

**Building the West Coast Green Highway**  
**An Update from the West Coast Corridor Coalition**  
**February 2011**

### **Pacific Coast Collaborative Action Plan**

Since 2004, the Pacific Coast Collaborative (PCC) led the Governors of California, Oregon and Washington and the Premier of British Columbia has identified policy goals and signed specific agreements to develop U.S. Interstate 5 / Canada 99 as an alternative fuels corridor.

The PCC Action Plan calls for sharing standards and best practices, including consistent design and performance metrics, for alt fuels infrastructure; investment by public-private partnerships to build and operate facilities; applying university and private-sector research to commercialization of hydrogen, next-generation bio-fuels and other alt fuel technologies; concerted policies on purchase of alt fuel vehicles by government fleets; and coordination of efforts to provide consistent signage for alt fuel facilities along the corridor.

Several Memoranda of Understanding (MOUs) addressing these goals have been signed since 2004 among the elected chief executives of member jurisdictions.

### **Actions by West Coast states**

#### ***Washington***

Washington State's Department of Transportation (WSDOT) is exploring opportunities with other public agencies and the private sector to establish and promote alternative refueling facilities along major highways, especially Interstate 5 between Seattle and Portland, which has been designated by the USDOT as a Corridor of the Future. WSDOT has identified specific geographic locations for facilities along I-5 and is working with partners on building alt fuels infrastructure at these sites.

WSDOT is also involved in development of "mobility hubs" – physical sites that draw on synergies between various projects to offer multiple "clean mobility" options and provide traveler information to make vehicle movements more efficient.

#### ***Oregon***

The state is one of six nationally participating in the Ecotality-Nissan project to install electric vehicle (EV) power in the Portland-Eugene corridor whose "main street" is I-5. In October 2010 the Oregon Department of Transportation (ODOT) received \$21

million in TIGER II funding from USDOT to install charging stations in rural areas, mostly along I-5 in Southern Oregon.

In November 2010 Governor Kulongowski set up a Transportation Electrification Executive Council to guide the state's EV efforts. This followed the 2008 creation of the Governor's Alternative Fuel Vehicle Infrastructure Working Group, charged with developing policies and programs to attract automakers to use Oregon as a test site for EVs.

## ***California***

The California Department of Transportation (Caltrans) has an office of alternative fuel and vehicle technology but has been largely inactive in recent years due to a shortage of funding. Its place has been filled by the California Energy Commission (CEC). Its Transportation Division receives approximately \$100 million per year from funds dedicated to promote alt fuel use and reduce greenhouse gases.

CEC seeks to stimulate, seed and prompt projects by co-funding fueling and fuel production infrastructure. Currently, funding is divided equally between EVs, hydrogen, and bio-fuels including ethanol. Recipients of EV infrastructure funding include Ecotality, Coulomb and Clipper Creek. Station locations are based on point of sale where users are clustered.

## **Filling the Gaps**

Despite many promising steps now underway, a fully integrated strategy is not in place to create a "seamless" green corridor. Gaps exist in several areas of policy and practice, including:

***Corridor geography between metro areas.*** West Coast population is heavily concentrated in a few large metro areas connected by long-distance corridors. The challenge is to develop infrastructure that supports deployment "green" technology in an single system. The CEC anticipates building out EV support from urban clusters into corridors but awaits proposals providing rationale on which corridors should be priority.

***Integration of corridors with metro concentrations.*** Coordinated development of alt fuel infrastructure in metro areas and along corridors has proven to be a challenge. California has focused on the former and Northwest states on the latter. Currently there is no effort to support EVs from the Oregon border to the Bat Area or along I-5 in California's Central Valley.

***Inter-jurisdictional deployment issues.*** As noted above, The Pacific Coast Collaborative has identified several areas where consistent policies and practices need to be developed among the three States and the Province including the role of public-private partnerships (P3s), design and performance standards and best practices for alternative fuel facilities,

and use of public fleets policies to expand alt vehicle market share and the role of research in commercialization.

***Heavy-duty vehicle fueling infrastructure.*** Because they provide a large platform, heavy trucks and buses are well suited to natural gas as an alternative fuel. Deployment of NG infrastructure involves a distinct set of mostly private-sector players and design issues. Electrification also has a role at truck stops in powering on-board units to prevent the idling of engines while vehicles are parked.

***Public information and its integration between jurisdictions.*** “Smart travel” can be empowered by intelligent transportation systems that deliver on-board real time information. Integration of 511 systems is required to maximize this benefit. Uniform alt fuel signage is also important so travelers can consistently recognize facilities throughout the West Coast region.

### **West Coast Corridor Coalition Role**

The above set of issues demonstrates the need for broader and more sustained collaboration and coordination on multi-state corridor issues. Over a period of years, the West Coast Corridor Coalition (WCCC) has concluded these issues need to be resolved if the West Coast is to reach the goal of bringing alt fuels into the marketplace as a significant presence.

For nearly 10 years, the WCCC has had working relationships with entities including the Departments of Transportation and Governors’ Offices in West Coast states and British Columbia, US EPA Regions 9 and 10, the U.S. Departments of Transportation and energy, and leading-edge private sector providers of infrastructure technology and services. The WCCC is accepted by these parties as a convener and networker keeping key players and efforts in mutually updated contact.

### **Background**

Nearly a decade ago, in November 2001, transportation policy leaders and officials from California, Oregon, Washington and Alaska formed the West Coast Corridor Coalition. The WCCC brought together member states’ Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs) in a working relationship of equal partners that was and remains unique among corridor coalitions in the U.S.

For the first five years, the WCCC focused its efforts on the challenge of a more efficient, less disruptive goods movement system. The goal was to keep pace with demands placed on the West Coast transportation system by world trade and domestic travel and to minimize conflicts between metro area traffic and long-distance freight, especially as related to the region’s large marine ports.

In 2005, operating with multi-year funding from the U.S. DOT and state DOTs, the WCCC added a second major focus to its program: reducing the environmental footprint

of transportation by making it not only cleaner through alternative fuels and other green technologies but making it smarter through application of information technologies that allow goods movement and personal travel to be done with less congestion and pollution.

### **“Clean, Green and Smart” Work Program**

#### ***Best Practices Manual***

In June 2009, the WCCC issued a manual of Best Practices based on in-depth interviews with practitioners whose work focused on environmental technology and policy related to transportation. The Manual described four-dozen cutting edge practices and technologies developed by West Coast state DOTs, university-based transportation research centers, and private industry. The Best Practices Manual has been distributed in hard copy and is posted on the WCCC website.

#### ***Stanford Conference***

The WCCC organized a two-day conference on Climate Policy, Technology, and West Coast Transportation held at Stanford University in September 2010. This event drew 85 leaders including directors and key staff from U.S. EPA’s national office on Transportation and Air Quality, EPA Region 9 and 10, the U.S. Department of Energy’s Idaho National Laboratory, the alternative fuel corridor program managers from West Coast state DOTs, the California Air Resources Board, the California Energy Commission, the California Public Utilities Commission, the Bay Area Quality Management District, Ford Motor Company’s new technology initiative, the Electrification Coalition, Plug-In America, CalCars, and public utilities in California, Oregon and Washington.

Conference outcomes focused on carrying forward several crucial themes: Building a sustainable foundation with broad-based public support for a clean energy future; developing public-private partnerships to carry out “green” programs; facilitating broad-based deployment of new transportation technologies to reduce unit costs and encourage market penetration; providing incentives to reduce the impact of the West Coast transportation system on the environment.

The conference concluded with statements of commitment by WCCC officers to follow through in pursuing these objectives, and responsive statements from leaders of federal and state agencies and private industry regarding their sustained participation in working with WCCC on the effort.

#### ***Alt Fuels Corridor Work Tasks***

During the planning period for the Stanford conference, the WCCC was developing a detailed work plan to facilitate and accelerate deployment of a West Coast alternative fuels corridor. In the same timeframe, state DOTs and private technology companies were moving ahead with their own initiatives.

In response to events, the WCCC has continuously refined its work plan to support timely and efficient deployment of alt fuels corridor infrastructure. Current elements include:

1. Regularly convene a working group of state DOTs and MPOs, project partners, stakeholders, and technical experts to monitor progress.
2. Address interstate impediments to deployment caused by variations or conflicts in guidelines and requirements between states or other authorizing entities.
3. Identify funding barriers that constrain the pace and scope of alt fuel infrastructure deployment and prepare financing strategies to address them.
4. Identify issues vis-a-vis metropolitan and rural areas – nodes and networks, clusters and corridors – and develop tools to create an integrated capability.
5. Address the design of infrastructure that supports a full range of alternative fuels suitable for both light-duty and heavy-duty highway transport.
6. Manage a clearinghouse on policies and projects to assure that deployment of alt fuel corridor infrastructure is complementary and synergistic.
7. Post information on a continuously-updated Alt Fuels Corridor website covering policies, project activity and initiatives that have multi-state applicability.
8. Promote information technology (IT) network linkages connecting drivers, vehicles and energy sources including power grids.
9. Monitor research on market acceptability factors that affect the rate of adoption of alt fuel vehicles for personal, freight, and government transport.
10. Identify employment opportunities related to construction and operation of alt fuels infrastructure in rural and economically disadvantaged areas.
11. Convene public information workshops and other forms of outreach to enable all interested parties to discuss emergent issues and alternatives.
12. Based on the above tasks, develop an action plan to facilitate deployment of required infrastructure for a seamless West Coast alt fuels corridor.

### ***Alt Fuels Corridor Working Group***

In January 2011, the WCCC convened its Environment & ITS (Intelligent Transportation System) Committee and its Board of Directors to review developments since the Stanford conference. Per task 1 above, this well-attended gathering served as a working group that provided comprehensive updates from major West Coast state agencies as well as private sector service providers and technology vendors.

Bruce Agnew, chair of the WCCC ITS Environment & ITS Committee, summarized:  
“The California Energy Commission and the Northwest Governors have tried to connect transportation and energy, which speak different languages elsewhere in the U.S. The West Coast is a great laboratory but we need sustained support to move forward. The WCCC is dedicated to serving as a facilitator and convener to keep the parties current on each other’s efforts and to forge the kind of public-private partnerships that will expedite deployment of an optimal alt fuels infrastructure.”