National Transportation Safety Board
Office of Highway Safety
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HIGHWAY FACTORS ATTACHMENT

Ohio Turnpike and Infrastructure Commission 11-24-25 Email

(4 Pages)

NTSB Request – 11/05/2024

- Has the OTIC contemplated conversion to an all-electronic toll system in the past?

Yes, several different options for a new toll collection system were evaluated during the strategic planning process in 2016 and 2017, including the evaluation of all electronic toll collection.

- How much revenue could be potentially lost if converting to an all-electronic toll system?
    - The risk to revenue under an all-electronic toll system ("AET") is to the cash/credit (non-E-ZPass) revenue. Based on the 2025 Budget, OTIC's E-ZPass revenue accounts for 77.5% of OTIC's revenue, with 20.25% of revenue from cash/credit collection. Under AET, the general industry standard is that approximately 40% to 50% of the cash revenue is lost due to factors such as toll evasion, incorrect DMV information (license plate look-up), and unreadable/missing licenses plate images. Therefore, OTIC could risk losing approximately 10.1% to 12.6% of its total toll revenue if it converted to an AET system, which equates to approximately $41.9 million per year in lost revenue.

- What technology would need to be enhanced to achieve all-electronic tolling?
    - All tolled lanes would need to have to have E-ZPass readers, license plate cameras, and vehicle classification equipment. Currently all tolled lanes have E-ZPass readers and vehicle classification equipment. However, cameras are only installed in select ORT lanes and select exit lanes at conventional toll booth lanes (for violation enforcement). From a technology standpoint, cameras would have to be installed at all entry lanes (both on the ORT entering points at TP 49 EB and TP 211 WB as well as all conventional entry plazas from TP 52 through TP 209) to be able to achieve AET. Cameras would also have to be in installed in exit lanes from TP 52 through TP 209 where there are no cameras installed. Foundations, gantries, and other infrastructure will be necessary to support the hardware components.
    - The Commission's Toll Collection System Integrator and the Customer Service Center (Back Office) Provider would need to add hardware and develop software script to provide the information for proper trip building of the fare. The added hardware would need to be installed at all entry lanes and many exit lanes and require infrastructure to support it.
    - The above scenario assumes the current toll collection system's format would be utilized; that is flat fares at TP 4 and TP 239 and ticketed trips between TP 49 and TP 211. It would be prudent to evaluate, in considering a transition to AET, to utilize only gantries along the mainline for tolling and eliminating all booths at the conventional plazas from TP 52 through TP 209. This would require a greater level of effort (time to design) and up-front costs to implement.

- Can the OTIC enforce all-electronic tolling by state law? If yes, what time frame would be needed for the OTIC to convert to an all-electronic toll system?
    - The Ohio Revised Code provides the means for the Turnpike to collect unpaid tolls. The Code does not reference a specific system.
    - It could take several years to convert to AET. Three main areas need to be addressed:
        - Technology/Infrastructure – As discussed above, significant infrastructure and additional technology would need to be installed along the system. In addition to the technology, signage along the system would have to be updated/changed to reflect AET. This could take approximately 2 years to procure and install.
        - Staffing – Conversion to AET would involve laying off or the transition of toll collection staff. This could take several years. For example, the Pennsylvania Turnpike implemented an employee transition plan 5 years prior to their planned AET conversion in 2021. We are entering the second year of a three-year Collective Bargaining Agreement. During the negotiations of the agreement, we discussed that no toll collectors would lose their jobs. Under both Ohio and federal law, the Turnpike would be required to give advance notice of any mass layoffs.
        - Backoffice – The transition to AET requires significantly more license plate image reviews to prepare toll invoices. This could require additional equipment (computers), staffing, and office space.

- Does Ohio have reciprocity with other states to enforce users who do not pay their toll bill?
    - Currently, Ohio does not have toll enforcement reciprocity agreements with other toll agencies. Discussions are in progress with neighboring states. However, the Turnpike would not be the agency entering into a reciprocity agreement. These agreements are entered in between State Attorney General Offices for collections of State Bureaus of Motor Vehicles for license plate/registration holds. However, reciprocity, recognizing and enforcing the penalties or fines of another state—can be complicated due to differing laws, fines, and penalties across jurisdictions. This lack of uniformity often leads to challenges when trying to enforce these penalties across state lines. Additionally, the Turnpike offers drivers due process in contesting invoices, while other states have different procedures that may not offer the same level. This would further require Ohio to enforce other states' invoices, requiring additional work at the various State Agencies which would be enforcing these unpaid balances.

- Please identify the obstacles to permanently close the low-speed lanes at the following locations:
    - The ORT-Cash hybrid toll system model is successfully used not only on the Ohio Turnpike, but also the New Jersey Turnpike, Pocahontas Parkway (Virginia), New Hampshire Central Turnpike, Maine Turnpike, Delaware River Joint Toll Bridge Commission, Harris County Toll Road Authority, and Central Florida Expressway Authority, Washington State DOT (Tacoma Narrows), and others.
    - Following extensive testing of the new ORT-cash hybrid system, the Toll Plaza was opened to traffic in the Spring of 2024. At the time of design and construction, the applicable design standards were those set forth in the 2009 edition of the MUTCD and the 2012 edition of the OMUTCD. The design of the Swanton Toll Plaza's signage and pavement markings are fully compliant with both the 2009 MUTCD and the 2012 OMUTCD.
    - As mentioned previously, significant tolling infrastructure, including gantries, cameras, other hardware, etc. would need to be procured, installed, and tested. Software would need to be developed and tested. Once everything tests out, then the process for closing the low-speed lanes could occur.
    - Swanton Township Toll Plaza (TP 49)
        - Eastbound and Westbound ramps would be barricaded off, likely first with barrels, then permanent barrier or guardrail.
    - Westgate Toll Plaza (TP 4)
        - Eastbound and Westbound ramps would be barricaded off, likely first with barrels, then permanent barrier or guardrail.
    - Newton Falls Toll Plaza (TP 211)
        - Eastbound and Westbound ramps would be barricaded off, likely first with barrels, then permanent barrier or guardrail.
    - Eastgate Toll Plaza (TP 239)
        - Westbound ramps would be barricaded off, likely first with barrels, then permanent barrier or guardrail.