Roadmap 11:  
Smart & Electric Cities Panel

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TRANSPORTATION IS FUNDAMENTAL TO OUR WAY OF LIFE

- The U.S. population is growing and aging
- Population density is increasing—75% of the population lives in urban mega-regions
- Technologies and fuel choices are expanding
- Transportation costs are high—second only to housing expenses
NEW TECHNOLOGIES & BUSINESS MODELS ARE DRIVING DISRUPTION

- Shared Mobility
- Mobility On Demand
- Goods On Demand
- Connected & Automated Vehicles
- Emerging Fuels & Powertrains
- New Modes of Transport
PIONEERING RESEARCH
EXPLORES POTENTIAL ENERGY IMPACTS

- Shared Mobility
- Mobility On Demand
- Goods On Demand
- Connected & Automated Vehicles
- Emerging Fuels & Powertrains
- New Modes of Transport
NEW CHALLENGES BRING
NEW OPPORTUNITIES

IN THE ENERGY EFFICIENT MOBILITY SYSTEMS PROGRAM
CONSORTIUM SMART MOBILITY LAB
Connected & Automated Vehicles
Mobility Decision Science
Advanced Fueling Infrastructure
Multi-Modal Transport
Urban Science
SMART MOBILITY LAB
CONSORTIUM
7 labs, 30+ projects, 65 researchers, $34M*
over 3 years.

* Based on anticipated funding
Using Data to Achieve Energy Efficient Mobility

1. Identify a top-level project champion
2. Establish an integrated data exchange
3. Convene a supporting cast of stakeholders
4. Properly articulate objectives, use cases, and outcomes
5. Strive to unlock new data and technology resources.
Electric Vehicle Infrastructure Projection Tool (EVI-Pro) Lite

How Much Electric Vehicle Charging Do I Need in My Area?

Estimate for a State
Estimate for a City/Urban Area

EVI-Pro Lite is a tool for projecting consumer demand for electric vehicle charging infrastructure. EVI-Pro Lite is a simplified version of the Electric Vehicle Infrastructure Projection Tool (EVI-Pro). EVI-Pro has been developed through a collaboration between the National Renewable Energy Laboratory and the California Energy Commission, with additional support from the U.S. Department of Energy’s Vehicle Technologies Office. EVI-Pro uses detailed data on personal vehicle travel patterns, electric vehicle attributes, and charging station characteristics in bottom-up simulations to estimate the quantity and type of charging infrastructure necessary to support widespread adoption of electric vehicles. EVI-Pro has been used for detailed planning studies in Massachusetts, Columbus, California, Maryland (forthcoming), and for a National Analysis of U.S. communities and corporates.
Thank You

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