

The California High Speed Rail project: What does it cost and why does it matter?

February 4, 2011

In 2008, California voters approved \$9 billion in bonds towards a high speed rail system that was to stretch from the new Transbay Terminal in San Francisco to Los Angeles to Anaheim. The total project cost as described to California voters was \$33 billion with an estimated \$55 fares from SF to LA. The system would require no operating subsidies and was forecast to earn enough profits to fund extending the line up to Sacramento and down to San Diego. The accompanying business plan produced in 2008 was considered insufficient and legislators demanded more information.

In 2009, legislators withheld money from the Authority until they finally produced a business plan in December. The revised business plan showed costs of \$43 billion and required higher fares and more private investment, which would divert system profits to equity investors instead of towards system extensions north and south. The 2009 business plan was deemed an improvement over the 2008 plan because it provided more information. However, it also required a “ridership revenue guarantee” which is a form of operating subsidy that the Authority has yet to show as legal under the law.

In 2010, the Authority agreed to legislative requirements that would have required a business plan update be released on February 1, 2011. However, in a move that the Legislative Counsel has determined was illegal, Governor Schwarzenegger vetoed the oversight on the Authority’s budget and the Authority has opted not to produce such a document until October 1, 2011. On February 3, 2011, the Authority announced that negotiations with Price Waterhouse to be the financial consultant responsible for producing the business plan had failed and a new consultant would need to be hired, jeopardizing the October 1, 2011 timeframe.

Our analysis, based solely on official and publicly available Authority documents, determines the current project costs are approximately \$65 billion. The \$43 billion figure was inaccurate, even at the time it was made. One of the selling points of the project was that it would parallel existing transportation corridors. From an engineering perspective, this requires expensive civil works which were unaccounted for in the 2009 number. Even as environmental and planning work has advanced, no update to the official capital cost estimate has been made. This is true even when the only alternatives in most segments still being studied are significantly more expensive than those used to calculate the \$43 billion number.

These large increases in project capital costs will likely mean large reductions in the scope and scale of the project. Without understanding how expensive the original project really is, policymakers, the HSR board and the public cannot be full participants in the discussion that is happening internally at the Authority about how to prioritize planning and construction. To date, project planning has been driven more by deadlines than the long-term needs of California. Whatever we decide to build should give us the “biggest bang for the buck” and should not necessarily just be the original plan, truncated on all ends.

Our purpose for calculating current costs is to highlight the importance of understanding these costs **prior** to making substantial policy decisions. We welcome hearing directly from the California High Speed Rail Authority about what their latest estimates are since we firmly believe October 2011 it too long to wait.

CARRD welcomes questions and scrutiny about our methodology. We have received some feedback that these numbers may actually be too conservative since there still is very little engineering information about some of the most technically challenging parts of the project (like the mountain passes). On each segment, there is a range of possible cost outcomes. In general, following the existing transportation corridors is actually more expensive; creating new right-of-ways has lower construction costs but higher environmental and agricultural impact.

Californians Advocating Responsible Rail Design (CARRD) is a volunteer network that has been following the California High Speed Rail project since 2009. We value transparency, accountability and oversight and believe local communities should be partners in designing transportation projects. We work to ensure that the public's interests are upheld and that all facets of the California High Speed Rail project follow both the spirit and letter of the law. We do this by encouraging civic engagement, providing in-depth and relevant information, and advocating for changes in how projects are planned.



Californians Advocating
Responsible Rail Design

Costing Estimates

	2008 Business Plan				2009 Business Plan			CARRD Feb 2011			San Jose to Sylmar	
	Miles	2008 Biz Plan (millions)	Including program costs (millions)	Cost per mile (millions)	Updated miles per 2009 detail costs	2009 Biz Plan (millions)	2009 Cost per mile (millions)	Updated miles per 2009 detail costs	Estimated Cost per mile (millions)	Cost (millions)	Updated miles per 2009 detail costs	Cost (millions)
San Francisco to San Jose	50	\$4,210	\$4,458	\$89	50	\$6,142	\$123	50	\$175	\$8,750	X	X
San Jose - Merced	120	\$5,175	\$5,771	\$48	124	\$6,943	\$58	124	\$115	\$13,800	124	\$13,800
Merced - Fresno	60	\$2,093	\$2,391	\$40	65	\$3,008	\$50	65	\$70	\$4,522	65	\$2,061
Fresno - Bakersfield	115	\$4,249	\$4,820	\$42	131	\$5,094	\$44	131	\$85	\$11,135	131	\$10,735
Bakersfield - Palmdale	85	\$3,892	\$4,314	\$51	76	\$4,998	\$59	76	\$125	\$9,438	76	\$9,438
Palmdale - LA	60	\$5,438	\$5,736	\$96	60	\$7,645	\$127	60	\$160	\$9,600	60	\$4,800
LA - Anaheim	30	\$1,994	\$2,143	\$71	30	\$5,454	\$182	30	\$160	\$4,800	X	X
Program costs		\$2,584										
Trains		\$3,990				\$3,310				\$3,310		\$1,700
Total		\$33,625				\$42,594				\$65,355		\$42,534

Notes on CARRD Feb 2011 Estimates:

- SF-SJ costs are based on Alternatives Analysis and ARRA requests
- SJ-Merced costs are expensive because of Pacheco Pass tunnels (over 10 miles), many aerials, environmentally sensitive route
- Merced-Fresno costs are from ARRA applications, exclude maintenance facility
- Fresno - Bakerfield costs are from ARRA applications, include maintenance facility
- Bakersfield - Palmdale costs estimated as higher than Central Valley costs given mountain passes
- LA - Anaheim costs assume shared tracks and cost REDUCTIONS from original plans

Notes on San Jose to Sylmar Estimates:

- SJ-Merced costs include SJ station
- Merced to Fresno costs include nothing north of the Chowchilla wye
- Fresno to Bakerfield costs includes maintenance facility; excludes Fresno and Bakersfield passing tracks
- Palmdale to LA - estimated 50% of cost by stopping at San Fernando Valley

Sources:

- CHSRA 2008 Business Plan http://www.cahighspeedrail.ca.gov/Business_Plan_reports.aspx
- CHSRA 2009 Business Plan http://www.cahighspeedrail.ca.gov/Business_Plan_reports.aspx
- Detailed costing data obtained from HSRA (available at: http://www.calhsr.com/wp-content/uploads/2010/02/Phase_I_CapitalCost-2009Update.pdf)
- FRA funding applications - http://www.cahighspeedrail.ca.gov/fed_stimulus.aspx

www.calhsr.com

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