

# THINK

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## **The evolution of non-toll revenue sources** 5G networks and growing vehicle electrification create new opportunities

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This white paper reviews many options toll agencies are pursuing to strengthen their bottom lines using non-toll revenue sources. Opportunities are growing based on industry maturation and advancements in technology.

In this white paper:

- Why non-toll revenue matters
- Proven and emerging non-toll revenue enhancement activities from toll agencies across the country
- Non-toll revenue and cost-saving, a powerful combination

## Why non-toll revenue matters

Toll agencies are under increasing pressure to enhance and expand services while, at the same time, avoid toll increases. To help balance these competing objectives, non-traditional revenue generators, such as advertising, truck parking and gift shops, are gaining in popularity. Private businesses can raise their fees or rates when costs rise, or a challenging economy alters their fundamental financial situation. But toll rate increases can be difficult for public agency toll authorities to implement. Toll increases can carry political risks, because consumers – many of whom are unaware of the funding and financing model of tolling – often view tolls as taxes.

Even among the nation's largest or most established toll agencies, non-toll revenue will never provide more than a small fraction of the agency's overall revenue. For example, in 2018, the Kansas Turnpike Authority's toll revenue was nearly \$118.2 million, while its non-toll revenue was about \$6.7 million. While not a trivial amount, this non-toll revenue stream is not sufficient to allow significant service expansion as a standalone funding mechanism. Alternative revenue sources can supplement toll revenues, in both direct and indirect ways.

When an agency is seeking a toll increase, non-toll revenue can add to its credibility with the public and board members, demonstrating the agency is doing everything possible to improve the bottom line. Bond agencies look favorably on agencies that have diversified revenue sources. In many cases, the agency can leverage non-toll dollars approximately 17- to -1, just like it can toll revenue dollars. When toll agencies reach maturity and are operating at steady state, governing bodies often ask them what more they can do. This often results in interest in what other types of revenue they can pursue. Agencies informed about non-toll revenue can have intelligent discussions and help correct common misconceptions, such as a commonly held belief that advertising and sponsorships are "goldmines."

## POTENTIAL NON-TOLL REVENUE SOURCES

Property leases	Highway sponsorships
Property rights leases: occupancy permits, right-of-way crossing agreements, easements	Service plaza naming rights
Advertising	Alternative power initiatives
Cell towers	Truck Parking Information Management Systems
Charging transponder fees	Road ranger programs
Logo signs	5G network antennae leases
	Electric charging stations

## A national snapshot of proven and emerging non-toll revenue generating activities

HNTB has studied the non-toll revenue activities of 18 toll agencies across the country. Among the key findings:

- **Truck parking information systems and related commercial vehicle amenities are among the most recent areas of significant expansion.**

Finding a safe, secure and convenient place to park is a seemingly endless problem for truck drivers along congested corridors. In addition to creating more places to park in some states, locating available spaces along corridors is just as important.

Many truck drivers, tired from a long stint of driving and up against hours of service requirements, give up and park illegally on highway shoulders, exit ramps, at abandoned gas stations or in commercial parking lots. These informal parking situations pose safety risks to the truck driver and other motorists. The time spent searching for safe and convenient parking also wastes fuel, costs the operator time and money and generates unnecessary vehicle emissions.

Truck parking information management systems allow commercial carriers to plan routes and make informed, efficient and safer parking decisions in real-time.

A roughly \$30 million, eight-state TPIMS in the Midwest is now operational and serving as a national pilot project deployment for these types of parking availability systems. The TPIMS disseminates truck parking availability data on dynamic message signs along highways and through web and smartphone applications in real-time. It covers more than 130 monitored parking sites on major interstates and freight corridors in Kansas, Iowa, Minnesota, Wisconsin, Michigan, Indiana, Ohio and Kentucky.

Project documents predict over \$400 million in benefits from a decrease in non-routine repairs along highway shoulders and ramps, lower fuel consumption and reduced emissions.

Florida implemented a truck-parking availability system in the summer of 2018 that was expected to track 2,300 parking slots by the end of the year. A similar initiative also is being planned on I-10 across Arizona, California, New Mexico and Texas.

HNTB is actively involved in creating these systems – currently installing them in 10 states. Corridors with solid truck parking availability

information helps attract truck drivers to use their facilities. An increase in drivers can spell an increase in regional economic benefit.

- **Service plazas still top the list of non-toll revenue generators.** Service plazas remain the workhorse of non-toll revenue, generating approximately \$2 million to \$15 million annually. By comparison, the average range of other non-toll revenue generated outside of service plazas (e.g., advertising, cell tower leases, adopt-a-highway, etc.) is \$3 million to \$6 million annually.

As traditional barrier toll plazas are replaced with all electronic tolling, the service plaza becomes the only remaining human face of the toll agency. Agencies can position their service plazas as extensions of their brand and leverage opportunities to demonstrate superior customer service.

Service plazas are evolving. Some toll agencies have positioned their service plazas as tourist destinations. The Kansas Turnpike Authority has added tourism points of interest and gift shops at many of its service plazas, and a Kansas Travel Information Center is located within its southernmost service plaza near the Kansas-Oklahoma border. They also have recently added a scenic overlook to allow tourists to stop and view the scenic Flint Hills.

The New York State Thruway Authority has created Welcome Center rest stops to steer visitors to points of interest. Its service plazas also feature outdoor dining and Taste NY, Gov. Cuomo's program to highlight New York products and a farmer's market, and some of the service areas offer electric vehicle charging stations as well. The Pennsylvania Turnpike Commission also has a farmer's market and historical displays at some of their service plazas. And the Maine Turnpike Authority has a retail store that sells wares made by local craftsmen.

The New Hampshire Department of Transportation, Bureau of Turnpikes features multiple food offerings, visitor information, a convenience store and a 20,000-square-foot liquor store at its Hookset, N.H., location.

Several agencies are rebuilding or renovating service plazas, expanding retail, adding truck stop electrification, solar farms leased to concessionaires and offering free or fee-based premium Wi-Fi and online services.

- **Technology advancements suggest several rapidly evolving opportunities.** 5G data networks and the proliferation of electric vehicles offer some of the most exciting new possibilities for non-toll revenue.

The deployment of 5G wireless data networks requires significantly greater infrastructure – with many more small cell antennae located closely together. Deploying the required broadband antennae on light poles and other structures within toll road rights-of-way may present a strong revenue-generating possibility.

By 2030, experts predict that 30 percent of all cars on the road will be electric. And that number could rise to 50 percent by 2050. We already have a tremendous, revenue-generating infrastructure in place for gasoline and diesel fuel. We will soon need a parallel infrastructure for electric charging. The industry is just beginning to understand the potential of this development as a contributor to toll agency revenue – whether from amenities necessary to support the infrastructure or the operation of solar panels and other electricity-generating devices on roadsides, medians, sound walls and in the pavement.

Additionally, delivery and drone “taxis,” such as Uber Elevate, may create opportunities for agencies to lease air corridors for the transport of mail or even people at some point in the future.

Finally, numerous agencies are developing or partnering in the development of test tracks for toll equipment, safety applications, or AV/CV pilots or demos. This could lead to non-toll revenue opportunities.

**Autonomous and connected vehicles change the landscape.** What about the next five to 10 years, when connected and autonomous vehicles are on the road? How will they impact the need for service plazas and amenities? Perhaps drivers will be prone to drive further if road fatigue is no longer an issue. Will they interact more vigorously with technology as they passively drive? Maybe they'll stop more often for dining, shopping and even entertainment.

What types of services will motorists expect: Quick drop-off lots? Multimodal applications? A business center with video conferencing?

Especially when signing long-term contracts, it's important for agencies to engage and fully understand these future possibilities.

**Cost-saving and non-toll revenue, a powerful combination**

HNTB's research also revealed agencies are becoming more creative in their cost-saving measures, which can add to the impact of additional revenue sources.

- **Alternative power initiatives are enjoying wider use, while agencies enjoy a “greener” image.**

A few examples:

- The Kansas Turnpike Authority also is investigating wind turbines.
- Agencies in New York, Rhode Island and numerous other states are generating solar power for their own use or potentially to sell back to the grid.
- The Pennsylvania Turnpike Commission’s service plazas are LEED® certified.
- The New Jersey Turnpike Authority has implemented energy efficient LED lighting on the NJ Turnpike and Garden State Parkway, while the Central Texas Regional Mobility Authority is studying it.

In addition to supporting an agency’s image, efforts to increase sustainability through LED lighting, recycling or generating power through solar panels and wind turbines can improve the bottom line, too. For example, one agency purchased generators primarily for use during power outages due to hurricanes. The agency later realized it could use them during brownouts to sell excess power back to local municipalities as a credit.

- **Agencies are sharing resources.** the Camino Real Regional Mobility Authority in El Paso has a study underway to take over some city functions as a way of increasing non-toll revenue.

**Private or community infrastructure partnerships are another way to save money and add infrastructure.** For example, the Illinois Tollway has community-, developer- and corporate-funded interchanges and nonprofit partnerships for landscaping around those facilities. New Hampshire and West Virginia have used similar approaches.

**Safety and customers come first**

The approach to cost-saving and alternative revenue will vary depending on the organization’s culture, operating philosophy and the regulatory and political environment. Yet all toll agencies should evaluate both current practices and potential strategies through the lens of putting safety and customers first.

HNTB’s experience shows this approach can generate both acceptance and support from governance boards and toll facility users.

**Additional resources**

For more information about alternative revenue strategies in the toll industry, contact:

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