

**STATEMENT OF  
DAN RICHARD  
CHAIRMAN OF THE CALIFORNIA HIGH-SPEED RAIL AUTHORITY  
BOARD OF DIRECTORS**

**BEFORE THE  
SUBCOMMITTEE ON RAILROADS, PIPELINES, AND HAZARDOUS MATERIALS  
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE  
U.S. HOUSE OF REPRESENTATIVES**

*“Oversight of California High-Speed Rail”*

May 28, 2013  
Madera Community College Center  
Madera, California

Chairman Denham, Ranking Member Brown, and Members of the Subcommittee, it is my distinct honor and privilege to appear before you today to discuss the California High-Speed Rail Program. I am Dan Richard, Chairman of the Board of Directors of the California High-Speed Rail Authority (Authority). In this statement, I will begin by reviewing why California regards this investment as critical to our state’s future prosperity, especially in light of the population growth and environmental challenges we face in the coming decades. I will then provide a brief account of the development and evolution since 2008 of the California high-speed rail program, the Authority and our current Business Plan. Lastly, I will summarize our recent accomplishments and lay out our priorities for moving forward with construction of the nation’s first high-speed rail system this summer.

The vision that has sustained this program over the years – through both challenges and opportunities, and through setbacks and steps forward – is to develop a new, fast, reliable high-speed rail system to help keep the State of California and the nation moving as we grow. I am pleased and proud to report that over the last year, we have taken a number of tangible steps forward and made tremendous progress in furthering this vision. They include:

- The adoption of a the 2012 Business Plan that presents a logical and feasible means of developing the program through a phased implementation strategy and “blended investments” to be made in concert with the state’s other passenger rail providers.
- A fundamental shift in vision that has been brought into clearer focus and central to it is a statewide rail modernization plan with high-speed rail at its core.
- Creating partnerships with other state and regional agencies and are working together on bringing the longer-range vision to fruition while also making early investments to generate early benefits.
- Filling out the Authority’s executive team, bringing new talent and leadership to manage this vast program.
- Gaining approval and appropriation from the California State Legislature to begin construction.
- Receiving the Record of Decision from the Federal Railroad Administration (FRA) on the Merced to Fresno section, clearing the path for construction to begin in the Central Valley.

- The Government Accountability Office issued a report after the most extensive audit to date of our program, giving the Authority high marks in each area it studied – cost, revenue, ridership and economic impact analysis.
- Taking a major step forward by reaching settlements on three lawsuits filed by citizens and communities here in the Valley, after working hard to understand and address their concerns about how the system will affect them.
- Received, evaluated and opened bids on our first design-build contract in the Central Valley which also paves the way to break ground this summer.

### **Investing in High-Speed Rail to Accommodate Future Mobility Needs of a Growing Population**

The starting point for considering why investing in high-speed rail is the reality that California continues to grow in population. Much of our infrastructure was built during the Administration of Governor Edmund G. (Pat) Brown when the state had less than half the population that it has now. In the 35 years I have lived in this state, the population has grown from 22 million to approximately 38 million. Sometime in the next 35 years, the state will exceed 50 million citizens, a gain equivalent to adding the population of Ohio. Therefore, the state must make critical infrastructure investments to accommodate its growing citizenry, millions of visitors from around the world, and to keep its economy thriving. These investments must be in transportation, water, energy, and education, all of which are priorities for our Governor and our Legislature.

Yet, as you know well, Mr. Chairman, we face many constraints in making the necessary commitments to meet these growth challenges. California has serious environmental constraints on growth; we must protect air quality, preserve water and our unique and precious agricultural resources, and be thoughtful about land use. Our strongly-held view, which I will discuss below, is that expanding our existing network of roads and airports will be more expensive and more difficult to achieve than taking a different course. The leaders of our state, including not only this Governor but many of his modern day predecessors, as well as our Legislature and the people themselves, have determined that the development of an advanced high-speed rail system is a wise choice for meeting these mobility needs. The people of our state endorsed this view in 2008, when they voted to support issuance of almost \$10 billion in bonds as the first step to develop this system. Shortly after that vote, the President and U.S. Congress provided additional support for the initiation of high-speed rail service in the United States.

As the Chairman of the Board of Directors of the California High-Speed Rail Authority, my fellow Board members and I are committed to building and implementing the first high-speed rail system in the United States. While you know this program has been controversial, we enjoy the support of Governor Brown, our Legislature, the bipartisan mayors of our largest cities, business leaders throughout the state, and the opinions of our major metropolitan newspapers. Our goal is to provide critical linkages between our economic mega-regions and, by 2030, provide a way for people to travel between San Francisco and Los Angeles - and major cities in between - in under three hours. Our vision is that business travelers, leisure travelers, and tourists who come here to experience all that California has to offer will be able to travel quickly, conveniently, and comfortably to and between the hearts of our vibrant urban centers. Like systems in Europe and Asia, when travelers arrive at their destination by high-speed rail they will be able to make easy, seamless transfers to urban transit systems like Metro in Los Angeles, Bay Area Rapid Transit (BART) and Muni in the San Francisco Bay Area, and the Santa Clara Valley Transportation Authority in the Silicon Valley; or to one of our intercity rail lines or commuter rail lines, like the Amtrak San Joaquin service and the Altamont Commuter Express (ACE) train here in the Central Valley, to continue their journey wherever it may take them.

As you know, a similar effort is underway to develop a dedicated high-speed rail corridor between Boston and Washington, D.C. called NextGen high-speed rail, which is planned for implementation between 2025 and 2040. Both the California and Northeast Corridor (NEC) are key drivers of the nation's economy and both feature some of the country's busiest roadways. In California, auto congestion drains \$18.7 billion in wasted time and fuel every year<sup>1</sup> and flights between Los Angeles and the Bay Area – the busiest short-haul market in the U.S. – are also among the most delayed in the country. There is clearly significant demand for intercity travel today and, as our population continues to grow, that demand will only increase. High-speed rail will integrate a new and much-needed element into California's transportation network to help ensure our state can keep moving toward a brighter economic and environmental future.

Simply put, as Chairman Shuster said, "transportation is about business." Fast, reliable connections between economic centers allow businesses to compete in the global marketplace. Those that came before us understood that and made a decision to build the Interstate Highway System, which spawned tremendous economic growth. Like them, we are developing forward-looking systems to help connect the industries of the 21<sup>st</sup> Century, and do so in a way that protects the environment and encourages sustainable community development. To that end, Amtrak and the Authority are collaborating to advance both programs, including joining forces in the search for proven high-speed rail train sets currently being manufactured and in commercial service that are capable of operating safely in excess of 200 mph.

Let me make a few more points to reinforce how critical I think this investment is to our state and nation's economy. California is an economic powerhouse. If it was a country, and size was measured solely by GDP, we would be the ninth largest economy in the world with nearly \$2 trillion GDP in 2011. Los Angeles, with its diverse economy, is the second largest city in the nation, and San Jose, home to Silicon Valley is the tenth largest. San Francisco is the 14<sup>th</sup> largest city and the second most densely populated major American city. We are home to world-renowned research universities including Stanford, USC, UC-Berkeley, UCLA and emerging centers of excellence like UC Merced and the California State University system. Many of the graduates of these and other universities go on to create or work for small, innovative start-up companies. Others go to work for one of the major Fortune 500 companies located here in California such as Apple, Hewlett Packard, Disney, Wells Fargo, and Occidental Petroleum.

Keeping our businesses connected to each other and to other companies around the world is critical for keeping our economy moving, and California has proven a growing demand for intercity travel – both by rail and by air. Over 8 million passengers per year fly between the Bay Area and Los Angeles area airports.<sup>2</sup> Even though we lack a critical rail link between Northern and Southern California, which we hope to close as quickly as possible, our Capitol, San Joaquin and Pacific Surfliner corridors rank second, third and fifth in the nation, carrying over 5.5 million passengers annually. Between 1997 and 2012, ridership on these three intercity passenger rail corridors grew by 256 percent, 66 percent and 61 percent respectively.<sup>3</sup>

And of course the main part of building a strong economy is jobs, jobs, jobs. California's high-speed rail system will do more than provide an efficient, economical, environmentally-friendly and safe way to travel around the state. Building and operating the high-speed rail system will directly employ tens of thousands of Californians while indirectly generating tens of thousands more jobs throughout the larger economy.

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<sup>1</sup> The Road Information Program. 2009. TRIP Analysis of Highway Statistics, 2009, Federal Highway Administration (cited by Transportation California).

<sup>2</sup> Research and Innovating Technology Administration Bureau of Transportation Statistics

<sup>3</sup> Brookings Institute. A New Alignment: Strengthening America's Commitment to Passenger Rail.

As described in the 2012 Business Plan, work on the first segment of the high-speed rail system in the Central Valley will start this summer, putting thousands of Americans to work. The Central Valley has been hit particularly hard by the national recession, with the construction industry in the area facing some of the highest rates of unemployment in the state. High-speed rail construction will create 20,000 jobs annually for the next five years. These jobs will go to the people who need them the most, providing a significant boost to both the local economy here in the Central Valley and the economy of the rest of the state as a whole, while contributing to the national recovery.

In addition to construction jobs, we anticipate considerable permanent employment associated with operating and maintaining the high-speed rail system. From train operators and maintenance yard workers to station managers and operations planners, high-speed rail will create permanent jobs that will always remain here. For example, the Initial Operating Section (IOS), once fully operational, is expected to directly employ an estimated 1,300 people.

Though I have largely focused on improving California's economy as a main justification for high-speed rail, many Californians also recognize and strongly support the environmental benefits of this transportation project.

As you may be aware, in 2006, California passed the Global Warming Solutions Act, commonly referred to as AB 32, which called for the state to reduce Greenhouse Gas (GHG) emissions to 1990 levels by 2020, and then by 2050 to further reduce GHG emissions to 80 percent of 1990 levels. One of the key strategies the state is employing that is critical to reducing GHG emissions is an integrated alternative to single-occupancy vehicle trips. The high-speed rail system, combined with existing transit, commuter and intercity rail systems, as well as strategic land-use decisions, will result in significant reductions in GHG emissions, improving air quality statewide. In its 2008 Scoping Plan, the California Air Resources Board (CARB) listed the high-speed rail system as, "one of the significant state projects," to make a positive contribution on the issue of global climate change.

## **OVERVIEW OF THE AUTHORITY'S PROGRESS**

The Authority and the high-speed rail program have gone through an evolution in the past few years, including a new vision, new leadership and staff, and implementing a funding plan to start construction. As I have said, we went from a dream to reality and I want to highlight how we got where we are today.

When I joined the Authority Board of Directors in August 2011, the focus at the time was on the issuance of the Draft 2012 Business Plan, released in November 2011. The Draft Plan detailed the true cost, in inflated year of expenditure dollars, for a fully dedicated, high-speed rail system connecting San Francisco and Los Angeles.

Shortly before the Draft Plan was released, Governor Brown reaffirmed his commitment to the project, and tasked the Board of Directors and the Authority with redefining the approach of implementing the project in order to bring down the cost, provide immediate benefits to the taxpayers, and improve integration between the high-speed rail system and California's existing transportation infrastructure.

With these guiding principles in mind, and input from numerous stakeholder groups, the Board of Directors adopted a Revised Business Plan (2012 Business Plan) in April 2012 that featured several improvements which serve as our foundation for implementing the high-speed rail system as part of the state's overall rail modernization program.

### ***The Blended Approach***

In the 2012 Business Plan, the Authority recognized and committed to the benefits of shared corridors as part of what has come to be known as the Blended System. The Blended System will benefit California's overall passenger rail system by beginning construction on dedicated high-speed rail infrastructure in the Central Valley, while investing in improvements to existing regional rail systems that high-speed trains will ultimately utilize to connect the mega-regions of the state. The Blended System strategy includes electrifying the Caltrain corridor between San Jose and San Francisco in a manner that allows future use by high-speed rail trains, as well as improvements along the Metrolink corridor between Palmdale and Anaheim. These early investments, made in collaboration with regional transportation partners, will lay the foundation for the high-speed rail system as it expands to connect the state, at the same time providing immediate benefits to the millions of Californians currently using these existing systems every year.

The blended approach does not degrade ultimate high-speed rail service times. It was always the case that in some stretches of the system, trains will travel at speeds in excess of 200 mph, but travel in densely populated urban areas requires lower speeds. Because, the cost to construct dedicated high-speed rail tracks is more expensive, the Authority sought to identify areas where upgrading and improving existing systems, as opposed to building wholly new infrastructure, made sense. By developing partnerships with existing transportation agencies, the Blended System brought the overall cost of the high-speed rail system down by close to \$30 billion.



### ***A Statewide Rail Modernization Program for the 21<sup>st</sup> Century***

In concert with the blended approach for lowering costs and reducing community impacts, the 2012 Business Plan laid the foundation for a statewide rail modernization program that called for parallel strategic investments in urban, commuter, and intercity rail systems to provide improved connectivity to the high-speed rail system. As part of this effort to create an integrated statewide transportation network, the Authority is working in concert with its rail partners throughout the state, including the Department of Transportation (Caltrans), ACE, the Peninsula Corridors Joint Powers Board (Caltrain), and the Southern California Regional Rail Commission (Metrolink), to name a few. Linking rail systems will greatly improve the state's mobility and economic competitiveness, and as previously stated, reduce greenhouse gas emissions and other pollutants.

Ridership growth in California on its urban transit systems demonstrates that there is demand for greater mobility and connectivity through public transportation, particularly by rail. These improvements will build upon already growing patronage, which will in turn increase demand for connections to and with the high-speed rail system when it is implemented. Together, all of these investments will create a new, modern statewide rail network that will keep California moving for decades to come.

### ***The 2012-13 State Budget: Initial Funding for Rail Modernization***

In 2008, California voters approved the *Safe, Reliable High-Speed Passenger Train Bond Act for the 21<sup>st</sup> Century* (Proposition 1A), which authorized a total of nearly \$9 billion in bonds to construct a high-speed rail system connecting San Francisco and Los Angeles via the Central Valley, with future extensions to Sacramento and San Diego. Additionally, Proposition 1A authorized \$950 million for urban, commuter, and intercity rail projects that would enhance connectivity to the high-speed rail system and improve passenger safety.

Then in 2009, the United States Congress passed the *American Recovery and Reinvestment Act* (ARRA), wherein the High-Speed and Intercity Passenger Rail (HSIPR) Program was provided \$8 billion. The Authority applied for, and was awarded approximately \$1.9 billion to begin construction of the system in California's Central Valley. A combination of ARRA funding returned by other states and federal Fiscal Year 2010 appropriations brought the overall federal investment in the program to almost \$3.5 billion.

In July 2012, the California Legislature approved Senate Bill 1029 (SB 1029), a component of the 2012-13 Budget Act, which appropriates \$2.6 billion in state bond funds and \$3.2 billion in federal funds to begin construction in the Central Valley. Additionally, SB 1029 authorizes \$1.1 billion in bond funds to match over \$600 million from local sources in Northern California and \$500 million from regional partners in Southern California to begin implementation of the Blended System. As mentioned above, these funds will be used to upgrade, electrify, and modernize the highly popular Caltrain corridor in the San Francisco Bay Area and to improve the Metrolink corridor in the Los Angeles Basin between Palmdale and Anaheim in anticipation of high-speed rail service. Finally, SB 1029 provides \$819 million in connectivity funds for investments in urban, commuter and intercity rail programs statewide. All of these investments taken together provide the beginning of what will ultimately become a modernized and fully integrated statewide rail network.

A benefit of the \$4.5 billion in Proposition 1A funds appropriated for rail modernization is that it leverages other regional, state and federal funds, resulting in almost \$13 billion of improvements to California's rail systems. All projects benefiting from the statewide modernization program are outlined in the attached "Connectivity and Bookends Fact Sheet."

### ***Partners in the Statewide Rail Modernization***

As part of the development of the 2012 Business Plan and the appropriation of the funding to begin work on the statewide network, the Authority recognized a greater need to involve state and regional transportation partners. The high-speed rail project has served as a catalyst for the pursuit and development of many regional rail improvements. As we are in Madera County in the heart of the Central Valley today, I would like to focus on our collaborative efforts here in the Central Valley regarding the integration of the San Joaquin intercity and ACE systems with the high-speed rail system.

The San Joaquin intercity passenger rail service extends 365 miles between the San Joaquin Valley, Sacramento and the Bay Area providing direct rail service to 11 counties with 17 stations along the route. Extensive connecting bus services bring the San Joaquin service to the rest of the state as well. As I have noted, ridership on the San Joaquin service has increased dramatically in the last five years making this one of Amtrak's fastest growing lines. Its 90 percent on-time performance also makes it one of the most reliable rail services in the nation. With ridership now over 1.1 million annual riders, the San Joaquin service significantly reduces automobile vehicle miles traveled in the San Joaquin Corridor. This eases congestion on State Route 99 and helps improve air quality in the San Joaquin Valley. The San Joaquin service will serve as a perfect complement to the high-speed rail system in the near term. It will play a particularly important role in supporting the operations of our Initial Operating Section (IOS) by connecting passengers to the Bay Area and Sacramento before our high-speed lines are extended. The Authority continues to work with the Northern California Rail Partners Working Group to identify the necessary improvements to increase frequency, reduce travel times, extend the service to additional markets, and improve the safety and reliability of the system.

Turning to the Altamont Corridor, for nearly 15 years ACE has served commuters, connecting the San Joaquin Valley, Eastern Alameda County, and the Silicon Valley. With a recently added fourth-daily round trip, ACE ridership is at an all-time high with over 1 million annual riders. In October, ACE will open a state-of-the-art maintenance facility which will improve current operations and help enable future growth of the service.

Collaborating with the San Joaquin Regional Rail Commission (SJRRRC), which administers the ACE system, the Authority's focus will be on facilitating the delivery of near-term incremental improvements to the existing ACE service. These improvements include connecting the ACE service to the northern terminus of the IOS in Merced by 2022. It should be noted that ACE is planning to expand – first to Modesto, then to Merced, and finally to Sacramento. Opening up new commuter and intercity markets will also allow ACE to play a critical role as a “feeder” service to high-speed rail. The Authority is committed to working with SJRRRC to help secure the necessary funding to implement these expansion plans.

As I have stated, the Authority's leadership, at the direction of Governor Brown, has greatly refined its vision for high-speed rail in California. This shift from the previous thinking of high-speed rail as an insular, separate engineering exercise to one where it is integral to the broader transportation system, has led to greater support from both the public and rail operators throughout the state.

### ***Administration and Oversight: Government People Making Government Decisions***

Since completion of the 2012 Business Plan, we have made a great effort to bring together a world class team to lead the implementation of the program. One noteworthy criticism of the program in years past was that it relied too heavily on consultants and that key leadership positions were vacant. To that end, since early 2012, we have filled all of the positions on our Executive Team with highly qualified individuals with proven records on infrastructure project management and delivery. We have added dozens of state staff at the Authority to take

over the work formerly done by consultants, yet we will remain lean and rely on support from the private sector, as this strategy best suits the project.

In addition to growing our headquarters team in Sacramento, we have brought on three Regional Directors and regional staff to ensure that we have a strong presence across the state and in local communities. These regional teams are working directly with stakeholders and citizens affected by the project. We are pleased to have our Central California Regional Office open in downtown Fresno. We are also opening offices in San Jose and Los Angeles.

As we have been building our team, I am happy to report that many outstanding concerns expressed by the Legislature, the independent Peer Review Group and the California State Auditor have been addressed. Specifically, in January 2012, the California State Auditor, tasked with providing “nonpartisan, accurate, and timely assessments of California government's financial and operational activities in compliance with generally accepted government auditing standards,” released a report recommending the Authority take several actions related to the management and implementation of the high-speed rail project. In total, this report made 23 recommendations related to consultant oversight, risk management, expenditure tracking and cost reporting, staffing, information technology, and contracting practices. To date, the Authority has fully implemented 18 of the Auditor’s 23 recommendations, with the remainder either partially implemented or pending the release of the 2014 Business Plan. As we continue to improve these processes and implement the recommendations, we are pleased the State Auditor recently stated that, “the Authority has made tremendous progress.”

### **Cost Estimates, Revenue and Ridership: Realistic Numbers Backed by Outside Experts**

In 2011, Authority leadership began a focused and determined effort to improve those projections, including seeking rigorous review by independent experts. More recently, as a result of a bipartisan Congressional request, the GAO spent more than a year taking the most comprehensive look to date at the cost estimates, ridership and revenue forecasts, and economic impact analyses that were presented in the 2012 Business Plan.

In updating our forecasts and estimates, we took seriously the various reviews and criticisms that had been made of prior forecasts. We have worked diligently to address them, to make appropriate changes and apply valid guidelines and best practices. We are now confident that the forecasts presented in the 2012 Business Plan have been confirmed through multiple external reviews as being consistent with industry best practices by multiple external reviews. We are also pleased that the GAO found those numbers to be based on reasonable assumptions and sound methods. However further refinements are appropriate and we will incorporate the suggestions of the GAO, the independent Peer Review Group, and others in future forecasts.

### ***Cost Estimates***

The cost estimates included in the 2012 Business Plan are portrayed in fully-inflated, year-of-expenditure dollars to provide an accurate picture of the cost of building the system over time. The GAO found that the Authority’s cost estimates met all applicable guidance from the FRA and United States Department of Transportation (USDOT) and that, “the Authority substantially met best practices in [the GAO’s] *Cost Guide* for producing accurate cost estimates.”<sup>4</sup> This finding is especially telling because the Authority was required to follow FRA guidance, though not the *GAO Cost Guide* itself. The report also highlights the Authority’s efforts to produce cost estimates that correctly reflect the program’s scope.

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<sup>4</sup> GAO Report 13-304 (<http://www.gao.gov/assets/660/653401.pdf>)



Interestingly, in a separate report, the GAO compiled sixteen other projects across eight government agencies where they reviewed the projects' cost estimating methodologies. Only two of these sixteen scored better than the Authority's cost estimates and both of those were from agencies that routinely work with the *GAO Cost Guide* (Department of Defense and Department of Homeland Security).<sup>5</sup>

### ***Ridership Projections***

The ability to attract riders will ultimately drive the high-speed rail system's financial performance and its environmental benefits. We have made significant efforts to refine, improve, and update our ridership and revenue forecasts. Since 2010, we have subjected our work to rigorous scrutiny by a Ridership Technical Advisory Panel (Panel) comprised of international experts in travel demand forecasting. The Panel has spent the last two years looking at the model inputs, assumptions, and calculations that have gone into the forecasts and, more recently, the conclusions from the GAO report.

For the ridership forecasts used in the 2012 Business Plan, the Panel concluded that, "the model produces results that are reasonable and within expected ranges for the current environmental planning and Business Plan applications of the model."<sup>6</sup> With confidence from the Panel's review that the model fundamentals are sound, we are updating specific model components as new information and input data becomes available.

To further evaluate our model, we conducted a series of sensitivity tests in coordination with the Panel. This involved preparing forecasts with *our* ridership model but using service characteristics similar to those of the Acela in the Northeast Corridor. Our goal was to see if our model reflected "real life" based on a currently operating service. After reviewing the results, the Panel stated that, "The Panel endorses this report as an excellent indication that the ridership estimates reported by Cambridge Systematics in support of the 2012 Business Plan are reasonable, possibly even conservative."<sup>7</sup> This test helped further bolster confidence that our ridership model performs effectively.

The GAO reviewed our ridership and revenue forecasts and their findings reaffirmed the Panel's conclusions. The GAO concluded that the Authority followed all applicable best practices and, "found the Authority's ridership and revenue forecasts to be reasonable." As noted, we will continue to refine and improve our forecasts.

### ***Operations and Maintenance Cost Projections***

For the 2012 Business Plan, we used a relatively high-level Operations and Maintenance (O&M) cost model which was mostly based on international experiences with high-speed rail. We used this model to estimate O&M costs and to test the system's ability to operate without a subsidy under various phasing and implementation scenarios. Subsequent to that, as part of our ongoing effort to continue improving our forecasts and estimates, we asked the International Union of Railways (UIC/IUR), to review our O&M cost model. The UIC is a worldwide rail industry organization with more than 200 members across all five continents. Its purpose is to facilitate the sharing of best practices and set industry standards. Concurrent with the UIC review, we began developing a "bottom-up" cost model for use in our 2014 Business Plan.

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<sup>5</sup> GAO Report 12-629 (<http://www.gao.gov/assets/660/592273.pdf>)

<sup>6</sup> Ridership Technical Advisory Panel 2<sup>nd</sup> Report  
([http://www.hsr.ca.gov/docs/about/ridership/ridership\\_revenue\\_peer\\_rpt2.pdf](http://www.hsr.ca.gov/docs/about/ridership/ridership_revenue_peer_rpt2.pdf))

<sup>7</sup> Frank Koppelman letter to Mike Rossi, January 27, 2012

The UIC established a team of industry experts in the fields of high-speed rail operations and maintenance from several European high-speed rail operators. After a thorough examination, this team stated that they had “reviewed and concurred with most of the assumptions used in forecasting the O&M costs.”<sup>8</sup> They found the 2012 Business Plan forecasts to be comparable to the UIC experts’ established costs for rolling stock and infrastructure maintenance. Finally, they provided a list of nineteen recommendations to continue improving our O&M cost estimating methods and assumptions. Again, we have committed to incorporate these recommendations and those of the GAO and independent Peer Review Group in our 2014 Business Plan.

### ***Economic Impacts and Benefit-Cost Analysis***

For the 2012 Business Plan, the Authority conducted the first comprehensive economic impact and benefit-cost analysis of the system. Among other things, these analyses compared the benefits to the state and national economies relative to the costs of building, maintaining, and operating the system and estimated the potential to create short-term construction and long-term jobs.

In reviewing our economic impact analysis and the benefit-cost analysis, the GAO found that, “the Authority did a comprehensive job in identifying the potential economic impacts of the high-speed rail project.” The GAO, like the UIC, offered constructive recommendations on ways that we might improve our analyses, and we are working to address those as we prepare to update these analyses for the 2014 Business Plan.

### **FULFILLING NEW AUTHORITY COMMITMENTS**

The Authority’s Board of Directors also identified other areas where we owed the citizens of California new and firm commitments to do a better job. First among those was to improve our relationships with the communities that will be affected by the construction or operation of the high-speed rail system. A major focus of Board members and our leadership team in the past 18 months has been to connect with the people of California and commit wholeheartedly to partnering with communities to help build this project.

### **Working with the Central Valley Community**

To fulfill our renewed commitment to the people of the Central Valley, we began a robust outreach and stakeholder engagement approach to give the public an avenue to be directly included and involved in the process of planning and implementing the project. I personally have spent a great deal of time in the Valley, meeting with affected growers, businesses and residents. We are fortunate that one of our most active Board members, Vice-Chair Tom Richards, a highly respected businessman from Fresno, has devoted enormous efforts to make certain that high-speed rail can bring benefits and not just challenges to this region.

Since then, with the addition of our Regional Director and growing staff, the Authority has held more than 600 meetings in the Central Valley with elected officials, business and property owners, and the community at large. We have found that these outreach efforts have not only served as a tool to provide vital information to those potentially or actually affected by the high-speed rail alignments, but also as invaluable opportunities to improve our plans as a result of community input.

For example, in the County of Kings alone, we have had over 65 meetings with affected property owners, local governments, and business groups. I have personally made more appearances before the Kings County Board of Supervisors than any other elected body in the State of California, aside from the State Legislature. I have spent this time in Kings County in good faith, to learn more about the unique issues facing the County and to explore

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<sup>8</sup> UIC Peer Review of Operating and Maintenance Costs of the California High-Speed Rail Project

all possible options for resolving them. Most recently, our Central California Regional team had direct contact with each and every property owner along the proposed alignments.

These efforts have led to many positive outcomes throughout the Central Valley. Our collaborative approach has offered a sense of certainty to many of the affected communities and we continue to work towards creative solutions to pressing problems. However, we still face many issues in these communities and we remain committed to working through them in a manner that is forthright and respectful.

### ***Improved Communications and Outreach with Business and Property Owners***

We have also been working with private property owners and businesses that will be impacted by the project. We understand that private property owners will be affected by the construction of the high-speed rail system and we are committed to doing everything we can to educate, inform, and work collaboratively with them. This runs the gamut from the individual property owner to the major businesses or organizations that will experience significant impacts to their facilities or operations due to the project.

As an example of our commitment to work with the business community, the Authority has teamed up with the City of Fresno and the Fresno Economic Development Corporation to open a “One-Stop Shop” in Fresno City Hall to provide resources to businesses along the alignment. This means everything from relocation assistance to permitting assistance to business planning help. Our Fresno Regional Office is also staffed up with experts to help businesses as well.

### ***Engaging the Central Valley Wye Options***

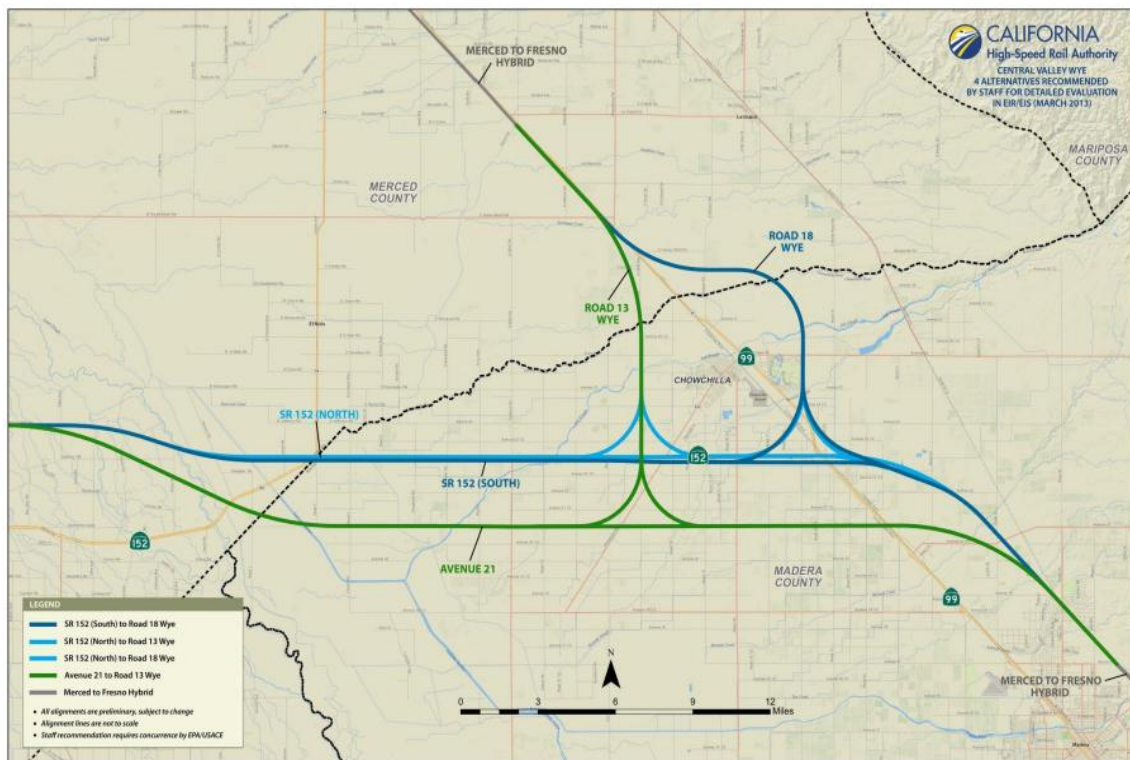
In our continued commitment to the people of the Central Valley, the Authority took a step back and realized that more needed to be done, right here in Madera when it came to decisions related to the Central Valley Wye. Just down the street from here is the junction of the Central Valley Wye where high-speed trains will head west to San Jose/San Francisco, north to Sacramento, and south to Fresno/Los Angeles. In total, the Wye will span roughly 12 square miles of land near Chowchilla and the community of Fairmead.

Since 2009, the Authority has worked with residents, stakeholders and others to identify a range of 14 Wye alternatives. In late 2012, we recognized that there might be an opportunity to extend early construction further north if the competitive bidding environment led to lower than estimated construction bids.

In attempting to narrow the range of alternatives for the Wye, and thus reduce uncertainty for property owners, the Authority engaged a number of stakeholders and members of the public. This included consulting with resource and regulatory agencies and members of the public and other stakeholders including: city and county elected officials from throughout the affected region; school districts; farm bureaus; irrigation districts; and other community-based organizations.

This outreach and consultation allowed the Authority to narrow the range of alternatives from 14 to six in January 2013. In order to further narrow these alternatives and provide landowners with more information and clarity, the Authority embarked on another effort to seek public and stakeholder input. This included 15 stakeholder meetings and two community meetings open to the public. One meeting took place in Fairmead, and the other in Chowchilla, with a total of about 500 people attending.

Ultimately, after this broad and comprehensive public outreach, the Authority narrowed the range of alternatives from six to four as seen below. These alternatives are the: (1) SR 152 (South) to Road 18; (2) SR 152 (North) to Road 13; (3) SR 152 (North) to Road 18; and, (4) Avenue 21 to Road 13.



We expect to identify a preferred alternative from these four options this fall after continued public outreach, stakeholder engagement, and work with regulatory agencies. In fact, next week we will be meeting with a handful of residents in Fairmead to review alignment options and listen to their concerns as we move the process forward.

### **Working with the Agricultural Community**

The new leadership at the Authority has taken many positive steps to improve the relationship and ensure that the high-speed rail system is built in a way that is attentive to the needs of the agricultural community. Some significant developments on that front include:

#### ***The Agricultural Working Group***

The Agricultural Working Group was established as an independent group to assist the Authority with developing the high-speed rail program. The group's goals include: refining the list of issues and concerns within the agricultural industry; utilizing the agricultural expertise of the resource specialists to enhance the EIR/EIS process and answer potential agricultural impacts; and, engaging resource specialists to assist development of mitigation measures and guidelines to minimize agricultural impacts during construction, implementation and operation of the high-speed rail project

Members of the Agricultural Working Group are specialists representing the academic, government, and agribusiness sectors. They are contributing to improved information sharing, are working to address key issues raised by the Central Valley agricultural community and are helping improve decision-making by the Authority

on issues related to the agricultural industry. To date, the Agricultural Working Group has produced six “white papers” studying a broad range of impacts from pollination to irrigation.

### ***Interagency Agreement with the California Department of Conservation***

On May 3, 2012, the Board of Directors certified the Merced to Fresno EIR/EIS, which included a mitigation commitment to enter into an agreement with the California Department of Conservation (DOC) to implement the preservation of farmland. This preservation is to occur by identifying suitable agricultural land for mitigation of project impacts and by funding the purchase of agricultural easements from willing sellers.

The performance standards for this measure are to preserve Important Farmland in an amount commensurate with the quantity and quality of the converted farmlands, within the same agricultural regions as the impacts occur, at a replacement ratio of not less than 1:1. That is, for every acre impacted at least one acre will be preserved in perpetuity. This is an important commitment given all of the farmland that is already being lost to development; according to the DOC between 2000 and 2008, over 115,000 acres of Important Farmland were lost to development in the San Joaquin Valley.

Purchase of the easements, along with DOC staff support, is estimated to cost \$20 million, of which \$18 million is for easement acquisition. Of the \$18 million, approximately \$2.5 million will be spent to purchase easements on 310 acres for our first construction segment from Madera to Fresno, with the remaining funds to be used on the Fresno to Bakersfield project section pending final environmental approvals. Easements on roughly 2,190 acres are planned for that section.

### ***Settling Central Valley Litigation***

Just last month, the Authority announced a major step forward in reaching a settlement with a number of Central Valley local governments and concerned citizens, including the Madera and Merced County Farm Bureaus and Preserve Our Heritage. In fact, two of today’s panel members were part of this historic agreement. The settlement agreement also brought to an end the final California Environmental Quality Act (CEQA) lawsuit challenging the Merced to Fresno project section environmental documents. We also reached settlements with two other groups from the Valley challenging the project. Most importantly, the agreement provides for the preservation of important farmland and mitigation of effects of high-speed rail construction on agricultural operations through an Agricultural Mitigation Fund funded at over \$4 million.

The settlement agreement is a mutually beneficial agreement that integrates local expertise into the agricultural mitigation for the project section and provides protections for the agricultural community in Madera and Merced County and the Central Valley. Now, this agreement and the agricultural mitigation is on top of the Authority’s ongoing mitigation efforts through the California Department of Conservation detailed above. The agreement also provides consultation on the Central Valley Wye to ensure that all concerns are addressed.

As mentioned above, the Authority settled two other lawsuits with the City of Chowchilla and a group of Central Valley businesses related to challenges to the environmental review process. In all three settlements, the Authority worked with elected officials, stakeholders and members of the community to address their concerns. These settlements represent just a portion of the commitment that the Authority has made in the region and the work we have done.

### **Getting to Work: Awarding Construction Package 1**

As we move to break ground this summer on the high-speed rail system, our first construction segment, or Construction Package 1 (CP1), is a 29 mile stretch from Madera County Avenue 17 -- just up the road here -- to the City of Fresno. In November 2011, the Authority issued a Request for Qualification (RFQ) for potential design-build teams interested in CP1. (Design-build combines project design and construction in a single contract.) Based on those submissions, five teams were reviewed and determined to be fully capable of meeting all legal and technical requirements to perform the work on the project. The Request for Proposals (RFP) was subsequently released in March 2012, inviting the five teams to prepare and submit formal proposals for CP1.

As is typical in design-build procurements, the Authority and the five potential bidders went through an iterative process, in which the bidders raised questions and concerns about particular provisions of the RFP, and the RFP was then modified through addenda to address their concerns. For the RFP for CP 1, the Authority issued nine addenda over an eight-month period. The changes included in these addenda ranged from highly detailed technical clarifications to broader issues relating to liability and the manner in which the Authority would evaluate and score the proposals. Each addendum was reviewed by the Authority's legal counsel and the Office of the Attorney General, approved by the FRA, and published on the Authority's website available for public review and inspection.

After opening the bids, the Authority identified Tutor Perini/Zachry/Parsons, a joint venture as the "apparent best value" for the design-build contract. The Authority had estimated the cost for the design-build contract to be between \$1.2 billion and \$1.8 billion while the Tutor Perini/Zachry/Parsons bid came in at \$985,142,530.

On May 17, as consistent with the procurement process, the Authority issued the notice of contract award recommendation to Tutor Perini/Zachry/Parsons.

### **Putting Americans Back to Work: Expanding Opportunities**

As previously mentioned in my discussion of the benefits of high-speed rail and the many reasons for investing in it, the job creation and economic development associated with constructing and operating the system will be significant. However, in order to fully realize these benefits, we at the Authority must ensure that we enhance the public's ability to participate in the project. As described below, we have responded to this challenge by implementing an aggressive small business program, supporting job training and workforce development efforts, including efforts to hire locally within the boundaries of federal law.

#### ***Small, Disadvantaged, and Disabled Veteran Owned Businesses***

The Authority is committed to small businesses playing a major role in building the statewide high-speed rail program. In November 2011, the Board of Directors took a bold step in approving a small business program that has an aggressive 30 percent goal for small business participation, including: Disadvantaged Business Enterprises (DBE), Disabled Veteran Business Enterprises (DVBE) and Micro-Businesses (MB). The program's 30 percent small business participation goal for contracts let by the Authority includes a 10 percent DBE participation goal and 3 percent DVBE participation goal. This action highlights our commitment to invest in small businesses in California and across the nation.

The Authority set forth several objectives to meet that 30 percent goal. One of our top objectives is to ensure that the Authority created a small business program that is flexible, attainable, efficient and credible. We have also established a Small Business Advocate, who is conducting a robust and inclusive outreach program to increase small business participation, a key to our success in achieving small business goals.

Just last month, we began a series of free statewide workshops to help certify small businesses that want to participate. We will also be providing small businesses with hands-on technical assistance that includes on-the-spot certification that can be completed online. Participants will also receive pertinent information on upcoming procurement opportunities around the state that would be of interest to them.

We are partnering with federal, state and local agencies to expand outreach and marketing in support of small business utilization on the project. Recent partnerships have been established with the U.S. Small Business Administration and the U.S. Minority Business Development Agency (U.S. MBDA). Earlier this month, the Authority participated in the grand opening of the U.S. MBDA Business Center in Fresno. The Center will provide minority-owned firms with professional management and technical assistance, information for regional contracting opportunities and help for small businesses to get certified and ready for work.

Like you, Mr. Chairman, the Authority is committed to ensuring the ability of Disabled Veteran Business Enterprises (DVBE) to participate in the project. In fact, we are fortunate to have Syngon "Sy" Hare, the owner of a California certified DVBE, working on the project right now. Mr. Hare conducts and produces market analysis reports for the Authority and, before moving into the financial world, served in the U.S Air Force.

The Authority is continually seeking new and innovative approaches to improve its policies and procedures to eliminate any barriers and increase small business utilization. As a result, the Board of Directors approved the formation of a Business Advisory Council (Council) in April 2012. The Council consists of representatives from statewide construction and professional services business trade associations and serves as a forum to provide essential input and advice to the Authority in implementing practices that effect and/or impact the small business community.

We will need small business participation for years to come to make this project a success and look forward to working with this Committee and others to ensure those businesses have ample opportunity to participate.

### ***Job Training and Workforce Development***

In April, the Fresno Regional Workforce Investment Board (WIB) received a \$1.5 million grant to train people for jobs building the high-speed rail system. The grant, funded by the Workforce Investment Act, will underwrite skills training for hundreds of people. Once would-be workers are screened, trained and certified as qualified workers for various construction jobs and other positions, they will be referred by Fresno WIB to contractors looking for employees.

The Fresno WIB set up a website, [www.hsrjobs.com](http://www.hsrjobs.com), where people can register to learn if they qualify for grant-funded training or are eligible for targeted hiring as "disadvantaged" workers, including veterans or the long-term unemployed. The Fresno WIB received over 1,000 registrants within the first few weeks of the announcement and due to an overwhelming interest had to temporarily suspend registration.

Additionally, we are particularly excited to see a number of the Valley's educational institutions, including the University of California Merced and the California State University in Bakersfield, embark on educational programs to prepare engineering students and others to enter careers in the high-speed rail support industry that is anticipated to emerge here.

## **LOOKING FORWARD IN THE DEVELOPMENT OF CALIFORNIA'S HIGH-SPEED RAIL SYSTEM**

We are proud of the progress we've made to date and are focused intently on breaking ground this summer on the first construction section of the Initial Operating Section (IOS). Completing the IOS will achieve the goal of closing the rail gap between Northern and Southern California and our goal of introducing the first fully operational high-speed rail service in the nation. Our efforts going forward are focused on building the Central Valley project and then completing the IOS as expeditiously as possible. The Central Valley is fully funded and we are now looking forward to developing solid public private partnerships to implement the IOS and the statewide system.

### **Future Funding Including the Role of the Private Sector**

Our current plan estimates that the total cost, in fully inflated dollars, to build a high-speed rail system connecting Los Angeles with San Francisco, will be \$68 billion (equating to approximately \$53.4 billion in constant year 2011 dollars). To date, we have assembled approximately \$13 billion in funding, through a combination of state bonds and federal appropriations. We know that this Committee and the public at large have asked about our plans for future funding to complete the system.

As this Committee knows well, any major infrastructure project of this size and complexity would be funded from a combination of federal, state, or local sources. In the case of California's high-speed rail program, we have the additional opportunity to include significant private sector investment in the funding matrix. This is because we are highly confident that the program will generate net operating cash flows. This has been the near universal experience of high-speed rail systems around the world, namely, that once built, i.e., once the capital is expended, the systems generate net positive operating cash flows. Some high-speed rail systems have generated enough revenue to go even further and pay back some of the initial capital expenditure.

Like all projects of this magnitude and at this stage in their development, we do not have a precise funding plan for the entire system; however, we plan on completing it from a combination of sources including the following:

#### ***Direct Private Sector Investment***

As discussed above, we plan to operate the high-speed rail system as a public-private partnership, with an initial public sector investment. Once this initial investment is made, we would essentially sell the projected future revenue stream to the private sector, giving them the rights to operate the system. Our 2012 Business Plan projects that the Bay Area to Los Angeles Basin system would generate enough revenue to cover approximately 20 percent of its capital costs. This number would increase with higher ridership or a lower discount factor.

#### ***Ancillary Private Sector Revenues from Value Maximization***

The 520-mile Los Angeles/Anaheim to San Francisco high-speed rail system will be a valuable economic resource. We are beginning an assessment of value maximization, including leasing of right-of-way for fiber optic cable pathways and energy development. Additionally, ancillary revenues will come from parking, advertising, marketing and other potential sources including real estate development. It should be noted that in Japan, approximately one-third of revenues realized by the private sector operator Japan Rail East, come from rents and leases associated with real estate development at and around high-speed rail stations. The California Legislature is considering legislation to allow for tax increment financing for development around our high-speed rail stations and we see enormous opportunities for value capture from transit-oriented development.



Once the IOS has been completed and operational, the opportunity for private investment is greatly increased and those private funds can be used to pay for further system expansion. Additionally, I will describe our conversations with potential private sector investors and how they have helped us refine our plans to optimize our ability to leverage private sector funds and expertise, while giving the taxpayers the most bang for their buck.

### ***Timing of Private Sector Investment***

The high-speed rail system will neither be entirely a public works project, nor will it be a fully privatized system. It will be a partnership between the public sector (federal, state, and local) and the private sector. This is an internationally proven investment model and is common to almost all recent high-speed rail projects in the world, where capital investment begins with the public sector and then becomes shared with the private sector. Demonstrating this relationship, systems in France, Spain, and The Netherlands have all attracted private investment once ridership was established or by using availability-based public-private partnership structures.

These examples demonstrate that the critical question is not *whether* the private sector will invest in high-speed rail but *when* is the optimal time for the private sector to invest in the program. In the absence of completion and revenue guarantees, the private sector will want to see a proven revenue stream from a completed project phase prior to their willingness to invest.

If we seek private investment too soon, we will be shifting too much risk to the private sector, which would reduce the amount of investment the private sector would be able to provide and thus require more public funds. Instead, we intend to follow the example of countless systems from around the world that have used an initial investment of public funds to demonstrate the system's financial potential and then leveraged that performance to bring in the private sector. To us, this is a clear choice; it is based on lessons learned from international systems, and we are confident that this approach will maximize private sector investment over the course of the system's development. Having said that, let me be clear: our door is certainly open to any alternative private sector investment approaches that they wish to suggest.

In its review of the Authority's plans, the GAO confirmed that this is the right order for public and private investment. The GAO stated that, "our past work on high-speed rail systems has shown that private sector investment is easier to attract only after the public sector has made a substantial capital investment in the system. The Authority's plan is consistent with this funding approach."<sup>9</sup>

### ***Discussions with Private Investors***

To understand the private sector's specific interest in this program, the Authority has had extensive input from and discussions with potential private sector participants. In 2011, the Authority issued a Request for Expressions of Interest (RFEI) and received more than 1,100 responses. The responses identified the capability and interest of private entities related to development, financing, operations, project scale, risk appetite, and other factors.

Following up on the results of the RFEI, in January 2012, the Authority met with eight infrastructure investment firms, which confirmed their interest in investing in the program. We also had extensive discussions regarding the appropriate timing for private sector investment.

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<sup>9</sup> GAO Report 13-304 (<http://www.gao.gov/assets/660/653401.pdf>)

I would like to note that elements of cost, schedule, and delivery risk are already being transferred to the private sector through the use of design-build contracts for the construction that will be starting soon here in the Central Valley. As the system is further developed, the Authority will look to increase its transfer of risk to the private sector by incorporating an operating performance element. The Authority will continue to assess private capital markets, as market conditions, financing tools, and expectations change over time.

### ***State Cap and Trade Funding***

The 2012 Business Plan identified state Cap and Trade revenue as a potential backstop for the high-speed rail project should additional funding fail to materialize. Even more recently, the California Department of Finance, in consultation with the California Air Resources Board (CARB), released an investment plan for the use of Cap and Trade revenues covering the initial three years of the program. The plan specifically referenced the high-speed rail project, as part of the statewide rail modernization program and sustainable community development, as an eligible investment for these revenues.

### ***Federal Funding: Reauthorization of PRIIA and Tax Policy***

As already discussed, we have evaluated how high-speed rail systems are implemented, funded and financed around the world. We continue to draw on international experience and lessons learned to develop a business model that fits our national and state context. We are following the model where the public sector makes the initial investment which then, if done properly, attracts private investment. To that end, we will forge a public-private partnership to implement our program.

Further, as the federal government invested in the Interstate Highway System – because it was good for our economy – we believe that it is reasonable for the federal government to continue investing in intercity and high speed passenger rail systems, like California's.

As the committee looks ahead to reauthorizing the Passenger Rail Investment and Improvement Act of 2008 (PRIIA), we have some general views on how federal assistance should be structured for projects like ours.

A review of the variety of high-speed rail projects being proposed nationwide makes it clear that there is no single model for developing, financing and operating intercity passenger rail in this country. In California, we are seeking to develop high-speed rail. So are Texas, Nevada and the NEC. In the Midwest, Northwest and Florida, lower speeds are being considered. Different project delivery methods and different financial plans come along with the choice for the type of service to be provided in a given corridor.

With this diversity in mind, we believe the federal government should make available a variety of forms of assistance to high-speed rail projects around the country. For our program here in California, a blend of federal grants and loans would likely be the most beneficial form of federal investment. But aside from making direct financial assistance available, the federal government can also help us attract private investment by using the tax code to create investment incentives. Tax credits and deductions have been used over decades to induce private equity and debt investment for projects that bring public benefits. When Congress wants to channel investment to worthy infrastructure projects, it has created and enhanced these types of incentives. If Congress is looking – as we are – to bring private investment into our project, sending the right signal to the investment community through the tax code would be one way to help make that happen.

## **CONCLUSION**

In closing, I would like to thank you again for allowing me to provide you with an update on the exciting progress the Authority has made towards implementing the nation's first high-speed rail system. My goal has been to convey to you why we believe that high-speed rail is not only a critically-needed investment for the future of transportation in California but a common sense investment as well; that the Authority has developed a viable Business Plan with realistic and peer-reviewed analysis supporting it; and that a change in leadership at the Authority has helped us improve confidence in the program overall and enabled it to make tremendous progress over the past year and a half. I look forward to continuing to work with the Committee to ensure that the nation's first high-speed rail system is built correctly, cost-effectively and in the best interest of the nation's taxpayers and I hope to see all of you at the groundbreaking this summer.



# CALIFORNIA High-Speed Rail Authority

CONNECTIVITY & BOOKENDS • MAY 2013

## *High-Speed Rail Connectivity and Bookends*

**The California High-Speed Rail Authority (Authority) is responsible for planning, designing, building and operation of the first high-speed rail system in the nation. California high-speed rail will connect the mega-regions of the state, contribute to economic development and a cleaner environment, create jobs and preserve agricultural and protected lands. By 2029, the system will run from San Francisco to the Los Angeles basin in under three hours at speeds capable of over 200 miles per hour. The system will eventually extend to Sacramento and San Diego, totaling 800 miles with up to 24 stations. In addition, the Authority is working with regional partners to implement a statewide rail modernization plan that will invest billions of dollars in local and regional rail lines to meet the state's 21st century transportation needs.**

### **2012-13 BUDGET ACT (SENATE BILL 1029): CONNECTIVITY AND BOOKEND INVESTMENTS**

California's High-Speed Rail system includes billions of dollars in infrastructure investment throughout the state. These funds will strengthen and improve existing rail networks, while also connecting them with California's future high-speed rail system. Senate Bill (SB)1029, passed by the California Legislature and signed by Governor Brown in July 2012, invests almost \$2 billion from the Safe, Reliable, High-Speed Passenger Train Bond Act for the 21st Century (Proposition 1A) into transit, commuter, and intercity rail projects across the state. This funding leverages approximately \$5 billion in additional funding for these projects.

The following is a summary of rail infrastructure investments made throughout the state as a result of high-speed rail program:

### **NORTHERN CALIFORNIA**

#### **CALTRAIN - ELECTRIFICATION**

SB 1029 provides \$705 million to install an electric rail system that will enable the replacement of diesel trains and connect the system with high-speed rail, resulting in cleaner, faster travel. The state investment of these dollars will leverage funding to bring the total investment to \$1.5 billion. (Bookend/Connectivity)



### **BART – MILLBRAE STATION TRACK IMPROVEMENTS & CAR PURCHASE**

SB 1029 provides \$145 million to lengthen track at the Millbrae Station (cross platform connection to high-speed rail), and for the purchase of new BART cars. The state investment will be matched by other funding for a total investment of \$290 million. BART is also contributing \$38 million of its share for the design, installation, testing, training and warranty for an intelligent network of signals, sensors, train tracking technology, and computer systems on the Caltrain Corridor as part of Caltrain's advanced signaling system. (Connectivity)

### **SF MUNI – CENTRAL SUBWAY**

SB 1029 provides \$61 million to construct a 1.7-mile extension of light rail line from 4th & King Streets to Chinatown (downtown San Francisco). The state investment in SB 1029 helps leverage a total investment of \$1.6 billion into this project, with other matching funds. (Connectivity)

### **CALTRANS – CAPITOL CORRIDOR (AMTRAK), OAKLAND TO SAN JOSE**

SB 1029 provides \$47 million to help construct a series of track improvements to permit an increase in service frequency between Oakland and San Jose from the current 7 weekday round trips to 11 weekday round trips. The state investment in SB 1029 brings the total investment to \$248 million, with other matching funds. (Connectivity)

### **CALTRAIN - ADVANCED SIGNALING SYSTEM (POSITIVE TRAIN CONTROL)**

SB 1029 provides \$42 million (\$106 million total including Bay Area Rapid Transit (BART) and Santa Clara Valley Transportation Authority (SCVTA) contributions) for the design, installation, testing, training and warranty for an intelligent network of signals, sensors, train tracking technology, and computer systems on the Caltrain Corridor as part of Caltrain's advanced signaling system. This system is required by federal regulation and allows trains to travel at higher speeds when safe to do so. The state investment helps bring the total dollars for this project to \$231 million, with other matching funds. (Connectivity)

### **CALTRANS – SAN JOAQUIN CORRIDOR (AMTRAK), MERCED TO LE GRAND**

SB 1029 provides \$41 million to Amtrak's San Joaquin for construction of 8.4 miles of double track between Le Grande and west Planada to increase service and reduce freight conflicts. (Connectivity)

### **SACRAMENTO REGIONAL TRANSIT (RT) – SACRAMENTO INTERMODAL FACILITY IMPROVEMENTS**

SB 1029 provides \$30 million for the relocation of existing light rail track, passenger platform and associated systems to connect to a new Sacramento Intermodal Facility and future high-speed rail terminal. The state investment in SB 1029 brings the total investment to \$60 million, with other matching funds. (Connectivity)

### **SANTA CLARA VALLEY TRANSPORTATION AUTHORITY (SCVTA) – CALTRAIN ADVANCED SIGNALING SYSTEM (POSITIVE TRAIN CONTROL)**

SCVTA is contributing \$26 million for the design, installation, testing, training and warranty for an intelligent network of signals, sensors, train tracking technology, and computer systems on the Caltrain Corridor as part of Caltrain's advanced signaling system required. (Connectivity)



**CALTRANS – CAPITOL CORRIDOR (AMTRAK), SACRAMENTO TO ROSEVILLE**

SB 1029 provides \$16 million to Amtrak's Capitol Corridor station in Roseville for a series of improvements designed to increase service frequency, reduce freight train conflicts and accommodate freight train growth projects, consists of relocation of the Roseville station and addition of a third track. This investment brings the total to \$28 million, with other matching funds. (Connectivity)

**ALTAMONT COMMUTER EXPRESS (ACE) – STOCKTON PASSENGER TRACK EXTENSION (GAP CLOSURE)**

SB 1029 provides the Altamont Commuter Express (ACE) train with nearly \$11 million in high-speed rail connectivity funds to extend an existing ACE platform so Amtrak passengers have direct access to it. The project will also provide additional track work for a new ACE maintenance facility. This investment brings the total to \$25 million, with other matching funds. (Connectivity)

**SOUTHERN CALIFORNIA**
**SOUTHERN CALIFORNIA MEMORANDUM OF UNDERSTANDING**

SB 1029 provides \$500 million for regional rail projects that improve local networks and facilitate high-speed rail travel to Southern California. Projects will be selected by local transit agencies, in conjunction with the High-Speed Rail Authority, and state funding will be matched by additional investments to make the total investment in these projects \$1 billion. (Bookend)

**LOS ANGELES METROPOLITAN TRANSPORTATION AUTHORITY (METRO) – REGIONAL RAIL CONNECTOR**

SB 1029 provides \$115 million to help construct a 2-mile light rail connection among Metro Gold, Metro Blue and Metro Exposition light rail transit systems through downtown Los Angeles to provide a one-seat ride from throughout the County to Union Station and the high-speed rail system. SB 1029 helps leverage \$1.4 billion in funding for this project. (Connectivity)

**SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY (METROLINK) – NEW OR IMPROVED LOCOMOTIVES/CARS**

SB 1029 provides \$89 million to repower and/or purchase 20 to 30 higher horsepower locomotives, and recondition and improve passenger cars. The state investment of \$89 million will help leverage a total investment of \$203 million for this purpose. Metrolink also received approximately \$35 million for advanced signaling system work from Proposition 1A in previous appropriations. (Connectivity)

**SAN DIEGO METROPOLITAN TRANSIT SYSTEM (TROLLEY) – BLUE LINE LIGHT RAIL IMPROVEMENTS**

SB 1029 provides \$58 million to rehabilitate grade crossings, track, and switches and ties, add track work and signaling, and raise platforms to accommodate low floor vehicles to allow for reduced headway and improved reliability. This investment helps bring a total investment of \$152 million to update and modernize San Diego's Blue Line light rail system. (Connectivity)

**SAN DIEGO NORTH COUNTY TRANSIT DISTRICT (COASTER) – ADVANCED SIGNALING SYSTEM (POSITIVE TRAIN CONTROL)**

SB 1029 adds \$7.3 million to a previously appropriated \$10.5 million of Proposition 1A funds to a Positive Train Control project for the North County Transit District in the San Diego Area. The funds are to build an advanced signaling system to track the location of trains in order to avoid collisions. The state investment will help bring the total investment in this project to \$60 million. (Connectivity)





## STATEWIDE RAIL MODERNIZATION

### EARLY INVESTMENTS/STATEWIDE BENEFITS

