

Attachment B: Initial Scope for Congestion Pricing Feasibility Study

Executive Summary

The current transportation system in Los Angeles is highly inequitable, provides limited mobility, and is damaging our environment. Congestion pricing, if implemented effectively, can be a method of dramatically improving **equity, mobility, and environmental** outcomes to achieve Metro’s strategic goals in the near-term, while also providing revenues for long-term capital projects. The potential public policy benefits are shown in parentheses below and summarized in Table 1.

With a little encouragement from pricing, often less than we might think, people will find it more attractive to:

- Travel during less congested times (mobility)
- Use other modes, such as public transportation, walk, bicycle (environment)
- Consolidate their trips (mobility)
- Share rides/carpool (equity)

Those who continue to drive alone will be able to:

- Enjoy greater certainty and speed in their travel times (mobility)
- Pay less in total gasoline or other fuel (environment)
- Enjoy cleaner air and reduced contribution to climate change (environment)

Revenues from congestion pricing can:

- Offset cost for low income-drivers (equity)
- Be reinvested to improve the quality, reliability, safety, and convenience of transit service (equity, mobility)
- Provide free or low-cost transit fares (equity)
- Supplement funding gap of delivering 28x2028 projects (mobility)

We propose the following timeline and key activities to develop and implement congestion pricing in LA County. Note that these activities are not meant to be sequential as many of them will need to be undertaken simultaneously.

| Immediate & Ongoing | 2019 - 2020 | Late 2020 | To Be Determined |
|---------------------------------|---|---|---|
| Community and public engagement | <ul style="list-style-type: none">• Feasibility Study• Partnership and legislative authority | <ul style="list-style-type: none">• Pilot Implementation• Initial Revenue Generation | <ul style="list-style-type: none">• Expansion• Additional Revenue Generation |

Next steps for exploring congestion pricing:

- Begin conducting genuine public and community engagement, starting with an equity lens at the beginning of the process, using Metro’s Equity Platform as a guide and inviting a diverse range of participants to have a voice in this process.

- Procure consultant services to conduct a feasibility study to identify best locations for proof of concept.

Table 1. Anticipated Outcomes and Public Policy Benefits

| Anticipated Outcomes | Equity | Mobility | Environment |
|--|--------|----------|-------------|
| Revenues are reinvested to improve the quality, reliability, safety, and convenience of transit service and walking and biking access. | x | x | |
| Revenues offset toll cost for low-income drivers. | x | | |
| Reduction in road congestion leads to improved air quality along corridors. | x | | x |
| Transit moves faster through less congested lanes, and transit customers pay no additional charge for better service. | x | x | |
| Revenues can pay for free or low-cost transit fares. | x | | |
| Shared riders and carpoolers pay less than people who drive alone. | x | | |
| Drivers in priced lanes pay less for fuel since they are not idling in traffic. | | | x |
| Revenues can supplement funding gap of delivering 28x2028 projects. | | x | |
| Drivers enjoy greater certainty and speed in their travel times. | | x | |
| Drivers are encouraged to drive during less congested times, or to mode shift to non-SOV driving (e.g. carpooling, public transportation, walking, bicycling), which enables the current system to accommodate more person throughput. | | x | |
| Encourages consolidation and reduction of driving trips. This in turn reduces congestion. | | x | |

Background and Justification

The concept of congestion pricing has been around for decades. Simple supply and demand tells us that when something is provided for free, people use more of it than they would otherwise. Hence, we have significant roadway congestion when that space is provided with no out-of-pocket costs.

Currently, the price of road (usually zero) bears little relationship to demand for that road at that time. For example, it costs the same to use a road at 3am as it does in the peak of rush hour traffic, even though demand for roads is much lower at 3am. The net effect is that instead of paying for roadway space with money, everyone pays with their time.

People waste time sitting in traffic, essentially waiting in line, to use roads. This vastly inefficient method of allocating roadway space may seem very democratic, in the sense that all must pay with their time. However, it actually discriminates against the poorest and most vulnerable members of society. Transit riders, who have far lower incomes than non-riders in Los Angeles County, use buses that sit in the same slow traffic and face longer commute times on average. Moreover, low-income people typically have less flexible work schedules with hourly wages and face severe penalties for lateness. Whereas higher-income individuals may be able to shift their travel times or work from home to avoid congested periods, lower-income people often cannot.

Finally, many working class individuals depend on their vehicle for day labor and cannot use transit alternatives. When their vehicles sit in traffic they miss out on potential jobs and their earning potential drops dramatically. While they might have to pay to a fee during congested times if congestion pricing were to be implemented, they would likely more than make up for this fee through time savings and being able to perform more work. Under the current system, they are severely limited in the number of jobs they can perform in a day.

Congestion Pricing Today

Congestion pricing has proven challenging to implement for reasons such as lack of political viability, technical and privacy concerns, and equity concerns. Despite these challenges, a number of metropolitan areas have implemented various forms of congestion pricing. Once implemented, these schemes have had various degrees of success and, notably, none have ever been repealed. This includes the only congestion pricing pilot of any kind implemented to date in Los Angeles County, Metro's ExpressLanes Program.

More comprehensive congestion pricing schemes are currently in place in London, Stockholm, Singapore, and Milan. Each of these experiences offers lessons learned, but perhaps most notable is Stockholm. In this city, the congestion pricing scheme was widely opposed and was put in place on a pilot basis. After the trial period, the scheme proved so popular that it was accepted permanently. This demonstrates the value of a pilot period to test such a product, and to demonstrate its value, before casting judgment.

Congestion Pricing Models and Revenue Forecasts

UCLA analyzed eight active congestion programs in the United States and worldwide. In each case, the program generates surplus revenue. Across the eight programs, the operating cost-to-revenue ratio averaged 36 percent, suggesting that program revenues substantially exceed costs, as shown in Table 2.

Table 2. Congestion Pricing Programs: Cost and Revenue Estimates

| City/Program | Status | Initial Investment | Annual Operating Costs | Annual Net Revenue | Efficiency (Costs/Revenue) |
|-------------------------------------|-----------------|--------------------|------------------------|--------------------|----------------------------|
| Oslo, Norway | <i>active</i> | USD \$30M | USD \$11M | USD \$70M | 16% |
| Singapore | <i>active</i> | USD \$145M | USD \$25M | USD \$110M | 23% |
| London, UK | <i>active</i> | USD \$211M | USD \$170M | USD \$179M | 95% |
| Stockholm, Sweden | <i>active</i> | USD \$222M | USD \$12M | USD \$144M | 8% |
| Dubai, UAE | <i>active</i> | n/a | n/a | USD \$217M | n/a |
| Milan, Italy | <i>active</i> | €7M | €7M | €29.4M | 24% |
| Gothemborg, Sweden | <i>active</i> | USD \$84M | USD \$12M | USD \$89M | 13% |
| San Francisco, USA | <i>active</i> | \$56.3M | \$944M | \$1.3B | 72% |
| Singapore | <i>active</i> | S \$6.6M | S \$5M | S \$47M | 11% |
| Manchester, UK | <i>proposed</i> | \$195M | \$55M | \$140M | 39% |
| Netherlands | <i>proposed</i> | n/a | n/a | n/a | n/a |
| New York City, USA - Variable Price | <i>proposed</i> | \$265M | \$150M | | 9% |
| New York City, USA - Variable Tolls | <i>proposed</i> | \$282M | \$110M | \$2.2B | 5% |

Sources available upon request

In Los Angeles, there are three conceivable ways congestion pricing could be implemented. These are the following:

- 1) *Cordon Pricing*. This involves creating a boundary around a central district and then charging vehicles to cross that boundary. The fee can be variable, meaning it can go up or down based on demand. Alternatively it could be set at a specific rate for peak times. Either way, the idea is to reduce the number of vehicles entering a central area when demand is higher. This is the most common method of congestion pricing employed around the world.

Cordon pricing is most effective when there is a strong Central Business District (CBD) with high quality mass transit options as alternatives to driving. Los Angeles County does not have a typical CBD, as job centers are more dispersed throughout the region. Preliminary average revenues from cordon pricing of all trips entering downtown LA have been estimated to be as high as \$1.2 billion per year (in year of expenditure dollars). This form of pricing is among the easiest to implement and has the most history from which we can learn.

- 2) *VMT Pricing*. Charging drivers based on Vehicle Miles Traveled (VMT) has been floated for many years as a potential substitute for a gas tax. However, a VMT fee platform can potentially be used to charge variable prices based on location and time of day. The platform could conceivably charge zero when there is no traffic or in uncongested areas, but then charge high enough rates during peak times to deter overuse. There have been VMT-fee experiments in California, Oregon, and Iowa. While none of these pilots have attempted to include additional fees for congestion, the Oregon pilot tested the idea by calculating the number of miles driven in the “congestion zone”. In short, the technology

exists to use VMT as a method of alleviating congestion but it has not yet been attempted due to political challenges.

Preliminary average annual revenues from implementing VMT pricing have been estimated at \$10.35 billion per year (in year of expenditure dollars) for the larger metropolitan area. While net revenues from Los Angeles County alone would be less, Los Angeles County is the most populous part of the region and accounts for more VMT than the rest of the region. This estimate provides a sense of the strong revenue potential of such a scheme.

- 3) *Corridor Pricing.* Corridor pricing is a new kind of congestion pricing that has not been implemented anywhere. The idea is to price all lanes on all roads within a specific corridor with high traffic congestion but a viable public transit alternative. Functioning similar to cordon pricing, anyone traveling within a designated corridor during peak times would pay a fee based on how many miles they travel within the corridor. The price for travel within the corridor would be set high enough to ensure free flow traffic within that entire corridor.

Absolute revenues vary greatly, largely because the tolled areas vary considerably in their size and the demand for the road space they allocate.

Detailed Plan

People widely perceive the biggest transportation problem in Los Angeles County to be congestion. And it is true that congestion is worse here than it is almost anywhere else.¹ Additionally, LA County today is hampered by deep income inequality.² Our current transportation system exacerbates economic inequity and disproportionately harms low-income people, such as in the following ways:

- Congestion exacerbates vehicular air pollution, which has been linked to health problems ranging from cancer to asthma to preterm birth, and it most affects people living near congested roads---who are disproportionately likely to have lower incomes.³
- Congestion slows down buses, increases trip time, and creates an inconvenient and unreliable trip experience for passengers. Buses serve over 70% of Metro's transit passengers. The average annual household income of bus passengers is \$26,812, with 56% living below the poverty line.⁴
- Congestion creates transportation inefficiencies that limit access to the most basic needs in life, such as jobs, housing, education, and health care. Wealthy individuals have the means to overcome these inefficiencies to a much greater extent than low-income people.

¹ <http://inrix.com/press-releases/scorecard-2017/>

² PolicyLink and USC Program for Environmental and Regional Equity. "An Equity Profile of the Los Angeles Region". https://dornsife.usc.edu/assets/sites/242/docs/EquityProfile_LA_Region_2017_Summary_Final.pdf

³ Manville, Michael. "Is congestion pricing fair to the poor?" 100 Hours. <https://medium.com/100-hours/is-congestion-pricing-fair-to-the-poor-62e281924ca3>

⁴ Metro June 2018 On-Board Customer Satisfaction Survey: http://media.metro.net/projects_studies/research/images/annual_survey_results/bus_results_spring_2018.pdf

Access to high-quality transportation is directly related to our region’s future and its long-term economic prosperity. Better access to high-quality transportation means safe and convenient access to the basic needs in people’s lives, such as job opportunities, housing, education, and health services— all of which contribute to stronger communities.

Metro’s Equity Platform is grounded in making access to opportunity a key objective in public decision-making, public investment, and public service. Researchers from the USC Program for Environmental and Regional Equity describe transportation equity as:

1. Equitable access to quality, affordable transportation options and, therefore, employment, services, amenities, and cultural destinations;
2. Shared distribution of the benefits (e.g., jobs) and burdens (e.g., pollution) of transportation systems and investments; and
3. Partnership in the planning process that results in shared decision-making and more equitable outcomes for disadvantaged communities, while also strengthening the entire region.⁵

We can provide faster and more equitable transportation options for everyone. To do so, we need to simultaneously address both the supply and demand sides of transportation: the need to supply more and better high-quality transportation alternatives to solo driving and the equally important need to manage the demand for more travel. A congestion pricing pilot program would be structured around this concept. The following outlines the recommended timeline and key activities for developing and implementing a pilot program, which if successful could be expanded to more areas of the County. Note that these activities are not meant to be sequential as many of them will need to be undertaken simultaneously.

Immediate and Ongoing: Community and Public Engagement

Throughout the development and implementation timeline, we will develop grass-roots support for this initiative through extensive community and public engagement and outreach. Outreach would mean going into some of the communities facing the greatest traffic congestion and working through potential solutions. This way, when a proposed pilot area emerges, there can be support for the project. During the feasibility study, we will establish multiple forums and methods for meaningfully engaging with communities, such as in-person and virtual meetings, pop-ups, social media platforms, surveys, and a variety of other methods specific to the context and needs of different communities. Outreach will also focus on understanding how best to implement equity programs to subsidize low-income drivers to provide fair access and to collect data on public perceptions and outcomes to inform the feasibility study and implementation.

2019 - 2020: Feasibility Study, Partnership and Legislative Authority

⁵ Carter, Vanessa; Manuel, Pastor; Wander, Madeline. *An Agenda for Equity: A Framework for Building A Just Transportation System in Los Angeles County, Executive Summary*. USC Program for Environmental and Regional Equity, Nov. 2013.

https://dornsife.usc.edu/assets/sites/242/docs/Executive_Summary_Agenda_for_Equity_PERE_A.pdf

The Southern California Association of Governments (SCAG) has studied congestion pricing in the SCAG region extensively in the past. Metro can build off the knowledge and lessons learned from SCAG as well as explore new approaches through a feasibility study. The Metro study would be conducted with the goal of determining the best potential location and structure for a congestion pricing pilot in LA County.

A key component of the study is that it will not just propose an area where pricing could be piloted – it will propose all of the necessary public transit improvements that will need to accompany that pilot. New transportation options that can be implemented quickly and effectively, such as new local bus routes, transit priority features, express buses, microtransit, Transportation Network Company partnerships, bicycle or other shared mobility options, or other innovative strategies to provide high-quality mobility options would be developed with community input. The study would recommend a slate of transportation improvements specifically designed to provide an alternative to driving during congested times. These improvements would be considered as an essential component of the proposed pilot.

The study would include the impacts of free public transit in the same corridor to determine whether that is worth offering as an added benefit. Free transit would provide even greater incentive for people to avoid driving on roads through the priced area, potentially lowering the congestion fee and improving mobility. It would also bring a transportation subsidy to those who need it the most in our society, improving equity in accessibility.

The study would need to include analysis informed by community engagement to determine how best to compensate those who are potentially disadvantaged by pricing in the pilot area. Most travelers are likely to be better off. For those who can afford the fee, they will be able to travel much faster during peak times. For those who cannot afford or choose not to pay the fee, they will also be able to travel faster if they are able to travel at alternate times, take public transit that now flows faster, or use other transportation options.

The groups potentially negatively affected are those who must travel at peak times, are low-income, and for whom no viable transportation substitute exists. Our ongoing outreach efforts will work to identify the magnitude of these groups and how best to deliver equity programs to subsidize these drivers. These individuals could be compensated by revenues from congestion pricing. Compensation payouts can be delivered to qualifying individuals any number of ways, each of which would need to be explored in this study.

As the area for a potential pilot becomes clear, Metro will need to develop and solidify critical partnerships necessary for delivering the project. Government partners will include cities affected by the pilot (which may not be limited to the pilot area), SCAG, Caltrans, the California Transportation Commission (CTC), and the Federal Highway Administration. Other helpful partners could include new mobility providers such as Uber and Lyft (who are generally supportive of congestion pricing), local businesses that may be affected, auto clubs, the academic community, issue-based non-profits like Natural Resources Defense Council (NRDC), and community-based organizations. Together with these partners, we would need to seek legislative authority at the state level, and regulatory authority at the federal level, to conduct the pilot.

Metro would seek to establish an advisory group to provide input to the feasibility study as it moved forward, and to assist in developing legislative authority. This group would meet regularly to review progress of the study and develop action items to improve progress. The group would include academic experts in congestion pricing, community groups, non-profits, agency representatives, and business leaders.

Late 2020: Pilot Implementation

With the area and form of congestion pricing selected, along with accompanying transit services, the next step would be to launch the pilot for a period of time that is sufficient to evaluate its effectiveness. Previous congestion pricing programs have generally proven to be unpopular prior to implementation, but popular following implementation. The pilot would need to be implemented with specific performance metrics that are agreed to by the affected populations, along with a promise to suspend the pilot if those metrics are not being met after a certain period of time.

Once the pilot program begins, revenues will be realized immediately. However, the associated transit improvements in the pilot area must be in place before or at the same time that pricing begins. This will likely require borrowing funds in anticipation of pricing revenues in order to purchase additional vehicles, create bus/bike lanes, or compensate/subsidize low-income individuals negatively affected by the pilot program. Some portion of realized revenue will need to be allocated towards repaying the debt incurred and the ongoing cost of supplemental transit operations, and some will need to be allocated towards keeping the roads in the pilot area in a state of good repair. The rest can be dedicated towards long-term transit projects in the pilot area.

To be determined as warranted: Expansion

If the pilot proves successful, other areas of the County will likely demand similar programs. With lessons learned from the existing pilot and infrastructure already in place for pricing, it will be possible to create new zones more rapidly. It will be easiest to expand outward from the initial pilot zone, though it may make sense to create other new zones as well. It is through expansion to new areas that the greatest revenue realization will occur. Areas that desire more long-term transit investment will likely be among the first to seek a congestion zone.

Conclusion

Metro's 10-year strategic plan, Vision 2028, was adopted by the Metro Board on June 28, 2018. Goal 1.3 of the strategic plan conveys our agency's intentions to manage transportation demand in a fair and equitable manner by 1) developing simplified, sustainable and comprehensive pricing policies to support the provision of equitable, affordable, and high-quality transportation services and 2) testing and implementing pricing strategies to reduce traffic congestion. The initiation of a feasibility study and advisory board for congestion pricing, with the intention of creating a pilot program, is the first step in delivering on this goal.