PLANNING FOR AUTONOMOUS VEHICLES IN THE SMART CITY
ADDRESSING PROMISE & PROBLEMS
“Eight key aspects that define a Smart City:

- smart governance
- smart energy
- smart building
- smart mobility
- smart infrastructure
- smart technology
- smart healthcare
- smart citizen.”

- Frost & Sullivan
“EFFICIENCY is doing things right; EFFECTIVENESS is doing right things.”

- Peter Drucker
SMART MOBILITY in the SMART CITY
TODAY'S LANDSCAPE

TRANSPORTATION INFRASTRUCTURE

AUTO INDUSTRY

ELECTRIC UTILITY
SMART INFRASTRUCTURE & SMART MOBILITY

- EV Model Options
- Autonomous EVs

- V2X
  - Advanced Traffic Management

OPPORTUNITIES

- Universal Standards
- Data Collection
SMART INFRASTRUCTURE & SMART ENERGY

OPPORTUNITIES

- Public Charging Infrastructure
- Data Collection & Data Management

- Real-time Traffic Management
- V2X & the IoT
- Smart Street Lights
- Home EV Charging
SMART MOBILITY & SMART ENERGY

• EV Model Options
• Battery Technology

• Smart Meters
• Smart Grid

OPPORTUNITIES

Vehicle-to-Grid (V2G)

Distributed Storage
THE MOBILITY UTILITY CONCEPT

• Being developed by universities in collaboration with utilities in Europe
• Utility that owns and leases electric vehicles
• Vehicle batteries are mobile energy storage

Potential to:
• Balance demand for energy and mobility
• Efficient use of renewable energy resources
• Provide mobility options as a public good
Striving Towards the SMART CITY

- eMobility
- electric vehicles
- V2X
- smart grid
- connected vehicles
- V2G
- autonomous vehicles
- integrated mobility services
- advanced traffic management
- distributed storage
- smart meters
- IoT
- green energy
GETTING THERE

Develop Smart City Goals
Coordinate with DOTs, & Adjacent Jurisdictions
Develop Agreements with Regulatory Agencies

Develop a Coordinated Plan for Implementation of V2X Infrastructure
Engage Local Utility Reach out to Local Auto Dealers

Develop EV Readiness Plan
Identify Utility System & Supporting EV Charging Infrastructure Needs

Increase EV Adoption
Develop an Integrated Smart Grid

Continue to Identify & Implement Opportunities for Smart Grid/Smart Transportation

Smart Transportation Network (e.g. Real Time Traffic Management with Improved Safety & Operations)

Smart City Ready for Autonomous Vehicles