# Automated Traffic Signal Performance Measures (ATSPMs)

http://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/atspm.cfm

| Innovation Implementation Stage Definitions | Prompt Questions for Describing the Implementation Stage<br>The following questions are intended to help you determine your current implementation stage. While it is not mandatory to respond to each question, providing some narrative describing your current status will be helpful to the EDC teams. |
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| **Not Implementing:**<br>The State is not currently using the innovation (ATSPMs) anywhere in the State and is not interested in the innovation. | Describe the rationale behind not electing to pursue implementation:<br>• State has evaluated ATSPMs and determined that it is not appropriate for the jurisdictional or technical restrictions of traffic signal infrastructure within the State.<br>• State does not have the resources (human, financial, or technological) to implement the innovation.<br>• State chooses not to implement at this time but may pursue innovation at a later date. |
| **Development Stage:**<br>The State is interested in pursuing ATSPMs and intends to increase implementation readiness at the State and/or local level through capacity-building activities. | Has the State or any local agency pursued, or interested in pursuing, any of the following outreach or implementation activities?<br>• Conduct a Capability Maturity Assessment (CMM)*<br>• Host an ATSPMs workshop or training at state and local levels<br>• Participate in a peer exchange, site visit or scan tour<br>• Collect/review guidance and best practices<br>• promote development of Traffic Signal Management Plans<br>• Identifying candidate corridors or subareas where ATSPMs may be piloted in the future. |
| **Demonstration Stage:**<br>The State or local agency(s) has implemented or is advancing a pilot/evaluation of ATSPMs. During this stage one or more signalized intersections are actively collecting data to support assessment of one or more performance measures. | • Has a CMM* Assessment been conducted to support implementation?<br>• What are the locations (State/local) of signalized intersections selected for pilot/evaluation or implementation of ATSPMs?<br>• What Performance Measures are being assessed? (i.e., Purdue Coordination Diagram, Speed, Arrival on Red, etc.)<br>• Have evaluation reports been developed to capture lessons learned?<br>• Is additional implementation planned during the EDC-4 timeframe?<br>• Has plan been crated to share the results and lessons learned from the pilot/evaluation? |
| **Assessment Stage:**<br>The State is beyond testing/piloting ATSPMs. The State is actively implementing the innovation to monitor the performance of signalized intersections in one or more jurisdictions within the State and actively promoting full implementation on all signalized intersections where appropriate. | • Has a CMM* Assessment been conducted to guide adoption of ATSPMs?<br>• Is there an inventory of all signalized intersections within State and/or local jurisdictions indicating current and future implementation of ATSPM?<br>• Has signalized intersection design guidance been developed to associate detection and communication needs for specific performance measures?<br>• Are State and/or local agencies routinely collecting and reporting Traffic Signal Performance Measures and sharing this data as a resource?<br>• Has a Traffic Signal Management Plan been developed?<br>• Are ATSPM lessons learned or training activities being delivered? |
| **Institutionalized:**<br>ATSPMs is adopted by the State's transportation community to support an objectives and performance based approach to maintenance, operation management and design of signalized intersections. | • Has a CMM* Assessment been conducted to systematically incorporate ATSPM into business practices?<br>• Are ATSPMs routinely reported and utilized to guide maintenance, operations, or design activities; if yes, how?<br>• Are ATSPMs routinely used to report progress on attainment of agency goals?<br>• Are ATSPMs used to incorporate traffic signals into one of the core agencies' Asset Management Tiers**?<br>• Are ATSPMs regularly incorporated into training activities across the State?<br>• Have steps been taken to ensure the sustainability of ATSPM including integration into State and regional planning process and identification of on-going needed training and funding commitments? |

* Capability Maturity Assessment evaluates the risks to reliable traffic signal program delivery through a quick assessment of business processes, systems and technology, workforce and performance measurement practices. The outcome of the assessment will help to formulate an implementation approach that addresses identified risks.

**Asset Management Tiers track the status of specific categories of assets (e.g. pavement, bridges, traffic signals) to evaluate the maintenance and performance of the asset relative to the risk of negative financial impact resulting from deferred maintenance and/or poor performance.

**Progress Report Questions:**

| Reporting Period: | **Progress Report #3: January – June 2018** |
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| 1) If there has been NO CHANGE on this innovation during this reporting period and the previous Progress Report is still accurate, select "No Change from last Progress Report" and you do not need to complete Questions 2-7. | (Choice)<br>☐ No Change from last Progress Report<br>☒ Changes indicated in Progress Report Below |
| 2) Division Contact for additional information: | Frank Lozano, Marilyn Ochoa |
| 3) What is the State's current stage of innovation implementation?<br><br>Review the Innovation Profile Template and select the appropriate implementation stage for this innovation. | (Choice)<br>☐ Not Implementing<br>☐ Development Stage<br>☐ Demonstration Stage<br>☒ Assessment Stage<br>☐ Institutionalized |
| 4) Describe the State's accomplishments for this reporting period (both State DOT and local agency accomplishments). Please provide EDC-4 highlights with good "so what" nuggets.<br><br>-- What would another state be interested in and/or how could leadership use the information I am providing?<br><br>-- If the State has advanced to the next implementation stage, consider the prompt questions in the chart and explain the advancements made to support your selection.<br><br>-- Please include benefits as part of your explanation (i.e. time/cost savings, delay/crash reductions, etc.) | **City of Albuquerque: Coors Boulevard**<br>CABQ/Lee Engineering have continued to use ATSPMs to optimize the corridor and address 311 concerns.<br><br>A 6-month assessment memo has been developed and is currently in internal review. Included are cost savings assessments.<br>Corridor Results were presented at the ITE Western District Mtg in July.<br><br>In addition to the Peak hour plans and the Holiday Shopping Plans created last reporting period, a Weekend Specific timing plan was developed using the availability of 24-7 data to develop plans that were previously cost prohibitive.<br><br>Additional Corridors are being equipped and planned for ATSPM operations.<br><br>**NMDOT Update:**<br><br>NMDOT installed software with capabilities similar to those contained with the ATSPM initiative. This equipment and software has been in place for 6 months. NMDOT is currently evaluating the equipment and software for acceptance with the plans to expand the installation elsewhere. |
| 5) Describe any additional assistance needed by your state. | **City of Albuquerque Note:**<br>Continued work with Signal Controller Vendors to ensure updates and procedures follow the initial intent.<br>**NMDOT Note:**<br>NMDOT could benefit from a review of the products and implementation from other states as well as the FHWA to assist in evaluating a preferred product or development of a performance specification. |
| 6) Describe any implementation obstacles or lessons | |

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| learned. Also, indicate if and how your state can provide assistance to others in their implementation of this innovation. | **COA Note:**<br>Upgrade from Cobalt (ASC3 Firmware) to Cobalt (EOS) Firmware crashed several intersections and requires a step back in procedure efficiency<br><br>**NMDOT Note:**<br>The IT Department within NMDOT is frequently demanding the all that all products provide proof of increased security to avoid cyber attacks. As a result, they significantly slowed the procurement process. |
| 7) The responses have been coordinated with the necessary transportation agencies and Division Office technical resource. | *(Choice)*<br>☒ Yes<br>☐ No |