

**Parking: Demand-based pricing for parking.**

**This includes using a demand-based pricing scheme for on-street metered and publically owned garage spaces. It also includes amending the state vehicle code (22507.2.) to allow residential parking permit revenue to be used for transportation improvements in preferential parking districts.**

Application

State: Currently, cities with preferential parking districts (PPD) in residential areas can only charge for cost recovery and cannot use revenue to fund other transportation improvements within those districts. This would require a change to California Vehicle Code section 22507.2. Cities without PPD's can also consider setting them up as a way to manage parking and generate neighborhood and business district revenue

Local: Demand-based parking pricing programs modeled after lessons learned from pilot programs (i.e. *SFPark*) to be expanded where potentially most effective, such as in the state's city centers and urbanized areas where parking may be difficult to find, build or inaccurately priced. For those cities in California with existing metered parking areas the transition would be toward expanded hours and 85% occupancy goals with demand pricing. For cities with free curbside parking, the transition can be toward charging market rate prices to achieve 85-90% occupancy and generate new local revenue.

Introduction

*Demand-based pricing:* Demand-based pricing is currently being evaluated as part of a pilot project in San Francisco known as *SFPark*. This is the one of the first efforts worldwide to adopt parking reforms as a key part of congestion management. This strategy is also primarily used for system management, though funds can be used for expansion of other modes (i.e. transit) as well.

*Residential Parking:* Currently, cities with preferential parking districts (PPD) can only charge for cost recovery and cannot use revenue to fund other transportation improvements. There is strong evidence that fees in these districts are far below their market rate in many cities and that if residents paid market rates that local revenues could be significantly increased and vehicle ownership could drop. A more carefully planned fee structure could not only better manage demand, but also be used to fund other transportation improvements within those neighborhoods. Carsharing also becomes an alternative for many people willing to give up an automobile.

Revenue would be used primarily for system management of the roadway network and parking supply. It could also be used for system preservation and expansion of other modes such as transit, walking and bicycling.

Yield Potential

*Demand-based pricing:* In San Francisco, revenue from the *SFPark* project is returned to the SFMTA to support transit services. While the total potential for direct revenue generation is medium, co-benefits

can be signification. They come in the form of reduced time cruising for parking, reduced emissions and traffic congestion, and greater economic vitality in pilot areas. The benefits in increasing parking accessibility, decreased cruising and creating environmental benefits are high.

Given that SFpark is a pilot project, it is difficult to estimate project net annual revenues over the next 10 years. These estimates will become more apparent as the project is fully implemented over the next few years.

*Residential parking:* Yield potential could be classified as Low/Medium. For example, currently San Francisco issues approximately 80,000 residential parking permits annually at a cost of \$100 each (each household is allowed up to four permits.) A new permit system could be designed as a tiered system where the first permit is kept at relatively low cost, but additional permits escalate in price to achieve optimal parking availability. Revenue could potentially triple to \$240,000 a year. Exact revenue projections are difficult to determine but would be designed to minimize burden on residents while maximizing parking supply. All revenue would be dedicated to transportation enhancements within the PPD.

#### Use/Restrictions

*Demand-based pricing:* The SFPark program is designed to make it easier for drivers to park by utilizing real-time demand-based data. Parking rates are calculated based on demand and adjusted over a defined period of time (no more than once per 30 days) to ensure that there are always one or two spaces available per city block.

By making it easier for drivers to park quickly, demand-based pricing cuts down on needless cruising for parking, which has been estimated as high as 50% of total auto traffic in some US cities at certain times. This has important spillover effects for the transportation network as a whole: fewer double parked vehicles mean that transit moves more efficiently; less hazards are present for bicyclists; etc. Funding for duplication of the SFPark program to other cities in California could extend these revenue generation, economic and environmental benefits around the state.

*Residential Parking:* Currently, cities with preferential parking districts (PPD) can only charge for cost recovery and cannot use revenue to fund other transportation improvements. There is strong evidence to believe that these fees are far below their market rate. A more carefully planned fee structure could not only better manage current demand, but also be used to fund transportation improvements within the PPD. This could include improvements to bike lanes, transit shelters, transit service, etc.

The California Vehicle Code (CVC) section 22507.2 would have to be amended to support this change. Currently the section reads: "The local authority may charge a nonrefundable fee to defray the costs of issuing and administering the permits." This could be amended to read (new text in bold): "The local authority may charge a nonrefundable fee to defray the costs of issuing and administering the permits as well as to manage parking, increase mode shift and generate funds for transportation enhancements within those districts."

## Sustainability

*Demand-based pricing:* Provided that the cost of driving does not rise astronomically, demand to drive and park in urban areas will remain strong in California. Revenue generation is unlikely to be high from demand-based pricing, but all California cities can stand to grow locally controlled revenue, create turnover and economic benefit and improve co-benefits such as congestion management, business district access and a local funding stream.

The upfront cost to running demand-based pricing systems involve the purchase of meters and monitoring equipment, cost of monitoring and administering the program, and communicating the benefits of the program to stakeholders, etc. However, it is likely that many of these costs, particularly those that relate to technology, will diminish over time as new batteries are introduced (extending meter life), knowledge improves and best practices are identified.

*Residential Parking:* While additional parking revenue would fluctuate slightly according to parking demand, this would likely be a sustainable revenue source over time. Costs involved with administering the program should not be significantly higher than that of existing residential parking programs. Budget for additional staff time to review program performance periodically would represent an additional cost.

## Pros/Cons

### Pros:

*Demand-based pricing:* Demand-based pricing for parking is considered the cutting edge of congestion management parking policy can be a key congestion management strategy and is an effective way to not only cut down on cruising and its negative environmental impacts, but also can provide a dedicated source of funding for transit enhancements, improving the transportation network as a whole, and residents' quality of life.

*Residential parking fees:* Adjusting the vehicle code to allow for revenue generation in preferential parking districts has several benefits. First, it can help to address some of the common pitfalls of preferential parking zones as currently conceived in many cities in California by better managing limited supply through pricing. Second, it can help ensure that parking is available for area residents. Third, additional funds can be used for transportation enhancements in the designated zone.

### Cons:

*Demand-based pricing:* Some residents will be negatively impacted by the additional installation of variable-rate meters under such a program, particularly where meters have been installed in residential areas. There is also a significant capital cost to start the program, as well as ongoing monitoring and maintenance costs, cost of staff time, etc. Any program which disrupts the status-quo (free parking at 99% of destinations) will be likely met by opposition.

*Residential parking fees:* Some residents may pay higher costs to store their vehicles on the street. Non-residents may be compelled to pay to park in formerly free areas, especially in cases where finding parking is difficult. Parking reform will necessitate staff time to administer the project.

### Implementation

*Demand-based pricing:* Efforts to implement could be considered high given the level of technical expertise involved. Any demand-based pricing program must be developed over the long-term. Support to mitigate these costs from the state and ideally the federal government (for pilot projects like *SFPark*) is essential. These costs must be weighed against potential benefits, which, as described above, are significant.

*Residential parking:* Implementation could be classified as low. There are many examples of innovative solutions in preferential parking districts in municipalities throughout California that cities can follow to help identify solutions to best suit their needs. This is a case of the state stepping aside to allow local governments to best decide how to manage programs and resources. Staff time to design and implement the project should be taken into account. As mentioned earlier, the state vehicle code must be amended to allow for revenue to be dedicated to transportation enhancements.

### Conclusion/Recommendation

*Demand-based pricing:* Demand-based pricing is an excellent idea in theory and its benefits have been outlined extensively by the work of Professor Donald Shoup. In practice, *SFPark* has already proven to be an effective method of congestion management for San Francisco. Washington D.C. has also successfully implemented a similar demand-based parking program. Other cities should take note of the program's successes and failures. In the meantime, the state and federal policy makers should be active partners in supporting demand-based pricing strategies, as these strategies could not only present a new revenue source, but could also have direct positive impacts on the transportation system as a whole.

*Residential parking:* Preferential parking districts are in need of reform in many California cities. Changes to the state vehicle code should be made to allow parking revenue to be used for transportation enhancements in affected neighborhoods. Market based fees can be used to better manage demand and lead to quality of life improvements for all residents.

### Reference Materials

Nelson/Nygaard study for the City of Glendale on Preferential Parking District Program:

[http://www.ci.glendale.ca.us/planning/pdf\\_files%5CMobilityPlan%5CStudySessionsHearings/Nov17,2010/2010\\_05-19\\_%20GlendalePrefParkingPeerReviewFINAL2.pdf](http://www.ci.glendale.ca.us/planning/pdf_files%5CMobilityPlan%5CStudySessionsHearings/Nov17,2010/2010_05-19_%20GlendalePrefParkingPeerReviewFINAL2.pdf)

SFCTA (2009). "San Francisco On-Street Parking Management and Pricing Study – Final Report."

<http://www.sfcta.org/content/view/303/149/>

SFpark: Post Launch Implementation Summary and Lessons Learned:  
<http://SFpark.org/resources/SFpark-post-launch-implementation-summary-and-lessons-learned-web/>