



Why Cap-and-Trade Auction Proceeds Should Fund Affordable Homes Near Transit

Affordable TOD Has an Important Role in Reducing GHG

Transportation-related greenhouse gas (GHG) emissions account for 38% of California's total. Because transportation needs are driven in large part by where people can afford to live, housing affordability affects the sector's emissions. The Sustainable Communities Strategy (SCS) planning process required by SB 375 (Steinberg, 2008) has made integration of housing, land use, and transportation planning a key part of the state's strategy for reducing auto-related GHG emissions. Ensuring that households of all income levels, especially low-income households who use transit most, are able to live near transit and jobs is crucial to meeting the goals of SB 375 and AB 32.

The California Department of Housing and Community Development's (HCD) Transit-Oriented Development (TOD) Housing Program provides funding for affordable homes near transit. However, funding for the TOD Housing Program will be exhausted by the end of 2013. The Cap-and-Trade Program's auction proceeds offer an important opportunity to continue this successful GHG reduction program.

Supporting the development and preservation of affordable homes near transit is an integral part of the [Sustainable Communities for All proposal](#) for use of cap-and-trade revenue supported by more than 60 organizations. The broad coalition behind the [Sustainable Communities for All proposal](#) includes housing, transportation, labor, social equity, public health, and conservation organizations.

California's Transit Oriented Development Housing Program: A Transformative Program for Reducing Vehicle Miles Traveled and Greenhouse Gas Emissions¹

The California Department of Housing and Community Development Transit Oriented Development Housing Program was initially funded by the passage of Proposition 1C, the Housing and Emergency Shelter Trust Fund Act of 2006. Over two funding rounds in 2007 and 2008, HCD awarded \$271 million to 27 developments through a competitive process, producing a total of 6,158 TOD homes and leveraging more than \$1.6 billion in federal and private capital. Due to high demand and limited funding, **HCD was able to fund less than a quarter of the 119 applications it received- a total of over \$1.1 billion in proposed TOD. Program funding is nearly expended** with remaining funds to be distributed through a third and final funding round this summer unless additional funding is appropriated.

This paper demonstrates how the developments funded by the TOD Housing Program encourage deep GHG reductions and summarizes research supporting the program's scoring criteria.

The TOD Housing Program funds the development of apartments and condominiums within a ¼ mile of transit, **with the specific goals of increasing public transit ridership, minimizing automobile trips, and promoting GHG reductions.** HCD selects projects using criteria based on rigorous empirical data and academic research on the best methods of reducing auto use and increasing transit ridership. GHG benefits from affordable TOD are long lasting. They endure for at least 55 years, the life of the program loan.

¹ TOD Housing Program Second Round Guidelines, February 2009.

http://www.hcd.ca.gov/fa/tod/SECOND_ROUND_TOD_HOUSING_PROGRAM_GUIDELINES_FINAL.pdf

HCD's TOD Housing Program: Designed for GHG and VMT Reduction

All developments funded through the program must be within a quarter mile of a transit station that provides high-quality transit service and meet minimum density levels based on location. Projects are selected using a scoring system based on characteristics deemed necessary for creating successful TOD housing. In the program's second round, the majority of the total points (220 out of 380) were awarded based on features that reduce GHG and vehicle miles traveled (VMT). **All awardees scored maximum points in six out of seven GHG/VMT reduction categories listed below.**

- **Consistent with Infill and TOD Objectives of Regional Planning Efforts (30 points):** Developments must be consistent with regional planning efforts, local plans, and specific plans and be located in areas targeted for infill and transit-oriented development. *All awardees in the last round scored full points.*
- **Quality of Transit System and Transit Station (90 points):** Transit service must offer travel times equal to or better than automobile travel and must provide real time schedule information to riders. *Awardees in the last round scored 66 to 90 points.*
- **Access to Services (15 points):** Developments must be located within a half mile of at least ten distinct amenities (grocery stores, schools, parks, etc.) that enable residents to avoid the use of a car to meet basic needs. *All awardees in the last round scored full points.*
- **Discounted Transit Passes (5 points):** Developments must offer free or discounted transit passes (no more than half of retail cost) to each lower income household for the term of the program loan (55 years). *All awardees in the last round scored full points.*
- **Innovative Parking Reduction Strategies (25 points):** Developments must feature parking shared between various uses, such as residential and retail (5 points); offer dedicated parking spaces for car-sharing vehicles (5 points); and offer minimal residential parking (10 points). Residents pay for parking separately from monthly rent payments (except where prohibited by federal law) (5 points). *All awardees in the last round scored full points.*
- **Biking and Walking Friendly Features (25 points):** The main walking route between the transit station and the development must have small street blocks, street lighting after dark, ADA compliant sidewalks, and safe street crossings. The transit station must have waiting areas with seating, lights, shelter, and bicycle facilities. *All awardees in the last round scored full points.*
- **Serves Households at Lower Income Levels (30 Points):** Developments must provide dedicated units that are affordable to lower income households that are most likely to take transit and less likely to own a car. *All awardees in the last round scored full points.*

The remaining points are awarded based on the readiness of the project for construction, the amount of additional capital it is able to leverage apart from the program funding, the developer's track record of successful completion of infill and TOD, and community support for the project.

For the upcoming third funding round, HCD made changes to the program's scoring criteria that improve the focus on reducing VMT and GHG emissions by adding scoring categories for **Accessibility to Job Centers** and **Consistency with the GHG objectives of local plans and AB 32**, and by increasing the value of other GHG-reducing categories.

Meeting the Sinclair Nexus Test: Understanding the Research

There is a growing body of research linking GHG reductions to affordable homes near transit.

Walkable, Transit-oriented Locations Reduce Driving

According to Reid Ewing and Robert Cervero in their 2010 article, “Travel and the Built Environment: A Meta-Analysis,” the following key characteristics significantly lower residents’ VMT and resulting auto-related GHG emissions: close proximity to frequent, efficient transit – typically within a half mile or less – that connects residents to jobs centers and services; heightened density of residences and/or employment; a mix of uses in the neighborhood, providing local access to shopping, services, and jobs; and a street network that makes it easy and safe to walk or bike to local destinations.² HCD’s TOD Housing Program rewards housing developments that incorporate these key characteristics.

Additionally, in the 2007 research paper “Transit Oriented Development’s Ridership Bonus,” Robert Cervero conducted before-and-after surveys of residents who had moved to California TODs from areas with poor transit access. The study found that TOD residents’ daily VMT dropped 42% on average.³ The Cervero study also showed added benefits for new TOD residents including reduced commute times, lower commute costs, and increased job access.

Low-Income Households Drive Less and Use Transit More, Especially in TOD

While living in TOD homes increases transit ridership among people of all incomes, low-income people demonstrate the highest transit ridership in TOD neighborhoods in California’s four largest metro areas. U.S. Census data on commuting reveals that workers living in transit-accessible neighborhoods and earning less than \$25,000 a year take transit, walk, or bike to work at much higher rates than higher earners who also live in these neighborhoods.⁴ These results are consistent with national data that show **higher transit ridership and lower car ownership and car use on average among low-income households.**⁵

The benefits of improved access to transit will decrease overall in neighborhoods if existing residents with low vehicle ownership are displaced. Because transit is a desirable amenity, rents and property values near transit are typically higher on average than for similar homes further from transit.⁶ Northeastern University’s Dukakis Center studied 42 neighborhoods with newly improved transit and found that “in some of the newly transit-rich neighborhoods...**a new transit station can set in motion a cycle of unintended consequences in which core transit users—such as renters and low-income households—are priced out** in favor of higher-income, car-owning residents who are less likely to use public transit for commuting.”⁷ For these reasons, investing in affordable TOD is critical to reducing displacement of existing low-income residents from neighborhoods with good transit access.

² Reid Ewing and Robert Cervero, “Travel and the Built Environment A Meta-Analysis,” *Journal of the American Planning Association* 76, No.3 (2010): 10 URL: <http://dx.doi.org/10.1080/01944361003766766>

John Holtzclaw, Robert Clear, Hank Dittmar, David Goldstein, and Peter Haas, “Location Efficiency: Neighborhood and Socio-Economic Characteristics Determine Auto Ownership and Use - Studies in Chicago, Los Angeles and San Francisco,” *Transportation Planning and Technology* 25, No.1, (2002)

³ Robert Cervero, “Transit Oriented Development’s Ridership Bonus: A Product of Self-Selection and Public Policies,” *Environment and Planning* 39, (2007): 2074, 2075.

⁴ Analysis of ACS data aggregated using the TOD Database, a project of CNT and CTOD and included in California Housing Partnership Corporation, “Building and Preserving Affordable Homes Near Transit: Affordable TOD as a Greenhouse Gas Reduction Strategy”, 2013

⁵ John Pucher and John L. Renne, “Socioeconomics of Urban Travel: Evidence from the 2001 NHTS,” *Transportation Quarterly*, 57, No. 3, (2003)

⁶ Keith Wardrip, *Public Transit’s Impact on Housing Costs: A Review of the Literature*, (Center for Housing Policy, 2011).

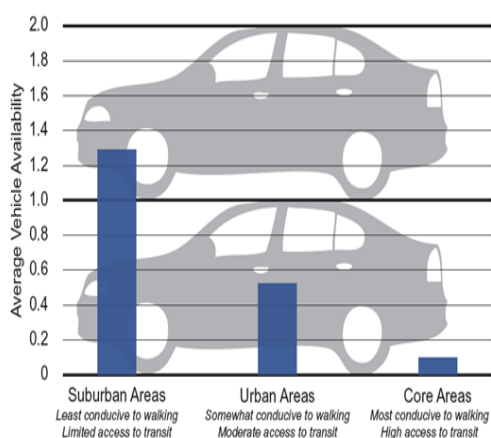
⁷ Stephanie Pollack, Barry Bluestone, and Chase Billingham, *Maintaining Diversity In America’s Transit-Rich Neighborhoods: Tools for Equitable neighborhood Change*, (Dukakis Center for Urban and Regional Policy, 2010) <http://www.dukakiscenter.org/report-summary/>

On-Site Strategies Can Further Reduce Driving and GHGs

In addition to location and affordability, the transportation demand management strategies included in HCD's TOD Housing Program scoring criteria further reduce vehicle ownership, trips and GHG.

- **Car Sharing:** 20% of car-sharing households give up one or more vehicles, and on average 34% forgo buying a new car⁸.
- **Free or Discounted Transit Passes:** Whether offered by universities, employers or housing developers, providing free or heavily discounted transit passes leads to much higher transit ridership and lower GHGs. First Community Housing, a developer of affordable apartment homes, provides free transit passes to residents in all its developments. A survey of 1,500 residents⁹ found that 64% use a pass more than four times a week and 22% said their passes reduced the number of cars owned in their household.
- **Bicycle Supportive Features:** Bicycle commuting reduces VMT. Many low-income residents ride bikes but can face barriers to using them as replacements for car travel. Designing bike parking into affordable home developments and improving the surrounding bicycle infrastructure can help encourage cycling and capture these GHG reduction benefits.¹⁰

Low-Income Families Living in Urban Areas Own Far Fewer Cars than in Suburban Areas



A 2011 study of parking at 34 affordable home sites in San Diego¹¹ found that those located in “core urban” areas that were walkable and had good transit access had just **one vehicle for every ten households** (0.1 per household), compared to 1.3 vehicles per household in suburban areas.

The same study concluded that minimum parking requirements hurt lower-income households, by increasing costs and reducing housing density, and thus potential transit riders.

Cervero and Arrington's study on TOD found that average vehicle ownership for TOD residential development was approximately 1.1 vehicles per unit – half the 2.2 parking spaces per unit that many cities require, even near transit.¹² Inappropriately high

parking requirements for TOD inflate costs and decrease the supply of units. **The TOD Housing Program incentivizes reduced parking requirements by rewarding developments that build less parking.**

Affordable TOD: A Successful GHG Reduction and Equity Strategy

HCD's TOD Housing Program provides an innovative approach to achieve maximum long-term GHG benefits and serve the economic, public health, and environmental interests of California's most disadvantaged communities and households. Built on solid academic research, it incorporates proven GHG/VMT reduction features. **In the face of solid evidence and significant need, we recommend appropriating Cap-and-Trade auction proceeds efficiently and effectively through HCD's TOD Housing Program.**

For more information on HCD's TOD Program or the [Sustainable Communities for All proposal](#), please contact: Megan Kirkeby at the California Housing Partnership, mkirkeby@chpc.net, 415-433-6804 or Julie Snyder at Housing California jsnyder@housingca.org, 916-501-5922. For more information and case studies about trip reduction strategies please go to GreenTRIP.org or contact TransForm's Ann Cheng, Ann@TransFormCA.org.

⁸ Transportation Research Board; Transit Cooperative Research Program (TCRP) Report 108, Car-Sharing: Where and How it Succeeds. 2005.

⁹ <http://www.firsthousing.com/wp-content/uploads/2009/05/ecopass1.pdf>

¹⁰ <http://www.communitycyclingcenter.org/wp-content/uploads/2012/07/Understanding-Barriers-Final-Report.pdf>

¹¹ San Diego Affordable Housing Parking Study, 2011. <http://www.sandiego.gov/planning/programs/transportation/mobility/pdf/111231sdafhfinal.pdf>

¹² Cervero, Robert. TCRP Report 128, “Effects of TOD on Housing, Parking, and Travel,” (2008).

<http://www.reconnectingamerica.org/assets/Uploads/tcrp128.pdf>.