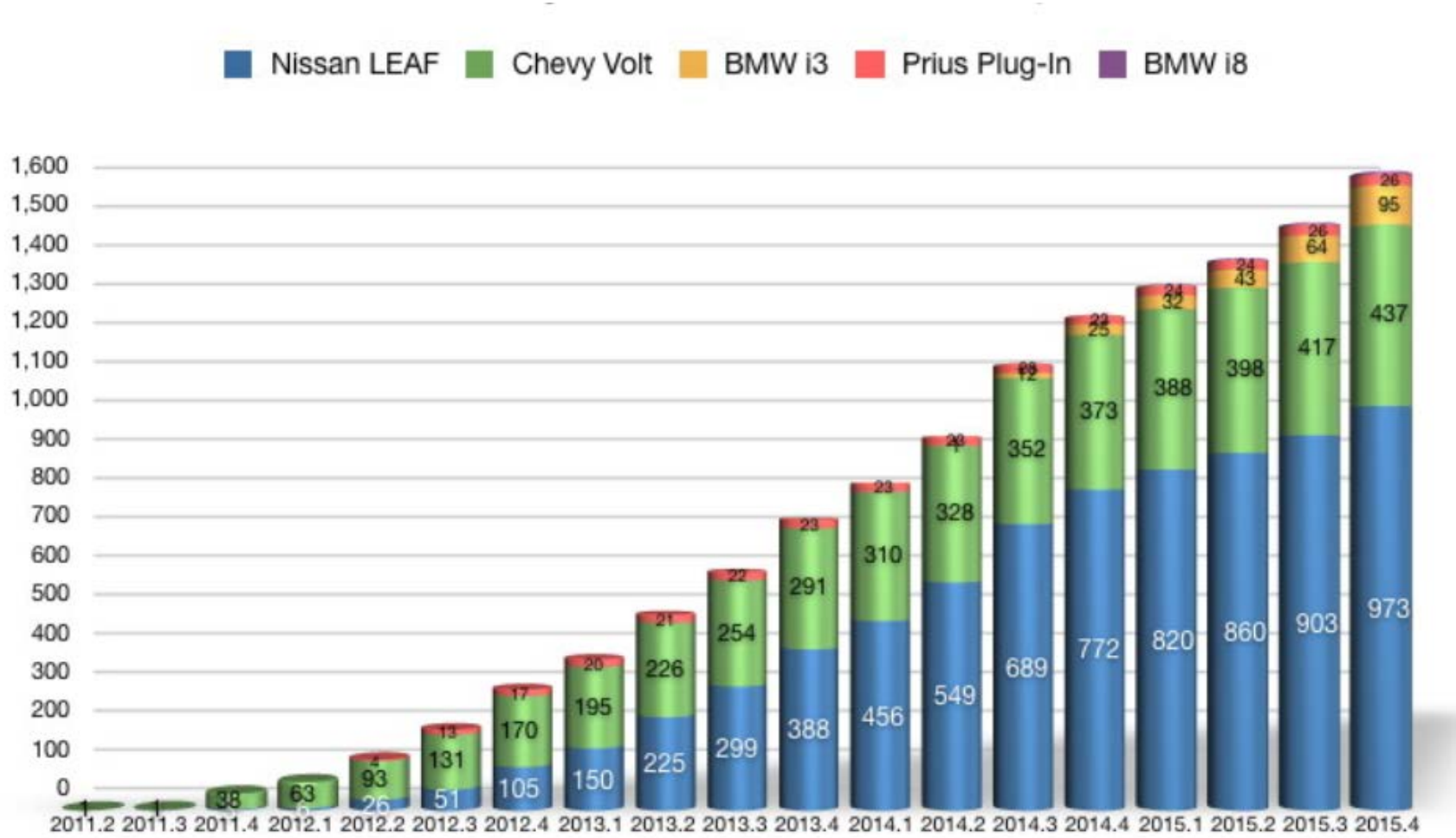
2

Total Average Electric Rates IOUs by State



Source: Edison Electric Institute Sales and Revenue Data for the 12 months ending June 2015

Current Conditions – Utah Plug in Sales



Electric Vehicle Involvement

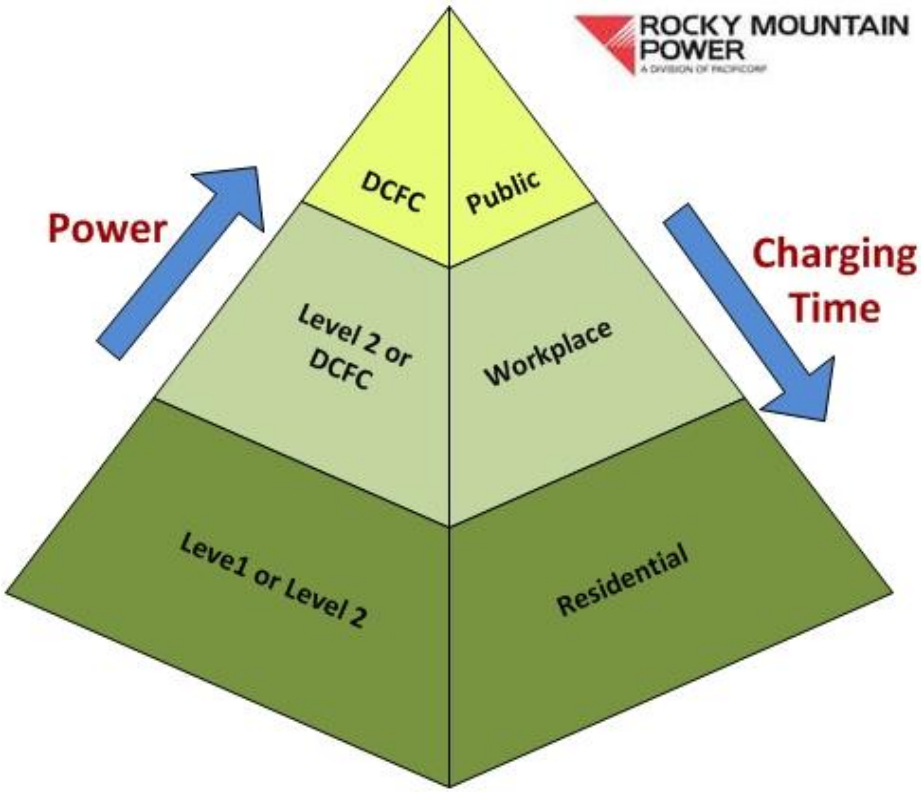
- The Company has a team that monitors alternative fuel legislation, manages potential impacts and leverages opportunities to reduce emissions and continues to address cost impact to our ratepayers.
- Rocky Mountain Power recently released Senate Bill 115.
- The Company helped secure added language to Utah Public Service Commission Electric Service Regulation 4 to clarify that electric vehicle (EV) battery charging service is not considered resale of electricity.
- Understand grid impacts and accordingly develop engineering tools, policies and standards.
- Rocky Mountain Power recently took delivery of its first electric fleet vehicles and has committed to invest 5% of our vehicle replacement budget to electric vehicles over the next 10 years.

PROUD U.S. BUSINESS *for* CLIMATE ACTION

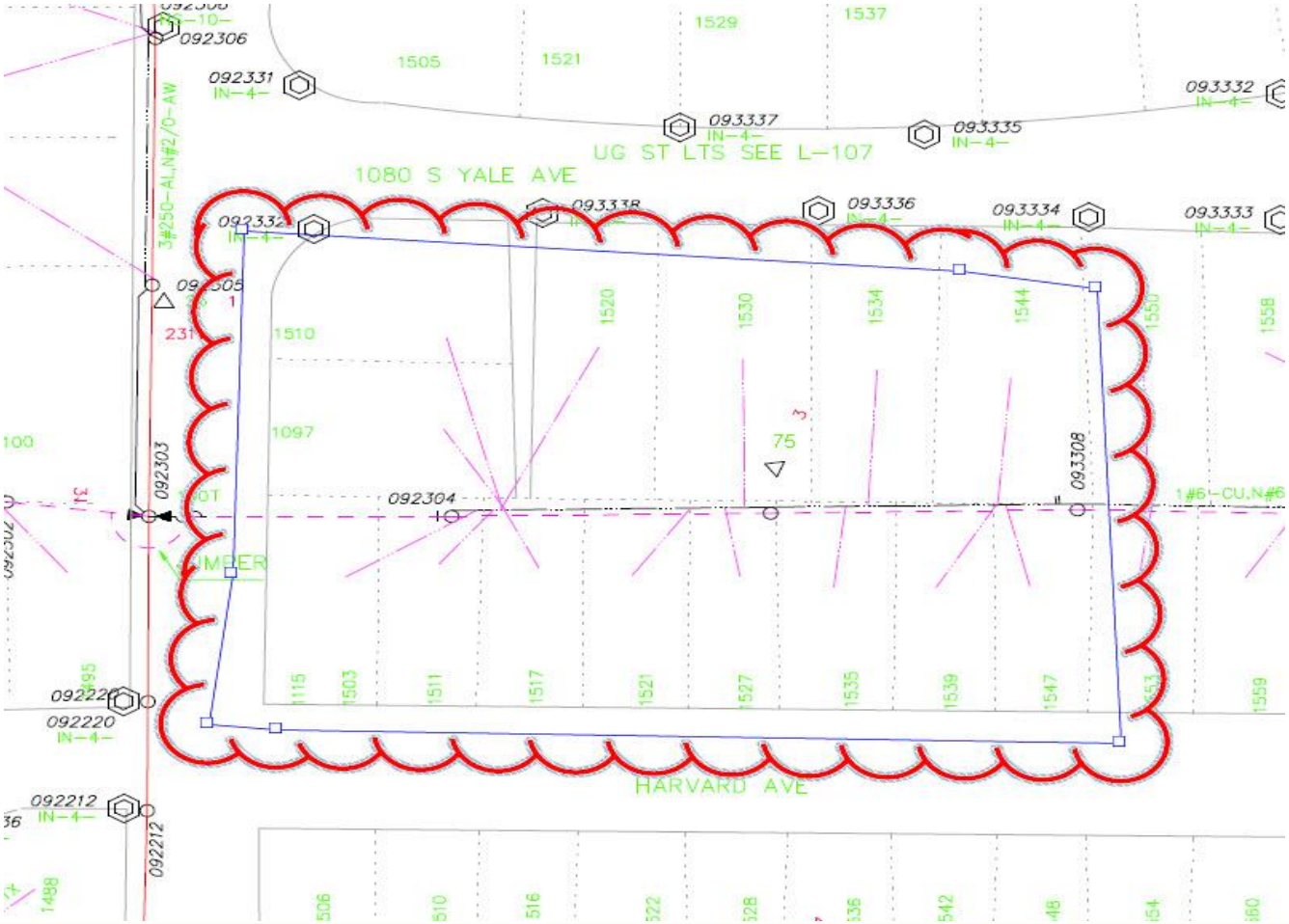
Grid Impact Study

Methodology

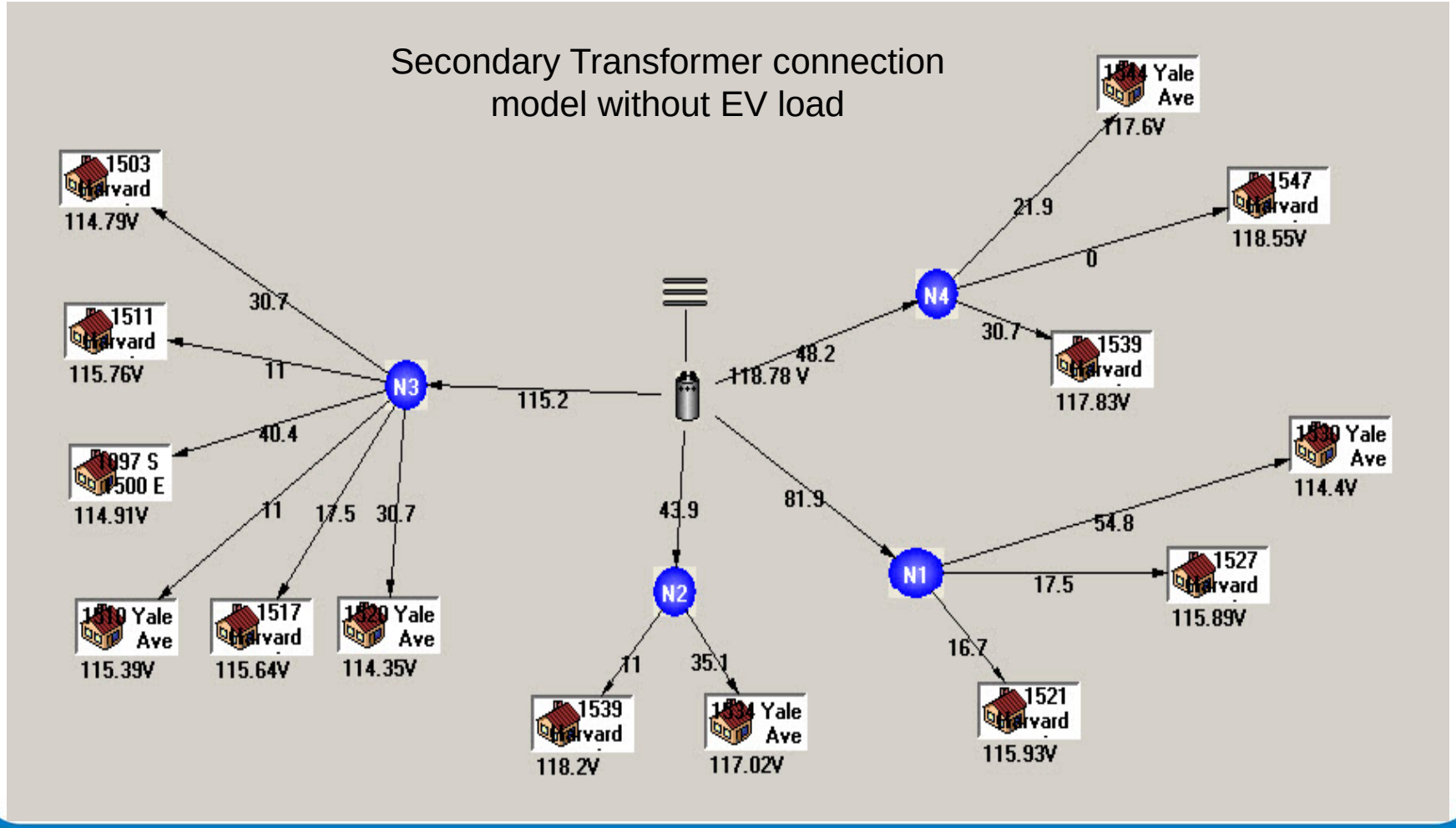
- Select service transformer
- Calculate transformer peak loading using metering database and Rocky Mountain Power standard
- Model transformer and loads
- Analyze service voltages
- Plot transformer impact with increasing electric vehicle penetration



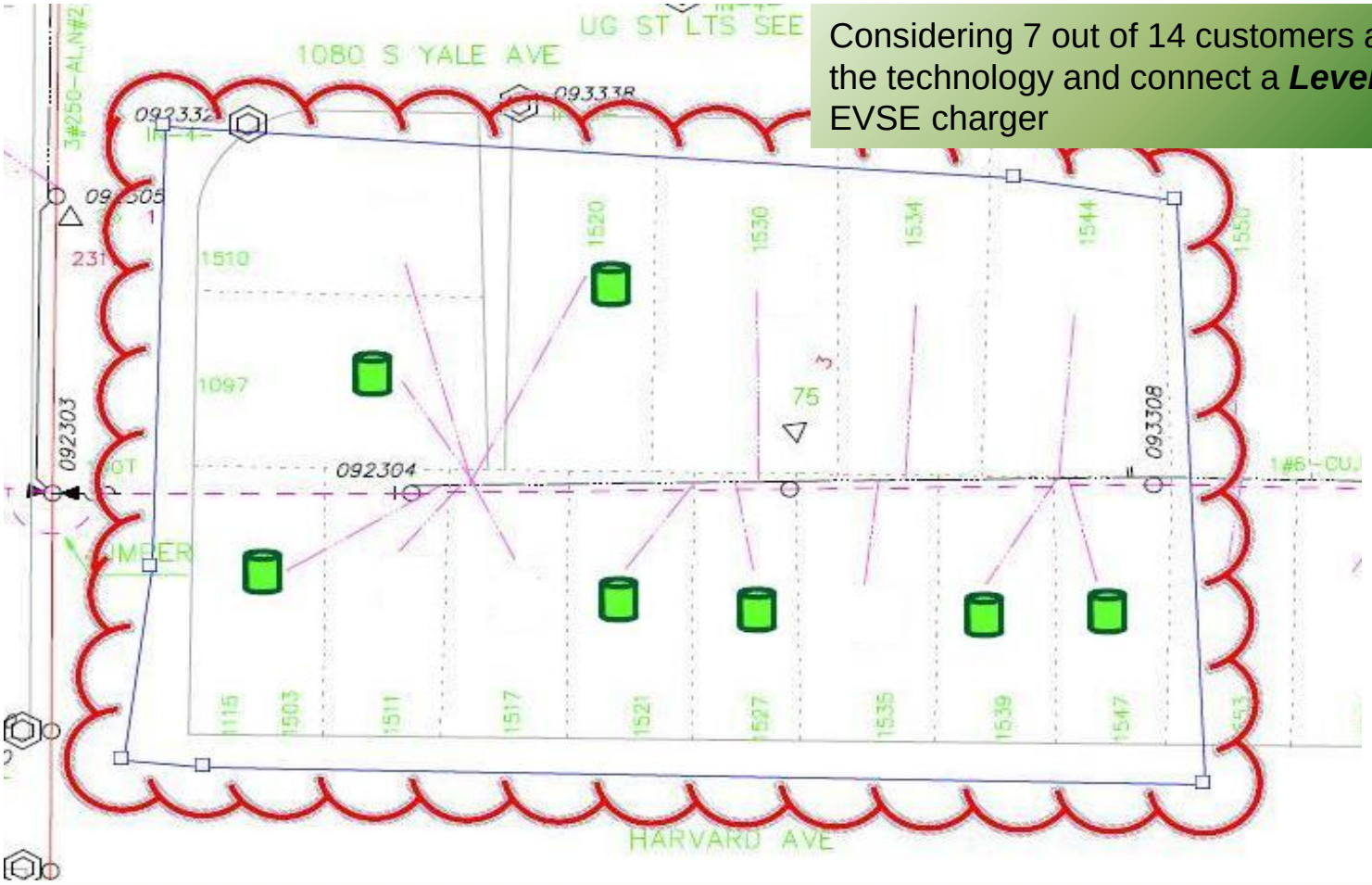
Grid Impact Study – Secondary Transformer



Grid Impact Study – Secondary Transformer

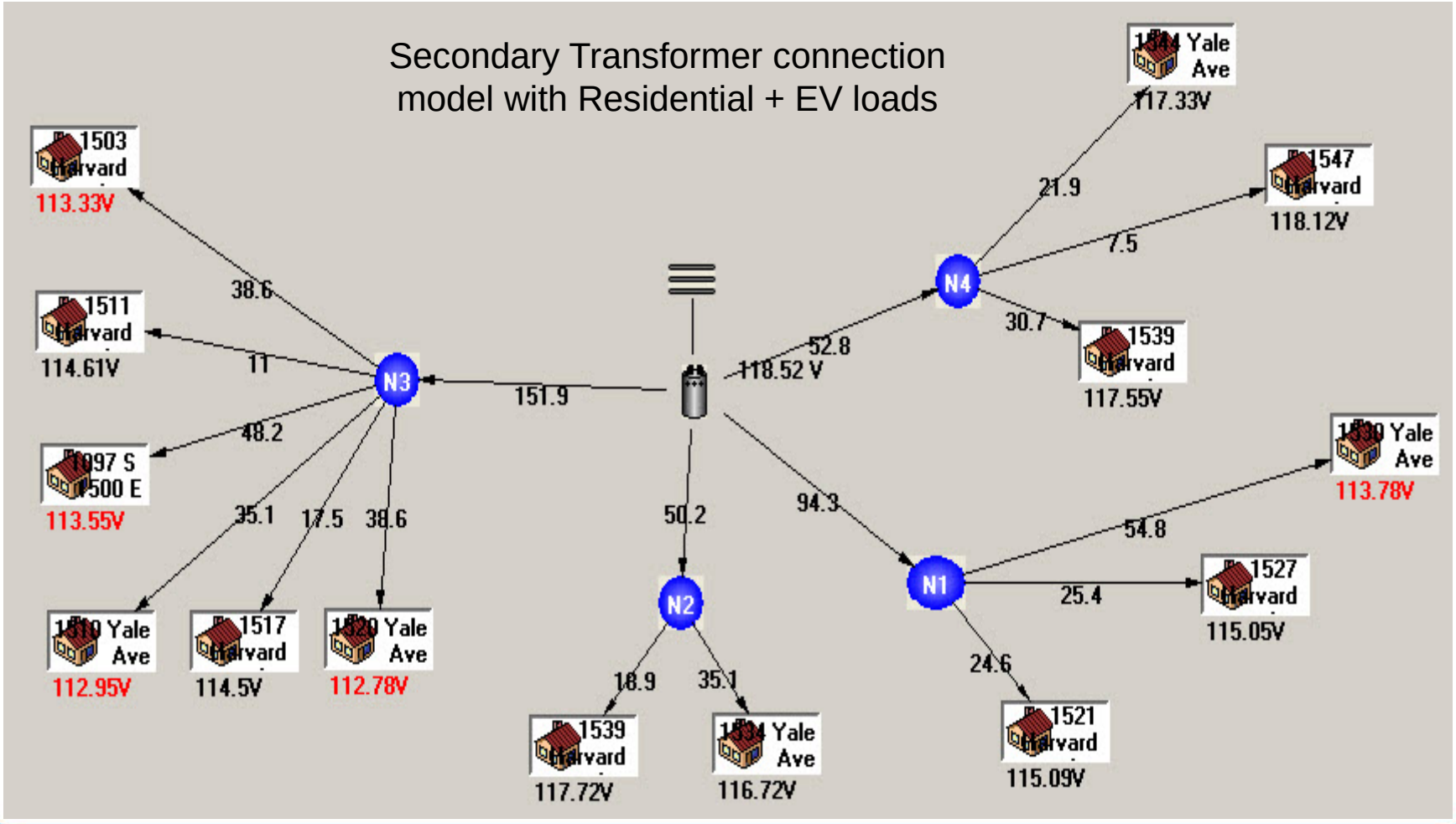


Grid Impact Study – Secondary Transformer



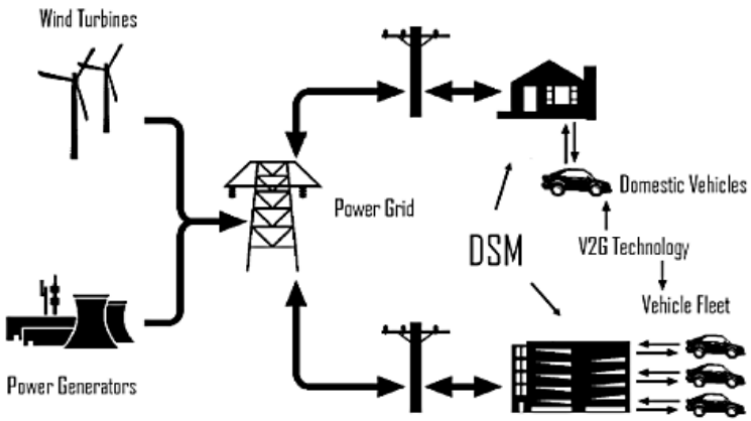
Considering 7 out of 14 customers adopt the technology and connect a ***Level 2*** EVSE charger

Grid Impact Study – Secondary Transformer



Solving Grid Issues

- Length of charging sessions and the power required varies based on the vehicle model, charger type, and state of battery charge
- Understand vehicle use profiles, battery life challenges
- Need in-home charging to take place during off-peak periods
- Recognize interoperability opportunities and challenges
- Effective load management programs



Legislature Update – Senate Bill 115

Sustainable
Transportation
Energy
Plan

1. Accelerate depreciation for at risk coal plants
2. Align variable cost recovery with other utilities
3. Institute Green Energy purchasing options for large customers
4. **Develop clean air and innovative technology pilot programs:**

Clean Air and Innovative Technologies

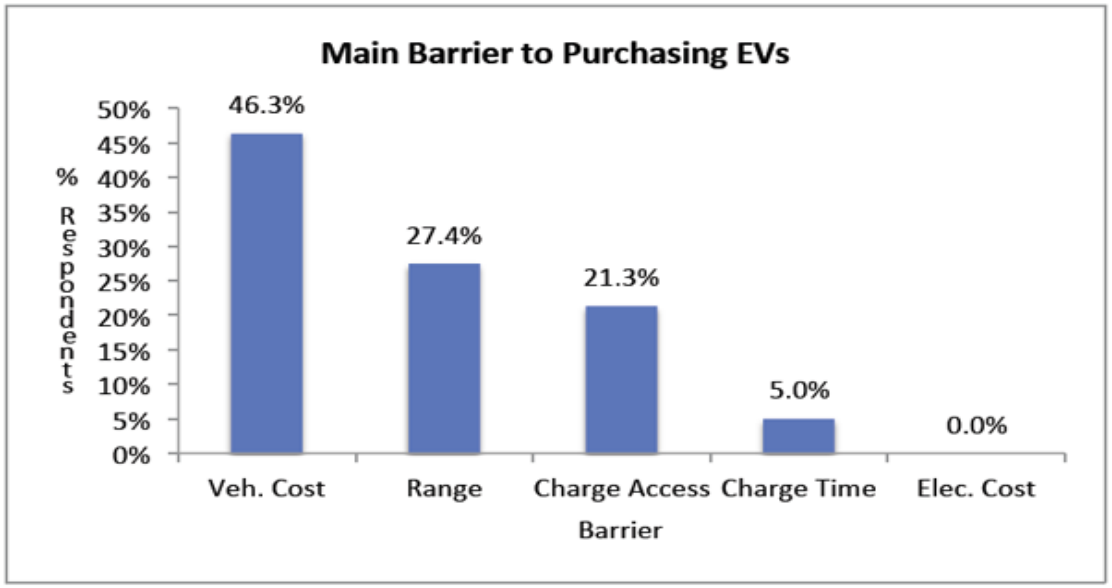
5 Year Pilot Programs Mandatory Programs

- Electric Vehicle charging infrastructure
- Clean Coal R&D at Utah Thermal Plants

Innovative Programs (Determined by Commission)

- Battery Storage
- Power Plant Curtailment
- Commercial Line Extensions
- Solar Incentive Program
- Additional EV charging programs
- Additional Clean Coal R&D

Electric Vehicle Program



Invest in EV infrastructure-potential areas:

1. Install Public Fast Charger stations along highways
2. Incent commercial and residential customers to install Level 1 and 2 chargers
3. Develop Time of Use rates

Budget: $2.0 M/year

ROCKY MOUNTAIN POWER