

## STAFF REPORT

**SUBJECT:** South Coast Transit Priorities Project

**MEETING DATE:** January 17, 2008

**AGENDA ITEM:** 15

**STAFF CONTACT:** Michael Powers

**RECOMMENDATION:**

Receive report from SBMTD on the implementation of the South Coast Transit Priorities Project

**DISCUSSION:**

Santa Barbara Metropolitan Transit District (SBMTD) will report on the progress in implementing the South Coast Transit Priorities project. This project was originally proposed in the late 1990's and the SBCAG board approved \$9.1 million in federal Congestion Mitigation and Air Quality (CMAQ) funding for the project. The project consisted of a significant expansion of MTD local and express services and transitioning of the MTD fleet to alternative fueled vehicles (from Diesel to Electric, Hybrid Electric, and low emitting diesel) (Attachment 1). Elements of the project were originally incorporated into SBCAG's Federal Transportation Improvement Program for funding in 1999. The project has been amended periodically since then, most notably in 2003 and 2004. Since 2004 many of the project elements have been implemented (as described in the attached letter from Sherrie Fisher, General Manager). MTD is proposing an additional change to the project. MTD plans to reduce the number of 22 ft. electric vehicles from 9 to 4 and to purchase 3 larger (29 ft.) diesel hybrid electric vehicles. These buses will be used for new service between UCSB and Camino Real Marketplace via the community of Isla Vista. Presently the funding for the South Coast Transit Priorities Project has been obligated by SBMTD through a Federal Transit Administration grant. Since the funding has been obligated, the SBCAG role in approving project modifications represents a courtesy review vs. a formal amendment to the FTIP.

This item was deferred from the November 15, 2007 board meeting. MTD staff will brief the board on the implementation of new services and the proposed change at the November meeting.

**COMMITTEE REVIEW:**

None

**ATTACHMENTS:**

1. October 19 letter to Jim Kemp from Sherrie Fisher, MTD General Manager
2. Hybrid Facts, MTD Information Brief

**Member Agencies**

Buellton ■ Carpinteria ■ Goleta ■ Guadalupe ■ Lompoc ■ Santa Barbara ■ Santa Maria ■ Solvang ■ Santa Barbara County



Metropolitan Transit District  
550 Olive Street  
Santa Barbara, CA 93101

p (805) 963-3364  
f (805) 962-4794  
www.sbmtd.gov

November 6, 2007

Mr. Jim Kemp  
Executive Director  
Santa Barbara County Association of Governments  
260 N. San Antonio Rd., Suite B  
Santa Barbara, CA 93110

Dear Mr. Kemp:

The Santa Barbara Metropolitan Transit District (MTD) requests to provide your Board with an update and status report on the South Coast Transit Priorities (federal grant CA-90-Y035-02 "Electric Buses & Superstops"). We will also apprise your Board of our intent to revise the grant to include the purchase of three (3) 29-ft. Hybrid Diesel-Electric buses, and to reduce the number of 22-ft. Electric vehicles from nine (9) to four (4).

The three 29-ft. Hybrid Diesel-Electric buses are planned for use in service from UCSB through Isla Vista to Camino Real Marketplace. Three Hybrid Diesel-Electric buses sufficiently replace (and offer the same level of service as) five Electric vehicles. The change will allow the MTD to expedite delivery of the final piece of service associated with this grant, as "piggyback" options are currently available for the three Hybrid Diesel-Electric buses.

To date, the grant has resulted in significant benefits to the transportation infrastructure of the County in the form of additional transit service (operating subsidy and/or buses), replacement diesel buses, new farebox equipment and, soon, high-end bus stops in downtown Santa Barbara. The Attachment provides details on these improvements.

**Additional Transit Service:**

- a) Goleta Calle Real/Old Town Shuttle – in service
- b) Santa Barbara Mesa Loop – in service
- c) Santa Barbara Crosstown Shuttle – in service
- d) Expanded Trunk/Express Service – in service
- e) Carpinteria Seaside Shuttle – in service
- f) Isla Vista/UCSB – pending approval of amendment

Replacement Buses:

- a) Eleven (11) 29' Diesel Buses – in service
- b) Four (4) 22' Electric Vehicles – pending approval

Expansion Buses:

- a) Three (3) 29' Diesel Buses – in service
- b) Three (3) 29' Hybrid Diesel-Electric Buses – pending approval

Farebox System:

- a) 96 replacement fareboxes, vaults and data system – in service
- b) 30-day Period Passes (Elderly, Students, etc) – in use
- c) Special Bus Pass Programs (MyRide & Brooks Students) – in use

SuperStops:

- a) High-end bus stops in downtown Santa Barbara – in development

MTD is eager to fulfill its commitments to the communities it serves by delivering on this very ambitious project. With your support, and that of the other local agencies, MTD can expeditiously implement the final element of the project, the Isla Vista/UCSB Shuttle.

Sincerely,



Sherrie Fisher  
General Manager

Attachment



## South Coast Transit Priorities New & Enhanced Services

### **New Seaside Shuttle (September 2000)**

- With City of Carpinteria

### **New Crosstown Shuttle (July 2001)**

- With City of Santa Barbara

### **Enhanced Line 1 & 2 Service (September 2001 & September 2002)**

- Added service to meet increased demand

### **Enhanced Hollister Corridor Service (September 2002)**

- Extended service to Camino Real and improved headways on Lines 6 & 12x

### **New Calle Real/Old Town Shuttle (September 2005)**

- With City of Goleta

### **New Mesa Loop (September 2003 & March 2007)**

- With City of Santa Barbara

### **New Isla Vista/UCSB Shuttle (Pending approval of amendment)**

- With Santa Barbara County

### Enhanced Services Additional Annual Revenue Hours and Passengers

Service	Revenue Hours	Passengers
Seaside Shuttle	4,680	91,900
Crosstown Shuttle	7,340	168,000
Line 1 & 2	1,810	150,200
Hollister Corridor	1,790	125,000
Calle Real/Old Town Shuttle <sup>1</sup>	2,290	33,400
Mesa Loop (Projected Annual)	3,680	112,000
<b>Total Annual</b>	<b>21,590</b>	<b>680,500</b>

Note 1: Adjusted to reflect credit of 55% of former Line 9 service.



## Hybrid-Electric Bus Facts

The Santa Barbara Metropolitan Transit District (MTD) is proud to continue the tradition of being a national leader in alternative fuel programs. MTD currently operates North America's largest fleet of 100% battery electric vehicles. Recently we introduced our latest innovation in public transit technology, a fleet of 8 hybrid-electric 40-foot transit vehicles. The hybrids and the entire MTD fleet are now powered with a biodiesel fuel blend.

- Transit buses with GM's 2-mode hybrid propulsion system provide a significant fuel economy improvement, dramatically lower emissions and many other benefits including superior torque and better acceleration than conventional diesel buses.
  - Oxides of Nitrogen (NOx) emissions are reduced by up to 50%
  - Actual in-service fuel economy improvements range from 20-54% compared to traditional transit vehicles. MTD expects to be on the high end of the spectrum due to the fact that a large percentage of our drivers have already been trained to monitor energy consumption while driving our battery electric fleet. Many of the same energy saving techniques will be utilized on the hybrid fleet.
  - Hybrids running on biodiesel emit fewer greenhouse gases than all other types of alternative fueled vehicles, with the exception of fuel cells.
  - The hybrid system helps reduce noise pollution compared to conventional transit vehicles. At 79 db at 10 meters, buses equipped with the hybrid system approach the sound level of passenger cars. The engine in our 40-foot Gillig bus is the same size as the engine you will find in a Dodge Ram pick-up.
  
- The GM 2-mode diesel-electric drive system for buses uses the most efficient parallel hybrid architecture available in the world today.
  - When stopping or decelerating, vehicle energy is converted to electric energy and stored. In effect, the motor becomes a generator. 40% of the energy to accelerate the bus comes from the energy saved during regenerative braking.

MTD is ranked among the top ten in the nation for per-capita transit usage. MTD, with its focus on passenger service, provides a reliable, safe, comfortable means of mobility to those who lack other transportation, including students, seniors, and individuals with disabilities. MTD also provides an attractive transportation option for commuters and shoppers who might otherwise drive a car. Last year MTD provided over 7,600,000 passenger trips. MTD provides over 25,000 passenger trips each weekday resulting in 16,540 cars being left at home on weekdays.

## Electric Vehicle Limitations

The Santa Barbara Metropolitan Transit District has experienced great success with its battery electric bus program. However, electric vehicles do have some challenges and limitations.

- Finite energy capacity
  - Batteries can only store a finite amount of energy between charges. Vehicles can travel roughly eight hours a day or sixty miles. Batteries require a charge of a minimum of eight hours each day.
- Speed limitations
  - Vehicles demonstrate the greatest efficiency when traveling at low speed. Low speed requires more time to complete a route and may cause traffic delays on high-speed roadways.
- Infrastructure requirements
  - On-site charging stations are required to replenish energy to the batteries. Station must be covered and placed in a secure environment.
- Limited capacity
  - A 22-foot battery electric vehicle can only accommodate 18 seated passengers, 27 including standees. While a 29-foot hybrid can accommodate 26 seated passengers, 36 including standees.