Broadband Public-Private Partnership
Agenda

• Welcome
• Project Overview
• Questions and Answers
The purpose of Industry Forum is to present the Commission’s intended approach to the project and receive direct feedback from the industry. Input received will be considered before finalizing the scope of the project and the structure of the procurement documents that will shape the public-private partnership (P3) agreement.
Legacy of Innovation

THE PENNSYLVANIA TURNPIKE:

America’s First
SUPERHIGHWAY
Intelligent Transportation Systems

- Dynamic Message Signs
- Call Boxes
- Traffic Cameras
- Weather/Fog Systems
- Communications Towers
PTC’s Core Business Needs

• Back Office Support
  • Voice
  • Video
  • Data
  • Security

• Tolling Operations
  • E-ZPass
  • Toll by Plate
  • Audit

• Traffic Operations/Safety
  • Land Mobile Radio (LMR)
  • Intelligent Transportation Systems (ITS)
  • Highly Automated Vehicles (CAV)
• Problem:
  • Limited infrastructure capacity available
  • No more microwave spectrum to purchase
  • High cost of repairs and leased bandwidth
  • Capacity life – approximately 7 more years
  • Broadband need identified in Long Range Plan

• Solution:
  • Deploy a broadband network with fiber optic cable and a wireless overlay (including LMR) along the roadway
Procurement Options Considered

• **Lease Bandwidth**
  - Ease of implementation; risks transferred to private sector
  - High cost; no control over future increases
  - Wireless overlay unlikely to be feasible

• **Conventional Procurement**
  - Exclusive ownership and control
  - High capital costs (estimated at $200 million)
  - High operational costs
  - Deferral of core business capital projects
  - Not a core business function
  - Lack of resources/expertise to operate and maintain fiber optic network and market excess capacity

• **Public-Private Partnership (P3)**
Public-Private Partnership (P3)

• Private partner will:
  • Design, build, finance, operate and maintain (DBFOM) fiber optic and wireless broadband network
  • Provide communication capacity for PTC
  • Provide Wide Area Network (WAN) operations
  • Generate revenue through the marketing and leasing of remaining capacity

• PTC will:
  • Provide long-term agreement for private partner’s use of right-of-way
  • Receive bandwidth for current and future needs
  • Incur minimal cost and receive annual royalty
Project Benefit Summary

• For PTC:
  • Meet core business needs
  • Improve reliability
  • Savings on communications costs

• For Commonwealth:
  • Potential to build capacity for other Commonwealth agencies
  • Redundancy of networks
  • Brings broadband closer to underserved, rural areas

• For Private Partner:
  • Reduced cost and time for land and ROW
  • Revenue generation from marketing long-haul fiber
  • National linkage between Chicago, New York, and DC
  • Metropolitan areas of Pittsburgh, Harrisburg and Philadelphia
Turnpike Assets

• 552-mile roadway; typical ROW 200’ from centerline on each side
• 500,000+ vehicles per day on Turnpike
• 174 miles of roadway with conduit either in place, under construction, or under design
• Communications towers
• Facilities approximately 30 miles apart
• Tolling plazas
• Surplus land
• Private entity will accommodate PTC’s bandwidth projections over the term of the agreement

• Fiber optic connections required at specific locations may include:
  • Tolling plazas
  • Planned cashless tolling gantries
  • Maintenance facilities & PSP barracks
  • Tunnels
  • Communications towers
  • Select ITS & connected vehicle devices
• PTC will specify bandwidth and demarcation requirements
• Flexibility to locate new devices where needed
• Private entity provides WAN services
• PTC will identify reserved fiber and conduit requirements
• Envision sharing assets with other commonwealth agencies for redundancy
Private entity will provide wireless network:

- Connectivity for existing and future ITS devices
- Wireless Push-to-Talk LMR system with seamless interoperability with PA-STARNet, county radio systems, public safety entities, and mutual aid agencies (APCO-25)
- Ubiquitous coverage for moving vehicles for Automatic Vehicle Location (AVL) devices and other applications
• Design, build, finance, operate, maintain, and commercialize broadband network
• Provide WAN services for duration of agreement
• Term of Agreement
  • Long term required for fiber optic infrastructure (30+ years)
  • Potential shorter term for other aspects of project
    • Commercial use of wireless infrastructure
    • Wireless network components with shorter life-cycle
• Goal – Incur minimal costs and receive annual royalty revenue
Key Considerations

- Project approach
- Financial impact
- Ability to satisfy projected bandwidth requirements
- Schedule
- Network reliability
- Impact on PTC operations and capital projects
- Interoperability of LMR
- Flexibility to accommodate future technologies
- Infrastructure condition at end of agreement term
Procurement Process

• Request for Qualifications (RFQ)
  • Statements of Qualifications (SOQ) evaluated
  • “Short-listed Proposer” teams invited to submit proposals.

• Request for Proposals (RFP)
  • Draft RFP issued to Short-listed Proposers for feedback
  • Multiple rounds of meetings with each Short-listed Proposer to refine and strengthen RFP
  • Final RFP issued
  • Selection
PTC Proposal Evaluation Process

Tier 1 - Technical Evaluation Team (TET)
  • Evaluates SOQ’s
  • Determines Short-listed Proposers to be invited to respond to RFP
  • Evaluates Proposals received from RFP

Tier 2 - Professional Services Procurement Committee (PSPC)
  • Reviews TET evaluation and makes final determination of ratings

Tier 3 – Commission
  • Final review and selection of Development Entity
Collaboration with Commonwealth Agencies

- PA Turnpike Interagency Coordination Team
  - Governor’s Office
  - Office of Administration
  - Department of Agriculture
  - DCED
  - PennDOT
  - State Police
Schedule

• P3 Board Approval: May 2016
• Start industry input and due diligence: June 2016
• Retain financial and legal advisors: January 2017
• Advertise Request for Qualifications: February 2017
• Select shortlisted firms: 2nd Quarter 2017
• Issue Request for Proposals: 2nd Quarter 2017
• Selection & Closing: 4th Quarter 2017
The Commission welcomes input from potential proposers regarding the approach to the project as described in this presentation. Please email feedback to: BroadbandP3@paturnpike.com

Follow progress and sign up for updates at the “Broadband P3” page on the Commission’s website (www.paturnpike.com) under “Doing Business”
Questions?