CONVERGING TRENDS ARE SHAPING MOBILITY

**Population**

75% of population in 11 Megaregions.

Population expected to grow by 70 million in next 30 years.

**Demographics**

**Americans are Living Longer**

By 2045, the number of Americans over age 65 will increase by 77%. About one-third have a disability that limits mobility.

**Millennials are Connected & Influential**

There are 73 million Americans aged 18 to 34, and they drove 20% fewer miles in 2010 than at the start of the decade.

**Technology**

- Integration of Connected & Automated Vehicles
- Introduction of Shared Service Platforms
- Advancements in Vehicle Powertrain Technology
- Deeper Application of Big Data
- Faster Processing Speeds at Decreasing Cost
TRENDS ARE CAUSING A FUNDAMENTAL DISRUPTION

Consumers & Industry are leading the introduction of disruptive business models & technologies.

**SSCC must understand:**
- How will this disruption lead to new energy efficiency opportunities?
- What are the risks to energy use and how can we overcome them?
- What are the most promising innovation levers for energy efficiency?
TRENDS SHAPING MOBILITY – COST, ENERGY

Transportation is the 2nd largest expense for U.S. households.

70% of total U.S. petroleum usage is for transportation.

On-road vehicles account for 85% of transportation petroleum usage.
FUNDAMENTAL DISRUPTION IN TRANSPORTATION

Unprecedented Disruption ....

• **Transportation** is changing
• **Mobility** is changing
• The **questions** are changing
• The **solutions** are changing
• **SSCC** is changing to meet increasingly complex energy and mobility needs

... with dramatic energy implications
Critical Research Questions

- What are the transportation energy impacts of potential lifestyle trajectories?

- How do consumers and companies make travel decisions in the short / medium / long-term?

- What mechanisms are available to influence consumer decisions?

**Technology and policy that anticipate how decisions are made**
Critical Research Questions

- What infrastructure is required to support future mobility systems?

- How can next-gen charging infrastructure enable low-carbon transportation?

- What are the costs and benefits, and where should infrastructure investments be made?

Informed infrastructure investments that drive consumer adoption
Critical Research Questions

- What are the potential energy benefits of reduced modality interface barriers?
- What are the interactions between mass transit and transportation network companies?
- What opportunities do evolving household spending and commodity flow bring for freight logistics?

Energy-efficient, seamless multi-modal transport of people and goods
The Secretary is required to designate corridors to improve mobility of passenger and commercial vehicles that employ electric vehicle charging, hydrogen, propane, and natural gas fueling technologies across the U.S. within one year of enactment (Dec. 2016):

- Identify near and long-term need for infrastructure;
- At strategic locations along major national highways;
- Solicit nominations from state and local officials;
- Incorporate existing infrastructure (demand and location);
- Stakeholder involvement (on a voluntary basis)
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Create and expand a national network of alternative fueling and charging infrastructure along national highway system corridors;

Develop national signage branding to help catalyze applicant and public interest;

Encourage multi-State and regional cooperation and collaboration;

Bring together a consortium of stakeholders to promote and advance alternative fuel corridor designations in conjunction with the Department of Energy.
Results of First Round

- 34 nominations received – separated into two categories:
  - Signage-ready – sufficient facilities on the corridor to warrant highway signage;
  - Signage-pending – at this time, insufficient facilities on the corridor to warrant highway signage

- Designations:
  - Include portions/segments of 55 Interstates and a few state roads/highways
  - Comprise 35 states plus D.C.
  - Covers almost 85,000 miles of the National Highway System

- This initial phase focused on interstate highway designations (many state highways and roads were nominated)

- Decisions based on information from DOE’s alternative fuel station locator database
Michigan to Montana (M2M) Corridor

- US DOE selected M2M Project received $5M (with $5M in participant cost share)
- M2M alternative fuel corridor will cover I-94 from Billings, MT to Port Huron, MI.
- 60 trucks and 15 alternative fueling stations committed
- Project started July 2017
Significance of I-94 Corridor

- Key international trade route connecting the Great Lakes and the Intermountain regions, covering 1,500 miles, with over 18 billion annual vehicle miles traveled
- Significant number of alternative fuel stations already exist along I-94 corridor (i.e. 690 Level 2 EVSE, 87 DC Fast Chargers, 36 CNG stations, 72 propane stations)
- Over a dozen national park sites and 200 truck stops
- 5 military bases
- 24 major counties
- 816 unique fleets with over 22,965 vehicles
- The population of people in the counties that are crossed by the I-94 Corridor is over 16.8 million.
Project Goals!

- Create a competent and experienced team to guide the creation of an alternative fuel corridor to:
  - Deploy selected stations and vehicles
  - Provide education/training to establish a sustainable alternative fuel and advanced vehicle market
  - Significantly grow the availability and use of alternative fuels and advanced vehicles in markets critical for long-term success of these technologies
  - Create a 15% increase in petroleum displacement within each Clean City Coalition’s geographic area
  - Develop and deploy a template that can be used around the country to help other corridors to be expanded

A competent team and well designed plan ensures the M2M Corridor will expand beyond the end of the project term.
GET INVOLVED WITH SOUTH SHORE CLEAN CITIES

LEVERAGE THE OPPORTUNITIES

Opportunities for You!
Funding Opportunities

• DieselWise Indiana
  • Due August 31, 2017

• Congestion Mitigation and Air Quality (CMAQ)

• Michigan to Montana (M2M)

• VW Mitigation Program

• Other

Visit [www.southshorecleancities.org](http://www.southshorecleancities.org) for more information on financial opportunities & upcoming training
Contact Information

Carl Lisek  
Executive Director  
South Shore Clean Cities

123 Main Street  
Crown Point, IN 46307  
(219) 644-3690  office  
(630) 207-1760  mobile  
clisek@southshorecleancities.org

South Shore Clean Cities, Inc.  
Northern Indiana