MOVE ILLINOIS

The Illinois Tollway

DRIVING THE FUTURE

FHWA Connected Vehicles Pilot Program

February 26, 2015

Today's Agenda

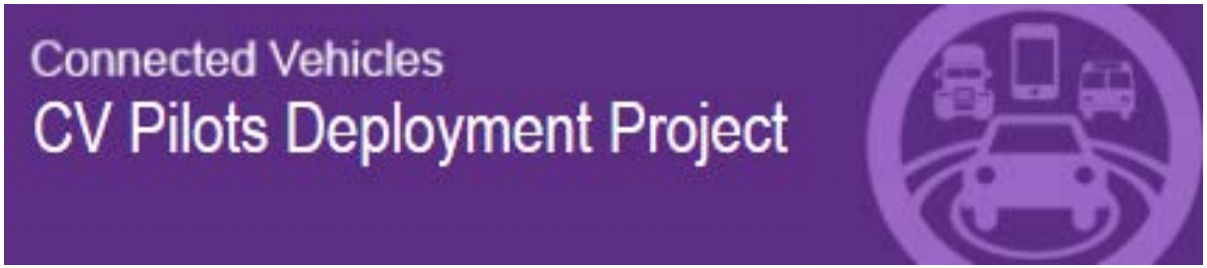
- **Connected vehicles**
- **Federal pilot project opportunity**
- **Possible applications**
  - Improve safety with incident management
  - Foster interagency coordination
  - Provide more reliable traveler information
- **Next Steps**

Introduction Video

Federal Pilot Project Opportunity

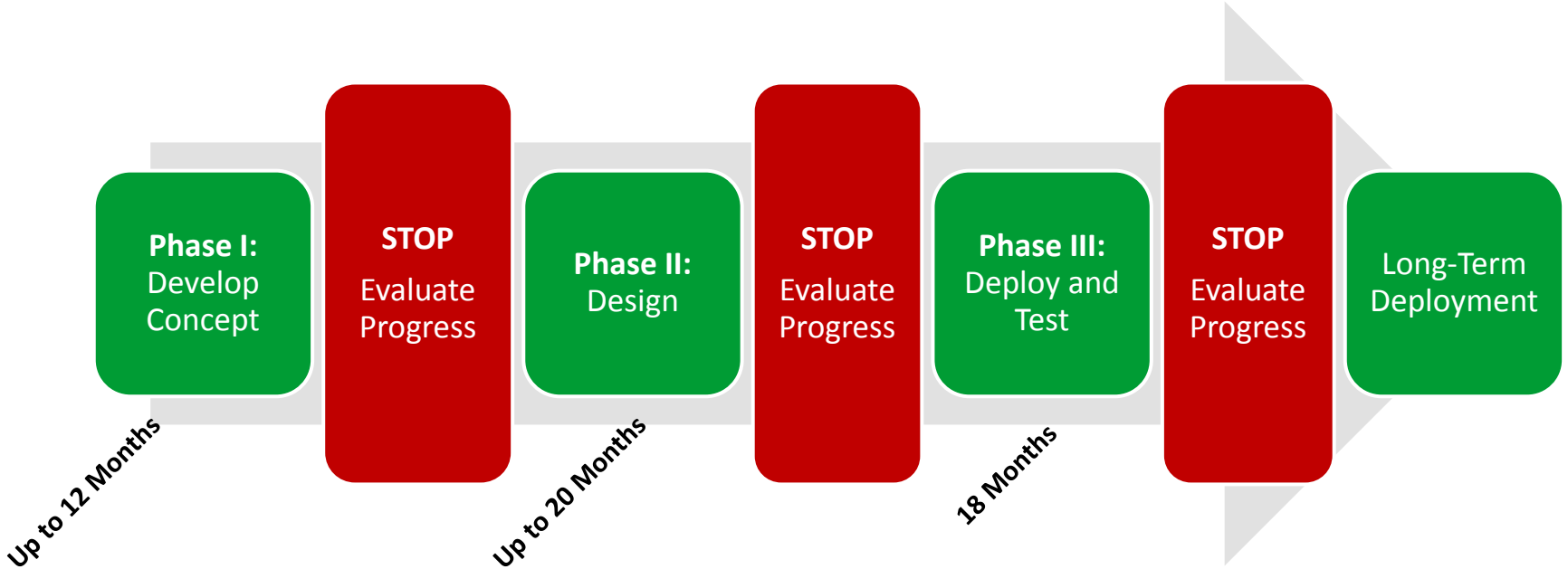
Federal Highway Administration issued a Request for Proposals for Connected Vehicle (CV) Pilot Deployment

- Encouraging testing and development of connected vehicle technology
- Focus is on CV technology that will allow vehicles to collect, distribute and receive information in real time
- Multiple awards available
- Between $2 million and $20 million
- Encouraging multiple stakeholder partnerships led by private sector



Pilot Program Timeline

- **Connected Vehicle Pilot Program will be conducted in three phases**
- **At conclusion of each stage, FHWA and public partners will evaluate progress and make decisions to proceed or halt study**



Improve Safety with Incident Management

- **USDOT estimates that connected vehicle technology can potentially address as much as 81 percent of all crashes**
- **Connected vehicle sensors can detect when incidents occur and send location and video images to the Tollway**
- **Every minute a lane is blocked due to an incident results in at least 4 minutes of additional travel delay**
- **Possible results:**
  - Faster response time to arrive at the scene
  - Faster time to clear incidents
  - More detailed information for first responders
  - Could reduce the number of incident patrols needed

Improved Interagency Coordination

- Provides additional automated information to other agencies
- Improves incident coordination with local emergency responders and improves data sharing
- Improves transit operations by increasing reliability of service
- Could provide real-time bus arrival and departure times for customers
- Would allow the Tollway and Pace to manage bus on shoulder with fewer resources

Provide More Reliable Traveler Information

- Chicago-area commuters experience the 5th highest congestion costs in the nation at $1,153 per year
- Advanced Traveler Information Systems (ATIS) will provide customers with a complete picture of roadway conditions including predictive travel times, rather than the estimated travel times we provide today
- Real-time information about roadway conditions, travel times and transit schedules can empower travelers to make personalized travel decisions based on “live” data

Tollway Pilot Project Costs and Obligations

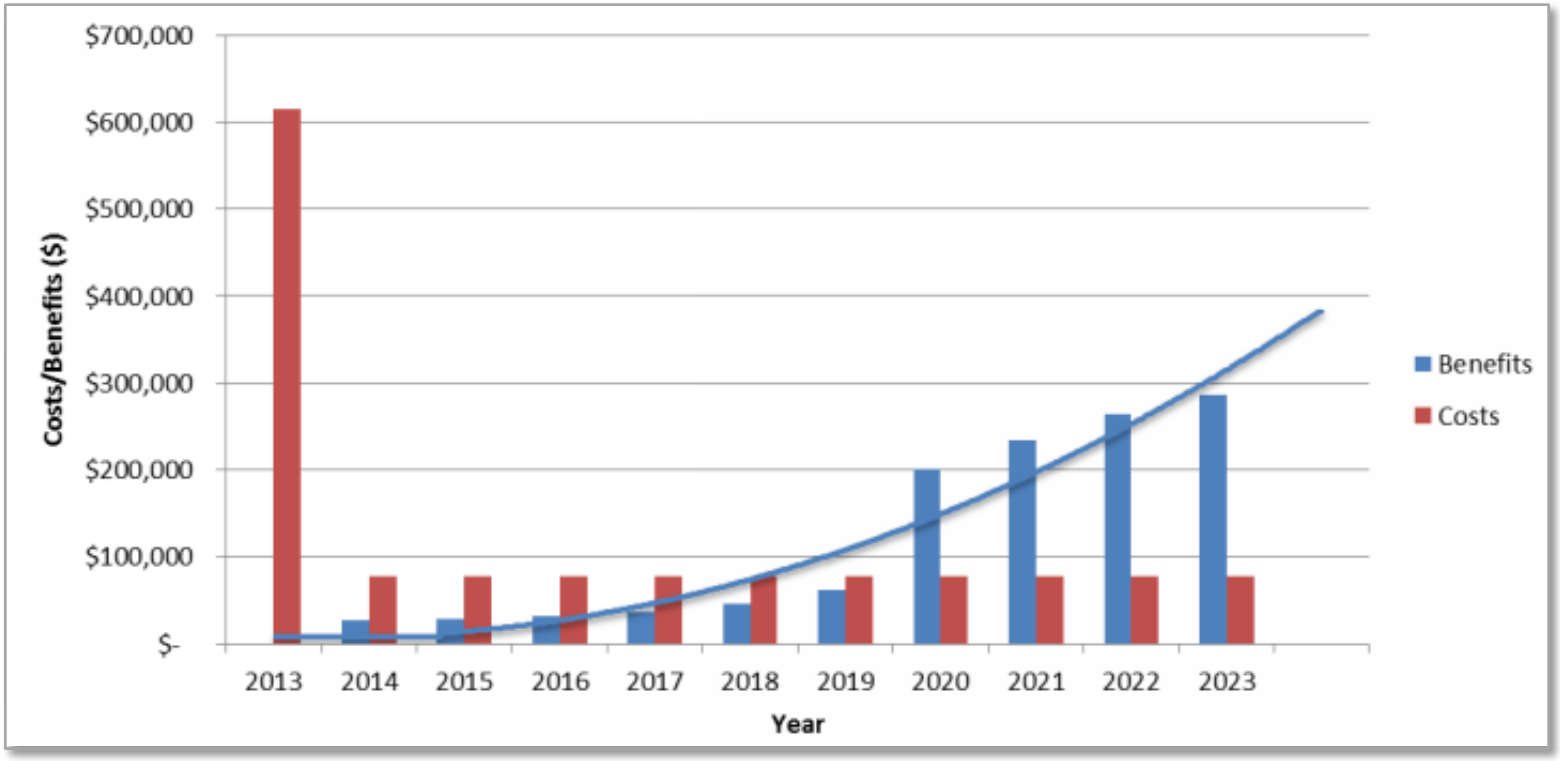
- **Costs to the Tollway**
  - No costs for proposal development
  - Minimal Tollway staff time to provide guidance and review progress

- **Obligations of Tollway**
  - Assess progress throughout and at end of each phase
    - Tollway has ability to opt out of program
  - FHWA anticipates deployment to be operated and maintained by public sector following pilot
    - Tollway can assess benefits of pilot at conclusion of program
    - Tollway not obligated to operate or maintain system if it does not make economic sense

Cost/Benefit

"Benefits will gradually offset a significant portion of the annual cost, and over time produce savings that outweigh annual operations and maintenance costs."

National Cooperative Highway Research Program (NCHRP) 03-101. 2014, Taso Zografos



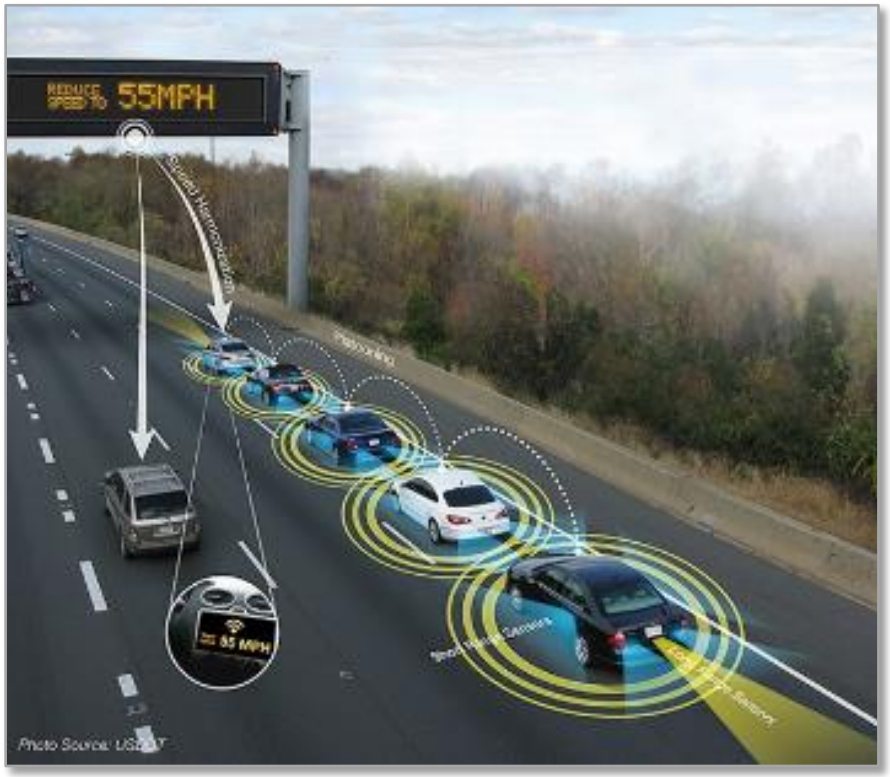
An Opportunity to Shape the Future

- A federally funded study estimates that 90 percent of all vehicles will be “connected” within the next 15 years
- Every major auto manufacturer and tech firms like Google, Apple, Cisco Systems and IBM are heavily invested in CV technology research
- Federal pilot program will help determine how CV technology is deployed in the U.S.
- By participating in the pilot, Tollway can help define how CV technology is implemented
- Since the Tollway is already studying CV technology, participating in pilot would offset anticipated expenditures

Promise of Connected Vehicle Technology

"In the past, the U.S. Department of Transportation (USDOT) has focused on helping people survive crashes. Connected vehicle technology will change that paradigm by giving people the tools to avoid crashes."

U.S. Department of Transportation



THANK YOU