

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, California 94109

APPROVED MINUTES

Air Quality Planning Committee
9:30 a.m., Thursday, April 10, 2008

1. **Call to Order:** Chairperson Drennen called the meeting to order at 9:45 a.m.

Roll Call: Harold Brazil, Irvin Dawid, Robert Huang, Ph.D., Kendal Oku and Emily Drennen, Chairperson.

Absent: Ken Blonski, William Hanna, Kraig Kurucz, and John Holtzclaw, Ph.D.

2. **Public Comment Period.** There were none.
3. **Approval of Minutes of February 7, 2008:** Mr. Dawid moved for approval with minor edits, Mr. Brazil seconded the motion, and the minutes were approved unanimously.
4. **Bay Area High Occupancy Toll Lanes:** *Lisa Klein, Senior Transportation Planner for MTC, presented information to the Committee on MTC's High Occupancy Toll Lanes Study.*

Ms. Klein began the presentation with HOT lane definitions, stating they were basic carpool or HOV lanes with a "twist." Carpools and buses still travel free of charge, tolls are collected electronically and variable tolling is where higher tolls are charged during peak periods and lower tolls at times where less congestion is seen.

Ms. Klein gave background on why HOT lanes and congestion pricing were being discussed, and in particular in the context of the long-range plan update, *Transportation 2035*, noting the ambitious, quantifiable performance objectives that were set as part of plan. Most of these objectives come from state plans or legislation attempting to reverse trends for improvement of maintenance, delay reduction, particulate and carbon dioxide emissions reductions, collision reduction and improving affordability and reducing vehicle miles driven (VMT).

She reviewed what would be needed to achieve the targets, said transportation pricing could have an effect and could be implemented quickly, and obstacles are mainly political for the most part. Focused growth is also a key component which is a longer-term measure, because it takes some time for land-use changes to take effect. She discussed the difficulty of putting peak pricing in the US transportation sector and said there has been greater success in Europe and Asia. New York City was planning to implement a cordon-pricing scheme and they failed to achieve support in the legislature to implement this. The U.S. model on congestion pricing today has mostly been HOT lanes. They are in operation in several places already around the U.S., and soon to open in quite a few more cities in the next few years, including Seattle and the Bay Area by about 2010.

Ms. Klein described first-generation HOT lanes, in Orange County, Houston and San Diego, as "chutes", with cars entering at one end, drive eight or ten miles and exiting at the other end. Every year or so the toll is increased due to demand. Ms. Klein discussed variations on

the model relating to charges, types of carpools charged and the charge at full or reduced rates.

Ms. Klein then reviewed next generation HOT lanes which are considered successful, drawing attention to the Minneapolis design which differs in that it is not a chute; there are ways to get in and out in the interim points over the ten-mile distance. In terms of their benefits, they are often called “Lexus lanes”, particularly in the press, but when you look at the data, they are actually used by all different income groups and occupation classes. In Orange County they have doubled “through-put”. In Minneapolis, they have improved speeds and have reduced collisions. San Diego has actually had an increase in carpooling since the implementation of the HOT lanes.

Ms. Bent said MTC staff has done a technical assessment that shows a HOT lane network is feasible, it has many benefits and the Commission has been asked as to whether it should be included in the long-range plan. The Commission has not yet made a decision on the whole network and is grappling with governance related questions; however, she said HOT lanes in development in Alameda and Santa Clara County will happen and reflected in the RFP. It was suggested adopting a pricing congestion model to tackle one issue instead of two. She said MTC did a study of congestion pricing on the Bay Bridge and found it technically feasible, but failed to find a sponsor in the State legislature, whereas the Bridge District has toll setting authority itself. She believed MTC is still very interested in congestion pricing on the Bay bridges, but the question is whether the State legislature will support it. Their assessment is that the political environment is not supportive and there is a lot of sensitivity about the issue.

In response to a question by Chair Drennen regarding using revenue bond financing to speed this up, Ms. Klein replied that current legislation requires revenues to stay within the corridor for which they are generated. The track to develop the regional network requires more flexibility than this, and MTC staff would need this in order to develop the network.

In closing, Chair Drennen recapped that the reason this committee is looking at the issue is because they want to explore what should be in a transportation pricing policy for the Air District. In putting together the presentation, she asked if there are further directions or policy questions that have not been answered on some level in the Bay Area, and Ms. Bent said she would need to follow-up with Chair Drennen on the question.

5. Overview of Road Pricing Strategies: *Tilly Chang, Deputy Director of Planning for the San Francisco County Transportation Authority, presented an overview of the kinds of road pricing strategies currently used and proposed for use in the Bay Area, as well as some of the policy implications that should be considered with these kinds of projects.*

Ms. Chang introduced herself and co-worker, Zave Bent, San Francisco County Transportation Authority Principal Planner, who is in charge of the SFCTA’s Mobility, Access, and Pricing Study. The presentation was begun by Ms. Chang offering a possible organization of a research agenda for the Committee based on questions forwarded by Chairperson Drennen, and San Francisco’s own initiatives in the road-pricing realm. Ms. Chang spoke about overall objectives for road pricing and international examples:

- Internalize externalities:
 - Congestion problem—as much a land use regulation failure as anything else; something that is not a short-term problem, but a short-term tool to address a

long-term policy area that is very difficult to crack. To the extent the right signals are sent out, road pricing can be an incentive for more fully-considered location decisions for households and firms.

- Air quality impacts and Safety as a function of one's decision to drive, in terms of contributing to VMT and other issues.
- Financing method—distinguishing between cost-recovery and adjusting cost to be reflective of right costs.
- Pricing as a Transportation Demand Measure (TDM) tool, which is more an efficiency type of objective, to make better utilization of the system in place. High overlap with internalizing the externalities:
 - Congestion and VMT reduction
 - Promotion of transit—not only in terms of creating the more appropriate price differential between driving and transit and use of revenue as a policy consideration
 - Parking management—increasing costs of driving overall, at all stages of auto ownership, including the cross-subsidy potential to use parking revenues to fund transit.
 - Pricing and Equity—already a potential argument that the current status quo itself is inequitable and the burden of the regional and national high transportation costs falls more on low-income households. In New York, that argument in hard dollar terms has some appeal for low-income families, who may feel that they cannot bear the burden of the extra charge if they have few options.
- Implementation of equity policies.

Drivers of these objectives:

- Climate change imperative, and health and environmental impacts.
- Challenge in urban areas of how to expand and grow sustainably.
- Highway trust fund, which is our nation's main source of investment capital for surface transportation will be facing bankruptcy by end of fiscal year 2009 or 2010, a national crisis because gas taxes are the main source at both the national level as well as California.
- Additionally, as a tool, gas taxes have diminishing returns, as fuel economy improves.
- Federal, state and local taxes do not cover the whole cost, which points to the context for the equity debate.

Ms. Chang discussed pricing methods, citing existing pricing in U.S. and internationally, to address the objectives. She said in this case, she wants to classify what might be some of the tools in road pricing overall that fall within these categories. There is definitely overlap and she is also trying to identify where these have been seen either in operation or as proposed.

In terms of the externalities, there are HOT Lane examples domestically. Additionally, the DOT has been funding other projects through Value Pricing Program including VMT based

fees, and pay-as-you-go type measures including insurance, mileage-based gas tax, and distance tolls.

She discussed the UK and London's proposed increased carbon-based registration fee on vehicles, which is over and above the congestion charge. They are proposing to exempt the charge for the lowest-emitting vehicles. This is an example of the idea of rationalizing or balancing congestion policy objective versus environmental policy objective within the same pricing policy. However, at some point the policy will need to be revisited when there is many low emitting or cleaner vehicles out there using the system.

As for methods of financing transportation as a finance method, tolls are historically very well-established in the U.S., such as axle charges. She referred to the latest case-studies out with German trucking and how they have documented its overall efficiency and non-disruption to their rail-truck market. Gas taxes also help to fund existing needs, but they have not kept pace.

Regarding pricing as a TDM tool, there is the whole gamut of parking, ownership and unbundling of rates, making them very clear and transparent. In San Francisco the price for an off-street residential parking space in new condos is approximately \$100,000 when unbundled from the purchase price. There is also a 25% parking tax on commercial parking in San Francisco. San Francisco's Port Authority and MTA have implemented some versions of this and would be interested in expanding it.

Many housing developers, employers or institutions like schools or hospitals are required to implement TDM measures such as transit promotions, class-passes, and discounted transit-passes. Regarding pricing and equity, there are tools for reinvesting revenues in affordable options. For example, lifeline tolls were proposed by MTC when they did their Bay Bridge pricing study back in 1994.

Regarding employer-based programs, from the Manchester outreach, the UK is looking at creating a mechanism to help address the idea of one or two weekly discounts from employers on the congestion toll for the working low-income groups. Tackling both ownership and usage are needed because if you do only one versus the other, you are leaving something on the table. The total cost of owning and operating a vehicle and using the road-pricing as a tool needs to be bundled together at both ends.

Ms. Chang turned the presentation over to Ms. Bent, to discuss the Congestion Pricing Initiatives from the Mobility Access and Pricing's (MAPs) point of view. Ms. Bent produced slides regarding congestion pricing goals for the MAP study. The project's goals include sustainable growth in San Francisco using economy, equity and social justice concerns and environmental improvements and enhancements.

Ms. Bent defined congestion pricing as a package of improvements and not just the fee that most people are aware of and is the most controversial piece. Drivers need to see the value they are receiving. Some of the options for improvement could be reinvestment in transit services, new projects and new bus lines, increasing the frequency of service, signal timing improvements and road safety, as well as bicycle and streetscape amenities, pedestrian amenities, and whatever else that would be appropriate for San Francisco.

She said in London and Stockholm there has been an improvement in reliability between thirty and fifty percent, through improved traffic flow, road safety and vehicle emissions, depending on whether you are in a car, or on transit. Stockholm is a much smaller program in a much smaller city than London but it has reinvested into new park-and-ride spaces and

additional transit service. With regard to Rome, it was noted there was a difference in the types of vehicle emissions reductions in Rome, because they continued to exempt motorcycles and motorbikes from their congestion charge. In the case of some particular types of greenhouse gases, they saw an increase in emissions, and in others they saw a decrease.

Ms. Bent enumerated ways congestion pricing works and what the technology might look like through the use of detectors mounted to gantries or lamp posts, FastTrak responders, camera-based systems, on-street signage and education, and multiple payment methods. She reviewed international city areas and sample congestion pricing scenarios and examples of political and public acceptance of programs.

Ms. Bent then drew comparisons between San Francisco, in terms of the scale, and other cities mentioned, how well streets are performing and speeds measured. The map showed gave roads and segments operating below 10 mph on average in the afternoon or evening peak hours, as well as below 8 mph for transit, and below 30 mph on freeway segments. The map showed most of the congestion is in downtown, Civic Center and south of Market areas, which is where a lot of our businesses are located and where a lot of employment is, but it is clear that a lot of people are trying to get to the northeastern part of the city.

In looking at other statistics in the Bay Area over 9 of the last 10 years, transportation rates consistently as one of the most important problems according to the Bay Area Council. The Bay Area is the second most congested region in the nation according to the Texas Transportation Institute, and as part of the baseline analysis it is known that half of an average regional trip is spent in traffic delays. Also being tracked are economic and environmental impacts; San Francisco sacrificed 2.3 billion dollars in 2005 in terms of out-of-pocket costs from excess fuel and value of lost time sitting in traffic delays, and also the cost to commercial transportation and deliveries. In San Francisco, mobile source emissions account for 50% of equivalent CO₂, which is higher than the statewide average at 40%. The area most congested in San Francisco is the downtown Civic Center and the south of Market Street area. Half of those trips are made by cars on a daily basis. The City's transit mode-share is highest in the peak hours to and from downtown at about the mid-40% to low-40%. This is in sharp contrast to a public opinion poll done at the beginning of the study to understand how many people in the Bay Area feel that they have a transit option for their most common trip to San Francisco. 80% of respondents said they do have a transit option for their trip.

In looking at the map of travel to downtown San Francisco, significant congestion comes from trips made by people coming into San Francisco from the East Bay, North Bay and the South Bay. However, the South Bay has multiple entry points and no price control. She said that in the future, the types of development expected in the next 20 years or so necessitate proactive planning to avoid exacerbation of existing conditions. With regard to the reasons why congestion pricing is being looked at, Ms. Bent noted that the successful implementation in cities worldwide have shown there is public and political feasibility and acceptance for a program like this when it can demonstrate benefits. Also, the technology has matured to a point it is actually able to enhance the program rather hinder it.

Trends in congestion management also suggest pricing. The SFCTA has been asked to evaluate congestion pricing as part of the county-wide transportation plan and the San Francisco Climate Action Plan. Discouraging driving is a clear category where congestion pricing would be found, but it is also a way of funding the additional categories and

encouraging people to pursue the different actions in that category. Congestion pricing can encourage people to increase use of public transit, ride sharing, carpooling and bicycling, and fund improvements necessary to make them available.

She said when they look at where congestion is worse and what areas have the most options available for improvement, there are two ways they can look at congestion charging;

1) Focusing on a particular zone or area in the City, including how small a zone can be defined to begin to see how benefits might trickle to other streets or access roads to the network.

2) Focusing on the key gateways and entry points into the City and how congestion can improve by charging those gateways or key routes. Since there is no bridge coming in from the south making that the sub-area and gateway into the City is more porous than the north and east, there is no bridge coming in from the south, so they want to understand what happens in the area being evaluated, but also look at the potential diversion impacts and how they can be managed or mitigated. They will also look at the different types of improvement necessary to improve the options that people need to access their trips.

The key question for the SFCTA is whether congestion pricing is right for San Francisco. Ms. Bent reported that they know there are strong concerns, including equity – whether congestion pricing is fair in terms of income equity and geographic equity. They have found that many of the low income travelers are already on transit and are just as likely or more likely to support congestion charging than middle to higher income travelers. They also want to understand who would pay, what value they would receive, and how a program can be designed to suit their needs. They will also look at potential programs to minimize the impacts to people who do need to drive.

The other significant concern heard is whether or not San Francisco will continue to be competitive and what the business impacts will be from a congestion pricing program. To that end, the SFCTA is interested in looking at how congestion currently impacts San Francisco businesses. For example, the SFCTA has heard from businesses that they pay a higher fee for deliveries in the peak hour, and that some businesses have been forced to change their 30 minute guarantee of service within one hour because of rising congestion.

They are also looking at how other cities have fared with respect to congestion charging, how they have borne out impacts by size, location and sector and how that might impact San Francisco through economic analysis.

She presented a brief schedule of the study, stating they are currently focused on model development and analyzing the different scenarios and improvements that would be part of the package, are hoping to have recommendations by late summer/early fall of this year and expecting to hold public workshops in the summer to discuss alternatives and receive feedback prior to developing recommendations.

Tilly Chang, Deputy Director of Planning, gave a presentation of the Urban Partnership Program and selection of the Bay Area region as one of five cities to receive funding. She said they were able to secure the \$159 million grant as a part of a regional effort led by the Golden Gate Bridge District. (The Bridge District's resolution on March 14th secured the grant by providing legislative authority to implement a congestion-based variable toll on the Doyle Drive and Golden Gate corridor). Doyle Drive pricing is meant to demonstrate the DOT's 4-T's that they have linked to congestion management: Tolling, Transit, Technology, and Telecommuting.

She described the elements of the grant program including, the Doyle Drive replacement project which is in the final stages of environmental review, the SFMTA's SF Go Traffic management of the SFMTA's SF Go Traffic Management Program which also provides signal priority benefiting Muni and Golden Gate vehicles, \$20 million in parking management projects to demonstrate the concept of congestion pricing in the context of parking supplies, \$12 million for construction of a parking structure at the Larkspur Ferry Terminal for the Golden Gate Ferry system..

Ms. Chang answered Chair Drennen's of why Muni did not receive any grant funds by replying that San Francisco applied with MTC and other jurisdictions and the DOT only chose to fund the San Francisco part of the program. Within that program, they reached out to the Golden Gate Bridge District, Muni, DPT and others, and the Bridge District at the time was not prepared to participate in the application and opted out of the process. The pitch was then made for enhancements to the BRT corridors, and they got signal priority through the SF Go program primarily because they saw that the tolling point was primarily going to affect North Bay travelers and so the argument was that Muni would not carry the bulk of those shifted trips. After they applied, the DOT surprised everyone by including \$12 million of ferry money which had not been sought as part of the original application. Then Golden Gate Bridge District decided that their basic constraint was at Larkspur in terms of access and parking, so that was their decision. Of the total program, almost half has been obligated already but others are awaiting further resolution of the Doyle Drive funding question.

She discussed the Doyle Drive facility and its need for replacement and said it rates 2 out of 100 on a federal scale without even seismic considerations that it needs. Therefore, San Francisco and the State have prioritized it as the highest rated safety project in the city and region. The project will have a total cost of about \$1 billion and has a consensus design plan. Of the \$1 billion, 2/3 of it has been identified, which leaves about \$370 million funding gap.

In response to a question from Mr. Dawid, she confirmed that none of the congestion pricing funds could be used for funding the replacement of Doyle Drive, but it could go to any project or service funded by the Golden Gate District.

Regarding variable pricing of parking, Ms. Chang reported that many people wonder if tolling can be a substitute for congestion road pricing, but also said that she believes that you will not get necessarily the location-specific effects that one is looking for. The MTA and the Port of San Francisco have already begun piloting and are about to launch an even larger scale implementation of parking pricing.

Mr. Dawid said one thing learned from the New York, London and Doyle projects is that it is key to get political buy-in. He confirmed with Ms. Chang that new state legislation or the use of existing toll authority that the Golden Gate District already had was needed to do a toll on Doyle Drive. She said it was originally felt that legislation should be pursued, with only the District serving as a back-up should it not come to fruition. Over the months, the District said they would prefer to be the toll entity and for the MTC not to seek out their independent legislation for purposes of securing the grant.

With respect to the Doyle funding problem, there would be some legislative authority needed to impose a further toll over and above what has already been decided.

Mr. Dawid said his understanding is that Washington, D.C. has the second highest level of congestion from the Texas Transportation Institute, and Aslow, Norway is included in the study.

In response to a question about what types of models were used for the congestion pricing study development, Ms. Chang said San Francisco has an activity-based travel demand model. She said it was originally only focused on San Francisco residents, and the MTC model was utilized to analyze regional traffic. As part of this study, they have expanded the San Francisco model so they now have a nine county Bay Area activity-based model which can look at regional interactions. She said for counties outside of San Francisco, they are not quite as refined as if they were in their own county model, but they are definitely not as aggregated as the MTC model.

Chair Drennen questioned in what ways the Advisory Council and Air District could be more involved or supportive to SFCTA's efforts in the future. Ms. Chang said they have four advisory councils and for agencies, they have a staff level and a policy level, and David Burch is the representative on their committee. They held two meetings already and will have another before the next round of public workshops. They have discussed how the different pricing policies and scenarios and study design will interact with existing policies of each of the different agencies. They also have a Stakeholder Advisory Committee and the Business Advisory Council that looks at citizen and advocacy issues as well.

Chair Drennen questioned if funding or staffing by the Air District could prove to be useful in the future for the project. She confirmed with Ms. Chang that there was discussion with Ms. Roggenkamp in sharing a local match, but in the end, MTC and the SFCTA were able to come up with the match together, but in the coming period, they would love to discuss partnering together in the next phase. She said the SFCTA would like the support by the Air District for any type of resolution that would come forward for either the study or the idea in context of Doyle Drive pricing. She believed the congestion link is there for both, as well as for parking. The San Francisco Municipal Transportation Agency Board will hold a hearing on April 15th to consider the variable parking proposal and any statements of support would be helpful. She said one of her comments will be to encourage them to be more specific in their policy about variable-izing price to manage demand and to also address the use of revenue.

Chair Drennen questioned if there were any policy issues that would be helpful or might be missing that the Air District could provide clarity on, such as equity, how funding is spent, revenues, and Ms. Chang said the drive toward policy is very much needed, and she believed she could discuss this with their full team and follow-up. Areas of interests include: how to evaluate emission impacts in the CEQA process, the idea of trading and monetizing greenhouse gas credits, and whether there are markets in which credits are being traded and turned into revenue streams that agencies and projects can use to fund or bond against. She said as part of the decision to purchase clean vehicles, this should be documented to indicate how it can be traded and credited, and monetizing what was part of that decision in order to go back later and say it was part of the decision-making.

Mr. Dawid confirmed that the \$12 million Golden Gate Ferry enhancement for the use of a parking structure came out of the Golden Gate Bridge District and they were not part of the Urban Partnership grant application, but proposed it through a separate funding source. He confirmed it was not possible to change the \$12 million. He referred to the Downtown Mobility and Pricing Study and questioned if the \$1 million grant from DOT runs out at a certain point. Ms. Bent said she believed it runs out in December, but she would need to double-check. It must be used within 3 years, and they were well within that timeframe. She said the study is intended to determine whether congestion pricing is right for San Francisco,

to define the feasible scenarios and also to identify a pilot project within parking management.

Mr. Dawid questioned and confirmed that legislative authority would be needed to do any type of pricing. He confirmed that the gantry cannot be placed on Highway 101, but can be placed on the exit. He noted 52% of the people going to downtown are from within San Francisco, and he believed the non-San Franciscan people should be identified. In the New York proposal, they were going to credit anybody who paid a toll that would be subtracted and he confirmed this would be considered, but no decision has been made on this. Mr. Dawid said he would love for the study to be used as a way to get into the South Bay people because they are those that can get into San Francisco without paying any type of toll. It was stated that this argument has been made, it is part of the balancing, and trips within San Francisco are being shown as the bulk of the problem. Mr. Dawid questioned and confirmed with Ms. Chang that it could be suggested to look at a southerly cordon and identify the use of funds to invest in projects like a downtown extension to a Trans Bay Terminal, or Caltrain electrification or other refined options. But, the larger ones are being proposed and they can narrow down as the rationale gets clearer.

Chair Drennen suggested looking at the Air District and car registration fees and the taxes. She just purchased an electric car to register it and paid \$6 to the Air District. She asked if the Committee would want to have the Air District work with DMV to levy car registration fees as a way of looking at this. Mr. Dawid said he is suspect of registration fees because they are fixed regardless of it producing low or high emissions. We want to encourage the turn-over of vehicles but also encourage getting rid of 1980 cars. He said he believes the Air District should tackle operational costs as well as legislation, and he discussed his experience with AB 2444 which was vetoed by the Governor last year. He also suggested learning more about AB 2744 (Huffman) which would propose a Climate Protection Fee of up to 10 cents. If it passed the legislature, it would still need to go to a vote of the people. Chair Drennen questioned the timing of the Bill, and Mr. Dawid said it was introduced this year and it may not make it this year, but possibly next year. Chair Drennen said another possibility is whether there is interest about hearing about the parking management issues and ways of tackling it. Mr. Dawid said the Committee might like to hear about what Redwood City has done with their model.

Mr. Oku agreed, and said what he has seen is a movement toward charging individual vehicular drivers which is important, but also improving mass transit, you create a usable system and nexus for people to get where they need to go and then the price will move them over to that system. Chair Drennen said it serves as a carrot to affordable and accessible public transit and agreed this could be agendized.

6. Committee Member Comments/Other Business:

Chair Drennen said the meetings have been moved to Thursdays and Dr. Holtzclaw cannot attend meetings on Thursdays. She asked that a poll be done and confirmed three Committee members noted Wednesdays were good dates for meetings.

7. Time and Place of Next Meeting: 9:30 a.m., June 5, 2008 – 939 Ellis Street, San Francisco, CA 94109.

8. Adjournment. 11 :00 a.m.

/s/Lisa Harper
Clerk of the Boards
For : Jean Marie Mink
Temporary Executive Secretary