CONTINUED OVERSIGHT OF THE CALIFORNIA HIGH-SPEED RAIL PROJECT

(115–51)

FIELD HEARING

BEFORE THE

SUBCOMMITTEE ON RAILROADS, PIPELINES, AND HAZARDOUS MATERIALS

OF THE

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
HOUSE OF REPRESENTATIVES

ONE HUNDRED FIFTEENTH CONGRESS

SECOND SESSION

AUGUST 9, 2018 (Sacramento, California)

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August 3, 2018

SUMMARY OF SUBJECT MATTER

TO:	Members, Subcommittee on Railroads, Pipelines, and Hazardous Materials
FROM:	Staff, Subcommittee on Railroads, Pipelines, and Hazardous Materials
RE:	Subcommittee Field Hearing on "Continued Oversight of the California High-Speed Rail Project"

PURPOSE

The Subcommittee on Railroads, Pipelines, and Hazardous Materials will meet on Thursday, August 9, 2018, at 10:30 a.m. (PST) in the John E. Moss Federal Building, located at 650 Capitol Mall, Sacramento, California, in the Sonora Conference Room, to receive testimony regarding the status of the California High-Speed Rail Project (project). The project is the largest in the High-Speed Intercity Passenger Rail (HSIPR) program administered by the Federal Railroad Administration (FRA). The Subcommittee will receive testimony from the U.S. Department of Transportation Office of Inspector General, the California High-Speed Rail Authority (CHSRA), the California High-Speed Rail Peer Review Group, and the State Building and Construction Trades Council of California.

BACKGROUND

In General

In 1996, CHSRA was created as an independent state entity charged with designing a high-speed train system for the state. CHSRA first introduced a plan in 2000 for a system that would link all of California's major population centers, including the San Francisco Bay Area, Los Angeles, and San Diego. In 2008, California voters passed the *Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century*, Assembly Bill 3034, which provided for the issuance of $9.95 billion in general obligation bonds for passenger rail in the state. Though previous versions of this bond proposal were originally to appear on the 2004 and 2006 ballots, the bond measure (Proposition 1A) finally went to the voters on November 4, 2008, and was approved with 52.7 percent of the vote.[1]

Proposition 1A Finances

Proposition 1A authorized the state to sell $9.95 billion in general obligation bonds, $9 billion for the high-speed rail project and $950 million for investments in regional, commuter, and intercity rail. The bonds would be available when appropriated by the legislature. However, the bond funds can only be used for one-half of the total cost of construction of each corridor or segment of a corridor. Proposition 1A requires CHSRA to seek private and other public funds to cover the remaining costs and also limits the amount of bond funds that can be used to fund certain pre-construction and administrative activities. CHSRA applied for and was awarded public funds from FRA's HSIPR grant program.

High-Speed Intercity Passenger Rail Funding

The California High-Speed Rail project is the single largest beneficiary of federal funding through the HSIPR program under the *American Recovery and Reinvestment Act of 2009* (P.L. 111-5, ARRA)[2] and the *Consolidated Appropriations Act, 2010* (P.L. 111-117).[3] In total, the project has been awarded $3.879 billion in federal funds, of which $400 million from ARRA is for the San Francisco Transbay Terminal project, $2.55 billion from ARRA is for the Central Valley portion of the project, and $929 million from the *Consolidated Appropriations Act, 2010* is for the Central Valley portion of the project. This represents almost 39 percent of the total HSIPR grant funding awarded by the FRA.

While the $3.48 billion awarded to CHSRA for the Central Valley has been obligated, only $2.55 billion has actually been spent as of June 5, 2018. The full $2.55 billion in ARRA funding was expended by CHSRA before the September 30, 2017 deadline, and FRA is currently in the process of verifying state match expenditures. The $929 million from *Consolidated Appropriations Act, 2010* remains unspent. The full $400 million from ARRA for the San Francisco Transbay Terminal project, which was awarded to the Transbay Joint Powers Authority, not CHSRA, has also been spent.

The Authority has received both one-time funding from California's Cap-and-Trade program, as well as a 25 percent continuous funding appropriation also through the Cap-and-Trade program. The one-time funding provided $650 million in proceeds to the Authority. The quarterly auctions have delivered variable amounts each quarter since August 2015. With the Cap-and-Trade program due to expire in 2020, the California Legislature passed Assembly Bill 398 in July 2017, which extends the horizon of the Cap-and-Trade program through December 31, 2030. While California's Cap-and-Trade program has yielded varying levels of funding through auctions each quarter, the 2018 Business Plan assumes that annual receipts for the project will be around $750 million. Since June 2018, the Authority has received $1.218 billion from the program, which is below the 2016 Business Plan estimated amount of $5.341 billion.

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[1] Under California law, any bill that calls for the issuance of general obligation bonds must be adopted by each house of the state Legislature by a two-thirds vote, signed by the Governor, and approved by a majority of voters.
[2] Pub. L. No. 111-5, 123 Stat. 208.
[3] Pub .L. No. 111-117, 123 Stat. 3056.

Changes to the FRA Funding Agreement

On May 18, 2016, FRA and CHSRA signed the most recent amendment to the Cooperative Grant Agreement for ARRA funding, Amendment 6. This amended grant agreement maintains a tapered match approach,[4] but also includes several new substantive changes:

1. *Extension of the Performance Period.* Under the original grant agreement and subsequent amendments, ARRA funding was required to be expended by September 30, 2017 and FRA required CHSRA to report on project performance through September 30, 2018— assuming activities (e.g., major construction, testing of equipment) supported by that funding would continue beyond that timeframe. Amendment 6 acknowledged that the grant's scope of work would likely take longer to complete – leading to the agreed-upon extension of the period of performance through 2022.

2. *Authorizes Advance Payments.* Under FRA's normal processes for capital grants, grantees perform work, and then seek reimbursement of those expenditures from FRA. Due to the requirements of California's right-of-way acquisition process, and the timing of state and ARRA funding, FRA agreed to create a temporary working capital advance to allow CHSRA to move forward on the project by acquiring needed right-of-way to begin construction. CHSRA successfully used the working capital advance twice during the ARRA timeframe.

3. *Positive Train Control Spectrum Acquisition.* Amendment 6 authorized ARRA funds to be used by CHSRA to acquire spectrum necessary for positive train control (PTC). This acquisition occurred in fiscal year (FY) 2016.

Changes to the Business Plan

The project has undergone a number of different business plans with costs that have varied greatly over time. The first estimate contained in the 2000 Business Plan was $25 billion with a completion date in 2020. The 2008 Business Plan estimated the project would cost $33 billion, with $12-16 billion in federal funds, and a completion date of 2020. One year later in 2009, the estimate jumped to $43 billion, assuming $17-19 billion in federal funds, with a completion date of 2020. The 2012 Business Plan estimated the project would cost $68 billion, with $42 billion in federal funds, and a completion date of 2028. The 2014 Business Plan maintained the total Phase 1 lifecycle cost of $68 billion, but envisioned 25 percent of the cost coming from proceeds under California's Cap and Trade program. The 2016 Business Plan estimated a total cost of $64 billion, and, while it continued to assume federal funding, it did not identify a specific amount of additional federal funding needed.

[4] "Tapered match" means federal funding would be spent at a higher rate early on in the project in order to meet the 2017 deadline, with the state match "tapering in" later in the project and even beyond the 2017 deadline.

In addition to changing costs, the business plans over time have shown a significant change in the direction of the overall program. The 2012 and 2014 business plans envisioned a blended approach, under which an initial operating segment would be constructed in the Central Valley, and then would connect to the north (Bay Area) and south (Los Angeles Basin) by tying into existing rail infrastructure (for example, the Caltrain system in the Bay Area). The 2016 Business Plan took the project in a new direction: rather than connect to both the north and the south, CHSRA planned to focus on the north in the near term. The plan envisioned building a rail line connecting the Central Valley with Silicon Valley, and then electrifying Caltrain's corridor into San Francisco (See Figure 1.) Under that plan, CHSRA would begin service between the Central and Silicon Valleys by 2025.

2018 Draft Revised Business Plan

In June 2018, CHSRA released its 2018 Business Plan for the project. Apart from the 119-mile Central Valley Segment that is under construction, most of the system is in the environmental review and preliminary design stage, which is still very early in the project lifecycle process.

As indicated in Table 1, the schedule for completing some of the segments has slipped by several years. The 2016 Business Plan projected the Valley to Valley segment (defined in the 2018 Business Plan as San Francisco to Bakersfield) to be completed in 2025 and Phase 1 in 2029. The 2018 plan now projects the Valley to Valley segment to be completed in 2029 and Phase 1 in 2033. In addition, the schedule for environmental reviews has slipped. In the 2016 Business Plan it was anticipated that CHSRA would complete the environmental approvals for all portions of Phase 1 of the system by 2017, but in the 2018 Business Plan several of those dates have become 2019 or 2020, or "subject to change." The CHSRA projects completion of the environmental reviews for all project segments statewide (Merced/San Francisco-Los Angeles/Anaheim) by 2022.

The 2018 Business Plan estimates that the costs for each portion of the project will be significantly higher than was estimated in the 2016 Business Plan. The new estimated cost of the Central Valley is $10.6 billion, an increase of $2.8 billion since 2016. The new estimated cost of the Valley to Valley segment is $29.5 billion, an increase of $7 billion since 2016. The new estimated cost of Phase 1 is now estimated at $77.3 billion, an increase of $13.1 billion since 2016.

Further, in the 2018 Business Plan, CHSRA notes that the Valley to Valley segment is $1.3 to $9 billion dollars short of the funding needed. The estimated funding shortfall is roughly equal to the cost of building the tunnels through the Pacheco Pass to link Gilroy to the Central Valley segment. Throughout the project, tunnels will be required through the California Coast Range between Gilroy and Merced, the Tehachapi Mountains between Bakersfield and Palmdale, and the San Gabriel Mountains between Palmdale and Burbank. The alignments currently under consideration involve between 45 to 50 miles of tunnels that range in length from several thousand feet to more than 20 miles, some of which are more than 2,000 feet underground. CHSRA proposes to complete the Central Valley segments, but leave the Pacheco Pass tunnels, the extension to Madera to Merced, and the connection of Gilroy (the south end of the Silicon Valley segment) to the Central Valley segment as the last portion of the Valley to Valley segment, completion subject to funding availability.

The 2016 Business Plan assumed that the project would have dedicated high-speed rail tracks with 220-mph service except (a) between San Francisco and San Jose it would share existing Caltrain tracks, which would be upgraded to allow 110-mph service, and (b) along segments of the Metrolink line in Southern California it would also share the Metrolink tracks. The 2018 Business Plan assumes that the project will (a) share the Caltrain tracks from San Francisco to Gilroy (upgraded to allow 110-mph service) and (b) operate on shared tracks on the Metrolink segment between Burbank and Anaheim with operating speeds up to 125 mph.

Table 1. Capital Cost Crosswalk

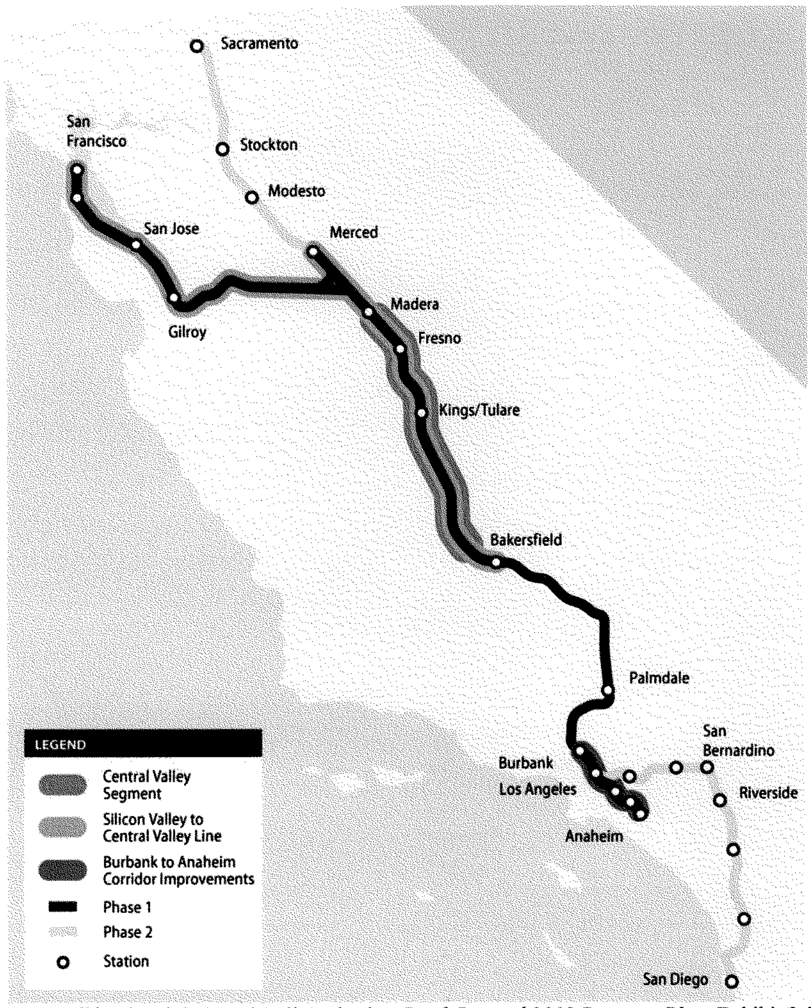
EXHIBIT 3.0 CAPITAL COST CROSSWALK

	2016 CAPITAL COST	CARRYOVER INCREASE	ESCALATION IMPACT	CONTINGENCY INCREASE	NET DESIGN/ SCOPE INCREASE	CENTRAL VALLEY INCREASE	TOTAL	INCREASE SINCE 2016	EXTENSION TO SF, BAKERSFIELD	NEW TOTAL
CV	$7.8B					$2.8B	$10.6B*	$2.8B	N/A	$10.6B
V2V	$20.7B	$2.8B	$1.4B	$1.6B	$1.1B		$27.7B	$7.0B	$1.9B**	$29.5B
PH1	$64.2B	$7.0B	$2.1B	$3.0B	$1.1B		$77.3B	$13.1B	N/A	$77.3B
Cost Increase Drivers			$3.5B	$4.6B	$2.2B	$2.8B				

*Updated Central Valley estimate-at-complete
**Represents minimal capital investment to extend Silicon Valley to Central Valley to San Francisco and Bakersfield; full build-out of these sections are captured in PH1 crosswalk numbers
Notes: Totals may not sum due to rounding

Source: California High Speed Rail Authority, *2018 Business Plan,* Exhibit 3.0, p. 34
Notes: "CV"= Central Valley, "V2V"= Valley to Valley, "PH1"= Phase 1

Figure 1. Phased High Speed Rail System Implementation



Source: California High-Speed Rail Authority, *Draft Revised 2018 Business Plan*, Exhibit 2.0.

WITNESS LIST

The Honorable Calvin L. Scovel III
Inspector General
The U.S. Department of Transportation Office of Inspector General

Mr. Brian Kelly
Chief Executive Officer
California High-Speed Rail Authority

Mr. Louis Thompson
Chairman
California High-Speed Rail Peer Review Group

Mr. Robbie Hunter
President
State Building and Construction Trades Council of California

CONTINUED OVERSIGHT OF THE CALIFORNIA HIGH-SPEED RAIL PROJECT

THURSDAY, AUGUST 9, 2018

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON RAILROADS, PIPELINES, AND HAZARDOUS MATERIALS,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
Washington, DC.

The subcommittee met, pursuant to call, at 10:39 a.m., in the Sonora Conference Room, John E. Moss Federal Building, 650 Capitol Mall, Sacramento, California, Hon. Jeff Denham (Chairman of the subcommittee) presiding.

Mr. DENHAM. The subcommittee will come to order. Without objection, the Chair is authorized to declare a recess at any time.

I ask unanimous consent that Members not on the subcommittee be permitted to sit on the subcommittee in today's hearing and ask questions. Without objection, so ordered.

First, let me thank our hosts for their generosity in opening up this great facility this morning, and I welcome our distinguished witnesses and thank them for their testimony as well.

This is the fourth hearing that we have held since I have been subcommittee chair. Over 6 years, we have done four of these hearings to go over the oversight of this project. We have been discussing for quite some time the higher cost, the projections. As chairman, I have scrutinized the authority's confusing business plans that are clearly not grounded in reality, and I have warned that the continued disregard of facts on the ground will lead to skyrocketing costs and public outrage.

And here we are today discussing a business plan that has grown to a $100 billion cost estimate, and that is without—when it passed, some of us here voted for or against this in the legislature when it was on the 2008 ballot. It was supposed to include the North Valley and Sacramento area. This $100 billion does not include San Diego south of Los Angeles, nor does it include the original plan to include the Sacramento area, and yet it is still $100 billion. It was also supposed to be done by 2020, 2 years from now, and now, if Sacramento is ever included, it would be two decades beyond that.

So continued oversight of this project is important not just to the Central Valley and for California but for the Nation as well. This project is continuing to become the poster child for mismanagement and runs the risk of diminishing public perception of much-needed passenger rail projects across the country. This is one of the reasons why, in 2017, I requested a Federal audit from the U.S. Department of Transportation Inspector General Cal Scovel, who is testifying here today. I look forward to hearing from Mr. Scovel about the methodology and trajectory of the audit moving forward.

This project has been awarded nearly $4 billion in Federal funding and represents nearly 40 percent of all high-speed rail funding for the entire country awarded by the Federal Railroad Administration. That is an investment made by the Federal taxpayer, as the country has watched costs go up, plans change, and scope of service reduced. When the voters of California approved Prop. 1A to fund this project, they thought they were approving a $33 billion project. It barely passed at 52 percent of the vote, but that $33 billion was also promised, $9.95 billion coming from the taxpayers of California. It was supposed to be put together in equal thirds with the taxpayers on the hook for that $9.95 billion and had approximately the other two-thirds coming from Federal Government and private financing. And now, the estimate is $100 billion without San Diego or Sacramento.

With the authority's record of consistently missing deadlines and experiencing cost overruns, the authority itself has given no one in the Central Valley in my district reason to believe that anything in regards to this project will go according to plan.

I would like to start off by highlighting some of the changes even from the 2016 business plan to the 2018 business plan. The schedule for completing the segments has slipped by several years from the 2016 plan. Completion of the valley-to-valley segment changed from 2025 to 2029, and phase 1 estimated completion has gone from 2029 to 2033. Again, Prop. 1A was supposed to be completed L.A. to San Francisco, to San Diego, to Sacramento 2 years from now for $33 billion. Now, if you have that entire project, you are looking at a two-decade delay and over $100 billion in increased cost. The estimated funding shortfall is roughly equal on the first segment of this, the Central Valley segment. Now that it has changed from the Central Valley north to San Francisco, that estimated funding shortfall is roughly equivalent to the cost of building the tunnels through the Pacheco Pass to link Gilroy to the Central Valley segment.

The concern of this going forward is even for this new blended route, just from the short of Bakersfield, outside of Bakersfield to San Francisco, the funding gap is the cost it would take you to go through the Tehachapis, meaning even in this short term, the missing funding piece and the delay that we have still ends up not completing the segment at all.

Look, here is the bottom line. California voters narrowly approved this with 52 percent of the vote. That was done in 2008. It was based on a business case that is unrecognizable today from even the authority's own plans. If this project is going to move forward and the authority is going to continue to ask for more tax dollars from the Federal Government, we need to know what those funds or finances would be. If the authority can't provide specific deliverables in a timeframe, then I believe that California voters deserve the right to take this back to the ballot and decide whether or not they still support a new project. Keep in mind that most of the Federal money allocated to this project was part of the previous administration's stimulus package, yet we are here today 10 years later with very little to show for it.

The inspector general audit will analyze the protocol that was followed to ensure safeguards were in place when allocating expending those grants, as well we have got other issues in California. We are still facing a water crisis here, and a fraction of this money could have solved our entire water crisis, still creating the same jobs, some would argue more jobs. But as elected leaders, we have got an obligation to make sure that we are good stewards of the tax dollar. And it is unfortunate that the State doesn't have that same political commitment to providing a reliable water supply to California as it does funding a bullet train that has not, is not, and will never deliver on the promises that were originally made to voters.

Mr. DENHAM. At this time, I would now like to recognize Mr. Garamendi for 5 minutes for any opening statement he may have.

Mr. GARAMENDI. Thank you, Mr. Chairman.

I am standing in for the ranking member of the subcommittee, and it is obviously a privilege to be able to do that.

From your comments, Mr. Chairman, it appears as though you are opposed to the continued funding for the high-speed rail and would like to see it stopped. If that is the case, this hearing is going to be extremely important. Unfortunately, Mr. Scovel's testimony will be of really no value at this point because he has had less than 4 months to develop his report.

So we are going to go forward. I am looking forward to the testimony from the witnesses here. I think it is going to be extremely important. I also want to recognize my colleagues, all of whom—well, with the exception of Ms. Lofgren—were in the legislature and were deeply involved in this program during its inception and its early years.

There are a couple of things I think we need to be aware of here. First of all, hopefully, this will be a productive conversation, but I do think it is important to look at the history of Federal funding for this project, and it does, as you said, Mr. Chairman, stem from the Great Recession of 2008 and the American Recovery and Reinvestment Act, which appropriated $2.55 billion for the Central Valley portion of the project. At that time, California's unemployment rate was 12.2 percent compared to 4.5 percent today.

While the State struggled with the economic downturn, the Central Valley suffered even more. In 2010, Stanislaus County had an 18.3 percent unemployment rate, and Merced County was close to 21 percent. And as Mr. Hunter will testify in his testimony, the planning and construction of the project in the Central Valley helped to bring this 18 percent unemployment rate in Stanislaus County down to 7 percent where it stands today. This was brought through the direct employment of over 2,000 skilled trade workers and $2 billion in economic activity in the valley. At the same time, the authority has contracted with roughly 500 companies in the Central Valley—in Stanislaus, Merced, Fresno Counties in the area—to supply equipment, components, and other necessities for this project, helping to grow the existing economy.

Once the Silicon Valley to the Central Valley component is complete, nearly $50 billion in economic activity will be brought to the

Central Valley alone. The completion of the valley-to-valley segment would provide an important connection between these two distant communities, providing economic and social benefits to both areas.

I also want to thank the California High-Speed Rail Authority, namely the chair of the board, Dan Richard, for helping ensure that this project is an American-made project so that our tax dollars are spent promoting American jobs and industries.

The authority originally requested a Buy America waiver that would have allowed up to 70 train sets to use foreign components and foreign-sourced steel. When I called Mr. Richard about this issue, he immediately pulled their waiver request and committed to make it in America. I want to thank the authority for their quick response and commitment to promoting good American manufacturing jobs.

While I am excited about the economic impacts of this project to date, like you, Mr. Chairman, I do have many questions about how the authority plans to fund the remainder of the project and in a way that is both responsible to the taxpayers and potential future riders. I do appreciate Mr. Thompson's testimony on behalf of the Peer Review Group, and look forward to hearing what he has to say regarding where we go from here. We will have that testimony in a few moments.

In closing, while recognizing there are many challenges that will be highlighted by you, Mr. Chairman, I would like to note that we have been here before. California didn't become the world's fifth-largest economy by chance. We accomplished this by investing in our State, investing in its infrastructure, in its agriculture, in its water systems, in its universities, and in its research and educational systems. The same project that made the city of Los Angeles possible, the water system, has now made it the second-most-populous city in the Nation.

We build airports, we build roads, and if we are able to maintain the excise tax on the fuel, we will continue to build our transportation systems. I note that some perhaps even sitting at this table are opposed to that, and that is a question for the ballot in November.

Well, we have got things to do, we have got places to go, and we need people that are willing to build it. With that, Mr. Chairman, I yield my time.

Mr. DENHAM. Thank you, Mr. Garamendi.

[Ms. Lofgren's prepared statement follows:]

Prepared Statement of Hon. Zoe Lofgren of California

Thank you Chairman Denham, Acting Ranking Member John Garamendi, and my colleagues on the committee for allowing me to participate in today's hearing in Sacramento.

As the chair of the California Democratic Congressional Delegation and cochair of the California High-Speed Rail Caucus along with Reps. Jim Costa and Lou Correa, I would like to reaffirm the Delegation's strong support for the California High-Speed Rail Project.

We understand the importance of public oversight and applaud the Authority's transparency as it constructs the nation's first high-speed rail system and the most ambitious public transportation project in the country. We also welcome the California State Joint Legislative Audit Committee's decision to request an independent audit, which will give a different and impartial perspective on the project.

Since the last oversight hearing two years ago in San Francisco, the need for high-speed rail in our state has increased tremendously. Housing costs in the Bay Area continue to skyrocket due to strong economic growth in the Bay Area. For example, Google recently proposed a transit-oriented community of offices, residences, shops and restaurants near Diridon Station in San Jose to where 15,000 to 20,000 employees will eventually work. As a result of this unprecedented growth, the region has struggled to keep up with demand for affordable housing to the point where families earning $117,000 now qualify as "low income."

As a resident of San Jose, I know firsthand the traffic congestion and affordable housing challenges in our area. San Jose, along with Los Angeles, and San Francisco, rank among the top five most gridlocked cities in the nation. Home prices, especially in the Bay Area, continue to increase. As of spring 2018, the median Bay Area home price hit a record high of $820,000.

Recognizing the need for more affordable housing, the residents of Santa Clara County overwhelmingly passed Measure A, the Affordable Housing Bond, by nearly 70 percent of the vote. The Measure allows Santa Clara County to borrow up to $950 million to provide affordable local housing for vulnerable populations including veterans, seniors, the disabled, low-income individuals, and individuals suffering from mental health or substance abuse illnesses. So, people in the Bay Area are willing to do their part for housing.

Traffic congestion will become more of a problem in the future as California's population is projected to grow to 51.1 million by 2060, 30-percent increase from today's population of 39.4 million. It is estimated that without the high-speed rail project, California would need to build more than 4,000 new freeway lane miles, 115 airport gates and four new runways just to keep up with population growth.

High-speed rail is not a new technology for other countries. China, Japan, Turkey, Spain, Germany, and the United Kingdom are all currently constructing high-speed rail track. Other countries such as Saudi Arabia, Morocco, and even Uzbekistan are building brand new high-speed rail systems.

The new 2018 Business Plan creates a plan to deliver an operable segment between Silicon Valley and the Central Valley by 2029. It also extends the line to run from San Francisco to Bakersfield, which will generate higher ridership and revenue. A shortened commute between these two communities will open up an affordable housing market for those working in the Bay Area and create much needed economic growth in the Central Valley. According to the High-Speed Rail Authority, a trip from San Jose to Fresno would be reduced to about an hour, from the three hours it currently takes to make the trip by car.

Advancing the Silicon Valley to Central Valley Line will continue to yield enormous dividends *throughout* the state. As the Authority contracts with new companies—and those firms hire new workers—the program will further bolster a new high-speed rail industry in California.

A recent analysis shows that a completed Silicon Valley to Central Valley Line will support almost 240,000 job-years of employment and nearly $50 billion in economic activity over the lifetime of the line's construction.

Of those, over 100,000 are direct job-years, meaning they are direct beneficiaries of the high-speed rail investment—with 83,900 of these direct job-years projected in the construction industry.

Governor Brown has left the project poised for completion for his successor. Last year, the Legislature approved and Governor Brown signed AB 398 extending the Cap-and-Trade Program through 2030. On an ongoing basis, without any need for annual appropriations, 25 percent of the yearly cap-and-trade revenue will fund continued development and construction of the high-speed rail system. To date, the project has already received $2.04 billion in Cap-and-Trade Funds.

High-speed rail construction has been under way in the Central Valley for several years now with 21 construction sites across 5 counties and 2,000 construction jobs, the majority of which are held by local residents—954 reported living in Fresno County, 145 live in Madera County, and 172 live in Kern County. The unemployment rate in Fresno County has dropped to 7.5 percent as a result, one of the lowest rates since 2000. According to a recent report by the Mineta Transportation Institute, construction in the Central Valley has led to significant economic impacts through increased employment of more than 25,000 full-time equivalent job years over a 15-year period.

Californians, including folks in my home district of San Jose, are seeing immediate benefits from California's high-speed rail project. The Authority unanimously approved $713 million for its share of funding for the $2 billion Caltrain Electrification Project. Caltrain electrification will increase ridership and reduce commute times while allowing for blended integration of high-speed rail to San Francisco.

According to Caltrain, full electrification which is scheduled to be completed by 2021, could reduce carbon emissions by 97 percent a year and allow trains to enter and exit stations more quickly than diesel-powered engines. This will reduce pollution while increasing ridership and improving commute times. Caltrain also estimates that over the course of construction, the project will generate an additional 9,600 direct and indirect jobs.

The new Business Plan also makes concurrent regional investments in Southern California including the remaining Prop 1A bookend funds in the rail corridor between Burbank and Anaheim to improve train lines and improve freight in the area.

It's clear the State of California has demonstrated its commitment to fund high-speed rail alongside strong support from our community and key stakeholders. But my Republican colleagues are still attempting to impede the flow of federal funds to California. Not only do these attacks slow down our efforts to build high-speed rail, it also sends a warning message to private investors and to other states and regions developing much-needed major infrastructure projects.

I call on my colleagues in Congress to be a partner in this project. Providing a significant, long-term revenue stream for the project will go a long way towards making American high-speed rail a reality.

The California High-Speed Rail project is the largest and most ambitious infrastructure endeavor of our time. When completed, it will move people swiftly and it will immediately ease congestion and improve air quality in California while creating thousands of jobs.

Our global competitors certainly aren't holding back on their high-speed rail infrastructure. That's because around the world, high-speed rail has been shown to be an effective, popular and profitable mode of transportation.

I would also like to note, before serving in Congress, I was in local government, and I remember building big projects. It is easy to criticize, harder to build. When we built Highway 85 down in Santa Clara County, the section from 101 to 280 was done and it took decades to get 280 to the southern 101. So you do these in pieces, and that is just the way big construction projects go.

When it comes to transportation, I believe the United States should be second to none. It was solid investments in infrastructure that helped make the 20th century the American century. California's High-Speed Rail project can help continue that kind of success for our country in the century to come.

Mr. DENHAM. I would now like to welcome our witnesses here today. Our panel is comprised of Inspector General Cal Scovel, United States Department of Transportation; Mr. Brian Kelly, CEO of the California High-Speed Rail Authority; Lou Thompson, chairman of the California High-Speed Rail Peer Review Group; and Mr. Robbie Hunter, president of the State Building and Construction Trades Council of California.

I ask unanimous consent that our witnesses' full statements be included in the record. Without objection, so ordered.

Since your testimony has been made part of the record, the subcommittee would request that you limit your oral testimony to 5 minutes.

We will begin now with Mr. Scovel. Welcome to the committee. You may proceed.

TESTIMONY OF HON. CALVIN L. SCOVEL III, INSPECTOR GENERAL, U.S. DEPARTMENT OF TRANSPORTATION, OFFICE OF INSPECTOR GENERAL; BRIAN P. KELLY, CHIEF EXECUTIVE OFFICER, CALIFORNIA HIGH-SPEED RAIL AUTHORITY; LOUIS S. THOMPSON, CHAIRMAN, CALIFORNIA HIGH-SPEED RAIL PEER REVIEW GROUP; AND ROBBIE HUNTER, PRESIDENT, STATE BUILDING AND CONSTRUCTION TRADES COUNCIL OF CALIFORNIA

Mr. SCOVEL. Chairman Denham, Ranking Member Garamendi, members of the subcommittee, thank you for inviting me to testify on the Federal Railroad Administration's oversight of the High-Speed Intercity Passenger Rail Program. Since 2009, Congress has appropriated over $10 billion for this program, and almost 39 percent of that has gone to the planned high-speed rail corridor here in California.

Since 2012, my office has completed seven audits related to FRA's oversight of the high-speed rail program, and we have additional reviews ongoing. To date, we have issued 21 recommendations to FRA about its high-speed rail program oversight, and the agency has completed action on 20 of them. Today, I will describe steps FRA has taken to address our published recommendations. I will then update you on the status of our ongoing audit, which is focused on FRA's oversight of its grants to the California High-Speed Rail Authority.

As our work shows, FRA has faced challenges in implementing and overseeing high-speed rail in the 10 years since the program was created. On the implementation side, these challenges included developing a coherent nationwide plan for high-speed rail, as well as communicating guidance to help States, including California, plan and implement their projects.

In response to our recommendations, FRA undertook a national rail planning effort that defined measurable performance goals and clear stakeholder roles. It also improved some of its project planning materials. For example, FRA developed guidance to improve how grantees forecast ridership and revenue and estimate the costs and benefits of planned projects. This guidance can inform California as it develops future business plans and other supporting plans for high-speed rail.

FRA also faced numerous challenges relating to grant management and oversight. Along with quickly establishing a new grant program, FRA had to distribute and oversee more than $10 billion in Federal funds, including the $3.5 billion it granted to California. To its credit, FRA has addressed certain weaknesses we identified with its grant program, such as those related to amending and monitoring grant agreements. California's FRA grant has been amended six times. For example, a 2012 amendment allowed the State to expend Federal funds before it paid State matching funds. While grant amendments occur for a variety of legitimate reasons, FRA has a responsibility to ensure that they do not result in unacceptable risk to Federal investments.

In response to our recommendations, FRA updated its guidance on mitigating risks during the grant amendment process. In addition, FRA now requires its staff to report suspected fraud, waste, and abuse to our office for investigation. FRA also updated its web-based project management tracking tool and amended its procedures for following up on problems it identifies during grant monitoring. If applied consistently, this can be a useful tool.

FRA's steps in these areas are commendable. However, to protect Federal funds, management attention and strong oversight remain critical. Our ongoing work continues to assess FRA's grant oversight to identify additional areas for improvement. In particular, at your request, Mr. Chairman, we recently started an audit of FRA's oversight of its grants to the California high-speed rail project. We will assess FRA's risk analysis, assessment, and mitigation efforts, as well as its procedures for overseeing the expended Federal funds.

To meet these objectives, we are currently reviewing those expenditures, including invoices submitted to FRA by the authority, to determine whether Federal funds expended complied with applicable Federal laws and regulations. We are also interviewing FRA staff and examining other grant documentation, all with the goal of evaluating FRA's analysis of risks that may be associated with the California high-speed rail initiative.

Because our audit is still in its initial phase, we are not yet able to report on any preliminary findings, in accordance with Federal auditing standards. However, as our audit progresses, we will brief FRA on our findings and reach out to other stakeholders, including the rail authority, as needed, to validate and discuss our results. We plan to issue our report in late spring 2019. We are committed to working with FRA to improve its oversight and stewardship of Federal funds, and we will keep you apprised of this and any other related work.

Mr. Chairman, this concludes my prepared statement. I will be happy to answer questions you or other members of the subcommittee may have.

[Mr. Scovel's prepared statement follows:]

Prepared Statement of Hon. Calvin L. Scovel III, Inspector General, U.S. Department of Transportation, Office of Inspector General

INTRODUCTION

Chairman Denham and members of the subcommittee, thank you for inviting me here to discuss our past and ongoing audit work related to the Federal Railroad Administration's (FRA) oversight of the High-Speed Intercity Passenger Rail (HSIPR) program. As you know, FRA administers the HSIPR program, a discretionary grant program created by the Passenger Rail Investment and Improvement Act of 2008 (PRIIA).[1] Between 2009 and 2011, Congress appropriated over $10 billion for the program, and as of July 2018, FRA had disbursed $8.6 billion of those funds. Nearly 39 percent of HSIPR program funding has been dedicated to California's planned high-speed rail corridor between San Francisco and Los Angeles, managed by the California High-Speed Rail Authority (CHSRA).

Since HSIPR was launched, we have identified a number of implementation challenges for FRA, including developing written policies and practices to guide the program's grant lifecycle process and oversight activities. To date, we have issued 21 recommendations related to FRA's oversight of HSIPR. FRA has taken action on 20 of them, and we continue to monitor FRA's oversight of the program.

My testimony today will focus on (1) steps FRA has taken to address our recommendations related to HSIPR program oversight and (2) the status of our ongoing audit on FRA's oversight of its grants to CHSRA for high-speed rail.

SUMMARY

FRA faced several challenges in developing an oversight framework for the HSIPR program but took action to address many of them in response to our previous findings and recommendations. For example, FRA improved some of its HSIPR project-planning materials, which now include guidance to help grantees such as CHSRA forecast ridership and revenue, evaluate public benefits, and estimate operating costs. FRA also took steps to address certain weaknesses in its oversight of HSIPR funds. For example, following our 2015 audit that identified challenges with amending and monitoring compliance with HSIPR grant agreements, FRA updated its guidance on identifying and mitigating risks during the grant amendment process and added a requirement that Agency staff report suspected fraud, waste, or abuse

[1] Pub. L. No. 110–432 Div. B.

to DOT-OIG for investigation. Other FRA actions based on our recommendations include grant-management training for its staff and a web-based tracking tool that can help the Agency monitor California's compliance with the terms of its grant agreement. Given the importance of grant oversight for ensuring proper stewardship of taxpayer dollars, our office continues to monitor FRA's efforts to oversee the HSIPR program. At your request, Mr. Chairman, we recently initiated an audit of FRA's oversight of its grants to the California high-speed rail project, which will assess the Agency's risk analysis, assessment, and mitigation efforts, as well as its procedures for overseeing the expended Federal funds. To meet these objectives, we will examine FRA's management of the HSIPR program in general and specifically the oversight of its grants to CHSRA. Given that our audit is still in its initial phase, the evidence we have collected is not yet sufficient to allow us to discuss our preliminary findings. We expect to report on the results of our review in spring 2019.

BACKGROUND

Congress directed FRA in PRIIA to establish a grant program to fund various types of intercity passenger rail improvements, while continuing to carry out its prior responsibilities, including its oversight of Amtrak. These new responsibilities greatly expanded FRA's role in developing and managing the Nation's rail system. In addition, 4 months after PRIIA's enactment, the American Recovery and Reinvestment Act of 2009 (ARRA)[2] appropriated $8 billion to FRA to develop and implement the HSIPR grant program and established aggressive requirements for the timing of fund obligations and expenditures. Congress has since not reauthorized the HSIPR program, but the Fixing America's Surface Transportation Act of 2015[3] established a new Consolidated Rail Infrastructure and Safety Improvement program to fund rail infrastructure and safety projects.

In 2008, California voters approved Proposition 1A, which authorized $9.95 billion in State funding for the construction of the California high-speed rail system and connection improvements to existing passenger rail systems. CHSRA is charged with planning, designing, and constructing the 520-mile rail system, which is expected to operate between San Francisco and Los Angeles at speeds of up to 220 miles per hour.

Through the HSIPR grant program, FRA awarded the State approximately $3.3 billion in capital construction funds and $231 million for environmental review and preliminary engineering work, for a total of approximately $3.5 billion (see table). The California high-speed rail project is the largest recipient of HSIPR funds,[4] with approximately 39 percent of program funds obligated. Most of the funds awarded to the project were appropriated under ARRA and, in accordance with the governing grant agreement, were expended prior to the statutory deadline of September 30, 2017.[5] An additional $929 million in Federal funding—appropriated in fiscal year 2010—remains unexpended. Under the terms of its grant agreement with FRA, CHSRA must first provide State funds to match the Federal ARRA expenditures before FRA will release the fiscal year 2010 appropriated funding. Through the end of fiscal year 2017, CHSRA had provided $293.1 million of its total $2.5 billion matching share for the Federal ARRA grant.

Table. California High-Speed Rail: Identified and Proposed Sources of Funding

Funding Source	Amount	Purpose
American Recovery and Reinvestment Act (Federal)—awarded August 17, 2010.	$2.6 billion	Planning and environmental work on Phase I, as well as construction on the initial Central Valley segment.
FY2010 Appropriations (Federal)—awarded December 16, 2009.	$0.9 billion	Construction on the initial Central Valley segment.
California Proposition 1A Bond Sale Proceeds	$10 billion	Planning and construction throughout Phase I.

[2] Pub. L. No. 111–5.
[3] Pub. L. No. 114–94.
[4] Other major recipients of HSIPR grant funding include the States of Washington ($751.6 million), Illinois ($1.1 billion), and North Carolina ($520 million).
[5] $5.1 million in unspent funds were returned to the Treasury following their statutory expiration.

Table. California High-Speed Rail: Identified and Proposed Sources of Funding—Continued

Funding Source	Amount	Purpose
California Cap-and-Trade † proceeds received through December 2017.	$1.7 billion	Planning and construction throughout Phase I.
Future California Cap-and-Trade	$4 billion to $4.5 billion	Planning and construction throughout Phase I.
California Cap-and-Trade Financing projections from 2024–2050 †.	$3.9 billion to $11.1 billion	Planning and construction throughout Phase I.
Projected Total Funding for All of Phase I	**$23 billion to $30.7 billion**.‡	
Projected Total Cost for All of Phase I	**$63.2 billion to $98.1 billion**.	

Source: CHSRA 2018 business plan and grant agreements

† California launched its Cap-and-Trade program in 2013. Through the program, the California Air Resources Board sets an overall emissions target for the State and sets a limit on carbon dioxide emission levels from certain entities. A portion of the proceeds from the sale of emissions allowances finances the high-speed rail project.

‡ These projected sources of funding are between $32.5 billion and $75.1 billion less than the total projected costs for the entire Phase I system (San Francisco to Anaheim).

FRA's largest grant to CHSRA[6] is directed toward completion of preliminary engineering and environmental review in support of the entire 520-mile system and construction of an initial 119-mile segment of the system in California's Central Valley. The grant agreement requires CHSRA to match the $2.5 billion Federal investment and complete the scope of work.

Since 2012, we have issued seven reports related to the HSIPR program (see exhibit).

FRA Has Faced Challenges in Implementing and Overseeing the HSIPR Program but Has Made Improvements

Since the creation of the HSIPR program, FRA has faced challenges in implementing and overseeing it, including administering and managing over $10 billion in grant funds. To its credit, FRA took action on our recommendations related to project planning and worked to address certain weaknesses we identified in its oversight and management of HSIPR funds. Such actions have the potential to improve any future administration of California's railroad programs, including the high-speed rail project.

FRA Has Taken Steps To Improve Its Guidance for High-Speed Rail Planning and Decision Making

FRA's challenges with the HSIPR program have included developing a coherent plan for rail that integrates the entire country and communicating guidance to help States such as California plan and implement high-speed rail projects. For example, in 2012 we reported that the lack of a clearly defined, long-term vision for national intercity passenger rail impeded States' abilities to develop their own rail plans and passenger rail improvement projects.[7] Uncertainty about the Federal role and interstate coordination also made it difficult to attract private sector investment.

FRA has since taken action to address six of our recommendations related to project-planning guidance. For example, FRA developed a variety of materials to respond to our recommendation that it complete a National Rail Plan with measurable performance goals and clear stakeholder roles. One significant component of those efforts was a rail planning study for the Southwest Region—comprised of California, Nevada, and Arizona—which identified high-level "candidate corridors" for potential investment, alternatives for addressing certain multi-state planning governance and

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[6] FRA has executed four grant agreements that will benefit California High-Speed Rail, including: (1) an agreement with CHSRA governing $2.5 billion in ARRA funds, referenced above; (2) an agreement with CHSRA to govern the award of approximately $930 million appropriated in fiscal year 2010, which also supports construction of an initial rail segment in the Central Valley; (3) an agreement with CHSRA that contributes funding to a project to install positive train control on existing track between San Jose and San Francisco; and (4) an agreement with the Transbay Joint Powers Authority that contributes funding to the construction of the Transbay Terminal Center.

[7] *FRA Has Made Progress Implementing PRIIA Responsibilities, but Challenges for Long-Term HSIPR Remain* (OIG Report No. CR–2012–072), March 2012. OIG reports are available on our website at http://www.oig.dot.gov/.

institutional challenges, and lessons learned that could be applied to future regional planning efforts. In addition, in response to PRIIA requirements and our recommendation, FRA issued guidance to help States develop their own rail plans, including the processes for plan development, specific elements that must be included, and data and methodological requirements. These plans and guidance are now available to California as it continues to develop both its overall State rail planning efforts as well as any future business plans specifically for the high-speed rail program.

FRA has also taken some steps to improve its ability to make funding and planning decisions. Specifically, one of FRA's key responsibilities and challenges in implementing HSIPR is assessing the economic viability of proposed projects and deciding which ones to fund. In 2012, we reported that FRA had established only minimal requirements and provided HSIPR grant applicants limited guidance on how to determine a project's viability.[8] As a result, FRA lacked consistent information to aid its decisions regarding which high-speed rail projects to fund. In response to our findings, FRA developed guidance to help potential grantees prepare HSIPR ridership and revenue forecasts, public benefits valuations, and operating cost estimates. In addition, the Agency established specific requirements for these forecasts, valuations, and estimates for each level of HSIPR project development. In 2016, FRA published detailed benefit-cost analysis guidance and a cost-estimation guide that States can use to inform decision makers about the trade-offs involved in passenger rail investment. This guidance can inform California as it develops any future high-speed rail business plans as well as other supporting plans, such as those for service and development and continuing operations. As such, it may improve the quality of the estimates of ridership, revenue, public benefits valuations, and operating costs for the system.

FRA Has Worked To Address Certain Weaknesses in Its Management and Oversight of HSIPR Funds

HSIPR gave FRA significant new grant-making and oversight duties, presenting unique challenges. Along with quickly establishing a new grant program, the Agency now had to distribute and oversee more than $10 billion in appropriated grant funds, including the $3.5 billion granted to California. FRA has taken some steps to address initial weaknesses in its HSIPR grant oversight policies, procedures, and practices. For example, FRA developed-and has continued to refine-its grants management manual in response to our recommendations.[9] This manual clarifies the Agency's policies and procedures and guides FRA staff oversight during all stages of the grant administration process, including solicitation, award, administration, monitoring, and closeout.

In particular, one challenge area included the process for amending grants. Once FRA has awarded an HSIPR grant, the Agency may amend an agreement to change the funding amount, the grant's objectives, or the terms governing the Federal and the grantee's funding contributions to the project, as needed. For example, California's FRA grant has been amended six times, including a 2012 amendment that allows the State to expend Federal funds in advance of its provision of State matching funds, which are typically required to be spent concurrently with the Federal funds. While the need to amend a grant amendment may arise for a variety of legitimate reasons, FRA has a responsibility to ensure that the amended grant terms and conditions do not result in unacceptable risk to Federal investments. In response to our findings and recommendations, FRA updated its policies and procedures to include more robust guidance on identifying and mitigating risks during the grant amendment process. These policies and procedures position FRA to provide greater transparency regarding its decisions on grant amendments, including its sixth amendment to its grant to CHSRA.[10]

FRA has also developed some tools and training for its staff to help improve the Agency's oversight of its HSIPR grants. Our 2012 review found that the Agency's ability to effectively administer and ensure the accountability of HSIPR grant funds was hindered by the lack of experience and expertise of FRA staff. In response to

[8] *FRA Needs To Expand Its Guidance on High-Speed Rail Project Viability Assessments* (OIG Report Number CR–2012–083), March 2012.

[9] *Completing a Grants Management Framework Can Enhance FRA's Administration of the HSIPR Program* (OIG Report No. CR–2012–178), September 2012, and *FRA Improved Its Guidance on High-Speed Rail Grant Agreements, but Policies and Procedures for Amending and Monitoring Grants Remain Incomplete* (OIG Report No. ST–2015–038), April 1, 2015.

[10] FRA has amended its grant agreement with CHSRA six times. However, the Agency executed the sixth only subsequent to the issuance of our report on April 1, 2015. The sixth amendment—signed on May 18, 2016—extended the grant's period of performance from September 30, 2017, to December 31, 2022, among other changes.

our recommendations, FRA now provides required training in grant-management best practices, monitoring and risk assessment, and fraud awareness and prevention to all Agency grants management staff.

In addition, FRA has taken action on OIG recommendations related to its processes for monitoring grantee efforts to comply with the terms of their grant agreements and to resolve problems that the Agency identifies through its monitoring reviews. As we noted in prior audits, FRA has faced challenges in this area in the past. For example, we reported in 2015 that FRA staff closed six findings from the Agency's review of a grant to CHSRA without documenting the grantee's actions to correct the problems. These findings included problems regarding schedule slips, implementation of its required risk-management plan, and cost-estimate reports. As a result, it was difficult for FRA to follow up to ensure CHSRA and other grantees resolved identified problems. In response to our recommendations, FRA updated its web-based project management tracking tool and amended its procedures to strengthen its tracking and follow up on any problems it identifies during grant monitoring, such as those identified for the CHSRA grant. FRA also introduced a specific requirement that Agency staff report suspected fraud, waste, or abuse to DOT-OIG for investigation. As such, the Agency may be in a better position to track California's compliance with the terms and conditions of its grant agreement, use that information to guide its ongoing oversight, and detect and report potential fraud. Given the importance of grant oversight for ensuring proper stewardship of Federal funds, our office continues to review FRA's role in providing HSIPR program oversight.[11]

FRA's Oversight of the California High-Speed Rail Project Is Focus of Ongoing OIG Audit

Mr. Chairman, at your request, we are currently reviewing FRA's oversight of its grants to CHSRA for the California high-speed rail project. As you know, in a letter to our office, you noted the significant funds provided to CHSRA for high-speed rail and cited concerns regarding FRA's oversight of expenditures and CHSRA's compliance with Federal requirements. Your letter also expressed concerns about the Agency's assessment of risk associated with CHSRA's ability to provide required matching funds and its analysis of risk when reviewing CHSRA's business plans and financial reports.

We announced our audit in April 2018, and it is currently underway. In accordance with your request, our audit objectives are to assess FRA's (1) risk analysis, assessment, and mitigation efforts—particularly regarding the availability of non-Federal matching funds, business plans, and financial reporting—and (2) procedures for determining whether Federal funds expended complied with applicable Federal laws and regulations. Our audit specifically focuses on FRA's work to oversee the CHSRA grants.

To meet these objectives, we are currently reviewing data related to Federal expenditures, conducting interviews with FRA staff, and examining a variety of documentation—including policies, procedures, risk assessments, and invoices—related to FRA's management of the HSIPR program generally and oversight of its grants to CHSRA specifically. This will include onsite interviews of CHSRA and FRA representatives here in California, in addition to our work at FRA Headquarters.

We briefed FRA on the purpose, objectives, and proposed scope and methodologies of our review in late April. Our audit is now currently in its initial phase—known as the Survey phase—during which we test our methodologies and develop preliminary findings. Subsequently, the audit will move into the Verification phase, during which we refine our methodology, collect additional data, finalize our audit findings, and develop recommendations. After completing this phase, we will brief FRA on our findings and recommendations and reach out to other stakeholders, including CHSRA, as needed to validate and discuss our results. We will then issue a draft report to FRA, and the Agency will have an opportunity to review and respond to it. FRA's response will be included as an appendix to our final report, which is typically published 6 to 8 weeks after we provide a draft to the auditee.

We plan to transmit our final report on FRA's oversight of CHSRA in spring 2019 to this subcommittee and FRA, and will post it on our public website. Given that our audit is still in its initial Survey phase, we are not yet able to report on our

[11] In addition to the ongoing audit discussed in this testimony, our audit of FRA's use and acquisition of Monitoring and Technical Assistance Contractors for High-Speed and Intercity Passenger Rail grant oversight is in process.

preliminary findings, in accordance with Federal auditing standards.[12] However, we will keep this subcommittee apprised of the status of our review and also inform FRA about our progress and findings as our standards and process dictate.

CONCLUSION

FRA's grant programs present distinct opportunities for advancing high-speed rail transportation, but also require an unprecedented level of stewardship to safeguard the billions of taxpayer dollars involved. While FRA has made progress in implementing HSIPR and resolving many of the weaknesses identified in our audits, continued management attention and strong oversight will remain critical to ensure that Federal funds are not subject to an unacceptable level of risk. In addition, our work will continue to assess FRA's grant management to identify additional areas for improvement. We thank you and this subcommittee for keeping focus on this important area and will keep you informed as we monitor FRA's efforts to oversee the HSIPR program, including developments with the California High-Speed Rail Authority and our ongoing review.

This concludes my prepared statement. I will be happy to answer any questions you or other members of the subcommittee may have.

EXHIBIT. OIG REPORTS ON THE HSIPR PROGRAM SINCE 2012

- *FRA Has Made Progress in Implementing PRIIA Responsibilities but Challenges for Long-Term HSIPR Remain* (OIG Report CR–2012–072), March 6, 2012
- *FRA Needs To Expand Its Guidance on High-Speed Rail Project Viability Assessments* (OIG Report CR–2012–083), March 28, 2012
- *Completing a Grants Management Framework Can Enhance FRA's Administration of the HSIPR Program* (OIG Report CR–2012–178), September 11, 2012
- *FRA's Requirements For High-Speed Rail Stakeholder Agreements Mitigated Risk, but Delayed Some Projects' Benefits* (OIG Report CR–2013–007), November 1, 2012
- *NEPA: FRA Coordinates as Required, but Opportunities Exist to Modernize Procedures and Improve Project Delivery* (OIG Report CR–2014–010), December 5, 2013
- *FRA Continues To Make Progress Implementing PRIIA Responsibilities but Faces Challenges With Rail Planning* (OIG Report CR–2014–030), February 25, 2014
- *FRA Improved Its Guidance on High-Speed Rail Grant Agreements, but Policies and Procedures for Amending and Monitoring Grants Remain Incomplete* (OIG Report ST–2015–038), April 1, 2015

Note: OIG reports are available on our website at http://www.oig.dot.gov/.

Mr. DENHAM. Thank you, Mr. Scovel. Mr. Kelly, you may proceed.

Mr. KELLY. Good morning, Mr. Chairman. Thank you for the opportunity to be here today. Also, good morning, Acting Ranking Member Garamendi, and other members of the committee. My name is Brian Kelly, and I am the——

Mr. DENHAM. Mr. Kelly, can I have you pull the microphone up——

Mr. KELLY. Sure.

Mr. DENHAM [continuing]. A little bit closer?

Mr. KELLY. Sorry, Mr. Chairman. Again, my name is Brian Kelly. I am the CEO of the California High-Speed Rail Authority, a position I was appointed to in February of this year. Prior to this position, just by way of background, I served as secretary of the California State Transportation Agency for 5 years, and prior to that spent 18 years working in the California State Senate where

[12] We are conducting this review in accordance with generally accepted Government auditing standards as prescribed by the Comptroller General of the United States. These standards require us to obtain sufficient, appropriate evidence to support any findings or conclusions that we present. At this stage, the evidence that we have collected is not yet sufficient to allow us to publicly discuss our preliminary findings.

I got to know many of you. Good to see you again, and welcome back to Sacramento.

I was drawn to the high-speed rail program because, in my view, it is the most transformative project I have seen in 24 years of working in transportation policy in the State. It is capable of delivering very important mobility, economic, and environmental objectives. In my first 6 months on the job, I immediately set to work developing our guiding documents to get this project on the track for success, including the adoption of the business plan, which we will go into greater detail today. We have also adopted Program Baseline, which is a multiyear document to guide our work to implement the 2018 business plan and includes a definition of scope, schedule, and cost for early investments.

We are completing work now on a program management plan, which is a reorganization of our organization to assure we have resources in the right place and addressing our challenges that are before us to deliver this project on time.

And then finally, we will be taking up a new strategic plan, which will lay out how we will achieve our mission, vision, and goals through measurable performance metrics that we will use to provide project update reports to all of our oversight committees, this one, as well as legislative.

In addition to these organizational improvements, it is worth noting that the authority has made important progress in the project since this subcommittee's last field hearing. We have three construction packages that have advanced to create an overall investment of over $3 billion on construction-related activities in the Central Valley. Bridges, viaducts, grade separations are becoming clearly visible at multiple locations, and we have 20 major projects underway today.

We have dispatched more than 2,000 workers that have good-paying jobs on the project, and, as was noted earlier, we are employing over 437 small businesses, including 142 disadvantaged businesses and 52 disabled-veteran businesses.

We did meet the ARRA [American Recovery and Reinvestment Act] expenditure deadline of September 2017 in our FRA grant agreement, and the authority is now accessing Proposition 1A bonds for construction while our cap-and-trade dollars appear to have stabilized. With this great progress, however, the project does face challenges, and our 2018 business plan laid out a vision to implement this project in the face of these challenges, which are not dissimilar to those that confront projects around the world of similar magnitude and complexity. For the first time in this plan, the authority is assigning costs to risks that were identified in prior plans, and we present a baseline cost estimate for all project sections.

Also for the first time, the plan discontinues the past practice of estimating project costs with a specific dollar estimate, and instead, recognizing that many elements of the project are still in the early project development phase, the plan estimates cost utilizing baseline estimates and ranges. Our baseline estimate for valley-to-valley is $29.5 billion. Our baseline estimate for the entirety of phase 1 is $77.3 billion. The revised baseline cost estimates show an increase in cost largely driven by the effects of inflation, increased contingency for risks, and previously identified construction delays in the Central Valley.

Schedule for the valley-to-valley service and our full phase 1 service are pushed out 4 years respectively, and the schedules will be affected primarily by the timing and availability of funding for project implementation. The plan also outlines a financing strategy consistent with the one contained in the 2016 business plan to better align our cap-and-trade funds with capital needs for the project so we can deliver the benefits at the earliest possible time.

Our strategic investment priorities in the plan include five priorities: one, meet all of our commitments to our Federal funding partner under our grant agreement; two, extend the valley-to-valley service from San Francisco to Bakersfield, which is the highest revenue, highest ridership initial service; deliver in the short term 224 miles of high-speed, rail-ready infrastructure for use by 2027; isolate the tunneling in the Pacheco Pass as the final missing link to complete the valley-to-valley service; and continue our bookend investments in southern and northern California.

In closing, Mr. Chairman, I would just like to conclude by reiterating my perspective that this transformative project is unique in its ability to provide vital mobility, economic, and environmental benefits to Californians, and with that, Mr. Chairman and Members, I am happy to answer your questions today. Thank you.

[Mr. Kelly's prepared statement follows:]

Prepared Statement of Brian P. Kelly, Chief Executive Officer, the California High-Speed Authority

Chairman Denham, Acting Ranking Member Garamendi, and Members of the Subcommittee, I appreciate the opportunity to appear before you today to discuss the California High-Speed Rail program as part of the Subcommittee on Railroads, Pipelines, and Hazardous Materials ongoing oversight. I am Brian Kelly, Chief Executive Officer of the California High-Speed Rail Authority (Authority). I was appointed to my current position by the Authority's Board of Directors in January 2018 and since I began the job on February 1, I have dedicated myself to producing the Authority's 2018 Business Plan, the Program Baseline, and a new Project Management Plan that re-organizes the Authority to focus resources on key needs to deliver this project.

In this testimony, I will highlight major areas of progress the Authority has made since this Subcommittee's last oversight hearing in June 2017. I will also summarize the key elements of the Authority's 2018 Business Plan,[1] including the challenges we currently face and our plans to address those challenges so that we can deliver the modern, efficient high-speed rail system that California voters demanded 10 years ago.

Mr. Chairman and Acting Ranking Member, much has happened since this Subcommittee's last oversight hearing. Construction of the 119-mile Central Valley segment continues to advance, with completion of several major structures and more becoming clearly visible throughout the region. This construction has put more than 2,000 men and women to work on good paying jobs, and our work to date has been bolstered by more than 400 California-based small businesses, including Disabled Veteran Businesses. All told, the high-speed rail project has already generated between $5 and $6 billion in economic activity.

While tremendous progress is being made on the project, we are also facing cost and schedule pressures that are not unusual for megaproject of this scale, but must be addressed by implementing a new way of doing business at the Authority. In this testimony I will outline those issues as well as our approach to applying lessons learned to date to ensure we do not face the same challenges in the future.

[1] The California High-Speed Rail Authority 2018 Business Plan.

Finally, I want to be clear that in this constrained funding environment, one fundamental truth remains evident about this project—as was the case when the voters of California passed Proposition 1A in 2008, the project does not have all of the dedicated funding necessary to complete the entire Phase 1 system. This fact requires us to build the project in stages. While we complete environmental work Statewide and ready all segments for investment as resources materialize, our fundamental objectives remain unchanged from the 2016 Business Plan: to initiate high-speed rail passenger service as soon as possible so we both demonstrate its benefits and begin generating revenues that will then attract private sector participation and help fund extending the system beyond an initial operating line. And while delivering an initial operating line, we will also make strategic concurrent investments throughout the State that will provide early benefits to local communities and regional transportation systems while linking those segments together over time. We believe this approach remains prudent and doable, and I look forward to sharing our plans with the Subcommittee today.

Major Areas of Progress

Construction, Jobs and Small Businesses

Mr. Chairman, construction has significantly advanced since the last time the Authority appeared before this Subcommittee. Our progress includes:

- Three Construction Packages have advanced to create an overall investment of $3.08 billion through January 31, 2018 on construction related activities in the Central Valley;
- Bridges, viaducts and grade separations are becoming clearly visible at multiple locations, with 20 major projects currently underway;
- Three major structures have been completed—the Cottonwood Creek guideway structure, the Fresno River Bridge and the new Tuolumne Street Bridge, which opened to traffic in August 2017;

For more detailed construction updates, including videos of our progress, please visit buildhsr.com.

This construction progress has brought with it great benefits to California workers and small businesses, as the Authority maintains its aggressive 30 percent goal for small business participation. I am proud to report that there are 437 small businesses on the project, including 142 DBEs and 52 DVBEs.

Additionally, you may recall that in June 2017 the Authority had dispatched approximately 1,200 craft labor workers to its design-build construction package sites. Mr. Chairman, there are now over 2,000 dispatched workers on the high-speed rail project, a number that has had a decidedly positive impact on the Central Valley's economy.

Mr. Chairman, Acting Ranking Member, and Members of the Subcommittee, our Chairman has extended an invitation to you to tour our Central Valley constructionsites. That invitation remains open and I would be pleased to take you on a tour to see the structures, talk to the workers, and experience firsthand the effect of this transformative investment on the Central Valley.

September 30, 2017 American Recovery and Reinvestment Act (ARRA) Deadline

At the time of this Subcommittee's last field hearing, construction of California's high-speed rail project was being fully supported by the approximately $2.5 billion in funds made available by ARRA through the Authority's partnership with the Federal Railroad Administration (FRA) and its participation High-Speed Intercity Passenger Rail (HSIPR) program.[2]

Mr. Chairman, I am pleased to report to you today that the Authority, thanks to its strong partnership with the FRA, was able to meet the September 30, 2017 statutory deadline for expenditure of ARRA funds. Moving forward, construction will be funded by using State resources (outlined in Section C) until the additional Fiscal Year 2010 Federal funding can be applied to the project per the Authority's grant agreement with the FRA.

When ARRA was enacted, its stated purpose was to create jobs, aid the economic recovery of the nation's poorest areas, spur technological development, and build new transportation infrastructure that provides long-term economic benefits. Based on my testimony today, we believe it is clear that California's high-speed rail program made a significant contribution to achieving those goals.

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[2] The Authority received a $2.552 billion Federal Railroad Administration (FRA) High-Speed Intercity Passenger Rail (HSIPR) grant funded by ARRA, a $928 million HSIPR grant funded by the Consolidated Appropriations Act, 2010 (Fiscal Year 2010 Appropriation Act, P.L. 111–117), and other funds made available through Federal appropriations and grants.

State Funding: Cap and Trade and Proposition 1A

Mr. Chairman and Acting Ranking Member, while the Federal Government is a critical and necessary partner in the high-speed rail program both today and in the future, the majority of funding currently committed to the program is being provided by the State of California.

Indeed, the Authority has made significant advancements to access and expend State funds to build high-speed rail. Last year, Assembly Bill (AB) 398 was approved by the Legislature and signed into law by Governor Edmund G. Brown Jr. AB 398 strengthened and extended the horizon of the Cap-and-Trade Program by 10 years through December 31, 2030. This represents a forecast of $7.5 billion in additional funding, which is another important step taken by the State to solidify funding for the project. Since AB 398 was passed, quarterly Cap-and-Trade auctions have been strong and consistent—an indication that the market has reacted positively to the legislation and that the proceeds will be a more reliable source of funding to advance the high-speed rail program. To date, $2.04 billion in Cap-and-Trade proceeds has been appropriated for high-speed rail.

Over the last year additional steps were taken to access Proposition 1A funds to continue work and begin to meet the FRA grant's match requirements. The Authority has now accessed $1.632 billion of Proposition 1A construction bonds and is putting them directly to work in the Central Valley.

Additionally, the Authority has accessed the $600 million in Proposition 1A bond funds appropriated for Caltrain's Peninsula Corridor Electrification Project. We have also committed $114 million of Cap and Trade proceeds to this vital project, which represents 36 percent of the total funding. When completed, an electrified Caltrain will provide immediate environmental and service benefits to Bay Area commuters while paving the way for high-speed rail access to San Francisco in the future.

In Southern California, the Authority has accessed $76.67 million of Proposition 1A bond proceeds to contribute to the $155.3 million Rosecrans-Marquardt grade separation project cost. The grade crossing is currently rated by the California Public Utilities Commission as the most hazardous in the State. The 2018 Business Plan contemplates that the remainder of the $500 million appropriated for projects in Southern California will be dedicated to the Link US project that will modernize Los Angeles Union Station to improve passenger rail operations and ready the station for high-speed rail's future integration.

Progress on Environmental Clearance and National Environmental Policy Act (NEPA) Assignment

The 2018 Business Plan reaffirms the Authority's commitment to the FRA grant agreement's requirement for completion of environmental review on all segments by 2022.

Over the last 2 years, the Authority reached major milestones in advancing environmental clearances on two Central Valley extensions including:

- The release of the Draft Supplemental Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Locally Generated Alternative in the Bakersfield area of the Fresno to Bakersfield Project Section. Final environmental clearance of this section is scheduled for October 2018.
- The selection of a preferred alternative for the Central Valley Wye area of the Merced to Fresno Project Section near Chowchilla.
- This fall, our board will move forward to adopt a final EIR/EIS for the Bakersfield Locally Generated Alternative and will consider the adoption of preferred alignments for the four segments South of Bakersfield.

The Authority and FRA have also been working cooperatively over the last year on the assignment of responsibility for compliance with NEPA to the State of California. In November 2017, a draft application for that assignment was released for public review and comment. In May of this year, the FRA published California's final application for assignment and a draft Memorandum of Understanding (MOU) in the Federal Register, starting a 30-day public comment period that ended on June 1.

The NEPA Assignment Program is designed to streamline environmental reviews, find efficiencies where possible and complete the process faster, without diminishing the rigor of the environmental analysis or the opportunities for the public meaningfully to engage with the program. We look forward to our continued work with the FRA to make those goals a reality. We are anticipating a final decision on the NEPA assignment this summer.

Early Train Operator Procurement

The 2016 Business Plan included a procurement strategy that called for an Early Train Operator (ETO) to be brought on as soon as possible to be a long-term partner into the high-speed rail operations and ridership ramp-up phase.

Strategically partnering with a private sector operator will help ensure that the system is designed to enhance its ultimate commercial value and profitability. The ETO will help the Authority reduce any early year losses as the system is ramping up and optimize system performance while maximizing revenue generation with the goal of creating enterprise value in a financially non-subsidized high-speed rail train system.

In November 2017, the Authority awarded the ETO contract to DB Engineering & Consulting USA. DB Engineering & Consulting USA has extensive international high-speed rail delivery, operations and maintenance experience. The ETO will be a key partner for the Authority moving forward in the areas of: procurements for trains, track and systems; maintenance facilities; station design and passenger operations; revenue collection; market brand; and, financial planning and modeling, including ridership and revenue estimation. Under my direction, the ETO is currently conducting a detailed analysis on the cost estimates included in the 2018 Business Plan and on potential interim service options that I will further detail later in my testimony.

KEY ELEMENTS OF THE 2018 BUSINESS PLAN

Core Tenets and Commitments in 2016 Business Plan Remain Unchanged

Mr. Chairman and Acting Ranking Member, as you know the Authority is required by California State law to produce a Business Plan every 2 years. On March 9, we released the Draft 2018 Business Plan beginning a 60-day public comment period before the plan was finalized, approved by our Board of Directors in May, and submitted to the California State Legislature on June 1.

The 2018 Business Plan describes the same developments I have so far shared with you today. It also presents updated ridership, revenue and other forecasts, and discusses the various challenges facing the program that I will detail later in my testimony.

In addition to these updates, the 2018 Business Plan is fundamentally based on the same goals as the 2016 Business Plan. First and foremost, we remain committed to meeting the requirements of our grant agreement with the FRA. Additionally, we maintain the following organizational tenets:

- Initiate high-speed rail service in California as soon as possible.
- Make strategic, concurrent investments that will be linked over time and provide mobility, economic and environmental benefits at the earliest possible time.
- Position ourselves to construct additional segments as funding becomes available.

We believe these key principles remain sound, and they will continue to guide our decisionmaking as I will outline later in this testimony.

Changed Circumstances and Challenges Demand a New Way of Doing Business

As you know, Mr. Chairman, in January of this year the Authority announced that costs on the first construction section in California's Central Valley had risen. This means that the Central Valley segment will cost $10.6 billion as opposed to the 2016 Business Plan estimate of $7.8 billion. As described in the 2018 Business Plan, this cost growth is attributable to risks that were identified in previous business plans, but are now being quantified and included in our estimates.

These risks were primarily generated from issuing construction contracts early in a process that was focused on project development and planning. There were many unknowns remaining, and setting fast-track schedules to meet the ARRA spending deadline increased risk by requiring multiple concurrent activities.

As described in Chapter 4 of the 2018 Business Plan titled *Lessons Learned and Managing Risks*, the Authority has made a number organizational changes and applied new management principles to ensure that these types of issues do not affect future construction segments. For example, the Authority will no longer move into construction without having acquired right-of-way and secured necessary third party agreements, thus reducing the risk of cost and schedule growth.

By applying these lessons learned, the Authority also has new cost estimates for the Valley to Valley Line (San Francisco to Bakersfield) and the Phase I system (San Francisco to Los Angeles). As you can see from the graphic I have provided, the major drivers of new costs on Valley to Valley and Phase I are inflationary growth due to extended schedules, the increase of contingency levels based on our experience to date, and previously identified costs tied to construction delays in the Central Valley.

Included in these updated capital costs is the introduction of cost ranges to the Authority's estimates. Delivering the high-speed rail program involves the implementation of a series of highly complex, integrated megaprojects. As we move the program forward there are, and will continue to be, uncertainties around cost, funding and timing. Apart from the 119-mile Central Valley Segment, which is under construction, most of our current cost estimates are based on preliminary environmental reviews, design and alignment assumptions that are still early in the project lifecycle process. Our past practice has been to provide point estimates too early in the process. In the 2018 Business Plan, we present cost ranges to more accurately reflect where we are in the project development process. I have a provided an additional graphic to summarize these ranges.

	2016 Capital Cost	Carry-over Increase	Escalation Impact	Contingency Increase	Net Design/ Scope Increase	Central Valley Increase	Total	Increase Since 2016	Extension to SF, Bakersfield	New Total
CV	$7.8B					$2.8B	$10.6B †	$2.8B	N/A	$10.6B
V2V	$20.7B	$2.8B	$1.4B	$1.6B	$1.1B		$27.7B	$7.0B	$1.9B ‡	$29.5B
PH1	$64.2B	$7.0B	$2.1B	$3.0B	$1.1B		$77.3B	$13.1B	N/A	$77.3B
Cost Increase Drivers			$3.5B	$4.6B	$2.2B	$2.8B				

† Updated Central Valley estimate-at-complete.
‡ Represents minimal capital investment to extend Silicon Valley to Central Valley to San Francisco and Bakersfield; full build-out of these sections are captured in PH1 crosswalk numbers.
Notes: Totals may not sum due to rounding.

	LOW (YOE $ BILLIONS)	BASE (YOE $ BILLIONS)	HIGH (YOE $ BILLIONS)
Central Valley Segment	$10.1	$10.6	$12.2
Silicon Valley to Central Valley Line †	$25.1	$29.5	$36.8
Phase 1 System ‡	$63.2	$77.3	$98.1

† Sillicon Valley to Central Valley—YOE$ based on completion date of 2029.
‡ Phase 1 YOE$—2033 was used as basis for projecting YOE$.

Clearly, the risk and complexity associated with delivering this program of megaprojects requires the Authority to change the way it manages, makes project-level decisions and plans for future construction. We have taken many positive steps over the last year on this front, including bringing in new executive leadership and implementing strengthened programmatic decisionmaking processes—this includes the development of a Program Baseline that I will summarize in further detail later in my testimony.

Finally, our Board's Finance and Audit Committee continues to hold monthly meetings where the project's status, including budgets and schedules, are transparently disclosed to the public. Through these measures, our intent is to develop a track record of improved performance.

New Implementation and Delivery Strategy

Mr. Chairman and Acting Ranking Member, as I described earlier, our key objectives remain the same. However, the changed circumstances I have also laid out have led us to a new implementation and delivery strategy. In the 2018 Business Plan, we now define the Silicon Valley to Central Valley Line as service between San Francisco and Bakersfield. This line has stronger ridership potential and higher commercial value than the shorter line between San Još and Poplar Avenue (north of Bakersfield) laid out in the 2016 Business Plan. This is a strategic enhancement that will generate higher revenue which can then be used to help fund expanding the system in Southern California. Connecting Merced as part of this initial line remains a high priority, but, as in 2016, funding for this connection still must be identified.

Due to the increased project scope and the cost challenges I have described, the Silicon Valley to Central Valley line is facing an estimated funding shortfall that is approximately equivalent to the cost to construct the tunnels through the Pacheco Pass—the critical link between the Silicon Valley and the Central Valley. In more detailed terms, our current projections of total Silicon Valley to Central Valley funding available is $19 billion to $26.8 billion from Federal and State resources. Our estimate of the cost to build the Silicon Valley to Central Valley Line is $29.5 billion.

Mr. Chairman, I want to clarify why our estimated available funding is presented in what may seem as a broad range. As you know, a significant amount of State funding dedicated to the project comes from California's Cap and Trade program. While the project is guaranteed 25 percent of those revenues, the total amount of revenue generated by the program on a quarterly basis is variable. While those revenues have stabilized thanks to the passage of AB 398, they remain subject to projection and estimates.

For the purposes of the 2018 Business Plan we assume that $750 million in annual Cap and Trade proceeds will be dedicated to the high-speed rail project. We believe this is a reasonable estimate based on the California Legislative Analyst's Office projections contained in their December 2017 report "Cap-and-Trade Extension: Issues for Legislative Oversight".[3]

Our phasing approach focuses on completing the Central Valley and the San Francisco to Gilroy segments first, working toward beginning interim operations. As I will describe in more detail, over the coming year we will be working with our Early Train Operator as well as other experts to analyze opportunities to begin early service on the Central Valley and Peninsula segments while also seeking input on creative funding and delivery strategies to connect those two lines as quickly as possible.

High-Speed Rail Remains Necessary to California's Transportation Future

A final aspect of the 2018 Business Plan that is important to note is its enumeration of the reasons why high-speed rail is still the right choice for California's transportation future. Californians voted for high-speed rail because they recognized its unique ability to transform the State for generations to come.

Mr. Chairman and Acting Ranking Member, I have spent 25 years working in the field of transportation policy, and I have never seen a project that matches high-speed rail's ability to positively impact this State. The fact of the matter is California's transportation system, once the envy of the world and a key driver of economic prosperity, is becoming increasingly gridlocked, and it's a problem that will only worsen. While the State has committed significant resources to improving its roads, highways and bridges, simply building more freeway lanes and airport runways is not a practical response to our rapidly growing population.

[3] "Cap-and-Trade Extension: Issues for Legislative Oversight".

A new approach is needed, and high-speed rail remains the best option for dealing with the pressures of a growing populace. It is a proven approach that has been successful abroad. For instance, when high-speed rail service was introduced between Madrid and Seville, Spain, the share of trips taken by plane was reduced from 40 percent to 13 percent, and rail trips grew from 16 percent to 51 percent. Additionally, in France, travel habits changed after high-speed rail became an option for travelers between Paris and Lyon, with the share of rail trips growing from 40 percent to 70 percent. Simply put, this type of mode shift will decrease congestion on our roads and airport runways while saving Californians time and money.

Moreover, connecting our megaregions with a fast, efficient transportation system will provide for sustained economic growth by creating a better jobs-housing balance throughout the State, providing access to new job opportunities, and generating new workforce development possibilities.

In addition to these macroeconomic impacts, the project is and will continue to have extraordinary direct economic benefits. Indeed, a forward-looking analysis shows that a completed Silicon Valley to Central Valley Line will support nearly 240,000 job years of employment and nearly $50 billion in economic activity over the lifetime of the line's construction.

Of equal importance are the immense environmental benefits that will be produced by the operation high-speed rail in California. The average annual greenhouse gas emissions savings of the system, 1.5 million metric tons of carbon dioxide equivalent, is projected to be the equivalent of taking 322,000 passenger vehicles off the road, and 169 million gallons of gasoline avoided, every year.

Mr. Chairman and Acting Ranking member, I believe that for these reasons it is clear that California high-speed rail is a critically important infrastructure investment for both the State and nation's future. In fact, the need for this program is greater now than when the project was approved by Californians in 2008. The question is no longer "can we afford to build this project?" but, "can we afford *not* to build this project?"

LOOKING AHEAD

Utilizing the Program Baseline and Management Plan to Advance Construction

Mr. Chairman and Ranking Member, I have made reference throughout this testimony to the need to change the way the Authority conducts its business. In June of this year, we took an important step toward this goal with the implementation of a Program Baseline.

The baseline outlines the "what" and "when" for the high-speed rail program. It includes the scope, schedule, costs and budget to deliver the priorities set in the 2018 Business Plan. It is driven by expected environmental Record of Decision dates and identifies key milestones for future procurements leading to operations. In addition, it contains an initial risk assessment which will require further refinement during baseline updates and establishment of a structured risk mitigation management process.

This baseline includes costs associated with the construction of the Silicon Valley to Central Valley Line and all Phase 1 planning and environmental documentation costs required by the grants awarded to the Authority by the FRA. The Authority's revised schedule estimates for achieving environmental clearance, or Records of Decision (RODs), are described in the graphic I have provided.

Project Section	Preferred Alternative Selection (Baseline)	Circulation of Draft EIR/EIS (Baseline)	Assumed Baseline ROD Dates
San Francisco—San Jose	Dec–19	Mar–20	Mar–21
San Jose—Merced	Sep–19	Dec–19	Nov–20
Central Valley Wye	Complete	Sep–18	Jul–19
Fresno—Bakersfield LGA	Complete	Complete	Oct–18
Bakersfield—Palmdale	Oct–18	Jul–19	Jun–20
Palmdale—Burbank	Nov–18	Dec–19	Jan–21

Project Section	Preferred Alternative Selection (Baseline)	Circulation of Draft EIR/EIS (Baseline)	Assumed Baseline ROD Dates
Burbank—Los Angeles	Nov–18	Sep–19	Jul–20
Los Angeles—Anaheim	Nov–18	Nov–18	Oct–19

Implementation of the baseline is an important step to improve program delivery management and enable greater visibility on how future decisions may impact program costs and schedule. Development of the baseline involved the creation of a centralized data base that captures all spending to date, as well as schedules and project budgets. From this, the Authority will develop refined reporting that will provide trends related to actual expenditure versus plan and future forecast; schedule critical path elements; and risk/contingency management efforts.

Our management team understands this challenge and has reviewed the organization's structure, strengthened oversight functions and initiated new business processes to support improved decisionmaking and risk management, as outlined in our recently completed Program Management Plan.

Developing Innovative Approaches to Commence Revenue Service and Construct Pacheco Pass Tunnels

Mr. Chairman, as I have stated previously our No. 1 priority is to initiate high-speed rail service as soon as possible. Over the coming months and years we will be looking to expertise from around the world for innovative approaches to beginning America's first true high-speed rail operations.

As described in the 2018 Business Plan, we see two fundamental paths toward commencing high-speed rail service: 1. Potential early service on the San Francisco to Gilroy and Madera/Merced to Bakersfield lines; and, 2. Developing innovative approaches to delivering the Pacheco Pass tunnels to commence service on the fully Silicon Valley to Central Valley Line.

Analyzing Options for Early High-Speed Rail Service

The strategy outlined in the 2018 Business Plan to incrementally deliver the Silicon Valley to Central Valley Line would create approximately 224 miles of high-speed-rail-ready infrastructure on two different lines, one in the Central Valley and one connecting San Francisco to Gilroy. Both lines could be ready for service as early as 2027—and delivering early benefits on the way to completing the full Silicon Valley to Central Valley Line.

To that end, we will work to identify how to put each segment of the system into service once completed. The Authority, working with our Early Train Operator (ETO), will explore options for how best to put infrastructure into service. Early train service decisions will include the type of service and the operator of those services that will ensure full compliance with our Proposition 1A requirements. We have begun this analysis and our intent is to include the results in the Project Update Report to the California Legislature in March 2019.

Capturing International Expertise for Innovative Delivery of Pacheco Tunnels

Mr. Chairman, as you know our 2018 Business Plan is very clear that the Pacheco Pass tunnels that will connect the San Francisco—Gilroy and Merced/Madera—Bakersfield sections of the Valley to Valley line are unfunded, and that the closing of that gap will be among the highest priorities for the Authority over the coming years. Our first step in delivering the tunnels will be to "de-risk" construction by completing project development and other early works—geotechnical analysis, environmental review, design, right-of-way acquisition—first.

Additionally, we will engage the Federal Government and public and private sector experts to examine tunnel design options that maximize operational efficiency, safety, environmental stewardship and cost containment.

Tunnels of this magnitude and complexity have been constructed internationally. Five high-speed rail tunnels of the same length and longer have been successfully completed worldwide, and another six are currently in planning and under construction. Our tunnel design and construction approach involves taking advantage of international expertise and lessons learned on other high-speed rail programs worldwide.

By year's end, we will convene a blue-ribbon panel of internationally recognized experts in various tunnel disciplines. This panel will advise us on a range of issues and questions, with specific early focus on the Pacheco Pass tunnels. In seeking this feedback, the Authority will focus on three primary areas: 1. technical specifications and cost; 2. delivery models, contract packaging and risk transfer; and, 3. procurement and funding strategies.

We believe this is a prudent approach in the face of funding uncertainty and look forward to working with the Committee, the Administration, and the private sector to make this vital connection a reality.

Future Funding

Mr. Chairman and Acting Ranking Member, in closing I would like to briefly discuss future funding for the California high-speed rail program. We are very clear in our 2018 Business Plan that aspects of the project remain unfunded. That is why we have devised the incremental delivery approach to build segments with independent utility.

While we understand the budget realities facing the Congress and recognize that the way transportation projects are funded must and has changed, it is also our strong belief that this project is of national significance and is deserving of additional partnership with the Federal Government.

The State of California is stepping up to the plate to fund this critical investment—over 86 percent of the funding committed to this program to date has come from the State-level. Given this disproportionality, we believe there should be innovative partnering opportunities between the State and Federal Government to move this project forward.

Specifically, we believe that over the course of the development of the program, there will be opportunities for significant additional Federal involvement in the form of infrastructure financing. One expression of support for ongoing major transportation infrastructure projects is the infrastructure plan proposed by the current administration. Now under consideration in Congress, the plan includes several elements that would make a variety of financing tools for high-speed rail available. This includes infrastructure investment incentives and expanded Federal credit programs, such as Railroad Rehabilitation and Improvement Financing (RRIF) and Transportation Infrastructure Finance and Innovation Act (TIFIA) loans.

These programs could provide the high-speed rail project with a low cost of debt and more flexible repayment terms. Should an infrastructure program that includes these and other potentially favorable financing tools be passed into law, it would provide an opportunity to seek and secure additional Federal financial support that could coincide with the Silicon Valley to Central Valley Line and/or extensions to complete the Phase 1 System. We believe that the program, using a mix of matching funds from State sources, could deliver the benefits and funding leverage that the Federal Government is seeking to achieve.

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 toward implementing the nation's first high-speed rail system. I look forward to continuing to work with the Subcommittee to ensure that California's high-speed rail system is built correctly, cost-effectively, and in the best interest of the nation's and California's taxpayers.

Mr. DENHAM. Thank you, Mr. Kelly. Mr. Thompson, you may proceed.

Mr. THOMPSON. Thank you, Chairman Denham and Ranking Member Garamendi, members of the subcommittee. I appreciate the opportunity to appear before you today.

As you know, I am the chairman of the Peer Review Group. This was a group created by the legislation, Proposition 1A, to report to the legislature on issues on business plans or anything else that we see in the project that we believe the legislature will find interesting.

We have written a number of letters to the legislature, and I have testified a number of times before the legislature on various issues on this project. I can summarize my testimony here today by saying that it is surprisingly similar to what I said in 2013 before this subcommittee in Madera. We think that the bottom line on this project now consists of a number of points. One is that building and operating high-speed rail in California is typical of a megaproject, and indeed, Mr. DeSaulnier held hearings on megaprojects and why they are so hard, and we had a long colloquy about that issue.

We believe that the authority has made real progress in establishing a capable and experienced management team, but that team has a golden bear by the tail. There is nothing in the experience to date that is atypical of a project of this size. Certainly when grand visions meet reality, all kinds of things happen and costs are usually higher than we expected, things take longer, and problems that we never thought about emerge, and this is exactly what you would expect on this kind of project.

The experience to date has been with the typical kind of civil construction, which is almost a highway project thus far. And so what we are learning to date about that, we will be able to apply to this kind of construction in the future when those lessons are beginning to be applied.

Many aspects of the project—especially track construction, electrification, signaling, and especially tunneling—haven't been encountered yet, so the cost estimates for that have to be viewed as having a pretty wide range of outcomes, not necessarily bad, not necessarily good, but a wide range that we are going to have to deal with for the time being.

The demand forecasts, although they have been done by professional demand forecasters, are not related to an existing ridership base. They are based on economic modeling. Greenfield models where service is brandnew like these are inherently subject to a wider range of uncertainty than brownfield models where we already have service and the question is how much will the demand increase if we improve the service, very different. All of the other high-speed rail projects have been constructed with existing service to go from. As a result, the forecast of revenues and the costs are also, as of now, subject to pretty wide ranges of outcomes.

Having acknowledged all of this, the key problem for the authority and the project is having a stable and reliable policy and financing framework, and they don't have that now. It will not be possible to manage this project in the future properly without having that stable funding, adequate funding, and policy framework.

They are now encountering the kind of commitments that they need to make and the kind of decisions that need to be made that can only be made when there is certainty to work with. It just isn't fair to ask the project to be managed without that framework. Now, this is an issue that came up in 2013, and I think Mr. Costa at that time was not happy with my answer, which was you have got to have a better financing framework than you have now.

Having said all of this, this concludes what I want to say today, and I will be happy to answer any questions that you have. Thank you.

[Mr. Thompson's prepared statement follows:]

Prepared Statement of Louis S. Thompson, Chairman, California High-Speed Rail Peer Review Group

Mr. Chairman and Members of the Subcommittee, my name is Louis S. (Lou) Thompson, Chairman of the California High-Speed Rail Peer Review Group. I am happy to appear at your invitation and hope that the experience and work of the Peer Review Group (the Group) will be useful to you in your deliberations on this important topic.

The role of the Group is established in State law. When the voters approved the Proposition 1A bond measure in 2006, the State Legislature passed AB3034 that mandated that "the Authority shall establish an independent peer review group for the purpose of reviewing the planning, engineering, financing, and other elements of the authority's plans and issuing an analysis of the appropriateness and the accuracy of the authority's assumptions and an analysis of the viability of the authority's financing plan, including the funding plan for each corridor required pursuant to subdivision (b) of Section 2704.08 of the Streets and Highways Code." The law provides for eight members, of which there are five currently serving. The members are appointed by various State authorities including the Secretary of the California Department of Transportation, the Director of Finance, the State Treasurer and the State Controller. The law requires that the Group members possess various types of experience including finance, planning and construction of high-speed rail, environmental issues and operation of intercity or commuter passenger train service. The Group began its work in 2009.

The members of the group have very wide experience in transportation planning, project planning and management, and operation of rail passenger services at various levels, including high-speed rail. The Group's members have not attempted to analyze all the details of the Authority's designs or plans. Instead, we have focused on broader policy, financial and economic issues where our expertise may have most value.

The Group reports directly to the Legislature. Members of the Group are not employees of the State of California. The Group has no staff or budget and members receive no compensation other than expenses for travel, food and lodging. We conduct our discussion by email, phone and in person as needed and we have met from time to time with members of the Legislature, legislative staff, the Legislative Analyst's (LAO) staff and the GAO and we have testified at a number of legislative hearings. We have also held a number of meetings with the Authority and with Authority staff and believe we have developed an effective working relationship. The Group has issued a number of reports or letters, all of which have been posted to the Group's website at www.cahsrprg.com. The website also includes all responses to questions we have posed to the Authority.

The Group has consistently maintained that we support an appropriate role for high-speed rail in California as a part of the State's overall transportation system. With this said, we have had, and continue to have, a number of concerns about the project. Our objective in expressing these concerns, which we believe is in accord with the purposes of the Act, has been first to strengthen the project and second to ensure that the Legislature and the public fully understand and accept the risks as well as the benefits of the project. Our experience has been that the better a project is understood at the beginning, the better it will be able to weather the inevitable problems that occur along the course of planning, construction and operation.

As you may know, I testified before this subcommittee on May 28, 2013, in Madera in its first field oversight hearing of the Project. What I have to say today is fully consistent with that testimony and with my recent testimony before the California Assembly and Senate Transportation and Budget Committees on April 2, and April 3, 2018, in the Legislature's hearings on the Authority's 2018 Draft Business Plan. An excerpt from that testimony is below:

> The Group believes that the high-speed rail project has now reached a point where difficult decisions need to be made about the project's future scope and funding. Quite simply, as a result of cost increases and changes in funding sources, the Authority can no longer complete a link from the Central Valley either to the LA Basin or to San Jose and the Peninsula. Thus, as it stands today, there is little prospect for a system that would generate enough cash-flow to contribute to future investment.
>
> This dilemma does not come as a surprise—it happens nearly every time when we try to translate a megaproject from a grand vision into a working system

and it is not necessarily a reflection on the competence or honesty of the people of the Authority who have been trying to build the system.

The critical question is "where to from here?" The draft Plan doesn't really discuss choices in addressing this question. The Group laid out four very general options in our letter, though we don't pretend that there might not be other or better options others could suggest. First option: we could stop here and go home. Second, we could complete the work in the Central Valley along with the committed improvements on the bookends. Third, we could adopt what is in effect the proposal in the draft Plan and add a connection to Gilroy and Bakersfield and improve LA Union Station while awaiting better command over the design and cost of the Pacheco Pass tunnels and developments that might reveal new possibilities for funding partners. Or, fourth, we could recommit to the full Phase I with the understanding that such a decision would have to be based on adoption of a credible long term plan to finance the system including the possibility that system costs might well come in at the high end of the range.

We do not view the first option—simply stopping—as credible. It would leave California with nothing useful and the State might have to pay back the Federal "American Recovery and Reinvestment Act" (ARRA) money. The second option—stopping with the Central Valley plus the existing bookend improvements would work, but would limit the value of the result. The third option—as in the draft Plan—probably makes the best of the situation, especially in bringing near-term benefits to the millions of current passengers on the bookends, but it leaves the State short of a system that would be able to contribute to financing of the remainder of the system. The fourth option, completing Phase I as originally planned, meets the requirements of Proposition 1A, but cannot be done with current funding provisions or sources.

Simply put, we do not believe that it is fair or credible to ask management to deliver a long-term project of this size and complexity with sources of funding that are inadequate in total and unreliable in any given year. If the project is to go ahead beyond essentially the second option, the State will need to develop a source of funding that is up to the task. This is not a new issue: it was clear in the 2016 Business Plan that there was a remaining gap that would have to be funded in order to build the system to the point where it could begin to generate potential investment from the private sector. What is new is the increasing size of the gap along with a clearer understanding of the need to make HSRA's funding stable and predictable.

There are obvious ways to fill the gap: increase the share of Cap and Trade receipts going to the project and guarantee the Authority's income or permit the Authority to issue bonds to the State against predicted revenues; a tax on fuels; or a sales tax as was proposed in the 2000 Business Plan. There are other sources that might emerge like future Federal grant programs, Federal loans, etc., but then again, they might not. The problem will need to be addressed in one way or another if even the third option is to be completed.

In parallel with dealing with the need for an improved approach to funding, especially because the State's role is likely to grow, we recommend that the Legislature revalidate the priority of the high-speed rail in the light of the competing needs elsewhere in transportation and elsewhere in the overall budget. This is a task that the Governor's Office and the Department of Transportation, along with the communities affected would be well suited to carry out for the Legislature.

We do have some recommendations for specific changes in the final Plan:

- Include inputs from the early operator as soon as possible
- Provide a better explanation of the Business Model
- Put more emphasis on developing detailed agreements with the bookend operators and the freight railroads
- Develop a long-range program for addressing grade crossings
- Clarify the performance of the system in its trip time calculations and schedules
- Continue to show show projections as ranges rather than point estimates
- Provide better back-up for claims for benefits to urban and regional development.

While we hope these can be addressed in the final Plan, we believe the Legislature's immediate focus should be on the funding and policy issues.

In summary, I think the bottom line consists of a few points:

- Building and operating high-speed rail in California is a good example of a "mega-project" that is going to be an immense, enormously complex undertaking. We believe that the Authority has made real progress in establishing a capable and experienced management team, but the team faces many challenges.
- There is nothing in the experience to date that is atypical of a project of this size. Certainly when projects begin to encounter the real world, costs are usually higher than expected, things take longer and unexpected problems emerge.
- Experience to date has mostly been with the type of civil construction for which a lot of expertise to date already exists in the State. Future projections for this type of work will improve based on this experience.
- Many aspects of the project—track construction, electrification, signaling, and especially tunneling, are still to come, and projections for these elements are still subject to a wide range of outcomes.
- Demand forecasts, though professionally conducted, are not related to an existing ridership base, but are instead based on economic modeling. "Greenfield" models like these are inherently subject to a wider range of uncertainty. As a result, forecasts of revenues and operating costs are necessarily subject to the same ranges of uncertainty.
- Having acknowledged all of this, though, the key problem for the Authority and the Project is having a stable and reliable policy and financing framework within which to plan and manage.

The Peer Review Group has worked hard to assist the Legislature and the Congress in understanding the project's risks and challenges as well as its benefits. Our job is to assist in ensuring that the information you use in making those policy decisions is as complete, objective and unbiased as possible. We hope this is useful as the California Legislature and the Congress work to make the decisions regarding tradeoffs in benefits, costs and risks associated with the California high-speed rail project, as well as other transportation projects in the United States.

Thank you for your consideration. I will be happy to try to answer any questions you may have.

Mr. DENHAM. Thank you, Mr. Thompson.

Mr. Hunter, welcome. You may proceed.

Mr. HUNTER. Good morning, Chairman Denham, Ranking Member Garamendi, and committee Members of Congress. You know, my name is Robbie Hunter. I am the president of the State Building and Construction Trades Council. I am an ironworker by trade, and I have worked for almost 30 years in Los Angeles on bridges and highways, so I am a tradesman. I represent workers that work in construction.

This project, as of this time, we have over 2,000 workers working for private contractors throughout the project. These contractors are union and nonunion. We represent 400,000 workers; 48,000 of them are apprentices. We have taken in many veterans, and Congressman Denham has been a large supporter in ensuring that we live up to the obligation to put veterans to work and put disadvantaged workers from the valley in these projects, in the apprenticeship, and ensure that local workers are on those job sites. We have worked diligently to do so.

The workers we represent do work for private contractors. They contribute a portion of their wages for their medical coverage and pension to assure in their older years that they are not a burden to the Federal or State Government.

You know, we have built an infrastructure of California for over 100 years. We have worked on the viaducts. We have worked out of State to do the Hoover Dam and the Golden Gate Bridge, and we are used to controversy on these projects. But we try to put our heads down and deliver projects using the least amount of people doing the least amount of time, do it once and do it right, and that is our obligation. And we have fulfilled it on this project and intend to do the same.

I have been all over the world looking at projects to see how they are done from hydro dams to power plants. We have looked at the use of high-speed rail in Spain and many other countries, in Germany, and I have sat on high-speed rail passing the Autobahn, trucks 130 miles an hour, and we pass them like they are sitting still and there is a glass of water on the table that barely moves. This is the infrastructure of tomorrow for the growing population of 50 million.

It also economically we believe will open the valley, make it—we are in danger of losing large industries like Microsoft and others that are based—technology industries that are drivers of our economy. If we cannot provide housing for the workforce and access to get them to those jobs, we could lose these industries, lose our economy. And we are the fifth-largest economy in the world. This is a necessity for the economic future of California.

I am open to answering any questions. I have submitted testimony, which I am not going to read. I am going to take the advice of the chair. But I would be glad to answer any questions. And I wanted to thank everyone on this committee for the support of workers no matter what party you come from because you all have done that. Thank you.

[Mr. Hunter's prepared statement follows:]

Prepared Statement of Robbie Hunter, President, State Building and Construction Trades Council of California

Good Morning.

My name is Robbie Hunter, and I am the President of the State Building and Construction Trades Council of California. I am an iron worker by trade, and spent 27 years working in the field building skyscrapers and bridges throughout California. It is my pleasure to appear before this Subcommittee again, and I thank you for the opportunity to provide testimony today on California's visionary high-speed rail program.

Our council represents in excess of 400,000 skilled and trained California construction workers, including 48,000 apprentices that have graduated or the equivalent from California high schools. These workers are employed by private construction companies and are responsible for delivering needed infrastructure, housing and commercial properties throughout our State.

The work force that we represent keeps California's economy—the world's fifth largest—moving. These are skilled, highly trained workers that set aside a portion of their hourly wage for their pension and medical benefits and even in retirement are not a burden on the State or Federal taxpayers.

I am very proud to report that at this very moment, over two thousand of these workers, who are residents of the Central Valley, are on the job building the nation's first high-speed rail system.

As you know, Mr. Chairman, the Valley was hard hit by the Great Recession and has always been an area of California that has had among the highest unemployment and poverty rates in our State, but it is currently experiencing a major economic recovery thanks in no small part to the construction of high-speed rail. Indeed, the investment the State of California has made in partnership with the Federal Government has generated an estimated 11,300 job-years of employment and about $2 billion in total economic activity to date in the Central Valley.

This incredible economic stimulus will only grow as construction expands and California turns its attention to connecting the Central Valley construction with the San Francisco Peninsula.

The Central Valley to Silicon Valley line will generate close to $50 billion in economic activity during construction and will provide an estimated 240,000 job-years of work in a region that has been left behind from the economy's recent recovery.

Of those, over 100,000 are direct job-years, meaning they are direct beneficiaries of the high-speed rail investment—with nearly 85,000 of these direct job-years projected in the construction industry.

Beyond these immediate benefits, the wider effect that high-speed rail will have on California's economy is hard to overstate. The Central Valley has been characterized as an "island" that is isolated from the rest of the State by transportation, geographic and economic barriers. High-speed rail will help break down those barriers.

Today, what should be a straightforward trip from Fresno to San Jose, is either a long, frustrating drive, or, on existing passenger rail can take from four to five hours and involve multiple transfers. The same trip on high-speed rail will take about 1 hour—with no transfers.

Connecting the Central Valley and the Bay Area—and their unique economies—provides an opportunity to bring about a better jobs and housing balance through effective land use and transit oriented development. These new connections will help support economic revitalization, affordable housing and workforce development goals.

When the system is ultimately built out to connect the downtowns of San Francisco and Los Angeles, with many cities in between, we will have an unprecedented connection between the centers of our economy—our corporate headquarters, global finance and business services, high tech companies, media and cultural centers, agricultural businesses and our scientific and technical research universities.

But the economic benefits are not reason alone to support the high-speed rail project. Chief among the many reasons that high-speed rail is essential to California's future is the mobility benefits it will bring. California needs a third mode of mass transportation. One that is efficient, clean, and sustainable.

The rest of the world has recognized what high-speed rail can offer, and I believe Californians will look back with gratitude at the vision of this generation's leaders, whose foresight resulted in less congestion at roads and airports and a healthier environment.

The question is no longer whether we can afford to build high-speed rail, but whether we can afford not to.

The fact is that our transportation system is already overburdened and our State's population will pass 50 million by mid-century.

Clearly, doing nothing is not an option and building evermore roads and airport runways to meet California's travel demands is unrealistic, unstainable, and less affordable than high-speed rail.

We have learned from places like Spain, France, China, Japan and many other countries that high-speed rail is the most efficient and preferred mode of transportation between population centers 100 to 500 miles apart.

That is precisely the corridor California's high-speed rail will serve. In sum, high-speed rail will:

- Reduce traffic congestion on the State's highways and at the State's airports.
- Reduce California's dependence on foreign oil.
- Reduce air pollution and global warming greenhouse gases.
- Provide fast, time-saving connections between California's major population hubs while bringing economic development along its route.
- And, bring all those thousands of good jobs to working families across the State, and in particular, to families in the Central Valley.

California has always been at the cutting edge, and our can-do spirit toward solving the most pressing problems of the day is what has attracted so many millions of people to the Golden State. Our predecessors made the big investments and took on bold endeavors that naysayers proclaimed impossible. I believe it is our responsibility to do the same and to pass on a better State to the next generation.

I look forward to answering any questions you may have about this much needed project and look forward to working with you to make sure this project receives the funding it richly deserves so that we can finish the work we've started.

Mr. DENHAM. Thank you. Thank you, Mr. Hunter. And I do agree. You guys have done what you said you were going to do and hired veterans and hire locally. That is an important part of what we are discussing today.

Let me start questions here. I want to drill down on this before we get into the audit itself and talk a little bit about the project because I agree with Mr. Kelly that high-speed rail, when done right, is transformative. It is transformative to a State, to a country. It is a great people mover, but it also frees up capacity on our roads, as well as for our freight rail.

But as a leader in this community, it is my obligation to make sure that this is done right, especially since I was—I make no secret about it. I was the deciding vote in the State senate back before this went before the voters. But it was a $33 billion project that was supposed to be done 2 years from now, so it is obviously drastically changed. And the question is where do we go from here? What will this audit show? Where will the financing come from? With a battle on the ballot this year with the current gas tax, would we take the peer review recommendation to do another gas tax in the future for this as well?

And so there are a lot of questions here not only on the funding that has been allocated through the stimulus funds or the appropriations bill in 2010 but also on the $9.95 billion that has been expended so far and the path forward.

So let me start, Mr. Kelly. When the voters approved Prop. 1A when the project was going to be completed in 2020, that was a full high-speed rail service from San Francisco to L.A., correct? It was originally supposed to be 2020?

Mr. KELLY. Yes, I don't recall the date, but I will say that, yes, phase 1 is San Francisco to Los Angeles.

Mr. DENHAM. And now the plan has projections of phase 1 to be completed by 2033?

Mr. KELLY. That is correct.

Mr. DENHAM. But not to include this area of Sacramento or San Diego, as originally proposed in Prop. 1A?

Mr. KELLY. Just to be clear, Mr. Chairman, the San Diego extension and the Sacramento extension were always phase 2. The bond bill itself lays out the phases under which we have to deliver the program, and phase 1 has always just been the San Francisco to Los Angeles stretch. Phase 2 includes extension through the Inland Empire from L.A. to San Diego and an extension up the valley to Sacramento as part of the phase 2 program.

Mr. DENHAM. I have not seen in the current plan any cost projections or timelines on phase 2. Do you have those projections?

Mr. KELLY. No, because we are first focused, as we are required to under the bond bill, to deliver phase 1, and our requirements under the law for the business plan is to lay out how we are going to deliver the project under the bond bill, and phase 1 is our emphasis now.

Mr. DENHAM. I understand the emphasis, but, as you can understand, the voters in my district approved something that they would like to see something in the—we are talking about a generation away now of new voters, and so it is a relevant question. Will it be high-speed from San Francisco to L.A.? That is one of the things that continues to be debated.

Mr. KELLY. Yes, the system will provide huge mobility benefits, especially when you consider versus conventional rail or driving a vehicle. And you can only achieve that because of the speeds that we attain through the system. Just like high-speed rail systems in other parts of the world, where we are going through urban areas we are on shared corridors. This is the Silicon Valley area connecting Gilroy north to San Francisco. And in Los Angeles for efficiency purposes to reduce right-of-way procurement requirements, we are in a shared corridor down there with Metrolink, LOSSAN, and the freights, and in those sections we will operate at lower speeds, but in between, we will be at speeds in excess of 200 miles per hour. And we are on track to meet the schedules under the bond bill, which is—I must say the requirements under the bond bill are the guidelines that we use for our design and our choices to go forward.

Mr. DENHAM. I am about out of time, but I do want to get one additional question in in this first round. What is the reason for the current delays in completion, and where do you plan to come up with the additional funding under the 2018 plan?

Mr. KELLY. Well, the reasons of delay we have laid out in our business plan. I would commend folks to take a look at chapter 4. We have some—we spent a little bit—a lot of time on some lessons learned, and I would say——

Mr. DENHAM. Real quickly, is it labor? Has labor been a holdup?

Mr. KELLY. No.

Mr. DENHAM. No? How about CEQA [California Environmental Quality Act]? Has CEQA been a holdup or environmental review? Are we done with the environmental review yet?

Mr. KELLY. We are not done with environmental review yet, and we have—particularly since I have come here with my new team, we are proposing some things with our Federal partners to expedite that process, so we are hoping to achieve that.

I would just say that, Mr. Chairman, I think one of the things that we pointed out in the business plan that led to some of the delays now are we had some requirements to quickly spend the Federal dollars that were appropriated for the project. We got into construction before we had all of the right-of-way and third-party agreements done and in hand, and that process—that is not something we will repeat, and I say that——

Mr. DENHAM. I understand, but this is part of the thing that I am taking back to Washington, DC, to explain to not only our other members on the Transportation and Infrastructure Committee but Congress as a whole. The question the other 49 States ask us when we are talking about funding and whether or not we have more Federal funding is what are you doing yourselves?

Mr. KELLY. Yes.

Mr. DENHAM. And if this State and this Governor continues to waive CEQA for a new football stadium in L.A. or the previous one that was proposed or AT&T Park, and yet we have still not—it has been a decade now and we are still not through the environmental process of this first one. I am not saying CEQA needs to be waived, but there is certainly some streamlining that could be done if this was a real priority. So as we are looking at saving dollars and we are looking at timelines, the rest of the country is asking what are you doing yourselves.

Mr. KELLY. Well——

Mr. DENHAM. And I am out of time, but I would love to get back to you on that.

I now recognize Mr. Garamendi for 5 minutes.

Mr. GARAMENDI. The chairman just asked a question. I think you should answer it.

Mr. KELLY. OK. A couple of things. On the CEQA issue, this is one area where we seem to have some concurrence with the current administration at the Federal level. We have been working for the last 8 months to get an agreement where we can assign the NEPA [National Environmental Policy Act] responsibilities to the State of California for moving forward on the environmental process. That has been done only on the highway side in this country. It started in California and has now been done in five or six other States, and they have saved months and millions of dollars in the process of environmental. So we would be setting a precedent here in California by applying that to the railroad side. That is a request that we have before the administration now, and we are just waiting for the approval of that. We think that will also save months and time and money on this project. So that is one thing we are doing.

The second thing I would just say we are doing in terms of self-help for this project, this project is about 86 percent being funded by State funds right now, so we are fully invested in moving forward on this project from the State of California's perspective between our bond dollars and our cap-and-trade funds.

Mr. GARAMENDI. I thank you. I have a lot of questions. I am going to take the rest of my time at the end of the questions by my colleagues, all of whom were involved in this project in the California Legislature and have a long history, and so I would like to turn the remaining—if it is OK with the chair, just hold my remaining 3 minutes to the end and move to Mr. Lowenthal, who was on the committee and has dealt with this issue——

Mr. DENHAM. Yes.

Mr. GARAMENDI [continuing]. In the past.

Mr. DENHAM. Thank you.

Dr. LOWENTHAL. Thank you, Mr. Chair, for holding this hearing.

Mr. DENHAM. Are you yielding your time to Mr. Lowenthal, or are we——

Dr. LOWENTHAL. I am going to start and he is going to be at the end. The first shall be last. The last shall be first.

Mr. DENHAM. All good friends here, just a technical time management.

Dr. LOWENTHAL. I am just following, trying to figure out how I fit in. You know, I am really pleased to be here. I served as the chair of the Senate Transportation Committee in the California State Legislature, and I served 14 years in the legislature. From the end of 2005 through 2010 I served. I was the chair when, as Mr. Denham pointed out, we put it out of the committee. The bond issue came before the voters in 2008, and following that, Mr. Bauer, Art Bauer, who was on the staff of the Senate Transportation Committee—we held multiple hearings on the bill.

So the questions I have—and I have all along as a supporter of the project helped to get the project out—is the financing. Let me just be clear, as I understand now, when I left in 2012, the State was putting up $9.95 billion. That was in the State bond of the approximately $9 billion for the high-speed rail. Then there was some money for the bookends and the others out of that. The Federal Government was putting up a little over $3 billion. I heard today $3.875 billion, so the State, as Mr. Kelly has pointed out, really was putting up the vast majority.

Now, I know of no high-speed rail project in the world that the Federal Government in that country was not a major proponent of it, but right now, we only have a small percentage. And as I understood at that point when we passed it, that it was the idea that the Federal Government would put up a little bit maybe around one-third, the State would put up around one-third, and the private sector. So my questions are where are we in all of that moving forward?

Cap and trade, the only new money coming in is the cap and trade. Could you tell us, Mr. Kelly, how much money is actually coming in from cap and trade? How much do we anticipate to come in from cap and trade? I would like to know where is the private sector in doing this? We had hoped by this time when we had done it that we would see more of an investment from the private sector. I am not hearing any money coming in from the private sector. And what do you anticipate you need from the Federal Government really in terms of real money? It just seems to me a $3.875 billion investment on a $77 billion project is not going to make it, and so I would like to know really—because to me it is all about following the money where we are. I think you have done a great job, as was pointed out. You know, you can't be held—you know, you are working on that, but there is no money. Tell me where we are going with the money.

Mr. KELLY. Thank you, Congressman. A couple of points I would make. First, you are hitting on something that has been the single most important challenge of this project from day one. When the voters of California passed the bond bill, they provided $9 billion for what in that ballot analysis described as a $45 billion project——

Dr. LOWENTHAL. Right.

Mr. KELLY [continuing]. Which means they provided one-fifth of the funding for the project from day one. That has been the challenge ever since. We had in 2008 $9 billion, in 2010 we were up to about $12 billion. Today, with cap and trade we are at about $21 or $22 billion. The issue with cap and trade, as you well know, is that it is not a firm—it is an auction-based revenue source, so it comes in highs and lows. With the passage of legislation last year to lock that program down for 10 years, we have seen stabilized cap-and-trade revenue.

Dr. LOWENTHAL. So when you——

Mr. KELLY. We are estimating about $750 million a year coming in——

Dr. LOWENTHAL. OK.

Mr. KELLY [continuing]. From cap and trade for this project——

Dr. LOWENTHAL. OK.

Mr. KELLY [continuing]. That puts us at about $22 billion, $21 to $22 billion for the project.

Dr. LOWENTHAL. In 10 years?

Mr. KELLY. Yes, over the course of the cap-and-trade dollars just from what we have in the law today available for this project, and what we are doing is because we are in that constrained funding environment, our business plan lays out building exactly what was approved in Proposition 1A but doing it in a building-block way. I don't have all the money right now to do everything, so I have to do it in parts.

We are under construction in a 119-mile segment in the Central Valley. Our highest priority is to complete that, get our environmental work done statewide on all the segments. And it is worth noting for the panel that we have 10 segments, and 8 of them are still in environmental. And so we have to complete the environmental process. We need the help of getting the NEPA assignment so we can move that more quickly.

And so that is where we are. We are estimating a funding gap to complete all of valley-to-valley of about $7 $10 billion or, as the chairman stated earlier, roughly the cost of the tunneling through the Pacheco Pass. Our plan is to build on both sides of the tunnel, get the Central Valley piece in place, extend the San Jose to San Francisco electrified project all the way to Gilroy, and see if we can't start services there while we focus on the unfunded tunnel part. We are bringing in international expertise on that. These kind of tunnels are built all over the world but not a lot here for high-speed rail. We are bringing in international expertise on that and private-sector partners to sort of figure out can we do any private-sector or procurement opportunities with that tunneling exercise there? So that is our process going forward.

On the private-sector money, I would just say this. In any transportation project, for the private sector to come in generally, they want low-risk projects. Right now with a constrained funding program, we are not low risk and we are still in environmental. So we have to get these things done. Our process all along has been get our operating segment going, show that we can produce revenue, and then use as a concession there that model so we can then bring in private money.

Dr. LOWENTHAL. If you could just let me know——

Mr. KELLY. Sure.

Dr. LOWENTHAL [continuing]. Just an overview then of the little under $13 billion that was both Federal and State, how much of that is left, and where are we—you are saying that there is a little bit—$750 million, was that annually?

Mr. KELLY. That is our annual cap-and-trade estimate.

Dr. LOWENTHAL. So that is coming in.

Mr. KELLY. Yes.

Dr. LOWENTHAL. That is $750 million.

Mr. KELLY. Yes.

Dr. LOWENTHAL. How much money do we have left in the bank?

Mr. KELLY. Well, of the Federal and State money that we have received, we have only spent to date approximately $4½ billion, on the order of $4.6 billion. That is what has been spent to date. And that is not just in central; it is also for environmental work and other things. We have spent just under $4 billion in the Central Valley I believe to date where you are seeing the most construction activity right now. So we have that difference plus the cap-and-trade funding. As I said, if we have spent about $4.6 billion, we have an estimate of about $22 billion available, so there is $18 billion unspent. But again, that is——

Dr. LOWENTHAL. That is anticipated money?

Mr. KELLY. It is an assumption of the cap-and-trade money——

Dr. LOWENTHAL. That is not——

Mr. KELLY [continuing]. Continuing.

Dr. LOWENTHAL. That is not——

Mr. KELLY. Right.

Dr. LOWENTHAL [continuing]. Cash you are anticipating?

Mr. KELLY. No, it is not. That is correct. And because that is what we have. We have a multiyear commitment of cap-and-trade funds, and that is what we have to assume for planning purposes. We do think that the approval of AB 398 last year that locked in cap and trade for 10 years has had a real stabilizing effect on the cap-and-trade program, and we have seen that in the auctions, the last four auctions that have been conducted since then.

So because we are in that constrained environment, that constraint funding environment, we have proposed in the business plan to get to the Prop. 1A program first by getting to valley-to-valley and even doing that in segments. And the first segment is a Central Valley piece, Bakersfield north. On the west side of the tunnel we want to extend the San Francisco to San Jose electrification all the way to Gilroy, and we want to focus the unfunded part on the tunnels in the middle and work with industry, the Federal Government, and others on trying to get a financing solution for the tunnels to complete valley-to-valley. So that is our fundamental program right now that we laid out in the business plan in terms of how we move forward.

I should also say we continue to make bookend investments all over the State. We are funding partners on a major grade separation in Los Angeles, and in this business plan we are proposing to be funding partners for the rebuild of the L.A. Union Station, which will both accommodate Metrolink, LOSSAN, other lines down there, and ultimately accommodate high-speed rail.

Mr. DENHAM. Mr. Lowenthal, you have now taken up your 5 minutes and Garamendi's 3.

Dr. LOWENTHAL. And your 2.

Mr. DESAULNIER. It was worth every second.

Mr. DENHAM. I now recognize Mr. LaMalfa for 5 minutes.

Mr. LAMALFA. OK. Thank you, Mr. Chairman. I appreciate the hearing today and the opportunity to get this out in front of the people of California and as well as the Federal taxpayers.

Mr. Scovel, one of my colleagues was a little tough on you earlier about the 4 months of experience there. I note that Mr. Kelly has 6 months on the job, so I guess that additional 2 months is the amount of time needed to reach total rail consciousness, and so you have got that going for you, which is nice. So, anyway, Mr. Scovel, I would like to come to you on—take a chance on that experience you have there. And one of my major issues is wondering about the funding. We will set aside ridership; we will set aside all the other benefits we have heard about. Let's talk about the funding here. So we can identify $13 billion from the initial bond and about $3 billion from Federal funding from ARRA, and so the only thing to add to that since this has all come about when the first funding was put out—I think it was in 2012 and three of us were in the State senate, and all three of us voted no on that original round of funding in a bipartisan way.

So the issue is $13 billion of identified money, then the rest is going to have to come from somewhere else, the private market out there, which is staying away in droves, and then the cap-and-trade scheme that has been put together in California, which the number was identified as $750 million per year on an optimistic cap-and-trade year. What percentage is that of the total cap-and-trade take? But then how do you see that financing, the shortfall under the optimistic plan, which was downsized from the $98.5 billion number we heard in November of 2011 in a local transportation committee that jumped from the $33 billion to the $43 billion to the $98.5 billion? Then it was downsized to $68 billion a few months later when Governor Brown chose to use local rail in L.A. and San Francisco, which probably isn't legal under the bond.

So we are at least $55 billion short, $87 billion short by the realistic number of $100 billion rail system. So at $750 million of additional funding, which is unlikely to come from the Federal Government and no new bonds seemingly on the horizon in Sacramento to try and throw in more for that since we have other bonds we are working on, where are we going to get this funding——

Mr. SCOVEL. Thanks, Mr. LaMalfa.

Mr. LAMALFA [continuing]. That $750 million a year. Pardon me. Go ahead.

Mr. SCOVEL. Thank you. The gap that you have described between projected funding and projected cost is exactly the kind of risk that FRA has to analyze. It is FRA's job at the Federal level right now to protect the Federal investment. Right now, it is about $3½ billion total; $2½ billion has actually been spent. That was the ARRA money. There is about $928 million more that is hanging in the balance. It is contingent on the rail authority making good on its matching requirement for that original ARRA money.

Setting all of that aside, as FRA goes forward and tries to analyze the risks that the rail authority is facing, there may not be an adequate match from the State for the Federal dollar or the other two aspects of the 2016 amendment may not be satisfied by the rail authority. Those three points represent, at this time, FRA's total skin in the game.

Mr. LAMALFA. What is the danger that the State rail authority is not meeting the obligations that the Federal requirements are for that money and that it may even have to come around and refund that if not, you know, providing the match that it is supposed to do or meeting the obligations that are set forth in the bond for a true high-speed rail train and the Federal guidelines that go with that? What is the danger of that?

Mr. SCOVEL. Well, as we see the numbers, we see the rail authority has made good on about $293 million of the match so far. They have advanced——

Mr. LAMALFA. $293 million out of the $3 billion plus?

Mr. SCOVEL. $293 million of the $2½ billion.

Mr. LAMALFA. Yes, OK.

Mr. SCOVEL. Right. They have advanced that as proof of their match up through the end of fiscal year 2017. Currently, as we understand it, the latest numbers that we have been provided are $644 million more advanced by the rail authority to FRA as further evidence of their making the match. FRA's job——

Mr. LaMalfa. So total match so far is around $900 million that they have made?

Mr. Scovel. About, yes, right.

Mr. LaMalfa. And how much have they spent of Federal money so far?

Mr. Scovel. $2½ billion.

Mr. LaMalfa. Yes.

Mr. Scovel. There is a gap there.

Mr. LaMalfa. There is that number. And then——

Mr. Scovel. But they do have until the end of 2022.

Mr. LaMalfa. End of 2022 to make good on that——

Mr. Scovel. Yes, sir.

Mr. LaMalfa [continuing]. By matching that spending?

Mr. Scovel. Right. So, you know, progress made, challenges remain. That is always the inspector general's eternal refrain, I think.

Mr. LaMalfa. Thank you.

Mr. Scovel. We will have to see how it plays out.

Mr. LaMalfa. Mr. Kelly, does $750 million here even make the interest payments on the bond?

Mr. Kelly. They won't be used for that purpose.

Mr. LaMalfa. No, but would it match that number?

Mr. Kelly. I don't know. The Prop. 1—I don't know. I am not sure—sitting here, Mr. LaMalfa, I am not sure what the bond payment is right now on the bond in terms of the annual debt service.

Mr. LaMalfa. On the $9.95 billion once it is all spent?

Mr. Kelly. On the nine—yes——

Mr. LaMalfa. Yes.

Mr. Kelly [continuing]. Because that debt service——

Mr. LaMalfa. I am just wondering if it will make the——

Mr. Kelly. The debt service is not paid out of our revenues.

Mr. LaMalfa. Someone else's revenues, OK.

Mr. Kelly. The general obligation——

Mr. LaMalfa. Mr. Chairman, I will yield back with only a little over time. I look forward to the next round.

Mr. Denham. Thank you, Mr. LaMalfa.

Mr. DeSaulnier?

Mr. DeSaulnier. Thank you, Mr. Chairman.

It is a little odd for me to be on this side of the table with you two, but I do remember a time when I was a Republican many years ago. Actually, I think you should change. Anyway, we will do rock, scissors, paper.

I just want to—two things to begin with. First of all, sometimes my criticism has been confused with my support for the project. California more than ever needs a world-class passenger rail system. The only thing that has changed since I was in the legislature, and Lou and I were having those discussions, is that there is a greater urgency for California to get a world-class passenger rail system. Congestion, as Mr. Kelly knows, is up 300 percent in the urban areas in California. We desperately need—and the rail systems, commuter systems and transit systems, the intercity systems are struggling. They are struggling with farebox recovery, reliability, and safety.

So I really think that there is an opportunity here to fix this project, and I think much of the wisdom is encapsulated in Mr. Thompson's three or four pages within the business plan and in his testimony as he submitted here and how much respect I have for all four of you, but for three of you, I know you very, very well. Mr. Hunter, the job you are doing is exemplary for unions all over this country and the American workforce, the training you give them, the value that you give your customers, your contractors. And like you, I have been around the world to talk about this project with public officials as high as ministers of transportation in Japan and Germany and in Paris, been to Spain, Italy. Germany, Japan, which has the best system in the world if you ask me, and the Chinese, who gave me a really good demonstration of their work particularly at the Hong Kong station, which I have never seen. This is not on public dollars. So the one thing I will say in all of those conversations, it would be kind to say that the international community looks at this project skeptically, particularly the revenue.

So first with Brian, the respect I have for you for years that I have known you when I was on the Metropolitan Transportation Commission through the legislature, your capacity not just for expertise but your ethics. Your predecessor was not happy with me when in the legislature I questioned him about his honesty on this project because quite frankly I thought he misled me, and so I worked on legislation to get rid of the authority because I thought they needed to go.

One of the reasons I didn't pursue that was because the administration agreed to put the authority under the Transportation Administration, of which you where the secretary, so you have been able to work with elected officials and appointed officials and still be a truthteller. Sometimes we didn't like your truth, but you are in a unique position to change this project and make it successful.

However, my suspicion is you now are not on top of the organization. You are working for the authority. So I would like your commitment here that if you see things—and I think you have done this in your 6 months—where the authority is doing things that are not in the best interest of the State, will you continue to tell them that and at this point in your career make sure that your reputation for ethics and honesty continues?

Mr. KELLY. I mean, yes, because I have to——

Mr. DESAULNIER. I ask——

Mr. KELLY [continuing]. I approach this—I think it is worth just stating that I approach this as—you know, when I was the secretary we did work on other big projects——

Mr. DESAULNIER. Right.

Mr. KELLY [continuing]. Like the Bay Bridge and others. There is nothing better——

Mr. DESAULNIER. Why did you bring up the Bay Bridge?

Mr. KELLY. Well, because I just wanted—there was nothing better than the—you know, we established some processes on that project——

Mr. DESAULNIER. Right.

Mr. KELLY [continuing]. That required the transparency. And it is the only way—this is—there is only public dollars on this project right now.

Mr. DESAULNIER. OK.

Mr. KELLY. I am for the transparency.

Mr. DESAULNIER. And, Brian——

Mr. KELLY. It is a benefit for all of us, and it is going to help us manage this project.

Mr. DESAULNIER. Brian, and I only bring that up in dead seriousness because you are the person who can save this.

Mr. Thompson, the last time you testified in front of me up the street I asked you whether the project could make the 2 hours—the commitment to the voters, and you said publicly no. Could you tell me now 5 years later what you think the time could be from the Transbay Terminal to Union Station?

Mr. THOMPSON. Well, I think the answer is the schedule that they are showing in the 2018 business plan is around 3 hours and 10 or 11 minutes. Could you crank up a train at midnight with nothing else on the railway and nobody in your way and run it without stopping from San Francisco to L.A. in 2:40? Barely.

Mr. DESAULNIER. So how does that affect the business plan, the modeling? We are competing with airlines. That was——

Mr. THOMPSON. The——

Mr. DESAULNIER [continuing]. A key part is making that faster time.

Mr. THOMPSON. The critical question that we raised about that is do your demand models reflect 3 hours and 10 minutes? And the answer is yes, they do. So the demand models are consistent with the schedule that they are proposing to actually operate, and that means that, to the extent that the demand models are accurate for other reasons, that they certainly are consistent with that. But the 2:40 would be very, very dicey.

Mr. DESAULNIER. And just if you can indulge me 1 more second, the last question, Brian, is we have talked about this, the international community, its revenue model is different from what we have on many levels but value capture, and I see Ms. Rooney in the audience. The JR lines get one-third of their operating cost from value capture. I think we have a great opportunity to do that from San Jose out to Bakersfield. What are you finding?

Mr. KELLY. Yes, we do. I mean, our—in a couple of areas. One, there may be utilization of our assets for fiber cables and other things that you can generate revenue for, but more importantly around our station, development is where I think not only can you build stations serving the communities that people want but you can also build around those stations and part of those stations to maximize revenue for the system. And that is the essence of the value capture for us. And I think there is a way to do it where you are also achieving many other important mobility and environmental objectives, and so that would——

Mr. DESAULNIER. Thank you, Mr. Chairman. Thank you for indulging me. Just as a point of reference, the area around the Transbay Terminal will generate an extra $8 billion in property tax to the city and county of San Francisco. If we use the Japanese and the European model, one-third of that would be going into the operations system.

Mr. DENHAM. Thank you, Mr. DeSaulnier. I am not as convinced that the one around Shafter will have the same economic development.

Mr. DESAULNIER. We can get some real high density in there so you can go to the planning commission meetings for that.

Mr. DENHAM. I now recognize Ms. Lofgren for 5 minutes as well.

Ms. LOFGREN. Well, thank you very much, and, Mr. Chairman, thank you for allowing me to participate in this hearing since I am not a member of the committee but I am one of the cochairs of the Congressional Caucus on California High-Speed Rail along with Representatives Costa and Correa.

You know, as I have listened to this, I think this oversight is important. Transparency obviously is necessary, but I am mindful that it is hard to do big things, and it is easy to criticize. You know, when I was in local government—I never served in the legislature—I led the successful half-cent sales tax that voters approved to build highways.

And, you know, building things is tough. I think this is the largest construction project underway really in the United States or it is the biggest thing going in the United States, so I think it is important to have that perspective if you are going to do big things.

And certainly we have got these projects underway all over the world. I mean it seems to me if Uzbekistan can build a high-speed rail system, so should we be able to do so.

Now, looking at some of the issues from my perspective—I represent San Jose—the impact of high-speed rail connection between the Silicon Valley and the Central Valley is something that we think might be considerably important to both valleys. Right now, the median price of a house in San Jose is over $1 million. The unemployment rate in San Jose is under 2 percent. People can't find employees. And if you go to the Central Valley, you have got housing that is very affordable and a high unemployment rate and plenty of smart people who would like to get those great jobs in the Silicon Valley. So I am advised—and I guess this question goes to you, Mr. Kelly, that with this project that we would be able to get from Fresno to San Jose in about an hour. Is that accurate?

Mr. KELLY. Yes, that is right, between an hour and an hour 20 minutes, yes.

Ms. LOFGREN. I will just point out right now it takes—I have someone on my staff who works in San Jose. It can take her longer than that to get from San Jose to downtown. So this will completely change the housing and the employment opportunities for a significant part of the State.

I would just note that, you know, we have to identify a source of funds. And Mr. DeSaulnier and I have discussed this often, the need to see how we might enhance revenue around stations. But at the Diridon Station, Google has already announced a project for 25,000 employees right within walking distance of the station itself. And the other technology companies are also starting, so there is going to be some opportunity for some public-private partnership it seems to me.

And I just wanted to mention, Mr. Thompson, in terms of the grade separation, this entire line from San Jose to San Francisco is going to be a grade separator, we believe. I mean, the voters of Santa Clara County taxed themselves to provide funding that is not from the authority to do the grade separations in all of Santa Clara County, so there shouldn't be delay from traffic at least in any of the Santa Clara County portions of the project.

But, Mr. Kelly, does your business plan take a look at the technology growth and incorporate those possibilities as revenue sources?

Mr. KELLY. We are a little bit at the front end of the station area planning exercise. We have laid out grant awards with cities to move forward on that. We have just become a partner with Caltrain, VTA, city of San Jose, and I think BART to work on the Diridon Station planning exercise——

Ms. LOFGREN. Right.

Mr. KELLY [continuing]. Which has, again, just gotten underway but we are a full partner in that exercise. Our stations will vary from place to place because in some we will be the primary owner of the structure and others we will not be. Diridon is an example where we are not. We are a tenant. But there is great opportunity for how that is developed, what that looks like, and how you develop around there to enhance the system, revenues for the system, and provide——

Ms. LOFGREN. Right.

Mr. KELLY [continuing]. Great opportunity for people to get around without having to drive too far.

Ms. LOFGREN. Final question, when I led the traffic authority and we built the highways, we did do a combined NEPA/CEQA——

Mr. KELLY. Yes. Yes.

Ms. LOFGREN [continuing]. And there were no corners cut. I mean, everything was done, but it was done in a combined fashion.

Mr. KELLY. Yes.

Ms. LOFGREN. It really makes a lot of sense, so anything we could do to help that I think would be very important to get this done properly. And I personally would like to assist in any way that I could on that matter.

Mr. KELLY. I appreciate that. To date we have been working very closely with the FRA to move forward on that NEPA/CEQA assignment. It is pending, and we are eager to get it so we can try to achieve the savings we have seen on the highway side.

Ms. LOFGREN. I will just close by saying, you know, we have one company alone in Silicon Valley with a market cap of $1 trillion. It seems to me that, as a society, we should be able to solve this financial problem.

Mr. THOMPSON. May I respond briefly to one thing you said? I wish there was a coordinated program to get rid of the grade crossings between San Jose and San Francisco, but there is not. And one of the things that we have recommended repeatedly is that such a program of State and local and high-speed rail and Caltrain and other money be developed to get rid of those grade crossings. They kill as many as 20 people a year on those grade crossings, half of which may be suicides, the other half——

Ms. LOFGREN. Right.

Mr. THOMPSON [continuing]. Of which are accidents. And that will only get worse, a lot worse when we add a number of high-speed trains to what is now a number of Caltrain trains and the ability to drive across those grade crossings is going to be continually more restrictive.

Ms. LOFGREN. If I may, I spoke a little too broadly because I can't speak for San Mateo County but I can for Santa Clara County, and we have taxed ourselves to eliminate those.

Mr. THOMPSON. Yes, you have, and I hope that you can help and others can help in pulling together a pretty comprehensive approach to that problem because it is very serious.

Mr. KELLY. I would agree with that. I just wanted to add one point, that whether you do a full grade separation or quad gates and fencing are tied to the speed that you operate on in the corridor. And we are going to meet all of our safety standards in that corridor. We are major funding partners on a big grade separation there now where we put in on the order of $80 million, and we are eager to work with the local folks, Caltrans and others, on the corridor-wide grade separation program. So that is kind of where we are, but we are fully committed and will be meeting all of the safety requirements at those grade separations in that corridor.

Ms. LOFGREN. Thank you, Mr. Chairman. I have overtaken——

Mr. DENHAM. Thank you, Ms. Lofgren. And I do agree, though, with Ms. Lofgren on this. I think everybody up here voted for the NEPA Reciprocity Act, NEPA/CEQA, so that we could streamline these projects, as we want to do on water, as we are implementing on road projects, and that is why this continues to be a question. If we are so far behind on the environmental review, why aren't we doing more to streamline that process?

Mr. Kelly, specifically in the Central Valley, one of the big concerns that has come up and one that, you know, I have read in the 2018 business plan is we are starting with two nonconnected segments, one from San Francisco to Gilroy, the other from Madera to Bakersfield while we wait for or we figure out what that funding gap is to build the tunnel through the Pacheco. Can you tell me what the new cost of the Central Valley piece of that which runs from Madera to Shafter is?

Mr. KELLY. Yes, give me just 1 second. Sorry. We estimate that the Central Valley segment is about $10.6 billion.

Mr. DENHAM. $10.6 billion? And while we are waiting for that funding gap to come in, whatever that new revenue is, will we have high-speed rail on that segment?

Mr. KELLY. What we have proposed in the business plan is to—and I should say we have brought on a new early train operator and we are working with them to analyze this, but what we want to do is once we complete the 119 miles segment, look at expanding further into Bakersfield, and then getting an operating run going on just the Central Valley side, that would be Bakersfield further north either to Madera and Merced on that side, that analysis is underway now. We are going to update where we are on that on our project update report in March, but the idea is to see if we can operate a service there on that side, as I said earlier, extend the electrification on the west side and see if we can get some operable segments in place while we work through the tunneling issues in the middle.

Mr. DENHAM. Thank you. And, Mr. Thompson, considering this funding gap, especially on the first phase of this, it shows $7 billion to build a tunnel or somewhere in between $2 $9 billion on the funding gap, what has the peer review recommended to fill the funding gap both the short term and long term?

Mr. THOMPSON. We have made no recommendations. We simply listed some things that the legislature might consider.

Mr. DENHAM. What are those things that you listed?

Mr. THOMPSON. Well, we listed such things as an increase in the gas tax——

Mr. DENHAM. Do you know what that increase in gas tax would be?

Mr. THOMPSON. I haven't calculated it——

Mr. DENHAM. What else have you——

Mr. THOMPSON [continuing]. Recently. Sales tax, that was a proposal to finance the 2000 business plan.

Mr. DENHAM. Do we know what that sales tax would be?

Mr. THOMPSON. At that point it was 0.25 cent. It might be more than that now. I don't know. There are other sources available. One of the things that will be necessary is to put a floor under the cap-and-trade funding. Otherwise, it won't be financeable. So those are sources, but we have not recommended anything.

Mr. DENHAM. I think the current gas tax based on what I had read was I think for 12 cents is $5 billion annually. Mr. Hunter, do you know?

Mr. HUNTER. Yes, it is just short of $5 billion a year——

Mr. DENHAM. $5 billion?

Mr. HUNTER [continuing]. Correct.

Mr. DENHAM. So given that parameter both short and long term——

Mr. THOMPSON. Well, let's—what is it?

Mr. DENHAM. Mr. Kelly, you can answer this.

Mr. KELLY. I think just from——

Mr. DENHAM. I am sure you know these numbers.

Mr. KELLY [continuing]. My old hat, every penny raised is about $150 million in California on the gas tax.

Mr. DENHAM. OK. Thank you. And, Mr. Hunter, as again I said, you did what you said you were going to do. You have hired veterans, you have hired a lot of locals in the community. What is the current estimate of how many people have been hired either by job-years or by numbers?

Mr. HUNTER. Current—well, we have run in excess of 2,000 right now, but several thousand have transitioned through as their work finished and they moved on, but we are sustaining around 2,200. I believe the——

Mr. DENHAM. Those are individuals?

Mr. HUNTER. Yes, individuals, and——

Mr. DENHAM. But you calculate this—normally, labor calculates it by job-years?

Mr. HUNTER. By years, yes.

Mr. DENHAM. So some have come in and some have gone out. Do you know what those job-years are?

Mr. HUNTER. Yes. As of this time, I am not sure. The way that we are looking at it right now and the amount of workers we have got on there for the length of the project we are believing somewhere around 240,000 man-years and woman-years, too, because we have got a lot of good women electricians and other people out there. I just thought I would get that. In the building trades we are constantly trying to change our language to adapt to the workforce. And so 1 day of 8 hours for a worker moved to 240,000 years, so it is substantial. I am not sure of exactly what the man-hours are at this time. It is been in excess of $2 billion of work in the Central Valley, and it has driven thousands of jobs for local workers.

Mr. DENHAM. So do I hear you saying it is 240,000——

Mr. HUNTER. Man-years.

Mr. DENHAM. Man/woman-years?

Mr. HUNTER. Woman-years. Thank you for that. In the construction. And we believe—we have got vast experience in tunneling both in Los Angeles—we are doing the mass transit. Of course we were the workforce at the Barton onto the delta. You know, 1 mile of subway in Paris is around $500 million, the subway, including stations.

Mr. DENHAM. I think this is a critical point, and it is certainly one that I want to better understand as we move forward. According to Prop. 1A, this was supposed to create 300,000, I believe, men and women hours through——

Mr. HUNTER. Years.

Mr. DENHAM. Years—through the entire project, which was supposed to be done in 2020. So if we have already done 240,000 but yet we have only done a small segment of this so far and we have still got another 25 years, 20 years to build this thing, Mr. Kelly, do you want to——

Mr. KELLY. Mr. Chairman, yes, can I help? We estimate from the investments between 2006 and 2017 that the job-years is between 28,000 and 32,000 to date during that stretch.

Mr. DENHAM. 28,000, OK.

Mr. KELLY. The 240,000 job-year reference is for the full buildout of the valley-to-valley service. That will create 240,000 job-years and $50 billion worth of economic output.

Mr. DENHAM. Over the life of the project?

Mr. KELLY. During the construction piece of that project.

Mr. DENHAM. Does that change whether or not we have longer delays?

Mr. KELLY. I am sorry?

Mr. DENHAM. Instead of completing it in 2020, if this is now going to be 2033 or beyond, does that number change? Does it extrapolate more jobs if a project has a longer time period?

Mr. KELLY. Yes, I don't know if I am answering——

Mr. DENHAM. Mr. Thompson, do you——

Mr. KELLY. I am sorry.

Mr. DENHAM. Either one.

Mr. KELLY. Yes, I am not sure if I am answering this exactly on point. I would just say that our estimates are tied to the schedule that we have, so we have laid out what the Central Valley and what the—the Central Valley is from 2006 to 2017, and our estimate on valley-to-valley is for that full buildout under our schedule, and that is the 240,000 job-years that we estimate. And that is under the current schedule to 2029.

Mr. DENHAM. Thank you. Mr. Garamendi?

Mr. GARAMENDI. Thank you, Mr. Chairman. A couple of very quick questions. Mr. Scovel, the issue of NEPA being taken over by the State, why hasn't the FRA completed that? They have had 67 days to do it since June 1.

Mr. SCOVEL. I can't answer for FRA, sir. That will be a question for us as we go forward with the audit——

Mr. GARAMENDI. OK. So it is one——

Mr. SCOVEL [continuing]. Part of the risk.

Mr. GARAMENDI. One particular issue then which we could bang on the FRA to get done. That would then free up both money and time.

Secondly, Mr. Thompson, you have stated categorically that the fundamental problem is we don't have a funding source going forward, and if we had that, things would be better but not necessarily solved. I am a member of the Armed Services Committee. In the next couple of days the President is going to sign the new National Defense Authorization Act, which confirms once again that we will have a 330-ship Navy within the next 15 years. There is no secure funding for the remaining 100 ships to get to 330. That is both replacement, as well as the $12 to $15 billion for two new aircraft carriers. So the funding source even for the U.S. Navy and our national defense is an ongoing issue year-by-year going forward.

I would just point out that for major projects—and this is about two decades to finish this total project. Yes, we should be concerned about a secure funding source, but it looks to me like, Mr. Kelly, you have secured about 80 percent of the funding necessary to complete what you now call step 1 of phase 1, which is the tunnel and San Francisco to Bakersfield.

Mr. KELLY. That is correct.

Mr. GARAMENDI. Is that correct?

Mr. KELLY. That is correct.

Mr. GARAMENDI. So about 80 percent of that in your estimation has been secured.

Mr. KELLY. Yes, and it——

Mr. GARAMENDI. That is a whole lot better than we are doing with regard to our 330-ship Navy or the $1 trillion for replacing our strategic nuclear systems. We are not even close to next year, let alone the next 20 years to complete those projects. So this is not unheard of, but you are 80 percent, is that correct?

Mr. KELLY. Yes. We estimate about $22 billion—you know, the only caveat here is that our cap-and-trade dollars, we have to do an estimate on them.

Mr. GARAMENDI. Understood.

Mr. KELLY. So we are going to be between $22 and $28 billion on that, and our estimate of cost is $29 billion——

Mr. GARAMENDI. And that——

Mr. KELLY [continuing]. So we have a gap between $2–$9 billion.

Mr. GARAMENDI. OK. So about 80 percent is secure, assuming the cap and trade——

Mr. KELLY. That is correct.

Mr. GARAMENDI [continuing]. Continues to produce?

Mr. KELLY. That is correct.

Mr. GARAMENDI. Fair enough. Now, with regard to the development of the tunnel project, which together with the train operation, we have not talked about the train operation piece of this. Can you go into that? You have talked about the tunnel. Let's talk about the train operation.

Mr. KELLY. Can you be a little bit more specific when you say the train operation, the—

Mr. GARAMENDI. Your ETO [early train operator].

Mr. KELLY. Oh, thank you. Yes, before I arrived, the authority in, you know, making sure it can transition to operations, went out and hired—we went through an RFP process and brought in an early train operator from Germany, Deutsche Bahn, who has great experience running high-speed rail is now advising us on a couple of fronts. One, they are doing the analysis necessary to see if we can do our operating segments on both the west side, Gilroy to San Francisco, and in the Central Valley to ensure that we can start a service and meet our legal requirements in doing so. So that work is underway.

And then secondly, I asked them to take a look at our cost estimates in the business plan to be another set of eyes on that and advise us on the reasonableness of those estimates, and we will have that done this fall and we will report that to all of our oversight committees in March of 2019.

Mr. GARAMENDI. I think I have got about 1 minute left here. Mr. Thompson, you have four options.

Mr. THOMPSON. Yes, sir.

Mr. GARAMENDI. Could you run quickly through them and your preferred choice among the four?

Mr. THOMPSON. Well, we listed four options. Basically one of them is to stop now.

Mr. GARAMENDI. Is that a good idea?

Mr. THOMPSON. No, it is not a good idea.

Mr. GARAMENDI. The second option?

Mr. THOMPSON. The second option would be to finish up just what they are doing in the Central Valley. That would then protect against a Federal claim of the money back but it would not give you much value. The third option—

Mr. GARAMENDI. Is that a good option?

Mr. THOMPSON. The third option is essentially what they are proposing, which is to finish the work that they are trying to do on the bookends plus the Central Valley. That will keep the project alive. It will keep it going, and it will get something of value at least on the bookends in the Central Valley.

The fourth option—and this actually is an answer to your observation. The fourth option would basically be for the legislature and the Governor to recommit to the project and to say we really want to do it in the face of the uncertainties and the problems that we now know and that we will find the funding to get the project done.

Mr. GARAMENDI. Which is precisely what the U.S. Congress did in the National Defense Authorization Act. It committed itself to a

330-ship Navy, to $1 trillion for the repurposing and re-upbuilding of our nuclear deterrent. Money is not there, the commitment is.

Mr. THOMPSON. If I were an admiral, I would feel much better about that. And if I had an appropriation to build that carrier, I would spend that money. What is needed here is in a sense the State equivalent of that in which the State would look at—one of the recommendations we have made is that they go back to the State transportation plan, make sure this fits the requirements that the State wants, and then commit to getting the job done.

The problem that we are concerned about and we have expressed this many times is that it is very difficult to manage a $100 billion or $50 billion project with only $20 billion in hand. It is just very difficult. You have to restructure your commitments, you have to manage it in a different way, you have to take risks that you really shouldn't have to take. If the State wants to do this, the resources they can find, and they should do the project.

Mr. GARAMENDI. My time is over. My final 15 seconds, which is not really available but if the chairman doesn't shut me up, is that the Congress this year will not complete a massive infrastructure program, but it is in the works that all of us are committed to a major national infrastructure program. And the question for us is will high-speed rail be part of that infrastructure program, which includes everything from water to sanitation to transportation of all kinds?

Thank you, Mr. Chairman.

Mr. DENHAM. The next chairman of the T&I Committee will get it done.

Mr. LaMalfa, you are recognized for 5 minutes.

Mr. LAMALFA. Yes.

Mr. DENHAM. You can see we all get along pretty well on the T&I Committee.

Mr. LAMALFA. Mr. Kelly, once again here when the original vote was approved as a $33 billion project and we found out just a couple years later it was a $98.5 billion project. It was downsized just right at $100 billion now. So I guess what I wonder if—I carried two bills about it in the State senate, which my good friend heard in committee for us. It didn't pass, but that is another thing. Senate bill 22 was to stop spending until there was a complete plan of where the rail was going to go, what the route was, how it was going to be paid for. It didn't pass.

Another bill, S.B. 985, which reflected the $98.5 billion price tag we found out about in November of 2011, to put it back on the ballot in front of the voters. So I guess I would pose to you or anybody watching, if you were bid for your home to replace the roof, let's say $33,000, and when the construction people show up and the price jumped to $98,500, would you want another crack at a rebid or revote or something like that? I think the people of California would on revoting the rail.

So that said, we have heard about the problems with funding just the Pacheco tunnel, which is a little bitty one compared to the one you are going to have to go through the Tehachapis with if that is indeed how you are going to link to the big prize, L.A., where the ridership is supposed to come in. Do you currently have a cost or an actual plan for how—with the seismic issues or whatever the challenges are of running that tunnel through Tehachapi, how that is going to go? What is the price? Is it engineered out? Does that even fit with what I talked about in S.B. 22 as even part of a plan?

Mr. KELLY. It is part of the plan to go through both the Tehachapis and the San Gabriels to get into the L.A. Basin. Engineers are going through the work to make sure we deal with the seismic issues. We have as an advisory body the State's Seismic Advisory Board, who we are interacting with on those tunneling exercises.

Mr. LAMALFA. So in 2018 they are just now going through—

Mr. KELLY. No, no, they have—

Mr. LAMALFA.—the engineering—

Mr. KELLY. That work is underway. I mean, as I said earlier—

Mr. LAMALFA. But it is not finished. We don't know the price.

Mr. KELLY. It is not. Eight of our ten segments are still in environmental, but we move designs along as we go through that process. That segment down there is still in environmental, but we are working through that process. It is designed further enough where we can make cost estimates, and we have a cost estimate for that tunneling exercise that has a big swing right now because it could be as little as $12 billion or as much is $25 billion depending on what you do with the—

Mr. LAMALFA. $12 to $25 billion—

Mr. KELLY. Yes.

Mr. LAMALFA.—in comparison to the $7 billion up the Pacheco Pass?

Mr. KELLY. That is correct.

Mr. LAMALFA. Yes. How many more miles is the Tehachapi—

Mr. KELLY. I think I am going to ballpark this for here. I can get you the specifics, but I think we have on the order of 35 miles in tunneling through both mountain segments.

Mr. LAMALFA. Thirty-five miles of tunneling versus 13 was it—

Mr. KELLY. That is about right.

Mr. LAMALFA.—Pacheco?

Mr. KELLY. That is about right.

Mr. LAMALFA. So almost triple?

Mr. KELLY. Yes, but—yes. And, you know, we have not made our final design choices yet, and that is going to drive cost as well.

Mr. LAMALFA. So we don't have it—

Mr. KELLY. Our estimates in the business plan I should say do account for those swings.

Mr. LAMALFA. Ten years after the bond we don't really know what that plan is and what the price tag is with money that is relied upon at $750 million at a time from cap and trade since there is no other funding coming available—

Mr. KELLY. I would say—

Mr. LAMALFA.—to fill the gap—

Mr. KELLY. So I would say—

Mr. LAMALFA.—of $87 billion.

Mr. KELLY. Sorry.

Mr. LAMALFA. Go ahead—of $87 billion to fill the gap.

Mr. KELLY. I would just say we certainly know what the plan is. It is consistent with our programmatic plan to do that. We are now going through the on-the-ground environmental process to wrap that up, and we refine costs as we go forward. That is actually one of the reasons why in this business plan for the first time we do layout of baseline cost estimate but we put it in ranges because we are—

Mr. LAMALFA. Unfortunately, the plan keeps changing—

Mr. KELLY.—early in the process.

Mr. LAMALFA.—from CEO to chairman to CEO changes, so tell me about the high-speed portion of itself, please. A recent study was done by the authority to show that you can make it just in time on 2 hours and 40 minutes if everything goes perfectly, but also there is some wiggle room on actually running the trains at high speed because the bond, according to your officials, have long contended the legal fine print does not actually require it to operate trains on such a schedule.

So it raises the idea that the State is spending billions on a capacity that it won't actually use because, as this was voted in in the legislature, there was a lot of assembly members and senators that want it to stop in their town, you know, have it hit Hanford, have it hit Pixley, have it hit—no, Pixley is Petticoat Junction, I am sorry. That is every other burg on the way there. So how many trains are you going to run per day at truly high speed in order to achieve, if everything goes perfectly, 2 hours and 40 minutes?

Mr. KELLY. Well, I think it is worth noting here because I know that this was part of the conversation earlier, the bond requires that we design the system to be capable of nonstop service between San Francisco and Los Angeles at 2 hours and 40 minutes. We are designing it to that, and our calculations show we are meeting that.

Mr. LAMALFA. As a taxpayer—

Mr. KELLY. As an—

Mr. LAMALFA.—how many trains will they get that actually run per day at that speed?

Mr. KELLY. I mean, that is part of the work we are doing with the early train operator, how the system is going to operate. Some will stop at cities. I mean, the reference to 3 hours and 10 minutes is an assumption that we have two stops along the way. We will have some nonstop train service, but I can't tell you today exactly how many. We are still in the process of figuring that out.

Mr. LAMALFA. So me the voter when I was getting my bid for my new roof back in 2008, I didn't get to have that information at how many trains you were going to run at full speed or part speed, how much the tunnel was going to be under Pacheco or Tehachapi. We are finding out in 2018, and you are asking us in one fashion or another to keep the faith in this project whose price has tripled, whose every other number assigned to it—you had 1 million person-years of work assigned to this at one point. They were saying 1 million at one point.

Ridership, cost was supposed to be tied to a Southwest Airlines ticket of about 80 bucks. A later hearing said it is probably going to be $120, $150, $200. Who is going to afford to ride this? Every mark has been missed on every promise made, not by you; you have only been there 6 months. Now you have total consciousness and so you know what is going on. But every mark has been missed. Even Quentin Kopp, the original champion of this thing, has pulled his support of this. And so why are we to keep going, especially as mine and Mr. Garamendi's district burns?

And, you know, Mr. Hunter, I want your men and women to have a lot of work to do, and indeed we do. We have got forestry infrastructure we need. We have got biomass infrastructure. We need to use that forest product. We have flood control projects that need to be completed, are way behind on the delta and everywhere else, mine and Mr. Garamendi's district. Water storage, we could build 20 dams for the price of what they want to spend on high-speed rail, 20 dams. Heck, if we built four, I would be happy. Highway repairs, airport runway extensions, even upgrades to conventional rails that would run trains at 120 miles an hour and get almost there as fast by the time you stop in every little burg to have pretty decent train service.

And so instead, we get this, and we are going to pin it on maybe another gas tax or further taxation. And then on top of that when we talk about investment going into the bay, we are going to then put the urban sprawl in the valley and run their housing prices up from $350,000 or so now to start matching the bay area of $1 million? I mean, there are a lot of ripple effects as we pave through that farmland down there and we eminent domain people, and at that the same time we are tearing out almond orchards to make way.

And I hear from the rail authority they want to plant trees to offset the CO2 that they are producing with the equipment that they are building the rail system with. It just continues to confound me why would we keep going on this.

So, panelists, thank you for your time today. Mr. Chairman, thank you for a little extra time. I appreciate having this opportunity to put this out in front of the people of California.

Mr. DENHAM. Thank you, Mr. LaMalfa.

Mr. Lowenthal?

Dr. LOWENTHAL. Thank you. You know, we sometimes think about people in terms of their political ideology, Republicans or Democrats, but I would like to step back and look at this in terms—as the only Representative here on the panel from southern California, we have—everyone else is from the north—what do I do when I go home—what do I tell the folks in Los Angeles? Much of the discussion so far has been on the Central Valley part. We have talked about the Transbay Terminal down to San Jose, the Caltrain, what is going to happen there. We have talked a little bit about Silicon Valley.

Talk to me, any of you, what do I go home and tell the people in Los Angeles? Where is that focus? We are the population center. We are the largest part of the population center. When are we going to be involved in this and what is going on that I can say go look, go see what is happening? This is really where your high-speed rail money and this is how you will benefit. So I just need a little bit to go home, what you would think I should be saying. I understand the bookends. We put that—I personally wanted to see much more money go out to Palmdale from—you know, because I thought then it could be connected out to Vegas, but that would have been another project and another thing. I am just saying what do I see and when will I see things in Los Angeles that will justify all of us—we are the folks that voted for this.

Mr. KELLY. Well, let me take a shot. First, as you alluded to, we are now full investment partners on $500 million worth of both the L.A. Union Station rebuild that will come down there and the grade separation at Rosecrans/Marquardt. That will not just benefit high-speed rail but will also benefit your regional providers down there.

Dr. LOWENTHAL. Right and—

Mr. KELLY. So we are part and parcel of that. We are, this fall, picking our preferred alternatives to complete the environmental work down in that section for the three stretches between Palmdale all the way to Anaheim. And we are working closely with others on investments in shared corridors, which the legislature here recently put forth a funding package for rail modernization investment in shared corridors like the corridor between Burbank and Anaheim that we can invest in. We have been doing modeling exercises with BNSF and the other rail operators to figure out how we can all co-locate and co-work in that area.

And ultimately, I think it will lead to a funding agreement between the partners like we have in Silicon Valley with Caltrain on how we move forward to make the right capital investments in those corridors. So we have estimated a 2033 timeline, but I am hoping once we get the environmental stuff done, which we are going to do by 2022, we will move more quickly on shared corridor targeted investments throughout that area that will be including grade separations and other things to get the electrified segments in place down there. And ultimately, we do need more revenue for that area, and we have to work through that.

But there are things that people will see in terms of advancement down there starting later this fall and capital investments underway now through our bookend dollars and the shared corridor program to help us get going.

Dr. LOWENTHAL. Mr. Thompson, when are we going to see something?

Mr. THOMPSON. I have to defer to Brian. He knows that answer much better than I do.

Dr. LOWENTHAL. Because while this is an issue because there is a lot going on in the north, there really is, as it should be, we are not hearing anything really in the south and, you know, I am just saying what do I do to go home and tell people? I am up here. We had a lot of discussion about what is actually happening, little discussion about Los Angeles and how that is going to be connected. Mr. Hunter?

Mr. HUNTER. Congressman, you can't tell by my Irish brogue, but I lived in L.A. for 35 years and I am—

Dr. LOWENTHAL. We can tell.

Mr. HUNTER. And when I was in Fresno and we were, you know, kicking off the construction, I said the Irish have a great history of building railroads in this country, but we are going to find the workers right here in Fresno, Madera, and in the valley to build this project, and that is what we have done. But we are working on a 1-mile overpass in Rosecrans. We are in at Union Station. We have opened construction yards in Bakersfield. You know, we have done Measure R for transit systems within L.A. I have worked on the Burbank Transit Center, and of course we have been in Orange County and done the massive transit center. And, you know, it is a rock skipping along the river, but they are all in a line, and I think it is going to work for us.

Dr. LOWENTHAL. I am just saying it is a hard sell now because we don't really see those kinds of impacts. You are going to see much more of it up in the north, as it should, and I am not saying it—but I am just saying we have a difficult sell because we but we are—you know, there are small pieces as we are doing, but we are not really seeing a real stretch that is going to be high-speed rail or that we are seeing—see that area. We are going to be able to get from Bakersfield to Los Angeles in 5 years or 8 years. That is on the drawing board. That is way in the future yet.

Mr. KELLY. I think it will be clarified further when we complete the environmental work down there and we can start making investments on the shared corridor, and I think people will start to see that.

Dr. LOWENTHAL. I sure hope so because we don't—right now, we are not seen as part of this. Thank you, and I yield back.

Mr. DENHAM. Thank you. We are going just a little bit over time today. We are going to conclude here shortly, but we have been yielding Republican time to Mr. DeSaulnier today. We are glad to have him back on the Republican side. Even for only 1 day, we will take it.

Mr. DESAULNIER. I don't think I would—

Mr. DENHAM. Mr. DeSaulnier?

Mr. DESAULNIER.—ever get out of a primary.

Well, I want to touch on a little bit what Alan is talking about and the challenge to get to L.A. And you both alluded to it. So, Mr. Thompson, you mentioned the megaproject hearings we had and the Flyvbjerg report on all the megaprojects in the world. He estimated that—not estimated, he found that on tunneling projects in particular and high-speed rail in particular the cost overruns, they were very significant. I can't remember what they were, but 30 percent or something like that.

So given the challenges of getting over the Tehachapis—and Brian, maybe you could answer this, too—where the grade is significantly higher than anywhere else, grade for high-speed rail I am told by people around the world should be about 3 percent. There, it is as much as 6 percent. So how are we going to get through the Tehachapis and what is the real cost going to be in order to link up?

And I know this is—I agree with what the authority is doing in terms of changing the strategy because of this, but maybe, Mr. Thompson and Mr. Kelly, you could talk to that.

Mr. THOMPSON. Well, just briefly, in history, in the 2012 business plan the authority was undecided at the draft plan whether they were going to go south or north, and at that point we recommended strongly that they go south because that is where the demand is. Unfortunately, in history what happened with the budget that they had—and this loops back to the problem we are discussing—they had to make the choice to go north because they only had enough money to go in that direction, but there was never any question that the right decision would have been to go south.

Now in the 2018 business plan, we are at the point where they can't quite complete the northern link either, and so we are still at this point of funding and what is the funding source they can rely on.

As for the engineering issues of the Tehachapis, I don't know that that is any more difficult than Pacheco. There are earthquake problems, there are geological problems. And I know you are doing more and more work on this, but I think what I would say, as you suggest, the Flyvbjerg analysis suggests that you better not be proud of your numbers until you have actually done it. And here, I think we just have to face up to the fact that the numbers have a pretty wide range of variation around them. They just do. And there is no way at this stage to eliminate that until you actually have final designs and engineering estimates to do the work, and even then, you never know when you start drilling the hole what you are going to find, so let's be careful about—commitment is fine, but let's be careful about what those numbers mean.

Mr. DESAULNIER. Brian—and the Japanese are the world's experts at this; they have done it the most, so I hope you have conversations with them as well.

Mr. KELLY. Yes, we are, and in fact we put in our business plan by the end of the year we are hosting a tunneling symposium that will bring in international expertise on this issue where, again, you know, this tunneling stuff, it seems a little foreign here when you talk about tunnels for high-speed rail, but they are building them all over the world successfully. And we intend to do that, too.

One comment I would just make about the tough choice of the north versus south, the authority has had I think appropriately a philosophy that we maintain in our business plan now. Because we are in a constrained funding environment, we have to make investments that we can complete real mobility benefits out of. And we don't have every dime we need, and so the assessment was made that we can get further by going north and providing mobility and environmental benefits in the short term with the money that we had. And if we had all the money we could, we may have made a different choice because it is more expensive to go south. The Tehachapis are tough, but we didn't have all those dollars in hand, so we made the call we made.

And I still think, and we are proposing the business plan to use a building-block approach to find midterm mobility, environmental and economic benefits as we build the whole valley-to-valley system, then get that operational and use some of those revenues to go south.

The only thing I would say on the tunneling piece, it is important to note that in the business plan and our use of ranges on costs account for some of this difficulty and the decisions we have to make on the designing point. That is why for the first time we put ranges in this. We are looking at these things and if, you know, the low end could be this, if some of these difficulties are solved, the high end is a little bit different depending on how bad—and we refine those costs over time, so every time we come back, those ranges will narrow and we will get to a refined cost as we go forward.

Mr. DESAULNIER. No, I appreciate that. Thank you, Mr. Chairman.

Mr. DENHAM. Thank you, Mr. DeSaulnier.

Ms. Lofgren?

Ms. LOFGREN. Just a few other observations or questions. I think this has been a very helpful hearing, Mr. Chairman, and I appreciate being included.

You know, thinking about big projects in our history, you know, when Eisenhower announced we were going to do the interstate highway project, we didn't know how we were going to pay for it. We didn't have the money in hand, and yet if we didn't have the interstate highway program, the country would be in serious problems. So that really goes to the issue if we don't do this, what will we face?

Now, I remember seeing some estimates for the lack of this investment we would have to make different investments in airports and lanes of highway and the like. Can you tell me, Mr. Kelly, I mean, there is no cost-free way out of this if we are going to continue to grow and have a vibrant economy. Isn't that right?

Mr. KELLY. No, I mean, I described this project as transformative before because I think it achieves what we want to achieve in California with our transportation investments. From a mobility perspective, there is no other project, single project I could point to that can reduce travel times like this can. You know, getting from Fresno to San Jose you can build a lot more freeways, but those cars are not going to travel at 200 miles an hour and so you can't get that mobility benefit by just doing that, not to mention—I think we are already seeing in California—because of the housing issue, you are seeing more and more people move and migrate toward the Central Valley for affordability of housing—

Ms. LOFGREN. Right.

Mr. KELLY.—but today, they are driving to the job centers of the coast, and that is adding to congestion, air-quality issues, and other things. And this is about defeating that by offering a better alternative. And that is what we are putting forth here.

To your question about other investments, I know there was an analysis done I think in 2012 that suggested, you know, the mobility benefits and the ridership numbers that we see, what we will provide here. You know, it is the equivalent of building 4,300 lanes of highway, expanding every airport's runway, which is difficult in California now. And those costs are in excess of $150 billion to do those things.

So, you know, it is all about choices. For me in my time here, again, I haven't seen a project that I think can deliver the mobility, economic, and environmental benefits that this can, and that is why I am here.

Ms. LOFGREN. Well, I am sympathetic to the point made by Mr. Lowenthal, you know, because we all have—

Mr. KELLY. Yes.

Ms. LOFGREN.—our bosses are the voters in our districts, and we have to have them understand why this is of value, but I think at a 2030 completion date, very few of us are going to be in the Congress by the time this is all done, and yet it is still important for the future of our State that we have this. If we want an economy, people have to be able to move around, and so we have to have some patience here, which is tough to do, along with some creativity to find the missing pieces.

But I just really want to thank all of the witnesses here. You have been enlightening to us. You have played an important role for our State, and it is important what you do, so thank you very much.

And, Mr. Chairman, I will yield back.

Mr. DENHAM. Thank you, Ms. Lofgren.

Just finally as we close out here, a couple of issues on procedure going forward with this new audit. Mr. Scovel, if you could just answer a couple things as we go forward. First of all, why did you initiate doing the FRA's oversight on this? What were the red flags that allowed you to say, yes, we need to audit this?

Mr. DENHAM. We needed to audit the California high-speed rail system, the proposal and the Federal money in it for a number of reasons. First, FRA has appreciable dollars in it. It is in for the tune of about $3.5 billion total; $2.5 billion of that has already been spent. There is a matching requirement on the State authority to match their share so that the Federal dollars will be put to best use.

This kind of grantmaking effort is new for FRA. For many decades, FRA was a safety regulatory body. With PRIIA [Passenger Rail Investment and Improvement Act] in 2008, followed very quickly by the American Recovery and Reinvestment Act and appropriations thereafter, FRA needed to transform themselves. We were talking about transformative efforts, but this has been a significant lift for FRA.

At times, they have struggled with it, and I don't mean to cast that in an overly negative light, but they have had to work from behind the ball. One of the Members mentioned the economic climate that we suffered in 2008, 2009, and FRA was working very hard with interim guidance for this new grantmaking program with staffing shortfalls, with training and guidance shortcomings, which they recognized, but they needed to get the money out the door and they needed to demonstrate it in a very public way.

Since then, not only with the project approval efforts but also with the amendment and monitoring efforts, FRA has worked as best they could. My office has provided oversight for them, provided numerous helpful recommendations, we trust, and FRA has been attentive and responsive very much to their credit. And I do want to go on record today as citing them for those accomplishments.

But at the same time now, we need to recognize that the Federal investment is at stake. FRA has continuing interest not only to see the match through but also to make good on what Mr. Kelly has described as the requirements for acceptable interim use of the 119-mile Central Valley segment and also, 20 years thereafter, after the match has been satisfied for the requirement in the grant now for maintenance of the federally funded portion in a state of good repair.

So all of that is the FRA's interest, and those are the interests of our audit. To be clear, we are not here to audit or answer larger questions about where the State should find its own funding.

Mr. DENHAM. Sure.

Mr. SCOVEL. We are here to make sure that FRA satisfies its obligations under law, one of which is to pay close attention to the rail authority. We will use FRA from time to time as a lens into the authority's business, particularly when it comes to validating FRA's efforts to validate Federal expenditures to date and funds that have been advanced as meeting the matching requirement.

Mr. DENHAM. And these new authorities under the FRA and the new obligations with a California high-speed rail, what options does FRA have in hand to collect funding? You know, with the State match, what is your leverage to making sure that that State match actually happens? What can you hold up? What—

Mr. SCOVEL. Sure. Mr. Chairman, FRA has leverage. First of all, it still has unexpended funds, $928 million appropriated in fiscal year 2010. That funding slice could be suspended or even terminated should the State authority fail to make the match. Advancing beyond that, there is the question of an administrative offset as it is known, which means that for further FRA grant funds to the State, for DOT grant funds, and even for funds payable by the United States at large to the State of California, there could be administrative offsets in order to satisfy or to be applied against the missing State match.

Beyond that, there is a possible action under the Debt Collection Act of 1982, not frequently invoked but that is on the books. It is a possible remedy. In very recent history, that act was invoked by the Department in a dispute that it had with the State of New Jersey concerning about $250 million at stake in the access to the region's core major infrastructure project in the New York/New Jersey region.

Finally—and this would be—I would consider it a drastic measure, but the California High-Speed Rail Authority could be suspended or debarred from further participation in DOT's surface transportation financial assistance programs. That would require a finding by FRA and the Department that the authority was not presently responsible, which sounds innocuous enough but certainly for an entity like the authority and for the State of California at large, that would have tremendous impact. But that is the legal requirement for a suspension or debarment action to take place.

Mr. DENHAM. Thank you. And finally, last question, as you go into this new audit, are there findings that you found in the 2015 audit that you feel are relevant in this one?

Mr. SCOVEL. Yes. Our 2015 audit looked at the amendment processes and guidance that FRA had in place not only with respect to the California grant but to all of its grants across the board. And we also looked in that same audit, in the 2015 audit, into the monitoring procedures that FRA had in place. And we found shortcomings on the amendment side. On the policy or guidance proposals, the policy pertaining to the possibility of a tapered match, which had been entered into by FRA with the State authority in

2012, was in place and appeared to us to be reasonably satisfactory.

On the other hand, aspects of guidance that pertained to other issues that might come up in the course of amendment negotiations between FRA and other possible grantees, parts of that guidance were incomplete. Other pieces of guidance were frankly missing, and so we cited those in our recommendations to FRA.

On the monitoring side, we found that FRA had insufficient procedures in place to account for shortcomings that it found in its own reviews of certain grantees. And in fact, some of the shortcomings that we found insufficiently documented by FRA pertained to shortcomings that had been found by FRA with respect to the California grant and the California authority, things like schedule slips and risk management plans, cost estimates, all of which the authority was on the hook to provide FRA. FRA had closed those findings without documenting them, which put the authority and FRA behind if they needed to revisit any of those issues. There would be no corporate memory on that stuff. So we recommended that they clean up all of that process, and they have followed through on that, again, very much to their credit for FRA.

Mr. DENHAM. Thank you.

Mr. KELLY. Mr. Chairman?

Mr. DENHAM. Mr. Kelly, do you have any final—

Mr. KELLY. Just—

Mr. DENHAM.—parting words to—

Mr. KELLY. Yes, I just think it may be helpful for the committee to know just where we are on the match. It was stated earlier the $2.5 billion match requirement. We are about $937 million into that. From a time perspective, we are about 15 percent through the time, and we are about just under 40 percent on having met our match, so we are ahead of pace on meeting the match for these Federal funds.

Mr. DENHAM. Well, thank you. Thank you to each of our witnesses. Certainly thank you to each of our Members for coming to this hearing. As I have said before, this is a critical issue. It is one of the largest projects in the entire country, if not the largest project, which is why we have held four oversight hearings out of the 6 years that I have been chair of this committee.

Before I close out today, let me yield the gentleman from Sacramento a couple of minutes in closing.

Mr. GARAMENDI. Let me take the first portion of those 2 minutes to thank you for the intense interest over the period of time that you have applied to this. I also recall a conversation I had with Mr. DeSaulnier on the floor of the House some time ago in which he said we need to look at all of the infrastructure in its totality and in the ways in which it all fits together. It is not an isolated project. The high-speed rail is not an isolated project, he said. It fits into the highway, it fits into the airports, it fits into the ports, and all of that infrastructure. And in that context, this is an important part. I just note that if we don't do this, then what must we do for transportation? And it is a number perhaps twice as big as this one project just to do that.

And so, Mr. Chairman, as you continue your work, as the next ranking member of the full committee, we look forward to our work together. And with that, thank you for this hearing.

Mr. DENHAM. Thank you, Mr. Garamendi.

Mr. GARAMENDI. We shall see.

Mr. DENHAM. One of the most important parts of this hearing is what we do after the hearing and making sure that we provide questions in writing to follow up on these details and request answers back from each one of you, so thank you in advance for that. And thank you again for your testimonies.

If there are no further questions, I would ask unanimous consent that the record of today's hearing remain open until such time as our witnesses have provided answers to any questions that may be submitted to them by writing, unanimous consent that the record remain open for 15 days for any additional comments and information submitted by Members or witnesses to be included in the record of today's hearing. Without objection, so ordered.

Again, I would like to thank our witnesses again for their testimony. No other Members have anything to add. The hearing stands adjourned.

[Whereupon, at 12:37 p.m., the subcommittee was adjourned.]

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