

## XPRESSWEST HIGH-SPEED RAIL:

Linking Southern California and Southern Nevada – Quickly, Affordably and Sustainably

The U.S. Department of Transportation identified HSR corridors throughout the nation that were ready for development. Beginning in 1992 and continuing as recently as 2009, several corridors in the Pacific and Intermountain West were classified as key development areas. These included routes linking the major metropolitan areas of California, and the corridor from Southern California to Las Vegas.

### Expanding Mountain West's Transportation Alternatives Is Critical to Its Success

In 2008, the Brookings Institution Metropolitan Policy Program identified the Mountain West as the most appropriate region of the country for development of railroad transportation options. Cities including Phoenix, Salt Lake City, Denver and Las Vegas were targeted based on their status as “megapolitan areas” or “super regions” that typically combine two or more metropolitan areas into a single economic, social and urban system. The rapid population growth, emerging economic vitality and expected sustainability of the Mountain West require a significant commitment to improving the transportation infrastructure, particularly access and availability of HSR.

Such transportation networks are currently lacking. For example, to date, there is no direct interstate connection between Las Vegas and Phoenix, and only one two-lane interstate connection between Southern California and Las Vegas. The Mountain West also lacks the multiple transportation choices seen in other parts of the country, with auto and air as the only primary options. Air travel in particular is strained because of both limited airport capacity and the demands that have been placed on air travel by continuous population growth and sustained road congestion in all of the region's major cities.<sup>1</sup>

### High-Speed Rail: The Only Truly Viable Option

#### **Past options to address the transportation needs of the Mountain West and Southern California**

**included:** (1) a dedicated passenger HSR system; (2) a toll road; (3) increased airport capacity; (4) a Maglev system, which uses magnetic levitation to propel trains; or (5) a conventional rail system.

Previous attempts to implement these alternatives have failed. Conventional rail between Los Angeles and Las Vegas, serviced by Amtrak, was suspended in 1997. A Maglev system once under consideration between Los Angeles and Las Vegas has essentially been shelved due to an estimated minimum price tag of \$12 billion and sustained energy costs projected to be more than twice that of an HSR system. Additionally, Maglev technology would not allow for future system expansion or interoperability with other future rail systems. And while McCarran International Airport has recently opened a new terminal, it largely will be reserved for international travel. No other airport construction in the region is currently in development.

**Compared to the options listed above, HSR is the best option because HSR does not:**

- Create significant environmental impacts.
- Encounter significant funding constraints.
- Involve stringent land and resource restrictions.
- Lack political support.
- Involve technical and regulatory challenges, which cannot be overcome.

**XpressWest Could Quickly Link Southern California and Southern Nevada**

**XpressWest is nearing completion of the development phase of an HSR project linking Southern California and Southern Nevada. HSR service could quickly become a reality between Los Angeles and Las Vegas, via:**

- Implementation of the corridor connecting Las Vegas and Victorville, Calif.
- Extended high-speed service linking Victorville and Palmdale, Calif., and connecting to the current Metrolink system serving Los Angeles, Anaheim and San Diego.
- Upgrading the Metrolink system to provide full high-speed service between Los Angeles, Anaheim, San Diego and Las Vegas.

Employing proven steel wheel-on-rail, high-speed technology, travel between Las Vegas to Palmdale, via Victorville, will be on exclusive tracks with trains traveling at speeds of up to 150 mph. With electrification of existing Metrolink rail lines south of Palmdale and continuing throughout Southern California, trains will travel at speeds of up to 150 mph to ensure safe travel through densely populated urban areas. Regulatory approvals for the route between Las Vegas and Victorville have been secured. Environmental work for the Victorville to Palmdale connector is under way.

The counties of Los Angeles and San Bernardino, together with the cities of Victorville, Palmdale, Lancaster, Adelanto and the town of Apple Valley, acting through the High Desert Corridor Joint Powers Authority, have unanimously adopted a resolution of support for XpressWest connectivity from Palmdale through Victorville to Las Vegas.

Furthermore, XpressWest has laid the groundwork with the Los Angeles County Metropolitan Transportation Authority to define the development requirements for high-speed rail service from Las Vegas to Los Angeles.

## XpressWest Financing

Financing for XpressWest is in its final stages. The cost to construct and implement the XpressWest system, including Rolling Stock, is estimated to be approximately \$6.9 billion and is planned to be financed through a combination of private capital and a federal loan administered by the Federal Railroad Administration (FRA) through its Railroad Rehabilitation and Improvement Financing (RRIF) Program. The RRIF Program has \$35 billion in lending capacity and does not need congressional approval to provide funding to RRIF loan borrowers. Under the Program, the FRA is authorized to provide direct loans and loan guarantees for qualified projects that address:

- Development of new railroad or intermodal facilities
- Acquisition, improvement or rehabilitation of intermodal or rail equipment or facilities
- Refinancing of outstanding debt incurred for the purposes above <sup>2</sup>

As a railroad, XpressWest meets RRIF's primary statutory requirements. It also meets the objectives of enhancing public safety, enhancing the environment, promoting economic development, and enhancing overall service and capacity in the national rail system. To date, XpressWest has submitted 16,772 plus pages as part of its RRIF application.

Of the \$35 billion under the RRIF Program, an estimated \$33 billion is available. XpressWest has applied to borrow the majority of the funds necessary to construct the project from the RRIF Program, with an additional investment of approximately \$1.4 billion coming from private capital. RRIF Program Regulations state the term of the loan can be up to 35 years<sup>3</sup> with an interest rate equivalent to the yield on U.S. Treasury securities of a similar term.<sup>4</sup> Government funds will not be used to operate the project.

The White House Council of Economic Advisers analysis report supports the national vision for a modern transportation infrastructure, reinforcing that any future investment should:

- Solidify connectivity between regional economic centers
- Create alternative modes of transportation to comply with energy and environmental policies
- Develop balanced national and regional systems with transportation options
- Update decades-old, antiquated transportation modes and incentivize private investment into traditional public projects
- Satisfy market demand
- Energize economic growth
- Create jobs
- Solve a range of local and regional transportation and environmental challenges.<sup>5</sup>

### XpressWest = Jobs, Consumer Savings, Efficiency and Sustainability

With its estimated \$6.9 billion in cost expenditures projected over the four-year construction and one-year commissioning period that the initial Las Vegas to Victorville corridor is expected to require, XpressWest will economically energize the Southern California and Southern Nevada regions:

- Approximately 80,000 direct and indirect jobs are expected to be created during construction, principally in Clark County, Nev., and San Bernardino County, Calif. Upon completion, approximately 2,109 long-term permanent jobs (770 primary and 1,339 secondary) will be created, with an estimated economic output of \$7.8 billion in the region.<sup>6</sup>
- Over a 50-year cycle, XpressWest estimates that local, state, and federal agencies will collect approximately \$47 billion of tax revenue directly relating to XpressWest operations.
- In general, HSR projects are designed to address national priorities for improved mobility, increased safety and reduced carbon emissions. The Southern California and Southern Nevada regions have persistently faced severe air pollution problems. By decreasing auto trips, XpressWest expects to significantly reduce pollutants in the long-term, perhaps by as much as 40 percent.<sup>7</sup> Additionally, XpressWest's fully electric trains will draw power from sources that include alternative energy such as solar, wind and geothermal, as well as natural gas. Reduced auto traffic on major roadways will simultaneously reduce the demand for repairs and maintenance of those roads.
- XpressWest will benefit travelers. Rapidly rising fuel prices mean motorists face escalating costs as they drive throughout the region. Airfares, while highly subsidized and competitive in the Southern California and Southern Nevada regions, are nonetheless subject to volatile swings, often dictated by the day and time of travel, and are equally at the mercy of increasing fuel charges.
- HSR travelers also would save considerable time. The estimated one-way travel time for Victorville to Las Vegas service is 80 minutes. Compare that to an average three-hour drive with clear lanes, or significantly longer during peak drive times.

HSR not only saves time and money otherwise spent on fuel and auto maintenance, but it also allows passengers to begin their experience via the luxury of high-speed travel in safe and comfortable surroundings.

## XpressWest: The Best Option for a Region in Desperate Need for Travel Alternatives

Although air, automobile, bus and limited traditional rail services are available within the Mountain West metropolitan centers of Denver, Salt Lake City, Phoenix, Las Vegas and Southern California, these transportation modes are often inconvenient. The above mentioned transportation options have diversification and capacity improvement limitations. XpressWest is the first and only HSR alternative that is licensed, approved and ready for construction. In short, it is the only HSR project that is sanctioned for implementation.

Realizing the American dream of more efficient, cleaner forms of intercity travel, XpressWest will launch a new generation of U.S. rail service in a region of the country desperate for alternative forms of transportation. With a highly anticipated first leg ready to go, the cities that comprise the regions of Southern California and Southern Nevada are eager to showcase their success, thus catalyzing future extensions of HSR throughout the Mountain West.

## REFERENCES

<sup>1</sup>Blueprint for American Prosperity – Unleashing the Potential of a Metropolitan Nation. “Mountain Megs – America’s Newest Metropolitan Places and a Federal Partnership to Help Them Prosper.” The Brookings Institution – Metropolitan Policy Program, 2008.

<sup>2</sup>FRA Record of Decision dated July 8, 2011 p. 5

<sup>3</sup>United States Code 45 U.S.C. § 822. Direct loans and loan guarantees (g) (1). <http://www.fra.dot.gov/rpd/freight/1858.shtml>

<sup>4</sup>RRIF Regulations (49 CFR § 260). § 260.9. [http://www.fra.dot.gov/rpd/freight/fp\\_49\\_CFR\\_260.shtml](http://www.fra.dot.gov/rpd/freight/fp_49_CFR_260.shtml)

<sup>5</sup>The Department of the Treasury, with the Council of Economic Advisers, An Economic Analysis of Infrastructure Investment, October 11, 2010

<sup>6</sup>UNLV Report of Thomas Carroll and Associates, Ltd. dated October 6, 2010

<sup>7</sup>XpressWest Final Environmental Impact Statement Chapter 3.11 Air Quality and Global Climate Change

## XPRESSWEST PROGRESS (*FORMERLY KNOWN AS DESERTXPRESS*)

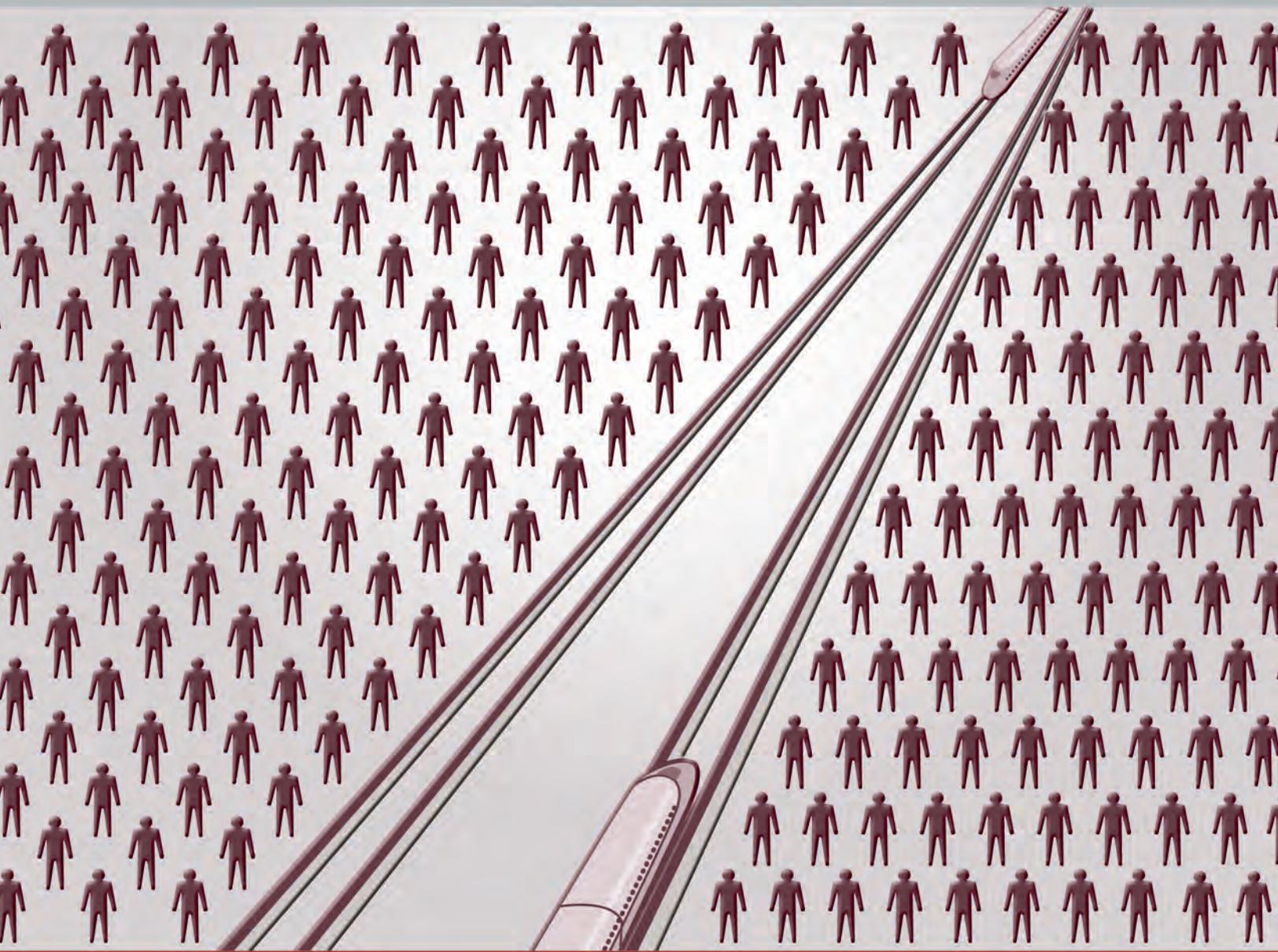
XpressWest has been under active development since 2005. The project has advanced in all categories including: political, regulatory, design, environmental, business approach, ridership analysis and its relationships with industry. XpressWest will be designed and constructed on time and on budget by the country's leading contractors under fixed-price contracts. Remaining pre-development activities are currently being finalized, including working with the FRA to process the RRIF loan application and selecting remaining implementation partners for final design and construction. XpressWest has continued to achieve the necessary milestones to implement the project. Examples of major milestones are provided below:

1. June 7, 2012, DesertXpress Enterprises (DXE) lays groundwork with incoming LACMTA Board Chairman Michael Antonovich to define development of high-speed rail service from Las Vegas to Los Angeles.
2. On March 29, 2012, the Federal Railroad Administration (FRA) and DesertXpress Enterprises, LLC (DXE) continued the safety case and operations/maintenance workshop.
3. December 19, 2011, DXE secured a majority of the public land necessary for the project through executing a lease agreement with the Bureau of Land Management.
4. On November 18, 2011, the Federal Highway Administration (FHWA) issued its Record of Decision.
5. On October 25, 2011, the Surface Transportation Board (STB) issued its decision granting DXE the authority to construct and operate the railroad. Accordingly, DXE is now a federally recognized railroad company.
6. October 2011, the Bureau of Land Management (BLM) issued its Record of Decision.
7. October 2011, FRA retained its independent financial adviser (IFA) to review DXE's RRIF loan application. The financial analysis is scheduled to be complete in May 2012.
8. On July 28, 2011, DXE submitted to STB a Petition for Authority to Construct and Operate DXE as an interstate railroad.
9. On July 8, 2011, the FRA issued its Record of Decision.
10. April 26, 2011, the U.S. Fish and Wildlife Service issued the final Biological Opinion and incidental take permit.
11. April 20, 2011, Steer Davies Gleave completed an Investment Grade Ridership and Revenue Study.
12. April 1, 2011, the FRA released the final EIS for DXE.
13. March 25, 2011, the FRA conditionally approved DXE's May 6, 2010, waiver petition.

14. February 15, 2011, DXE, FRA, FHWA, STB, BLM, the National Park Service (NPS), the California and Nevada State Historic Preservation Officers executed the Project Programmatic Agreement.
15. February 8, 2011, the project's *Highway Interface Manual* was published with concurrence from FRA, FHWA, Caltrans and NDOT.
16. January 28, 2011, FRA posted a "notice of intent to issue a competitive solicitation" for financial assessment services to evaluate DXE's RRIF loan application.
17. December 29, 2010, Caltrans executed a formal agreement to provide right-of-way for the DXE.
18. December 17, 2010, the FRA accepted DXE's initial RRIF loan application.
19. October 6, 2010, Dr. Thomas Carroll, professor of economics at UNLV, published an economic impact report for DXE.
20. May 13, 2010, the counties of Los Angeles and San Bernardino, together with the cities of Victorville, Palmdale, Lancaster, Adelanto and town of Apple Valley, acting through the High Desert Corridor Joint Powers Authority (HDCJPA), unanimously adopted a resolution of support for DXE connectivity from Palmdale through Victorville to Las Vegas.
21. May 6, 2010, DXE submitted a petition to FRA requesting waivers of compliance from certain provisions of Title 40 of CFR 229, 231 and 238.
22. July 2, 2009, U.S. Transportation Secretary Ray LaHood announced the extension of the federally designated California HSR corridor to include Las Vegas, Nevada.
23. June 27, 2007, the STB issued a decision confirming its regulatory jurisdiction over the project.
24. July 14, 2006, the FRA issued its Notice of Intent to Prepare the EIS with the following cooperating agencies: STB, FHWA, BLM and NPS.
25. February 2, 2005, DXE executed an agreement with the FRA and STB to commence the Environmental Impact Statement (EIS) process.

The construction phase of  
**XPRESSWEST WILL GENERATE OVER**

**80,000**  
primary and secondary  
**JOBS**



## ECONOMIC IMPACT FACT SHEET

### Macro-Economic Impact

- The cost to construct and implement the XpressWest system, including Rolling Stock, is estimated to be approximately \$6.9 billion. This capital will be deployed over the five-year construction and commissioning period for Phase I, which will energize the economies of Southern Nevada and Southern California.
- Will provide employment opportunities in a region with high unemployment: 10.9 percent in California and 12.3 percent in Nevada, as of February 2012.<sup>1</sup>
- Produce an estimated economic output of \$7.8 billion.<sup>2</sup>

### Taxable Revenue Generation

- Over a 50-year cycle, XpressWest estimates that local, state and federal agencies will collect approximately \$47 billion of tax revenue directly relating to XpressWest operations.
- Taxes will be generated from direct operations, including sales tax on ticket sales, income tax, property tax and payroll tax during operations.
- An additional \$456 million will be generated from sales and use tax on construction materials and payroll taxes on construction labor.

### Job Creation

- XpressWest will employ a significant number of middle-class workers and workers in the technical and construction industries, two demographics disproportionately impacted by high unemployment.
- The overall project will create an estimated 80,000 direct and indirect construction-related jobs.
- Additionally, approximately \$2.66 billion in induced economic impacts in the form of increased consumer spending are likely to occur.
- Upon completion, approximately 2,109 long-term permanent jobs (770 primary and 1,339 secondary) will be created.
- XpressWest SBE/DBE/WBE initiative will ensure a diverse workforce during and following construction.

### REFERENCES

<sup>1</sup>U.S. Bureau of Labor Statistics

<sup>2</sup>UNLV Report of Thomas Carroll and Associates, Ltd. dated October 6, 2010

XpressWest will divert **approximately 2 million annual** automobile trips from the I-15,



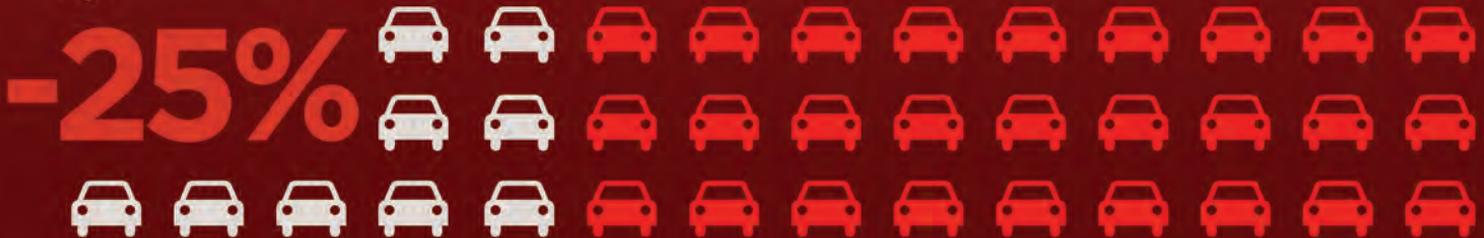
determined to be one of the most dangerous highways in the U.S. due to traffic congestion.



**REDUCE TRAFFIC-RELATED FATALITIES**  
**INCREASE PUBLIC SAFETY**



**REDUCE TRAFFIC CONGESTION BY**



\* \* \* \* \*

: BEFORE      : AFTER

## I-15 CORRIDOR SAFETY BENEFITS

- According to NDOT data, 16,397,159 vehicles traveled the I-15 in 2010, with significant peaks on Fridays and Sundays.<sup>1</sup>
- According to the USDOT, traffic on the I-15 freeway grew faster between 2009 – 2010 (3%) than on other freeways in California and Nevada. In 2011, annual average daily traffic (AADT) on I-15 increased 0.3 percent compared to the previous year.<sup>2</sup>
- Ninety percent of travel between Las Vegas and Southern California is by car or bus.
- XpressWest will reduce traffic-related accidents and fatalities on I-15 by diverting 25 percent or more of I-15 vehicle traffic to train use.
- The rail line will have no “at-grade” crossings, nearly eliminating the possibility of a train/car collision.

## REFERENCES

<sup>1</sup>Nevada Department of Transportation

<sup>2</sup>U.S. Department of Transportation

The fully electric operations of  
**XPRESSWEST**

WILL REDUCE  
POLLUTANTS IN THE  
I-15 CORRIDOR BY

**40%**



**and save an estimated 440,000  
BARRELS OF OIL ANNUALLY.**



WHICH IS EQUIVALENT TO  
**8.5 MILLION GALLONS OF REFINED GAS**



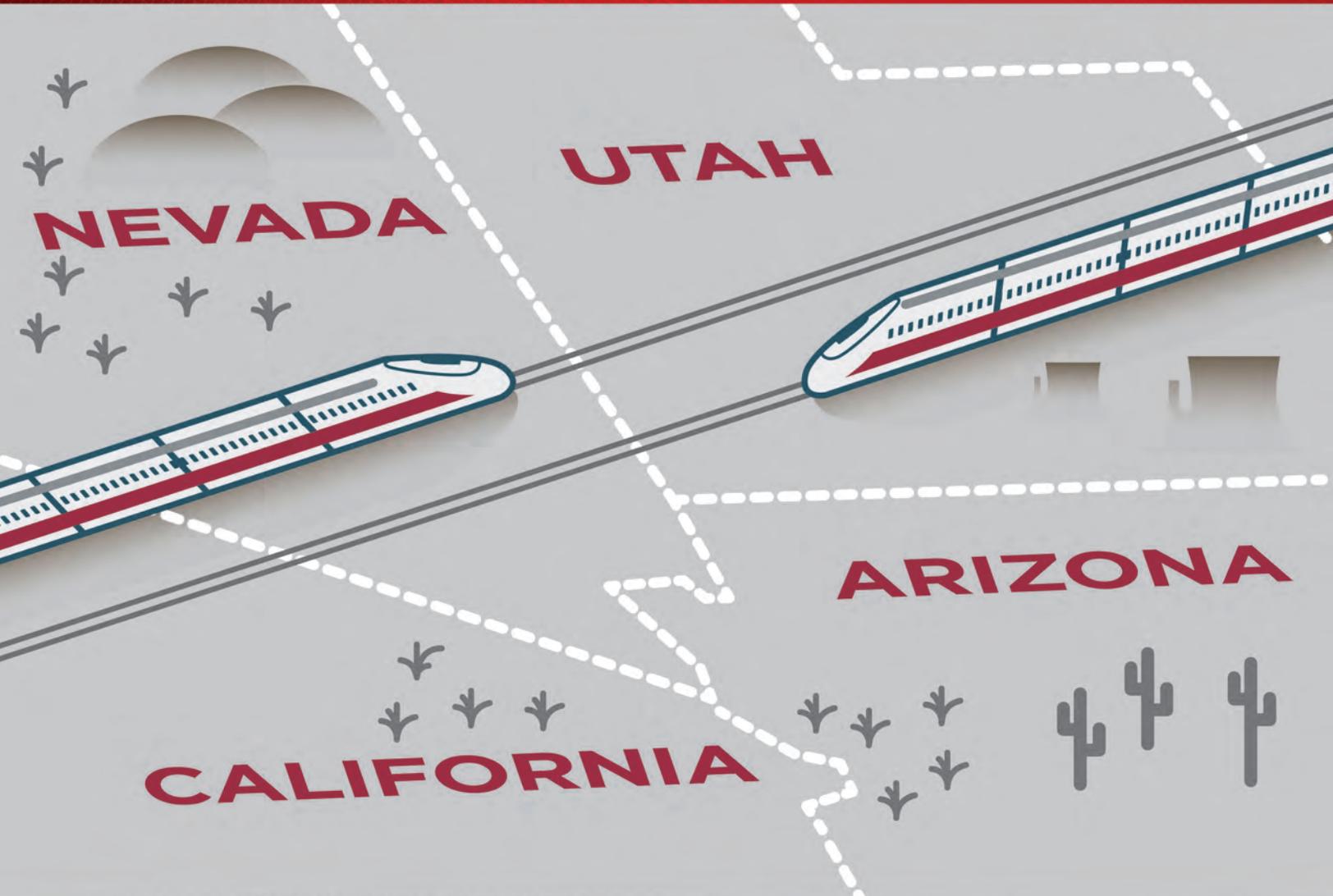
SOURCE: FINAL ENVIRONMENTAL IMPACT STATEMENT CHAPTER 3.11 AIR QUALITY AND GLOBAL CLIMATE CHANGE,  
RECORD OF DECISION, DESERTXPRESS HIGH-SPEED PASSENGER TRAIN,  
[HTTP://WWW.HUFFINGTONPOST.COM/SHeldon-DROBny/THE-REAL-ECONOMICS-OF-OIL\\_B\\_24108.HTML](http://www.huffingtonpost.com/sheldon-drobny/the-real-economics-of-oil_b_24108.html)  
[HTTP://WWW.SPE.ORG/INDUSTRY/DOCS/UNITCONVERSION.PDF](http://www.spe.org/industry/docs/unitconversion.pdf)

## ENVIRONMENTAL BENEFITS FACT SHEET

### **XpressWest service connecting Southern California and Las Vegas will:**

- Reduce traffic congestion on I-15 by removing more than 2 million vehicles per year, cutting emissions and fuel consumption.
- Divert over 25 percent of the people driving on the I-15.
- Produce net decrease in energy consumption equivalent to approximately 440,000 barrels of oil each year.
- Reduce major pollutants in I-15 corridor by 40 percent.
- Reduce net annual energy consumption by an estimated 2.4 million British thermal units.
- Minimize environmental impacts by constructing largely within existing I-15 right-of-way.

**XPRESSWEST WILL BE THE FASTEST AND MOST ADVANCED TRAIN**  
ever constructed in the United States,  
*employing state-of-the-art trains traveling*  
**AT TOP SPEEDS OF 150 MPH.**



SOURCE: FEDERAL RAILROAD ADMINISTRATION

## TRAIN TECHNOLOGY AND SAFETY FACT SHEET

### Technology

- XpressWest will use energy-efficient, highly reliable, self-propelled, electric multiple unit (EMU) trains.
- These high-speed trains are state-of-the-art and are already in operation around the world, making them proven and available.
- Environmental Impact Study evaluated both 125 mph diesel-electric and 150 mph EMU trains.
  - XpressWest and FRA's comprehensive evaluation of the technology clearly demonstrates the advantages of selecting trains based upon proven, state-of-the-art 150 mph EMU technology.
- EMUs do not use locomotives; rather, propulsion is distributed throughout the train to reliably climb the steep grades along the route.
- The system uses all-new, high-speed, double-track construction; there are no other trains operating on the system; and there are no grade crossings, all of which enable XpressWest to provide extremely high-frequency, reliable service.
- This train technology is capable of operating at significantly higher top speeds, allowing for even faster service once regulatory approvals are obtained.

### Safety

- XpressWest's interstate high-speed passenger railroad will be built on all-new, exclusive double track; no sharing with freight; and no grade crossings; thus, reducing the possibility of collision.
- XpressWest will incorporate state-of-the-art safety measures, such as broken-rail detection, seismic detection and intrusion detection technology.
- The unparalleled safety record for high-speed trains is based upon actual operating experience.
  - In Japan, high-speed train operations began in 1964. In more than 44 years of operation, Japanese high-speed trains (the "Shinkansen") have carried more than 9 billion passengers without a single train-related fatality.<sup>1</sup>
  - In France, high-speed trains (the "TGV") have been operating for 27 years and currently carry more than 100 million passengers a year without recording a single train-related fatality on the completely dedicated line system (similar to XpressWest).<sup>1</sup>

- In 2004 alone, there were over 4,000 fatalities and more than 200,000 nonfatal injuries on California highways.<sup>1</sup>

## REFERENCES

<sup>1</sup>California High-Speed Rail Authority

## FINANCING FACT SHEET

- To date, all project development, environmental certification and engineering costs have been paid for by the private sector, without the use of federal, state or local funds.
  - The total amount invested to develop the XpressWest over the past eight years is approximately \$51 million.
  - The \$51 million invested in development is entirely from the private sector.
- In 2005, Congress created the National Surface Transportation Policy and Revenue Study Commission, which recommended that the entire nation be connected via high-speed passenger rail (HSR) by 2050. The Commission recommended that connected regions should be within 500 miles of one another after concluding routes longer than 750 miles historically have shown limited public benefits for the amount of dollars spent. According to the Commission's report, federal funding should be directed to those metropolitan areas and transportation corridors that could reap the greatest public benefits from relieving road traffic congestion.<sup>1</sup>

XpressWest applied for a loan from the Railroad Rehabilitation and Improvement Financing (RRIF) program, administered by the Federal Railroad Administration (FRA). To date, XpressWest has submitted 16,772 plus pages as part of its RRIF application.

- The cost to construct and implement the XpressWest system, including the supply of Rolling Stock, is estimated to be approximately \$6.9 billion.
  - The RRIF Program was established by the Transportation Equity Act of 1998. Under the program, the FRA administrator is authorized to provide direct loans and loan guarantees from the fund. The RRIF's total historical and current authorized lending capacity equals \$35 billion.
  - XpressWest meets all of RRIF's statutory requirements. As a new railroad and intermodal facility, XpressWest meets RRIF Program's objectives by enhancing public safety, enhancing the environment, promoting economic development, and enhancing overall service and capacity throughout our nation's rail system.
  - XpressWest will repay its loan over a 35-year period, in accordance with the RRIF Program, with an interest rate set by the federal government.
  - RRIF loan proceeds will fund track and heavy civil construction, buildings, land acquisition, the purchase of certain systems and other eligible capital costs.
  - "These loans cost the U.S. government nothing – the loan applicants pay credit-risk premiums and fully collateralize the loans. The cost of the RRIF program to the taxpayers is exactly zero." – Rep. John L. Mica, Chairman, House Transportation and Infrastructure Committee.<sup>2</sup>

- “It is also important to note that in the history of the program, we have not had a single default on any of the RRIF loans.” – Rep. Bill Shuster, Chairman, Railroads, Pipelines and Hazardous Materials Subcommittee.<sup>3</sup>
- If approved, the XpressWest loan would be the largest the agency has ever made – and the first to a high-speed line. “The merits on it are relatively strong,” Joseph Sabo, FRA Administrator.<sup>4</sup>
- In addition to RRIF proceeds, \$1.4 billion of funding will be provided through private sources.
  - A separate financing facility will fund the procurement of train sets and certain signaling components.
  - Significant equity will be contributed as collateral for the RRIF loan, enhance liquidity and cover the cost of operations.

## REFERENCES

<sup>1</sup>“Intercity Passenger Rail: National Policy and Strategies Needed to Maximize Public Benefits from Federal Expenditures.” United States Government Accountability Office Report to the Chairman, Committee on Transportation and Infrastructure, House of Representatives, November 2006

<sup>2</sup>Statement from Rep. Mica at February 17, 2011, hearing of House Transportation and Infrastructure Committee

<sup>3</sup>Statement from Rep. Shuster, February 17, 2011, hearing of House Transportation and Infrastructure Committee

<sup>4</sup>*Bloomberg Businessweek*, November 23, 2011