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### **Testimony before the Transportation and Housing Committee California Senate**

#### **Purpose of Public Hearing: Review of the High-Speed Rail Business Plan**

October 23, 2008  
Sacramento, California

Mr. Chairman, members of the Committee, thank you for the opportunity to appear here today. I will summarize my written testimony.

#### **Background as High Speed Rail Proponent**

I was asked to appear here not because I am a high-speed rail critic, but because I have long been an advocate. This is the *first time* I am unable to endorse a high-speed rail plan—California's plan. Why? Because after having reviewed countless rail plans over many years, I have found the Authority's work to be the poorest I have ever seen.

Because of the unique nature of my analysis, I've been asked to provide more information about my rail background.

I wrote my first published report advocating high-speed rail in 1969; worked for Anthony Haswell, who has been called the "father" of Amtrak, during the run-up to Amtrak's creation; and served in Public Affairs for Amtrak. There, as part of the Passenger Service Committee, I was part of the group that reviewed operating plans that required capital expenditures. I became re-involved with Amtrak in the early part of this decade when I became a U.S. Senate appointee to the Amtrak Reform Council.

As time went on, St. Martin's Press published my book, *Supertrains*, in 1991. President Clinton called it a "great book," the Sierra Club and Friends of the Earth praised it, and Ray Bradbury said, "This book is for all those train passengers whose journey lasted ten hours when it could have been done in two."

Next, I served as President/CEO of the Washington, D.C.-based High Speed Rail Association, where I testified before Congress in support of Amtrak's Acela program, and where the board presented me with the Distinguished Achievement Award. The Association's membership included domestic firms like Parsons Brinckerhoff, HDR Engineering, Charles River Associates and Lehman Brothers—which are or have been contractors to the California High Speed Rail Authority—and railway suppliers such as Alstom (which manufactures the TGV), the Japan Railways Group (which represents each of the privatized Bullet Train companies) and similar interests.

I have spoken on high-speed rail throughout the United States, in Europe, and in Japan at the request of the Minister of Railways and the Japan Railway Technical Research Institute.

### **California High Speed Rail Accountability**

I must compliment you, Mr. Chairman, and the Committee for oversight report issued in June. You were right to observe that the public deserves a full accounting of the high-speed rail project because it has been portrayed as a business proposition to the voters with many promises of future commercial success.

I believe that high-speed rail in California could effectively serve legitimate public or environmental purposes or be a financial success. But the current proposal is untenable. The train will be slower than they say it will, will carry far fewer people than they claim it will, and will cost much more than they admit it will.

## **THE MARKET**

### **Ridership Estimates**

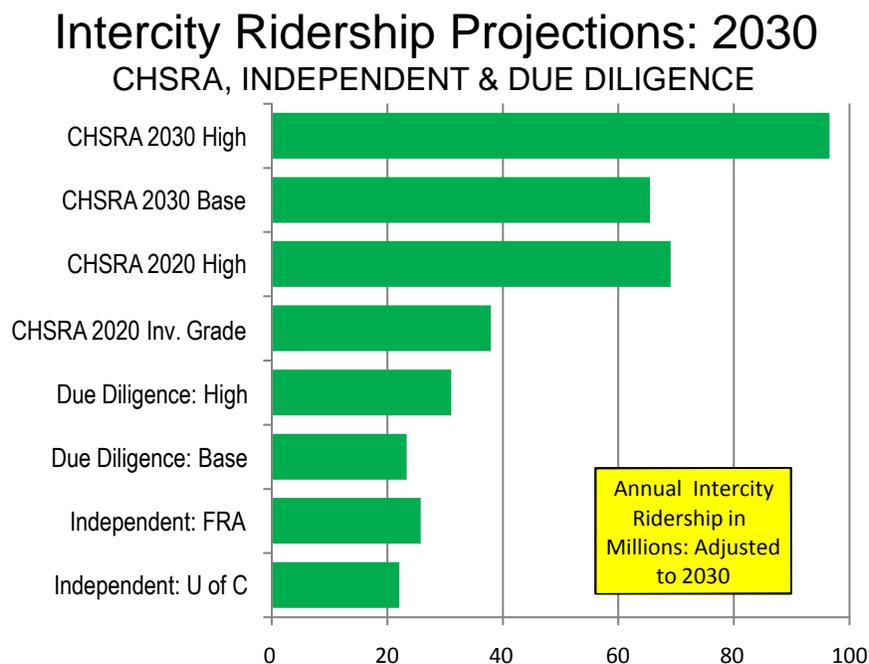
What is the market for the system? Unfortunately, the Authority's ridership projections are considerably higher than independent figures developed for comparable California systems in studies by the Federal Railroad Administration, the University of California Transportation Center at Berkeley and in the recent Due Diligence Report, which I helped write.<sup>1</sup>

Using generous assumptions, the Due Diligence Report projects a 2030 *base* of 23.4 million intercity riders, which is 64% below the CHSRA's base of 65.5 million intercity riders. The Due Diligence Report also projects a 2030 *high* of 31.1 million intercity riders, nearly 60% below the CHSRA's high of 96.5 million. Moreover, the CHSRA's projection of 117 million annual intercity passengers plus commuters is so far from reality that I have to call it what it is—science fiction. The figure could well rank among the most unrealistic projection produced for a major transport project anywhere in the world. These figures are illustrated in Figure 1.

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<sup>1</sup> Wendell Cox, Joseph Vranich and Adrian Moore, Ph.D., *The California High Speed Rail Proposal: A Due Diligence Report*, published jointly by the Reason Foundation, Howard Jarvis Taxpayers Association and Citizens Against Government Waste, September 2008, found at <http://www.reason.org/ps370/>.

Figure 1



### Unachievable Load Factors

Let's look at load factors (share of seats filled on average). The CHSRA's projection is far higher than what is found on HSR systems elsewhere around the world. The CHSRA anticipates an average load factor of nearly 85 percent.<sup>2</sup> The Federal Railroad Administration's high-speed rail study for California placed the average at 51 percent. The CHSRA's projection is so high that it is additional evidence that the forecasts are exceptionally optimistic. (See Figure 2.)

The TGV (*Train à Grande Vitesse*) high-speed rail system in France claims a load factor of 71 percent. The French system prides itself on effective "yield management" techniques for filling seats and may have reached a practical load factor limit. The CHSRA's projected load factor is nearly 20 percent higher than the impressive French figure. Amtrak's Acela has an estimated load factor of approximately 55 percent. The Spanish high-speed rail system achieved a load factor of 60 percent in 2004.

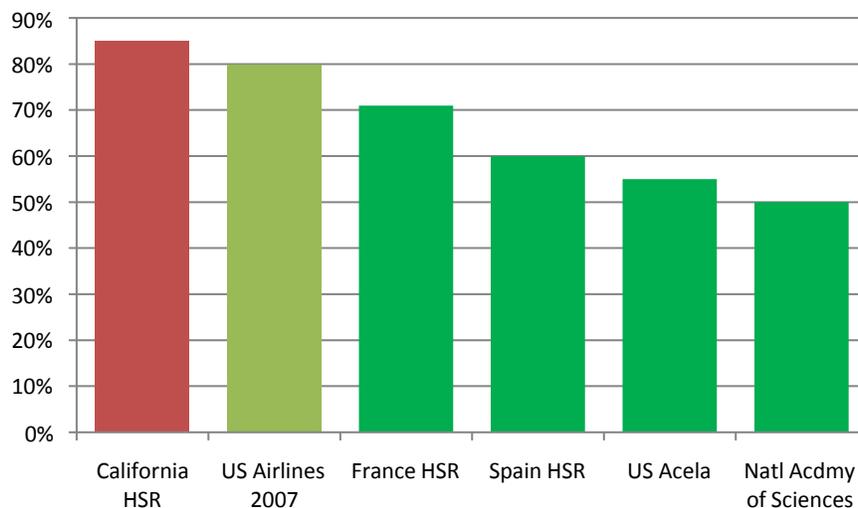
A National Research Council study of the prospects for high-speed rail in the United States assumed a 50 percent load factor in modeling a prototypical system.

Last year, domestic airlines achieved a load factor of 80 percent. This is an unprecedented figure for the airlines, which had historically achieved between 60 and 70 percent load factors. Such a high figure is not likely with respect to a high-speed railway because of important operational differences.

<sup>2</sup> An average load of 994 passengers are assumed on trains that have a seating capacity of 1,175 (Average load factor calculated from Northern California Environmental Impact Statement (NCEIS 4-20 and NCEIS Table 3.5-5). Other CHSRA documents project train capacities of 450-500, 650, 1,175, 1,200 and 1,600. The projected loads could not be accommodated in the smaller trains, which further erodes the credibility of CHSRA ridership projections.

Figure 2

## California HSR Load Factors in Context COMPARED TO AIRLINES AND OTHER HSR SYSTEMS



### Unrealistic Ridership Intensity Projections

Let's examine ridership intensity—passenger miles per route mile—which is a measure of the demand that exists for HSR service on a particular system.

The CHSRA projects ridership intensities that are far above those achieved in Japan, France and the Northeast Corridor, each of which is at least comparable or superior to California in its underlying market dynamics.

- **Japan's Bullet Train:** In 2005, the Bullet Train system registered a ridership intensity of 33 million passenger miles<sup>3</sup> of travel per route mile.<sup>4</sup> The CHSRA projects a far higher figure of 42 million to 62 million intercity passenger miles<sup>5</sup> of travel in 2030.<sup>6</sup> This, simply put, is unbelievable. (See Figure 3.)
- **Amtrak Acela:** It is estimated that Amtrak's Acela service achieves approximately 1.2 million passenger miles per route mile. The CHSRA ridership intensity of 42 million to 62 million passenger miles per route mile is more than 30 times the Acela intensity.

<sup>3</sup> The passenger intensity is somewhat overstated because some HSR trains start or end trips on conventional route sections, especially on the East Japan Railway, which means the CHSRA's projections are overly optimistic.

<sup>4</sup> Passenger miles per route mile (PM/RM) is a key indicator of demand relative to the extent of infrastructure constructed. It would be expected that when comparing overseas systems to the proposed California network that those of Japan and Europe would perform better. But the CHSRA's PM/RM demand projections show California's system as being superior, which is further evidence that the CHSRA's projections lack credibility.

<sup>5</sup> The actual passenger miles do not appear to be stated in recent project documents. The CHSRA 2030 Base Ridership Projection passenger miles estimated using data in NCEIS Table 4.3-2 (Cost of station services divided by cost per passenger mile of station services). The CHSRA 2030 High Ridership Projection is estimated assuming the average trip length from the base 2030 projection.

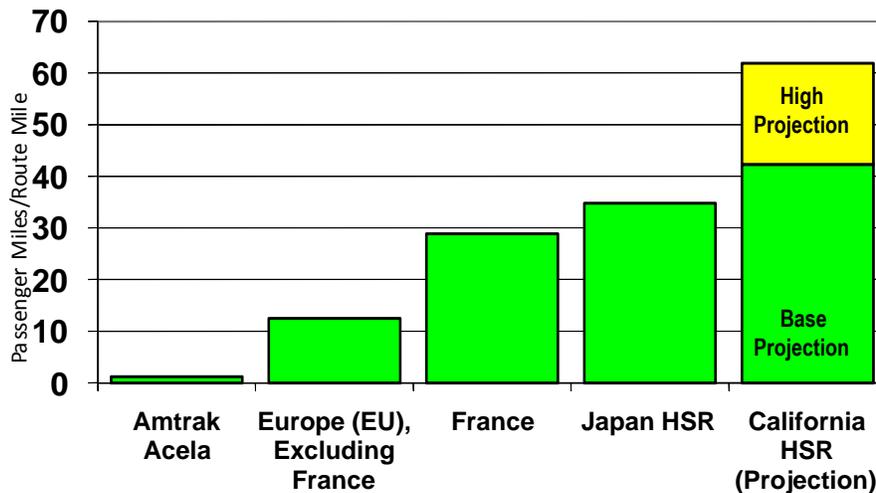
<sup>6</sup> Estimated from NCEIS data for the base and high end projections.

- **France’s TGV:** The CHSRA’s ridership projections are also higher than the TGV system in France, which carried 29 million passenger mile per route mile in 2006.<sup>7</sup>
- **The Federal Railroad Administration Projection:** The FRA projected 10.7 million passenger miles per route mile on the California HSR system, adjusted for market growth to 2030. The CHSRA projection is four to six times the FRA projection.<sup>8</sup>

Figure 3

### Ridership Intensity Comparisons

PASSENGER MILES PER ROUTE MILE



Ridership assumptions appropriate to European and Asian environments hold little applicability here where conditions are far less favorable. Overseas HSR systems serve shorter distances between major urban areas, greater population densities on smaller land areas, denser central business districts, and rail “hub” traffic patterns. They also link to far more connecting transit services and have historically strong rail markets that provide a ready pool of riders that have transferred from conventional rail services to the HSR services. California lacks these advantages, but you would never know that by reading the Authority’s documentation.

We also found inconsistent *changes* in the data. The CHSRA’s newest forecasts are much higher than the earlier Investment Grade Ridership Projection. After we adjusted for population growth factors, the Investment Grade Ridership Projection for 2030 is 37.9 million. However, even investment grade projections can be fatally flawed. This is illustrated by the case of the Las Vegas Monorail, where an “investment-grade” projection over-estimated ridership by more than 100 percent and where a strong probability of bond default may occur by 2010.<sup>9</sup> The 2030

<sup>7</sup> The French ridership intensity is somewhat overstated because some high-speed rail trains start or end their trips on non-high-speed conventional routes, which means the CHSRA’s projections are overly optimistic.

<sup>8</sup> No passenger mile data was provided in the University of California study.

<sup>9</sup> The Las Vegas Monorail is instructive because of its reliance on an Investment Grade ridership projection. The monorail was developed as a private venture and supported by tax-exempt industrial development bonds issued by the state of Nevada. Project promoters produced an “investment grade” projection of 53,500 daily riders for 2004. In 2007, the average daily ridership was 21,600—60 percent below projection. The co-author for the Due Diligence

CHSRA ridership projections are much higher than the previous CHSRA projections (2020), even after adjusting to account for anticipated growth from 2020 to 2030.

The enormous increase in ridership projections between 2020 and 2030 cannot be justified by any reasonable factor in the market. The difference appears to be at least in part due to changes in the assumptions used by CHSRA in its ridership projection methodology (“modeling”) and could indicate the type of ridership and revenue projection “inflation” for megaprojects documented in the world infrastructure research.<sup>10</sup>

If a private company such as an airline included such misleading projections in a prospectus, it would be at risk of stringent federal fines and penalties for harm to investors.

## Travel Times

Among the unreal estimates is that the trains will connect San Francisco with Los Angeles in 2 hours and 42 minutes. It is likely to take about an hour longer at 3 hours and 41 minutes, meaning HSR will be less attractive as an alternative to airline travel and is likely to attract fewer passengers than projected. Moreover, the trains will fail to meet the statutorily required maximum travel times. It is therefore likely that HSR *door-to-door* travel times would be greater and there would be considerably less frequent non-stop service than air service. Simply put, the promised travel times can not be achieved because the trains would have to operate at an *average* speed of 197 mph, a feat that has yet to be accomplished anywhere in the world. (See Table 1.)

**Table 1**

<b>Fastest Station-to-Station Travel Times: International High Speed Rail</b>			
Segment	Mileage	Travel Time	Average Speed (mph)
CA-HSR Trunk (Gilroy-Palmdale)	312	01:35	197
France: TGV-Est (200 mph)	104	00:36	174
France: TGV Paris-Avignon (186 mph)	408	02:34	159
Japan: Bullet Train	90	00:34	159
Taiwan	111	00:44	152
Germany: ICE Train	83	00:34	146
China: Beijing–Tianjin (217 mph)	70	00:30	140
Spain: AVE	191	01:21	126
South Korea	100	00:50	120
Italy	162	01:31	106

Report, Wendell Cox, had produced a report during the planning process projecting between 16,900 and 25,400 daily riders for 2004, the mid-point of which, at 21,200, was two percent below the actual 2007 ridership. The eventual results in Las Vegas may be unfortunate for investors. Moody’s Investors Services has downgraded the bonds to “junk” status and has indicated that “At current ridership and revenue levels, a payment default is anticipated by 2010 once reserves are exhausted.” The bond insurer, AMBAC Financial Services, has run into financial difficulties and has had its credit rating dropped two levels. Holders of insured Las Vegas Monorail bonds could lose their investments, along with holders of uninsured bonds. This circumstance is an example of why reliable ridership and revenue estimates are vital to project success and to avoid taxpayer bailouts.

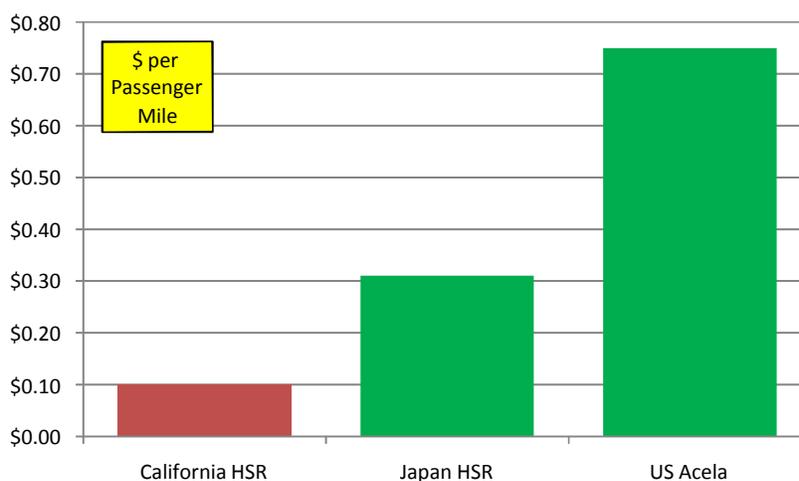
<sup>10</sup> See Bent Flyvbjerg, Nils Bruzelius and Werner Rottengatter, *Megaprojects and Risk: An Anatomy of Ambition*, (Cambridge, UK: Cambridge University Press, 2003), particularly Chapter 3, “The Demand for Megaprojects,” pp. 22-31.

## Fares

The ridership projections rely on super-bargain fares in 2030—*far* lower than fare levels are *today* on HSR systems. For example, the projected San Francisco–Los Angeles unrestricted business class fare is proposed to be \$70 in 2030 (2006\$) while today’s business class fares Tokyo–Osaka are \$135, Paris–Marseille \$140 and New York–Washington \$172. This also is unbelievable. Hence, the ridership projections upon which they are based have little validity. (See Figure 4.)

**Figure 4**

### Calif. HSR Revenue/Pass. Mile in Context COMPARED TO OTHER HSR SYSTEMS



## CONSTRUCTION AND OPERATING COSTS

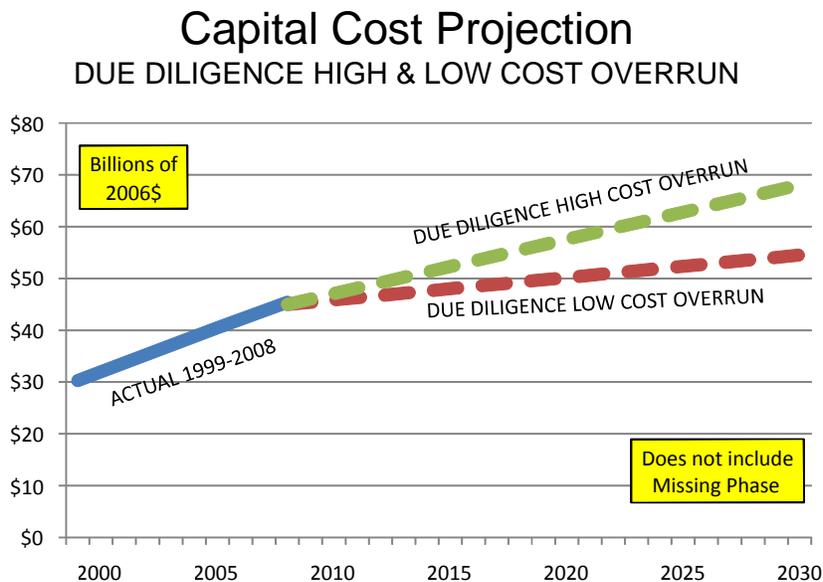
### Construction Costs for Phase I

The funding program for Phase I is a hodgepodge of highly speculative elements, relying principally on the proposed \$9 billion state general obligation bond (on the November 2008 general election ballot) and assumed \$9 billion in grants from the federal government (a figure considered highly optimistic since there is only a limited federal program to provide such funding) plus private investment of up to \$7.5 billion. This leaves just Phase I at best \$7.6 billion short and perhaps as much as \$33.1 billion short. It is thus possible that not even Phase I of the HSR project is financially viable without massive funding from as-yet-unidentified government sources.

## Construction Costs for Full System

In 1999 the CHSRA estimated that the entire system would be built for \$30.3 billion. By 2005 the estimate had climbed to \$40.5 billion and by 2008 costs had risen to \$45.4 billion for only part of the system—the whole system would cost approximately \$50.2 billion (all 2006\$). Considering how cost estimates have risen during the life of the project so far, the Due Diligence Report concludes the realistic cost will be between \$65 and \$81 billion (in 2008\$). Reasons for capital costs increases include underestimation at this stage in the planning process; construction cost overruns that are typical for this type of project; political influence that will require additional stations or mandated locations of repair shops or other facilities, and citizen or community opposition that will require re-routes that are undeterminable at this time.

**Figure 5**



### **Profits will Build to Sacramento and San Diego?**

Claims of profitability could not conceivably be credible under even the most optimistic assumptions, unless some or all capital and debt costs are ignored. The Due Diligence Report indicates that the San Francisco–Los Angeles line alone by 2030 would suffer annual financial losses of up to \$4.17 billion, with a small profit possible under only the most optimistic and improbable conditions.

The Authority holds out the promise that *profits* will pay the construction costs to build extensions to Sacramento and through the San Gabriel Valley and Inland Empire to San Diego, which means they will probably never be built. Funding may also be non-existent for the Los Angeles–Anaheim portion of Phase I. A greatly slimmed down system can happen – the Authority’s planning schemes show that they have already dropped the route to Oakland, although AB 3034 states that the Authority may request funds to build it.

## Funding Sources

It is relevant to point out that in April 2008, CHSRA Chairman Quentin Kopp indicated that Phase I would be funded one-third by the state bonds, one-third by the federal government and one-third by the private sector.<sup>11</sup> That formula was repeated on October 8, 2008 by the Authority's executive director who said that "the system will be built with one-third federal, one-third private and one-third state funds."<sup>12</sup> These statements are misleading on three counts:

1. Represented Differently to the Investment Community: Their statements are inconsistent with the materials that have been provided to the investment community. According to a report for the Commission by Lehman Brothers,<sup>13</sup> the funding program for Phase I would include these elements:
  - A state subsidy of from \$9 billion to \$12.5 billion.
  - Federal capital subsidies of from \$9 billion to \$12.5 billion.<sup>14</sup>
  - Local government funding and cost sharing of from \$3 billion to \$8 billion
  - Carbon market credits of \$0.5 billion or more.
  - Private investment of \$5 billion to \$7.5 billion

This hodgepodge of funding is highly speculative.

2. The Unreliability of Federal Funding: Little in the way of federal funding is available. It is important to note that Massachusetts made the mistake with the "Big Dig" (Boston highway tunnels) in thinking that the \$4.3 billion highway project would receive 90 percent financing from the federal government. Calculations in 2008 show that the project cost reached \$22 billion, of which 75 percent was financed by the state. The financial consequences are rippling through the state's budget and one example is that the Massachusetts Turnpike Authority—grappling with \$2.5 billion in Big Dig debt—is raising tolls at the same time that "its credit rating inches closer to junk bond status."<sup>15</sup>
3. Repercussions of Worldwide Financial Crisis Ignored: Despite the worldwide financial crisis, the Authority's public statements reflect no concern about sources of financing. This "business as usual" approach is inconsistent with reality.
4. The Illusion of Local Funding: Rarely discussed is the expected local funding up to about \$8 billion dollars. However, even before the financial turmoil, that was a doubtful expectation. Where I'm from, the Orange County Transportation Authority's revenues from a dedicated sales tax are significantly below estimates. Events last week portend an even bleaker future as local governments may have to impose serious service cuts on

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<sup>11</sup> Quentin L. Kopp, "No boondoggle," *San Francisco Chronicle*, April 26, 2008, [www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2008/04/26/ED7J10BHUI.DTL](http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2008/04/26/ED7J10BHUI.DTL).

<sup>12</sup> "Statement on High-Speed Train Business Plan From Mehdi Morshed, Executive Director," California High-Speed Rail Authority, October 8, 2008, <http://www.cahighspeedrail.ca.gov/news/bizplanfinal.pdf>.

<sup>13</sup> [www.cahighspeedrail.ca.gov/rfei/pdf/Exhibit\\_C.pdf](http://www.cahighspeedrail.ca.gov/rfei/pdf/Exhibit_C.pdf).

<sup>14</sup> This is despite the fact that only a limited federal program exists that is incapable of funding such amounts.

<sup>15</sup> "For whom the Pike tolls?" *The Boston Globe*, October 13, 2008, [www.boston.com/bostonglobe/editorial\\_opinion/editorials/articles/2008/10/13/for\\_whom\\_the\\_pike\\_tolls/](http://www.boston.com/bostonglobe/editorial_opinion/editorials/articles/2008/10/13/for_whom_the_pike_tolls/).

trains and buses, potentially affecting millions of riders if they have to pay investors in AIG-related lease-back deals. According to one news account:

*Los Angeles County Metropolitan Transportation Authority might have to quickly come up with hundreds of millions of dollars to pay investors under terms of deals it made involving American International Group, the troubled financial and insurance giant. . . [The problem could extend] to other large transit agencies that entered into similar deals between the late 1980s and 2003, when tax laws were changed to discourage such transactions. Among those is Metrolink. The news comes at a tough time for the MTA. The agency recently lost \$133 million in state funds, and declining sales tax revenues mean it will have less money to help keep its buses and trains rolling. . . . Many of the nation's largest transit agencies participated in such deals. Among them are the San Francisco Muni system, the BART rail system in the Bay Area, the Chicago Transit Authority and the Washington, D.C., Metro system. . . . "The potential is pretty horrendous across the industry," said James LaRusch, the chief counsel for the American Public Transportation Assn., a trade group for transit agencies. . . . Under a worst-case scenario, [the cost to MTA in Los Angeles] could rise to \$1.8 billion, more than half the MTA's annual budget for this year. "There is no practical way we could ever pay that back," [said Terry Matsumoto, the CFO and treasurer for the MTA].<sup>16</sup>*

1. Anticipated Private Funding: The anticipated private funding appears to be short of previous expectations. CHSRA advisor Lehman Brothers placed the likely amount below the anticipated one-third funding level, perhaps limited to between one-fourth and one-sixth of the total Phase I cost.<sup>17</sup>

The Authority's contradictions regarding a financing program—one that has been rendered irrelevant by events and the huge increases in project costs—is a major planning flaw. This mirage of a funding formula is an example of why we should have a business plan today.

The Due Diligence Report finds that capital subsidies are likely to be required not only for the whole system, but also to complete Phase I.

## Operating Costs and Profits

In a recent appearance at the Commonwealth Club, Authority Chairman Kopp predicted "surplus revenues of about \$1 billion dollars."<sup>18</sup> Earlier he said that the trains will operate "without taxpayer subsidy"<sup>19</sup> Such claims have been repeated by Authority Board Member Rod Diridon, who said after the upcoming bond issue "we won't have to go back to the voters in California for more money" and "having the people of California pay one-third the price of this project and

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<sup>16</sup> Steve Hyman and Martin Zimmerman, "MTA may have to cut commuter service," *Los Angeles Times*, October 18, 2008, <http://www.latimes.com/news/local/la-me-transit18-2008oct18,0,4589977,full.story>.

<sup>17</sup> [www.cahighspeedrail.ca.gov/rfei/pdf/Exhibit\\_C.pdf](http://www.cahighspeedrail.ca.gov/rfei/pdf/Exhibit_C.pdf).

<sup>18</sup> Heather Ishimaru, "Voters will have a say on bullet train," KGO-TV, October 03, 2008, [http://abclocal.go.com/kgo/story?section=news/local/san\\_francisco&id=6431418](http://abclocal.go.com/kgo/story?section=news/local/san_francisco&id=6431418).

<sup>19</sup> Quentin L. Kopp, "Let's put state on fast track to the future," op-ed, *The Sacramento Bee*, June 22, 2008, [www.sacbee.com/110/story/1029467.html](http://www.sacbee.com/110/story/1029467.html), p. E3.

then never again having to put money into a program that will expand and expand and expand is an awfully good deal for California.”<sup>20</sup>

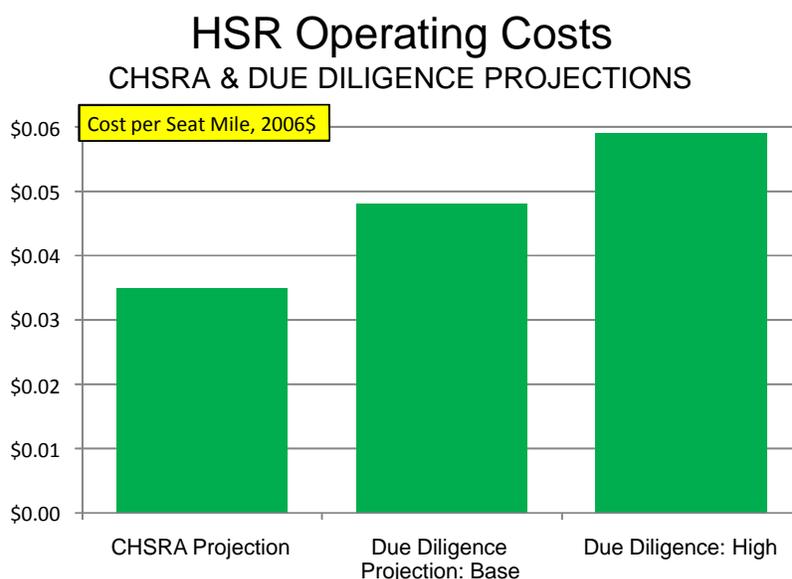
Those types of statements represent how the Authority’s board is guilty of over-promotion of a deficient plan and poor governance in general.

These hyperbolic claims are a major concern. The CHSRA predicts operating costs from 40 to 70% below similar systems in other countries. A Transportation Research Board report estimated the operating costs of the now defunct Texas TGV about 70 percent higher than the CHSRA operating cost projections.<sup>21</sup>

The Due Diligence Report found that realistic operating costs will be 30 to 50% higher than CHSRA predicts, and much, if not all, of those higher costs will require ongoing taxpayer subsidies.

The CHSRA has provided no convincing detailed financial assumptions and claims of profitability could not conceivably be credible under even the most optimistic assumptions, unless some or all capital and debt costs are ignored.

**Figure 6**



Some of the statistics mentioned along with others that put the project in perspective are summarized in Appendix A, “Summary of CHSRA and Due Diligence Report Projections.”

<sup>20</sup> Patti Reising and Ed Cavagnaro, “Interview with Rod Diridon,” In Depth: High-Speed Rail,” KCBS, January 21, 2008, [www.kcbs.com/topic/play\\_window.php?audioType=Episode&audioId=1317495](http://www.kcbs.com/topic/play_window.php?audioType=Episode&audioId=1317495).

<sup>21</sup> The Texas TGV operating costs per seat mile are estimated at 70 percent higher than the CHSRA projection (adjusted to 2006\$). Transportation Research Board, National Research Council, *In Pursuit of Speed: New Options for Intercity Passenger Transport*, Special Report 233, 1991, Table A-14 (operating cost items only).

## THE TRAIN DESIGN

Plans for rail service usually determine early on some general parameters for train design. But the CHSRA has been vague about the capacity of its trains and how overseas trains will be redesigned to meet federal safety standards.

### **Capacity Issues**

A basic specification is train capacity, which provides a uniform basis for many subsequent studies, for determining the per-train revenue generation capacity, and for calculating how many trains to purchase to meet projected demand.

To illustrate just how far away the Authority is from having such a specifications, following is a list of conflicting statements about the future train's capacity:

- 450-500 passengers<sup>22</sup>
- 650 passengers<sup>23</sup>
- 1,175 passengers<sup>24</sup>
- 1,200 passengers<sup>25</sup>
- 1,600 passengers<sup>26</sup>

Moreover, the documentation does not always make it clear what study was based on which capacity figure.

Should the ultimate CHSRA design have a capacity of 1,600 passengers, the CHSRA train would be very large—it could be the longest high-speed train in the world. In turn, its overall weight and size would affect station designs, route planning in mountainous territory and other capital costs.

To illustrate this planning shortcoming, imagine that executives of a startup airline were telling investors they will start service between San Francisco and Los Angeles—but they were unclear about whether to purchase Airbus A380s that carry 555 passengers, Boeing 737-900s that carry 215 passengers, or the ATR 72-600s that carry only 64 passengers. And imagine that despite all the capital and operational uncertainties, they then predicted a billion dollar profit. Sound absurd? That is the level of absurdity that we have going on with the Authority.

### **Train Design & Safety Issues**

High-speed rail has an excellent safety record overseas, but conditions here are different. Here, the CHSRA's trains will share tracks with freight trains and commuter trains that are heavier than are found overseas. Such "mixed" operation means that federal safety standards require

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<sup>22</sup> Parsons Brinkerhoff, Quade and Douglas, *Overview of California High Speed Rail Project—Technical Information*, p. 6.

<sup>23</sup> EIR/EIS, Volume I, p. 4-6.

<sup>24</sup> Ibid., and also NCEIS, p. 4-20.

<sup>25</sup> NCEIS, p. 3.5-3.

<sup>26</sup> CHSRA *Implementation Plan*, p. 4.

HSR trains to be at least twice as strong—and as a consequence heavier—than overseas trains to better survive collisions.

No train in the world meeting the operating specifications can be used legally in the U.S. It is unclear that any train redesigned to meet U.S. safety requirements and crashworthiness standards, which will make it heavier, can also meet the CHSRA speed and performance requirements. In short, the Authority does not have a usable train design.

It is likely that a series of designs, tests, prototypes and safety reviews never before achieved anywhere in the world must succeed for the CHSRA train to become a reality. The eventually required modifications could substantially impair operating performance.

Whatever the final train design, any degradation from what I'm to assume is the "most ideal, most advanced train in the world" would negate the CHSRA's assumptions on which it has based routing decisions, travel times, ridership and revenues, energy requirements, GHG emissions, noise generation, capital expenditures to purchase the trains, operating costs, and overall system financial performance.

### **Potential Speeds**

The Authority says the trains will operate at an average speed of 197 mph, a speed that even the most advanced systems do not reach. It is possible that a maximum train speed of 220 mph can eventually be achieved in California. However, as previously stated, the CHSRA does not have a usable train design that can reach such a speed that also is authorized to operate in the United States.

Moreover, the California HSR speed challenges are generally greater than those faced by other HSR systems. Given the reality that at least 150 route miles would be in built-up areas where trains would be forced to slow down, the Due Diligence Report predicts California's HSR average speeds in urban segments will not exceed 90 mph much less reach 150 mph. The average speed outside urban areas is unlikely to surpass 170 mph.

### **THE LACK OF A BUSINESS PLAN**

The fact that a business plan is not publicly available today, 12 days before voters address Proposition 1A, is beyond my comprehension. It is clear that the Authority should have issued a business plan by now, for the following reasons:

- This Committee quite rightfully asked for one "modeled on an investment prospectus and not an advocacy document" because taxpayers are being approached as if they are investors and they deserve to have objective information
- AB 3034 requires the business plan to "include a discussion of all reasonably foreseeable risks the project may encounter."

- Governor Schwarzenegger complained about the lack of a business-like approach in the *Fresno Bee* last year when he stated: “The state has already spent more than \$40 million in initial planning for the rail line. But there is still no comprehensive and credible plan for financing the system. . . . Before asking taxpayers to approve spending nearly \$10 billion plus interest, it is reasonable to expect the authority and its advisers to identify with confidence where we will find the remaining \$30 billion.”

The Authority’s Chairman’s assured this Committee that “We will have a current business plan produced in the month of September 2008.”<sup>27</sup> Now, out of the blue, it has been reported that the CHSRA executive director said in an October 1<sup>st</sup> board meeting in Fresno that the business plan will be ready on November 8, four days after the election.

My testimony illustrates risks that should be addressed in a business plan—risks regarding ridership, travel times, fares, costs, and train design, and the unreliability of federal, state, local and private funding sources in light of the worldwide financial crisis.

Only two weeks ago the *Bakersfield Californian* reported that that the Authority’s executive director said most of the information the business plan will contain has already been made public.<sup>28</sup> Not so. What appears in thousands of pages of the documentation unresponsive to the stipulations in AB 3034. Moreover, some of the documents that were on the Authority’s Website in 2007 disappeared earlier this year. What circumstances justify the Authority having *less* information on its Website during a year when the voting public expects *more* information to be available?

Hence, I agree with Senator Ashburn that voters will be going to the polls and be facing Proposition 1A without the necessary critical, promised information.

The Authority has suggested it hasn’t had the funds to prepare a Business Plan in a timely fashion. However, in anticipation of the November election, it *has* had the funds to sponsor travel for representatives to promote the program, to pay public relations representatives to seek promotional story placements in the news media, and to fly to Washington, D.C. for purposes related more to image than to substance.

If the Authority can’t deliver a Business Plan after spending \$58 million—and after being put under a statutory mandate to do so—then we certainly should not entrust them with \$9 billion much less the many billions more than this system will cost.

### **DISSOLVE THE CALIFORNIA HIGH SPEED RAIL AUTHORITY**

High-speed rail holds promise, but the work of the Authority is so deficient that if the current plan is implemented, it has the potential of setting back the cause of high-speed rail throughout the United States.

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<sup>27</sup> Quentin L. Kopp, Hearing on AB 3034: High-Speed Passenger Train Bond Act, Senate Transportation and Housing Committee, July 1, 2008.

<sup>28</sup> Stacey Shepard, “High-speed rail: lasting legacy or taxpayer boondoggle?” *Bakersfield Californian*, October 10, 2008, <http://www.bakersfield.com/102/story/576676.html>.

It's time to dissolve the California High Speed Rail Authority. Give it no more funding than is required for terminating contracts, transferring data and duties to a more responsible agency and conducting an orderly shutdown. Granting more funding than required for those purposes will result in additional millions of dollars being wasted.

The Authority's analysis of the proposed high-speed rail system is insufficient and inaccurate; cost estimates are outdated and ignore substantial cost drivers; ridership projections are highly inconsistent with international experience and California market characteristics; risks are understated or ignored; assurances of profitability lack credibility; and statements about future taxpayer subsidies are misleading and contradictory.

The Authority's Board of Directors has acquiesced to defective studies and over-promotion, is negligent for being silent about the strong likelihood of cost overruns, and has misled the public about the future need for bailouts. The board has abandoned its responsibilities to the state's taxpayers to preside over a sound program.

High-speed rail in California may be salvageable, but someone else must be in charge. If the Authority is unable to conduct *studies* that have credibility, then how will it ever effectively deliver a mega-construction *project* on time and within budget?

Other rail advocates also are critical of the Authority.

Former Senate President and former Authority board member, James R. Mills, is reported to have "described the entire project as 'based on a fallacy' of wildly exaggerated ridership projections." Mills said he is skeptical it will attract the level of private funding that the CHSRA envisions, and he said—using a word I've never used in testimony before—"I think it's a scam." This is an extraordinary statement coming from a long-time and continuing rail supporter, who nonetheless points to a significantly flawed planning process.

Richard Tolmach, President of the California Rail Foundation, has produced a Compendium of Questionable Claims by the High Speed Rail Authority that takes a critical view of the CHSRA's claims regarding ridership, profitability, energy efficiency, greenhouse gas emissions and safety.

## **Conclusion**

Mr. Chairman you asked in the Committee Report back in June: "What assurance can the Authority provide that California taxpayers will not be stuck with a massive bill in the future?"

My answer is: We have no assurance whatsoever. Under this plan, taxpayers will have to subsidize the system in perpetuity.

**APPENDIX A**

Summary of CHSRA and Due Diligence Report Projections		
	CHSRA	Due Diligence Report
Annual Ridership: 2030: Base, Intercity Only	65,500,000	23,400,000
Annual Ridership: 2030: Base, Intercity + Commuter	88,000,000	No Projection
Annual Ridership: 2030: High, Intercity Only	96,500,000	31,100,000
Annual Ridership: 2030: High, Intercity + Commuter	117,000,000	No Projection
Capital Cost: Entire System (2008\$): Low*	\$54,300,000,000	\$65,200,000,000
Capital Cost: Entire System (2008\$): High*		\$81,400,000,000
Capital Cost: Phase I (2008\$): Low	\$33,100,000,000	\$39,700,000,000
Capital Cost: Phase I (2008\$): High		\$49,600,000,000
Operating Cost: Phase I (2008\$): Low	\$1,100,000,000	\$1,430,000,000
Operating Cost: Phase I (2008\$): High		\$1,760,000,000
Fastest Non-Stop Express Travel Time: LA-SF	02:38	03:41
Greenhouse Gas Reduction (Tons of CO <sub>2</sub> ): 2030**	1,770,000	630,000
Share of California 2020 Goal	1.0%	0.4%
Cost per CO <sub>2</sub> Ton Reduced: Low	\$1,949	\$7,409
Cost per CO <sub>2</sub> Ton Reduced: High	\$2,409	\$10,032
Times CO <sub>2</sub> IPCC \$50-per-Ton Ceiling: Low	39	148
Times CO <sub>2</sub> IPCC \$50-per-Ton Ceiling: High	48	201
Net Profit: 2030: Phase I: Optimistic Midpoint	No Projection	(\$350,000,000)
Net Profit: 2030: Phase I: Pessimistic Midpoint	No Projection	(\$3,590,000,000)
Unmet Capital Need: Phase I	No Projection	\$7,600,000,000 to \$33,100,000,000
Unmet Capital Need: Entire System	No Projection	\$28,800,000,000 to \$64,900,000,000
<p>Note:            *Entire system cost. Includes Missing Phase. Does not include Implied Phase. These phases are described in the full report.            **CHSRA greenhouse gas reduction adjusted to account for improved automobile and airline fuel efficiency.</p>		