Moving to Our Future:

Pricing Options for ***Equitable Mobility***

PBOT
PORTLAND BUREAU OF TRANSPORTATION

Cordon Pricing: Background Memo

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Prepared for the Pricing Options for Equitable Mobility project by PBOT's Policy, Innovation and Regional Collaboration Team to inform Community Task Force discussions

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Introduction

What is cordon pricing?

Cordon pricing—also called cordon charges, congestion zones, area pricing, or "go zones"—is a form of road pricing that charges drivers who drive into and/or within a specific area.[1, 2, 3] It is generally used to manage traffic in dense, congested areas, like downtowns, city centers, and central business districts. The term cordon specifically refers to the demarcated boundary "cordoning" off or marking the priced zone.

Singapore introduced the first cordon pricing project in 1975. At first, it was administered using a low-tech, manual monitoring system during the morning peak hours, but was shifted to a fully electronic charging system in 1998. Cordon pricing was then introduced in Central London in 2003 and Stockholm in 2006.[4] Today, several cities around the world have cordon-like pricing arrangements, and many more are studying or exploring the possibility. In the US, New York is poised to be the first city to implement a cordon-style congestion fee as early as 2021, charging a one-time surcharge to drivers who enter Manhattan south of 60th Street between 6 a.m. – 8 p.m.[i 5]

Cordon pricing schemes are distinct from highway tolls in that they involve applying a price to manage demand in a geographic area, rather than just on a single roadway or facility. Cordon pricing is, however, administered in very similar ways to tolling—in fact, most cordons are implemented by placing tolling infrastructure (e.g. gantries with transponder readers) on all the roadways, bridges or tunnels entering the cordon zone. Furthermore, many of the equitable mobility considerations around cordon pricing and highway tolling are alike, including how the pricing program may be designed, the outcomes it aims to achieve, and the revenue and complimentary strategy implications. Cordons do, however, present some unique dynamics, which will be explored later in this paper.

This memo provides a high-level introduction to cordon pricing to inform conversations by the Pricing Options for Equitable Mobility (POEM) Task Force. It is the third such memo, following similar reviews of parking pricing and highway tolling. Because of the similar dynamics between cordons and tolling, this memo will refer where relevant to the tolling memo to avoid repetition, while highlighting features that are unique to this pricing typology.

Key Questions for Pricing Options for Equitable Mobility (POEM) Task Force

Developing and implementing a cordon pricing policy or program would be a multi-year endeavor. At this stage, the POEM Task Force is charged with considering *if and how* cordons as a pricing strategy could advance equitable mobility, as well as advising the City of Portland on what to consider if exploring cordon pricing in the future. Specific questions for Task Force discussion include:

- *What opportunities does cordon pricing offer for **advancing equitable mobility**, as defined in the Equitable Mobility Framework? What potential **risks** might it present for equitable mobility?*
- *How are these opportunities and risks **similar or different to other pricing typologies** we've reviewed?*
- *What **key questions** would need to be explored to further evaluate cordon pricing's **impact on equitable mobility**?*

[ii] New York has been considering congestion pricing since the 1970s. This most recent proposal emerged from a traffic advisory panel appointed by Governor Cuomo, which determined a cordon pricing system could generate up to $.1. billion annually to help fill a funding gap for the New York City subway system. Transit, housing and social justice activists have supported the proposal because of its potential to improve mobility. New York business and real estate organizations have also indicated their support. The proposal was authorized by the New York State Legislature in 2019, but is currently awaiting approval from the Federal Highway Administration (FHWA).

Why Implement Cordons?

Cordon pricing is generally utilized as a tool for managing congestion and/or the byproducts of motor vehicle traffic, such as air pollution emissions, in a specific area. Places where road capacity is limited, demand is significant and regular, and most drivers have other options to enter the area (such as taking transit or shifting the time of day at which they travel) are often prime candidates for cordon pricing.[6] Because of this, cordons are typically implemented around central cities or business districts.

The cities that have implemented cordons to date share relatively "monocentric" development patterns. This means there is a clear area (i.e. crowded central city districts) around which a cordon could be drawn.[7] Increasingly, cities and regions with more disparate development patterns have started exploring cordon-style opportunities for addressing congestion and air quality concerns where they are most acute.[ii]

Applying a charge to a specific area or zone can be attractive to policymakers for many reasons:[8]

- **Clear link between the problem, the area, and the solution***:* The problem of a crowded or polluted downtown often resonates with the public, so it can be easier to frame and communicate cordon pricing as a way to address a clear problem in a discretely defined area.[9]
- **Potentially more control over who pays***:* By focusing on a defined area, it may be easier to understand who drives into and within that zone, what alternatives they have, and how to design the pricing structure to achieve goals specific to that zone (such as tying fees to vehicle emissions).
- **Opportunity to pilot and refine***:* Cordons may also allow jurisdictions to implement pricing more quickly around a smaller priority area, and then adjust or expand the zone based on the outcomes in the initial area.
- **Connection to localized air quality impacts***:* While many transportation pricing tools have the potential to result in air quality improvements if they reduce vehicle miles travelled (VMT), cordons can be particularly effective at addressing local toxic air pollution because of their geographic focus.[10] More than 250 cities in the European Union have implemented Low-Emission Zone style policies, which restrict access to areas based on the emissions of certain vehicles. Not all of these zones use pricing as their mechanism for regulating access (some just prohibit polluting vehicles from entering).[11] But in cities like London, which has a wider Low-Emission Zone which applies to the most polluting trucks, vans and diesel coaches, and a more focused Ultra-Low Emission Zone (ULEZ) which applies to all vehicles, pricing for access to an area based on emissions profile has had a profound impact on air quality—in just 6 months, nitrogen dioxide pollution in London's ULEZ dropped by a third.

While these opportunities may make cordon-style designs appealing, it is important for jurisdictions considering cordons to define the area and design the pricing system to specifically address local needs and objectives, as discussed in the next section.[12]

[ii] For example, the Southern California Association of Governments (SCAG) completed a "Mobility Go Zone and Pricing Feasibility Study" in 2019, exploring opportunities for cordon-style interventions in the LA Metro area. This multi-year effort began with looking at 11 potential areas for cordon pricing across the polycentric region, then whittled down to six and finally focused on an ideal candidate for a proof-of-concept pilot in the Westside area of Los Angeles. (Learn more: https://scag.ca.gov/sites/main/files/file-attachments/mobilitygozone_report_final.pdf?1604269434)

Cordon Design

Tailoring the tool to policy objectives

Cordon pricing systems are traditionally implemented to address congestion and its associated externalities, including the climate, air quality, safety and system efficiency impacts of high-levels of VMT in dense, high-traffic areas. Cordons in Singapore, Stockholm, Gothenburg, Milan and the original Central London Congestion Charge were designed in this way. As was discussed in the tolling background memo (page 4), congestion charges can be variable or dynamic, meaning the rate varies based on time of day or how congested the roadways are. Variable rates can help spread traffic demand throughout the day by encouraging off-peak travel. In Stockholm and Gothenburg, for example, congestion charges in the cordon areas only apply on weekdays and vary between 9 and 35 SEK ($1.09- $4.24 USD) depending on the time of day.[13] While variable rate designs may mitigate congestion peaks and provide less costly options for those who must drive, they also may mean less overall reductions in VMT. More design and outcome considerations related to cordons are discussed in the next section.

While congestion-focused cordons are proven to have climate and air quality benefits, several cities have also started implementing *low-emission zones* with the explicit goal of reducing air toxics and encouraging drivers to transition to cleaner fuels. These zones often involve charging based on fuel type or emission profile; electric or low-emission vehicles may pay the least or nothing at all, while high-emitting vehicles pay higher fees.[14,15] With a focus on encouraging drivers to switch to cleaner fuel vehicles, low-emission zones may not provide the same degree of benefits to trip times and reliability or to transportation safety that are associated with overall reduced VMT.

Some cities utilize both types of cordon to achieve maximum benefits. In addition to its congestion zone, London also has a priced Low Emission Zone and ULEZ zone, which were implemented with the explicit goal of reducing air quality impacts from diesel polluting vehicles. The Low-Emission Zone covers most of Greater London and applies a fee to the most polluting heavy diesel vehicles 24/7. The ULEZ is currently in place in Central London in the same areas the Congestion Charge (though the ULEZ is due to expand to a broader area); vehicles entering the ULEZ pay additional fee on top of the congestion charge if they do not meet ULEZ emission standards.[16]

Jurisdictions can also try to design a single cordon policy to advance multiple objectives. For example, a city could implement a congestion zone to reduce VMT, but also offer graduated fees based on emissions profiles of vehicles to encourage fuel transition. However, there are trade-offs when trying to meet multiple objectives. As cities consider the designs most appropriate to their circumstances, they should explore which outcomes are most important as well as the communication benefits of clearly tying a policy to a particular objective.[17]

Cordon implementation and technology

Cordons are generally implemented by using open-road tolling technologies on roadways, tunnels and bridges that enter the cordoned area. As summarized in the tolling background memo (page 9), open-road tolling can be achieved using a variety of different technologies and infrastructure, including gantries, license-plate identification, transponders, and potential future GPS or satellite-based technologies.

Also as discussed in the tolling background memo, the following issues must be considered when selecting and implementing cordon pricing technology[18]:

- *Privacy and data security*: Recognition technologies and camera-based systems have raised concerns around personal privacy and data tracking.
- *Cost of implementation:* Setting up new pricing technology can be a significant resource outlay for an agency, but the revenue generated can be used to cover these administrative costs.

- *Administration inaccuracies and leakage:* Open road tolling is not 100% effective, meaning if the technology does not work (e.g. a license plate image is blurry or something obscures a transponder), a charge may not be collected. Enforcing any exemptions or discounts also requires further enforcement (e.g. using technology to assess how many people are in a vehicle), which can lead to inaccuracies.
- *Disproportionate burdens of enforcement:* There are also concerns about the disparate impact pricing enforcement could have on low-income, BIPOC and undocumented drivers, including financial penalties and debt accumulation concerns as well as personal security risks.
- *Accessibility and means testing:* New pricing technologies may pose accessibility concerns for unbanked community members. And while technological platforms can help facilitate discounts, rebates and exemptions, they also may add a burden on lower-income individuals to self-report means-testing information. Technology can potentially be used, however, to tap into existing means-testing programs to reduce this burden.

Table 1: ***Glossary of Key Terms***	
Cordon Pricing	*A form of road pricing that charges drivers who travel into and/or within a specific area. Also referred to as "area pricing," "Go Zones"*
Congestion Zone	*A cordon pricing system designed to reduce or manage traffic congestion within an area.*
Low-Emission Zone	*A cordon system (that may or may not use pricing) designed to reduce emissions and air pollution within an area.*
Fossil-Fuel Free Zone	*An area where fossil-fuel powered transportation is prohibited.*
Flat rate	*The rate stays the same for all users and does not vary based on time of day or other conditions*
Variable rate	*The rate changes based on time of day or day of the week*
Dynamic rate	*The rate changes dynamically based on congestion levels in real time*
Discount	*Providing a reduced fare at the time of payment*
Rebate	*Providing cost recovery for certain users after charges are paid*
Exemption	*Certain vehicle types, trip types or drivers are not charged a price at all due to specific characteristics*
Open-road tolling	*Modern systems that collect fees electronically without drivers having to stop at physical toll booths or plazas (e.g. E-ZPass, FasTrak)*
License Plate Identification	*A technology that uses cameras or videos on the roadway to take a picture of license plates to identify vehicles and administer tolls.*
Transponder	*A radio-frequency identification chip installed in one's vehicle, usually with a sticker or a small unit affixed to the windshield, used to collect tolls electronically as part of open-road tolling.*
Gantry	*A bridge-like overhead structure on which tolling technology can be affixed to monitor, enforce, and charge tolls without toll booths.*
Leakage	*Refers to vehicles that should be charged a toll but are missed by the toll recognition technology, resulting in lost revenue.*

Equitable Mobility Considerations

For each of the pricing typologies to be considered through this process, the POEM Task Force will use the Equitable Mobility Framework to analyze if and how it might influence equitable mobility within a transportation system. Specifically, the group will look at considerations related to **outcomes** of the pricing typology, **design and implementation**, and how **revenue may be reinvested into complementary strategies**.

For cordons, many of the dynamics explored in the tolling background memo apply (pages 3-8). These are summarized at a high level below, followed by unique considerations specific to cordons.

Similarities to Tolling

Outcome considerations:

- *Vehicle miles traveled (VMT) reduction:* Cordon prices, like tolls, can encourage a shift away from driving alone to carpooling, using transit or other alternatives. It can also prompt people to avoid some trips and/or bundle trips into one.[19] All of these actions can help **reduce VMT**, which has knock-on benefits for the **efficiency of the system**, **air quality, climate,** and **safety**.
- *Reliability and connectivity improvements:* Price signals can regulate demand entering an area, helping maintain more free-flowing conditions, particularly in peak congested times. This can make travel times more consistent and **reliable**, helping drivers and transit riders alike plan their journey and **connect to more jobs and places** within a reasonable travel time.
- *Reduced need for roadway expansion:* Effectively managing demand for existing roadways can **reduce the need to increase capacity** and expand roadways.[20] Within cordon areas, effective management of right of way may also open up space for other uses, such as by converting space to bike or bus lanes, pedestrian infrastructure or non-transportation uses.
- *Diversion risks:* Cordons are used to manage demand into or around a particular area, so the risks of diversion are different than what might be expected from a tolled highway facility. If someone needs to enter the cordoned area by car, there is no way to divert the trip. In other words, the destination itself is priced, so if you need to drive, you'll pay the fee, regardless of route. Cordons could cause diversion onto side streets, however, if they cut off common through routes, or if they cause people to make trips to unpriced areas rather than traveling into the cordoned area.

Design and Implementation Considerations

- *Variability of pricing systems:* Cordon prices, like tolls, can range from ***flat***— the same charge is applied to everyone at all times of the day, regardless of conditions—to ***variable—***the charge is set to be different at different times of days and/or days of the week—to fully ***dynamic***—the charge changes based on real-time congestion conditions. The degree of variability designed into a dynamic system impacts how equitable it might be (see Figure 1).
- *Affordability:* Whether a flat, variable, or dynamic system, the price of the cordon charge impacts **affordability** and equity. Implementors need to evaluate the relative impact and burden of the cordon prices on household transportation costs for impacted individuals.
- *Discounts, rebates and exemptions*: Discounts, rebates, or exemptions can be included to **mitigate the cost burden** on lower-income individuals or to incentivize certain types of trips. Discounts, rebates, and exemptions can be based on things like income, vehicle occupancy, fuel type (e.g. electric or low-emission), types of trips (e.g. different rates for private-for-hire vehicles or freight), or disability status. While discounts, rebates, and exemptions are tools that can be used to mitigate affordability impacts and make a pricing system more equitable, they can also impact the effectiveness of the demand management strategy.

- *Considering burdens on displaced communities and whether available alternatives exist:* Cordons can make city centers or dense zones more expensive to access by car, which has the potential to further burden people who have been priced out of central areas to further-out neighborhoods with fewer transportation options.. Cordons also make it more difficult for lower-income individuals to enter a priced area if they must drive, unless discounts/exemptions/rebates are applied by income. If these areas are significant job or service centers, this could have significant equity implications. However, cordons tend to be implemented in dense centers where significant alternatives to driving are available (such as transit, park and rides, bike facilities, etc.).

Revenue Reinvestment and Complementary Strategy Considerations

- *Investing in complementary strategies:* Like highway tolling, cordon revenue generally first covers costs, but additional revenue could be used to advance other equitable mobility goals. For example, revenue could be reinvested in supporting other modes (e.g. transit, biking, and walking); supporting discounts, rebates, and exemptions; supporting infrastructure and programs that encourage low- and zero-emission vehicles (e.g. EV charging); and more. Figure 2 summarizes the potential equity implications of various reinvestment strategies.
- *Revenue restrictions:* As discussed in the tolling background memo (page 7), Oregon, constitutional restrictions require:

  > *"[…] use of revenue from taxes on motor vehicle use and fuel […] shall be used exclusively* ***for the construction, reconstruction, improvement, repair, maintenance, operation and use of public highways, roads, streets and roadside rest areas in this state****" (Article IX Section 3a).*[21]

  It is yet to be determined if cordon revenues would be subject to these revenue restrictions.

Figure 1: ***Pricing Strategy Equity Matrix (TransForm)***

As discussed related to tolling, TransForm's report, "*Pricing Roads, Advancing Equity*," introduces a matrix for understanding the impact and equity implications of how pricing strategies are designed. The table below summarizes how the more dynamic and means-based a system is, the less regressive its outcomes will be.

While the TransForm matrix considers flat-rate pricing the most regressive of the pricing designs, the "status quo" also disproportionately burdens low-income drivers and those with the fewest options. Unmanaged, congested roads or unmanaged roadway may lead to greater or equal inequities

PRICING STRATEGY EQUITY MATRIX	
PRICING STRATEGY	***EQUITY IMPACTS***
24 hour **Flat-rate pricing**	Likely to be most regressive strategy, charging low-income drivers who often don't commute at peak commute hours. Least efficient at reducing congestion. Used on many tolled facilities.
Dynamic pricing varies with time or congestion	Efficient charging system but may be regressive (though likely less regressive than gas and sales taxes).
Dynamic pricing with some means-based discounts or rebates	Less regressive due to discounts.
Means-based pricing with targeted caps and/or exemptions	System designed specifically not to be regressive. Some loss of efficiency as plentiful discounts, caps and exemptions may limit the congestion and climate benefits.

Figure 2: ***Revenue Investment Equity Matrix (TransForm)***

Transform's report also introduces the following matrix for understanding the impact of different reinvestment strategies. The more reinvestments are focused on improving alternative options with an intensive focus on historically underinvested communities, the greater equity impact they will have. For all investments, potential property value, gentrification, and displacement risks must also be considered, as well as whether these investments in new mobility options will meet the needs of Black, Indigenous, and People of Color (BIPOC) and low-income community members.

REVENUE INVESTMENT EQUITY MATRIX	
INVESTMENT STRATEGY	***EQUITY IMPACTS***
Road expansion	Does not add more affordable options.
Mix of road expansion and transit	Some drivers can shift to new, more affordable modes. Transit users also benefit.
Transit, walking, and bike infrastructure with targeted carpool, vanpool, and new mobility options where needed	Allows greater shift to more affordable and sustainable modes.
Transit, walking, and bike infrastructure with an **intensive focus on vulnerable communities**	Significant expansion of commute options and a reduction in user costs (if fares are reduced on transit and other mobility options).

Unique Considerations of Cordons

Cordon boundaries

How the boundaries of a cordon are drawn can have a significant impact on equitable mobility. Where entry points are set will impact who is more likely to pay and who isn't. The benefits of the pricing system (reduced congestion, improved air quality, lower VMT) could, on the other hand, be more significant within the cordon area than around it. The more entry points into a cordon area (i.e. roads, tunnels, bridges, etc.), the more infrastructure may be needed to establish the cordon, raising overall cost to implement. Because of these sensitivities and complexities, it is important to tie the size, scope and framing of a cordon's boundaries to the overall policy goals and local needs.[22]

Jurisdictional coordination

Depending on how the cordon boundaries are drawn, a cordon pricing system could be fully implemented within a single city's jurisdiction, or it could cross over jurisdictional lines The roadways and facilities on which a price must be levied to enter the cordoned area may also be managed by multiple agencies.[23] For example in central Portland, different roads and facilities are owned and managed by PBOT, Multnomah County and ODOT. This presents a potential coordination and political challenge.

Impacts on essential trips

Cordons are often set up around dense centers that attract people for a variety of reasons, some of which may be located only in that area (e.g. key jobs or services). People who must travel into the priced area for essential trips and have no alternatives to driving will have to pay the fee. This can have a disproportionate impact on low-income drivers. These can be mitigated by providing discounts or exemptions based on income, occupancy, fuel type or other considerations, but the more exemptions that are granted, the less effective the cordon will be at managing demand. Furthermore, cordon charges can be levied just on people crossing into the priced area or on both those drivers and those driving within

the cordon. In the latter scenario, some jurisdictions provide local residents a discount or exemption since they can't avoid paying the fee.[24]

Business and economic impacts

Because cordons are often centered around dense centers and business districts, potential risks to commercial establishments should be considered. This could include impacts to customer traffic, delivery and freight costs, and employee commute costs. In London, the business community raised concerns about these potential economic impacts prior to the implementation of the congestion charge, but there is little evidence suggesting these fears were realized.[25] That said, these dynamics are important to consider in design and policy evaluation, particularly as the longer-term implications of the COVID-19 pandemic on core commercial centers also becomes clearer.

Air quality benefits, mode shift and fuel transition

As previously referenced, cordons may help manage air pollution and greenhouse gas emissions in a geographic area and can help spur transitions to other modes (like transit or cycling) and electric or cleaner-fuel vehicles more effectively than pricing on more linear facilities like highways. The significant increase in transit ridership seen in London and Stockholm following the implementation of their cordon systems shows the powerful behavior-change potential of applying a fee on driving if robust parallel transit alternatives exist. Furthermore, the growth and success of low-emission zones in Europe highlights the promise of this tool to drive fuel shift and improve local air quality. [26] Analyses of low-emission zone models do highlight the importance of considering possible disproportionate impacts on people who may not be able to afford newer or cleaner-fuel vehicles but do not have robust alternatives to driving. [27] In addition to individuals facing these risks, small businesses that utilize fleets to move people or goods may also face challenges complying with emissions requirements, and therefore may pay more in a low-emission zone scheme. Discounts, rebates or exemptions tied to income or small business status could help mitigate these burdens, as could using revenue to invest in driving alternatives (e.g. transit, biking, walking, rolling and/or micromobility) or making cleaner driving options more accessible (e.g. more EV charging in multi-family or lower-income neighborhoods; providing rebates for EVs). [28] As the economy EV and used EV markets grow, this shift may be even easier to facilitate.

What's the alternative?

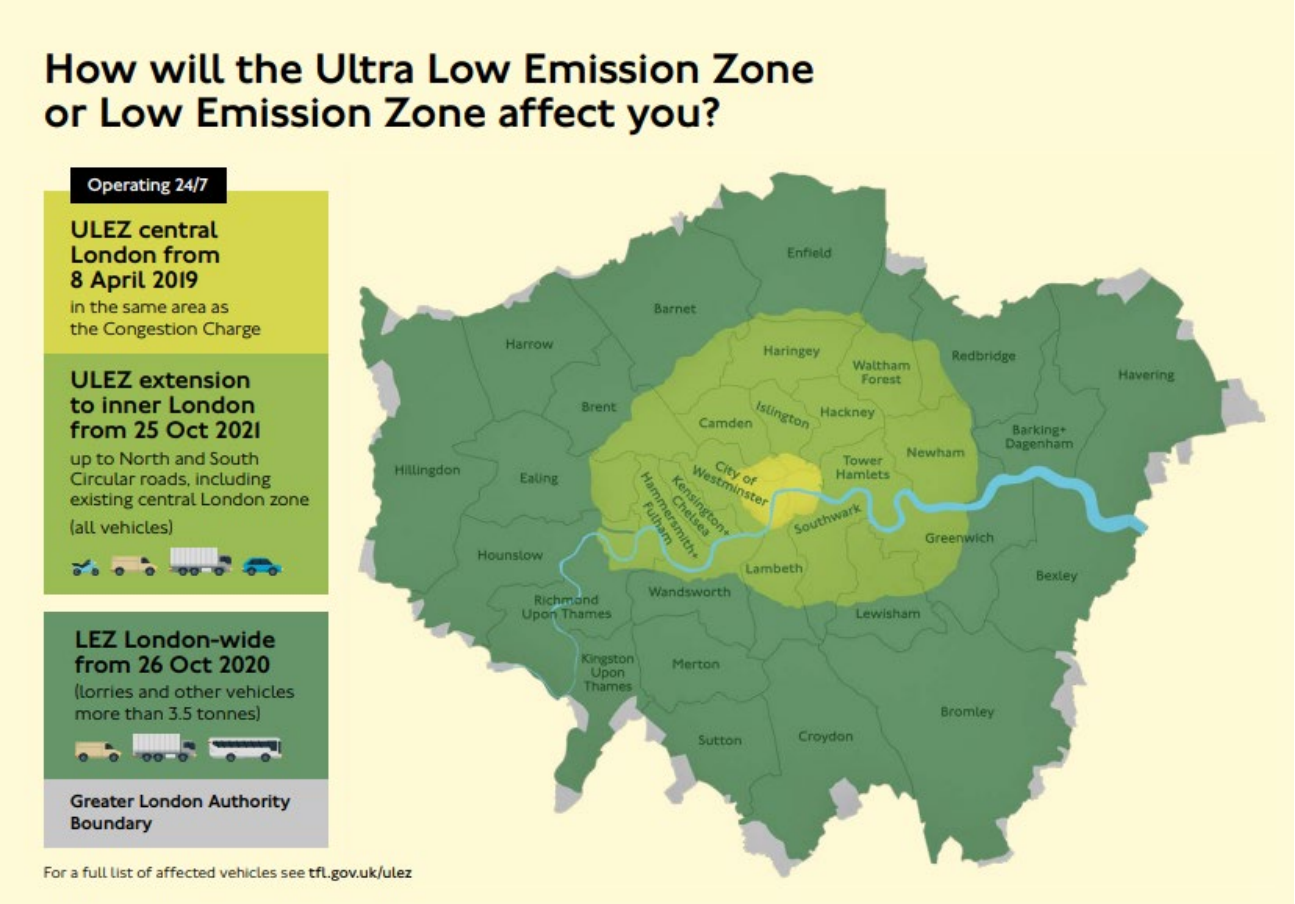
Codon pricing usually focuses on dense, congested city centers. These are areas that often have good transit and other non-driving transportation options, yet still face growing congestion. They are also often places where roadway capacity can't feasibly be expanded. Pricing has proven to be one of the more effective demand management strategies, without which, congestion and the associated impacts (loss of time, loss of money, carbon emissions, safety risks) may continue to worsen. So in these areas, decision makers often face two alternatives: look at tools to encourage behavior or mode shifting (like pricing) or watch conditions get worse and worse.

Case Studies

London: A Tale of Three Cordons

- *Implementation timeline:*
    - **2003**: Central City Congestion Charge introduced
    - **2008**: City-wide Low Emission Zone introduced for trucks and other large vehicles (standards get stricter over time)
    - **2019**: Ultra-Low Emission Zone introduced (same boundaries as Congestion Charge)
    - **2021**: Anticipated expansion of the Ultra-Low Emission Zone

- *Goals/objectives:*
    - **Congestion Charge**: Reduce traffic congestion in the central city; improve air quality; create long-term funding source for public transit
    - **Low Emission Zone**: Encourage heavy diesel vehicles to shift to cleaner fuels; reduce health- and climate-impacting emissions
    - **Ultra-Low Emission Zone**: Improve air quality in central London
- *Charges:*
    - **Congestion Charge**: £15 ($20 USD) a day to drive to or within the zone; collected 7 a.m. – 10 p.m. except Christmas (exemptions for persons with disabilities, clean fuel vehicles, taxis, and those living in the zone)
    - **Low Emission Zone**: Restricts entry of oldest, most polluting diesel vehicles. Fine of £100 - £200 ($135 - $270) a day for vehicles that don't meet standards (designed to highly incentivize fleet shifting or avoidance of trips); in effect 24/7
    - **Ultra-Low Emission Zone**: Cars and vans that don't meet emissions standards must pay daily charge of £12.50 ($16.90 USD) (or £100 ($135 USD) for heavier vehicles); collected 24/7
- *Results:*
    - **Congestion Charge**: Auto trips decreased by 31%; bus trips increased by 33%; bike trips increased by 33%;[29] 20% decrease in number of accidents[30]
    - **Low Emission Zone**: Mixed; slightly higher reductions in PM10 citywide than outside of London; early strong success in fleet turnover that slowed over time.[31]
    - **Ultra-Low Emission Zone**: Reduced NOx emissions by up to 45%[32]



Stockholm: Congestion Tax

- *Implementation timeline:*
  - Piloted in 2006; fully implemented in 2007
- *Goals/objectives:*
  - Reduce congestion; improve air quality and health
- *Charges*:
  - Variable based on time of day; highest peak period cost per passenger is 35 SEK ($4.14 USD); in effect 6:30 a.m. – 6:30 p.m. Monday – Friday
- *Results*:[33]
  - Generates 1.3 billion SEK/year ($155 million USD)
  - Traffic entering zone reduced 18-20%
  - 10-14% reduction in NOx emissions
  - Significant increase in public transit ridership (~50%)

New York: Lower-Manhattan Cordon

- *Planning and implementation timeline:*[34]
  - Considering pricing since the 1970s
  - Mayor Bloomberg introduced plan for congestion pricing in 2007; failed at State legislature in 2008
  - Governor Cuomo forms traffic advisory panel in 2018
  - Report from panel outlined how congestion pricing could be implemented
  - State legislature adopts congestion pricing plan in April 2019 as part of 2020 budget
  - Originally anticipated to launch in 2021; likely delayed due to Covid-19 and federal approval delays
- *Goals/objectives:*[35]
  - Reduce traffic in the most congested part of Manhattan; fund Metropolitan Transit Authority (public transportation) capital budget
- *Proposed charges:*
  - Expected to be between $11-$14 for cars; $25 for trucks; will likely be variable based on time of day
  - Congestion zone around Manhattan from 60th Street south
  - Fee will be charged electronically
  - Maximum of one charge a day for passenger vehicles; maybe more for delivery trucks
  - Exemptions for emergency vehicles and persons with disabilities;
  - Tax credit for people living inside the zone earning less than $60,000 annually
- *Lessons learned:*
  - Connection to subway funding was critical to gaining momentum
  - Congestion fees for taxis and ride-hail services implemented in recent years paved way for cordon proposal
  - Required political champions and broad base of support (transit, housing and social justice advocates; business; labor; health)

Endnotes

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