CETF

CALIFORNIA EMERGING TECHNOLOGY FUND

Getting Connected for Economic Prosperity and Quality of Life

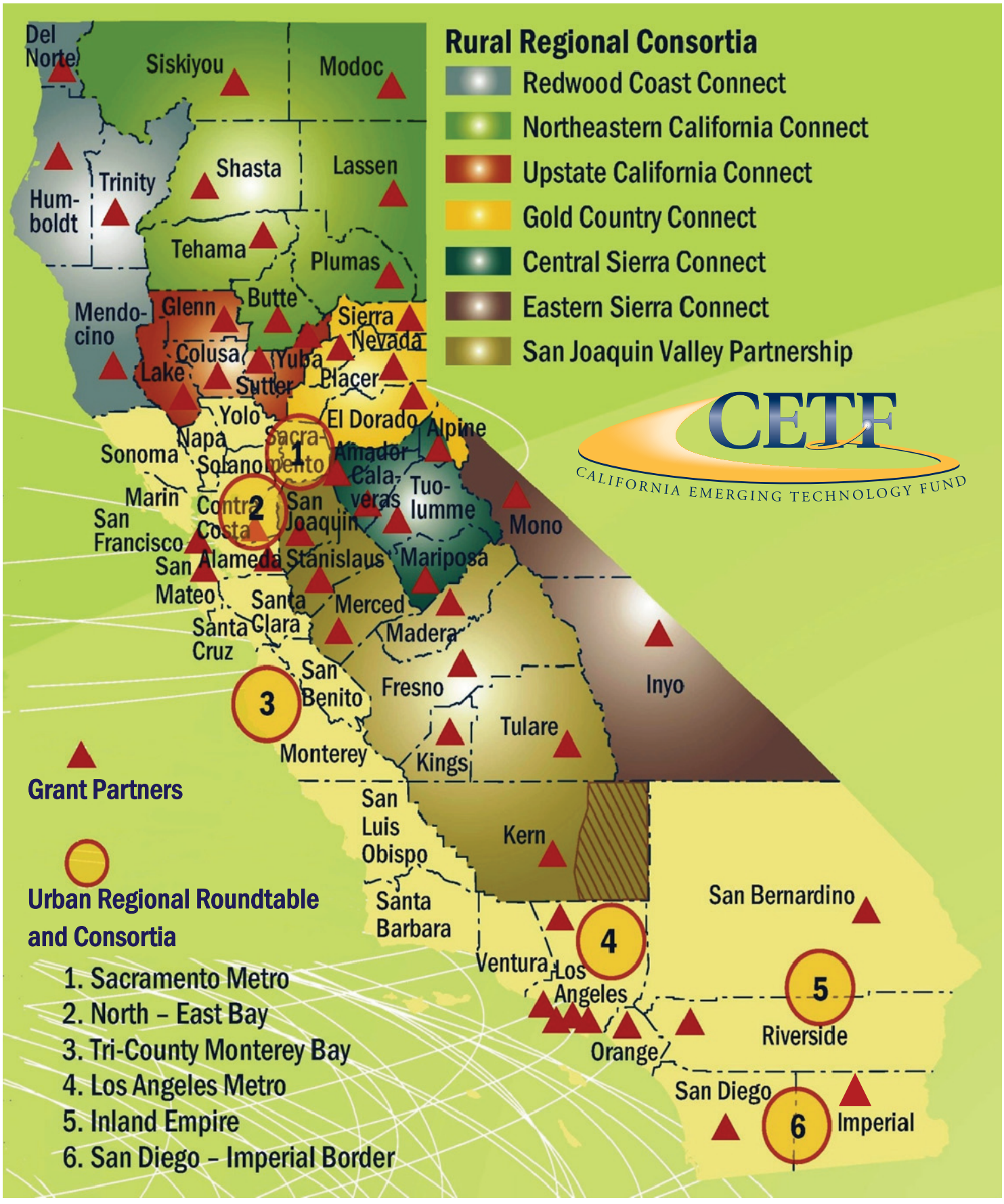
Progress Update

March 2011

GETCONNECTED!

Your Life Made Easier

Regional Consortia and Civic Leaders Join Forces to Close the Digital Divide



Foreword

The California Emerging Technology Fund was established by the California Public Utilities Commission as a statewide non-profit organization to be a key partner to the State of California in closing the Digital Divide by accelerating the deployment and adoption of broadband and information technologies. We are focused on that goal to achieve success by 2017. We are encouraged that measureable progress is being made thanks to the efforts of State Administration Officials and Legislators, Local and Regional Government Officials, Civic and Community Leaders, Employers and Labor Representatives, and a spectrum of Community-Based Organizations throughout the state. We highly value our partners and their efforts to promote Digital Inclusion. While we know that broadband is not a "silver bullet" for the challenges facing California, we have learned that it is a powerful component of the "sliver buckshot" to improve the quality of life, transform schools and neighborhoods, and enhance economic prosperity. As California historian and State Librarian Emeritus Kevin Starr has implored, we must "reboot" California—come together to "hit the restart button" and reform government and all institutions to once again work for Californians. Accelerating the deployment and adoption of broadband and harnessing the benefits and productivity of information technologies is a vital part of the solution.

Sunne Wright McPeak
President and CEO
California Emerging Technology Fund

As the California Public Utilities Commission (CPUC) celebrates its 100th anniversary this year, we are confident that one of our most visionary and pioneering initiatives is founding the California Emerging Technology Fund (CETF). This action established the institutional foundation and provided the critical resources to strategically and systematically close the Digital Divide in California. When the CPUC first envisioned the possibilities an organization such as CETF evolving from the mergers of SBC-AT&T and Verizon-MCI, our state was far behind others in promoting broadband deployment and adoption. Today, California is considered a national leader in closing the Digital Divide because we have the benefit of CETF as a partner with the CPUC and the State of California Administration and Legislature.

Michael R. Peevey
Chairman, California Emerging Technology Fund
President, California Public Utilities Commission

Broadband Definition

Broadband is a generic term that refers to high-speed access to the Internet in contrast to a dial-up connection. It is described in terms of rate of transmission of data, with sufficient speeds to support applications relevant to the end user.

Broadband Technology

Broadband is technology-neutral and includes both wireline and wireless mediums, such as:

Digital Subscriber Line (DSL)

- Cable Modem
- Fiber Optic
- WiFi
- WiMax
- Satellite

Local factors, such as population density, existing infrastructure, and terrain, will determine the technology best suited for a community or region.

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Broadband: Digital Pathway to Economic Prosperity

Our ability to connect through high-speed Internet access—referred to generically as "broadband"—is improving our lives in many ways—helping us share information and images, research and apply for jobs, stay in touch with loved ones, and access entertainment and news. Broadband saves consumers time and money, increases productivity in the economy, and reduces impacts on the environment. Broadband is essential 21st Century infrastructure in a digital world and global economy. It is vital to the economic prosperity of every community and the quality of life for all residents. And, it is a "green" strategy to shrink our carbon footprint.

Persistent Digital Divide

A significant Digital Divide persists in California manifested by substantial differences among population groups and regions in the use of broadband. For example, only 49% lower-income households (under $40,000 annually), 50% of Latino families, and 55% people with disabilities have a broadband connection at home compared to 70% of all adults statewide and 94% of all higher-income households ($80,000 or more annually). Many rural and remote communities have no access at all and there are great variations among regions, with 64% of the Central Valley residents having a home broadband connection versus 79% in the Bay Area. This gap among regions and socio-economic segments of the population is referred to as the Digital Divide.

Progress Is Being Made

Overall, the trends are encouraging as evidenced by the changes between 2008 and 2010 in the statewide survey conducted by the Public Policy Institute of California (PPIC) that is co-sponsored by the California Emerging Technology Fund and ZeroDivide. In addition, the California Public Utility Commission (CPUC) has approved broadband infrastructure applications to the California Advanced Services Fund (CASF) that have the potential to reach about half of the currently underserved households in California if federal economic stimulus funds are awarded. The graphs show both the progress to date and the projected timeline paths to success in closing the Digital Divide. The goal is to reach 98% of all residences with broadband and to achieve 80% adoption statewide by 2015 in order to remain globally competitive. Local and regional leadership is needed to achieve the goal.

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Mission and Goals for Success

The mission of the California Emerging Technology Fund (CETF) is to provide leadership statewide to close the "Digital Divide" by accelerating the deployment and adoption of broadband and other advanced communications services to underserved communities and populations. CETF also is dedicated to making California a global leader in the deployment and adoption of broadband, which includes both wireline and wireless technologies.

CETF is performance-driven and outcomes-focused. The CETF Strategic Action Plan sets forth the overall approach and strategies to close the Digital Divide, including the metrics for accountability that provide the disciplined focus on outcomes. CETF has identified 3 priority consumer communities to target seed capital investments: rural and remote areas; urban disadvantaged neighborhoods; and people with disabilities. CETF has adopted the following goals and has projected a target date for achieving success by 2017—10 years after CETF began operations.

Supply – Deployment

- **Access for >98% Population**
- **Robust Rural-Urban California Telehealth Network**
- **All Tribal Lands Connected and Part of CTN**

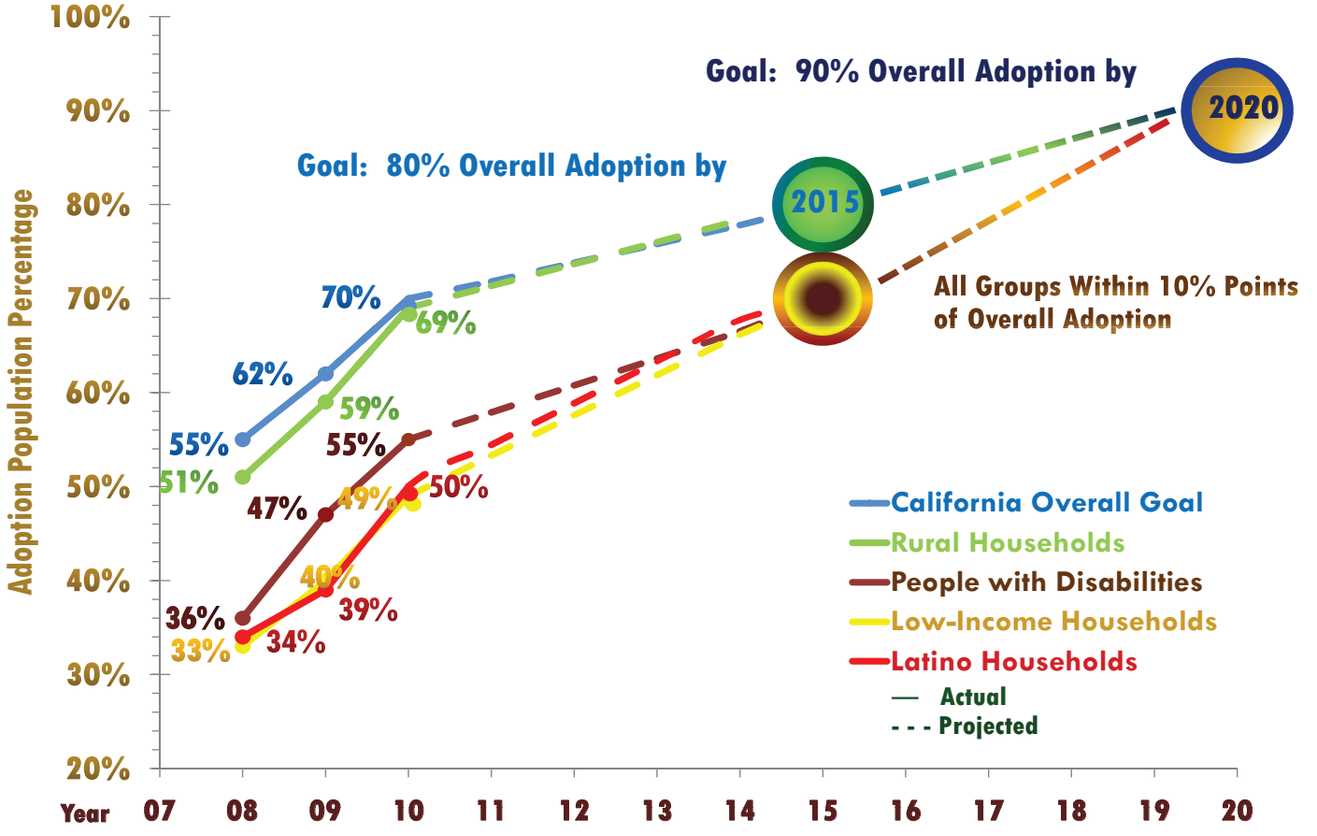
Demand – Adoption

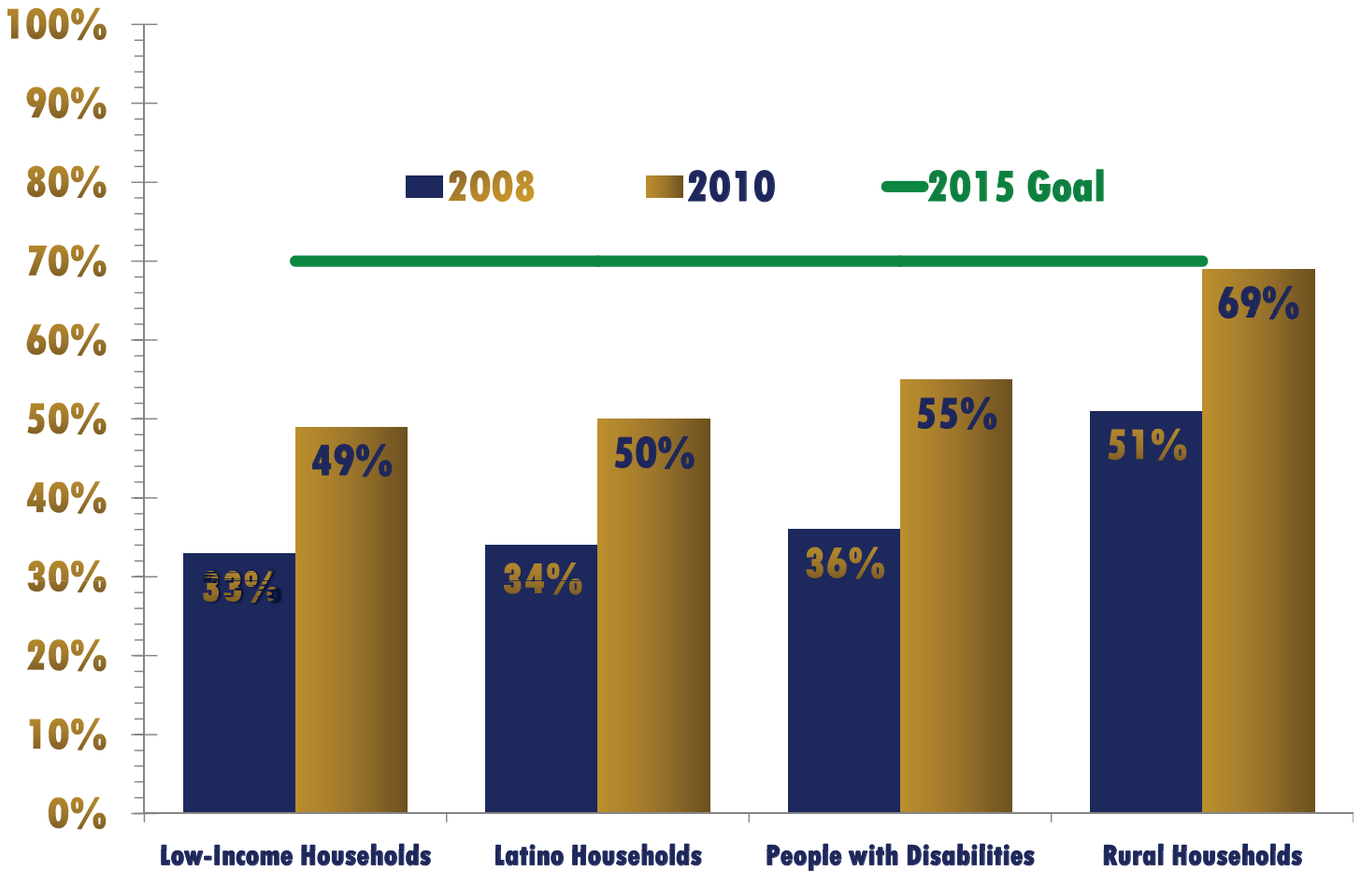
- **Overall California Adoption 80% by 2015 and 90% by 2020**
- **All Regions and Socioeconomic Groups within 10 Percentage Points of Overall Adoption**
- **Increased Overall Accessibility and Universal Design**

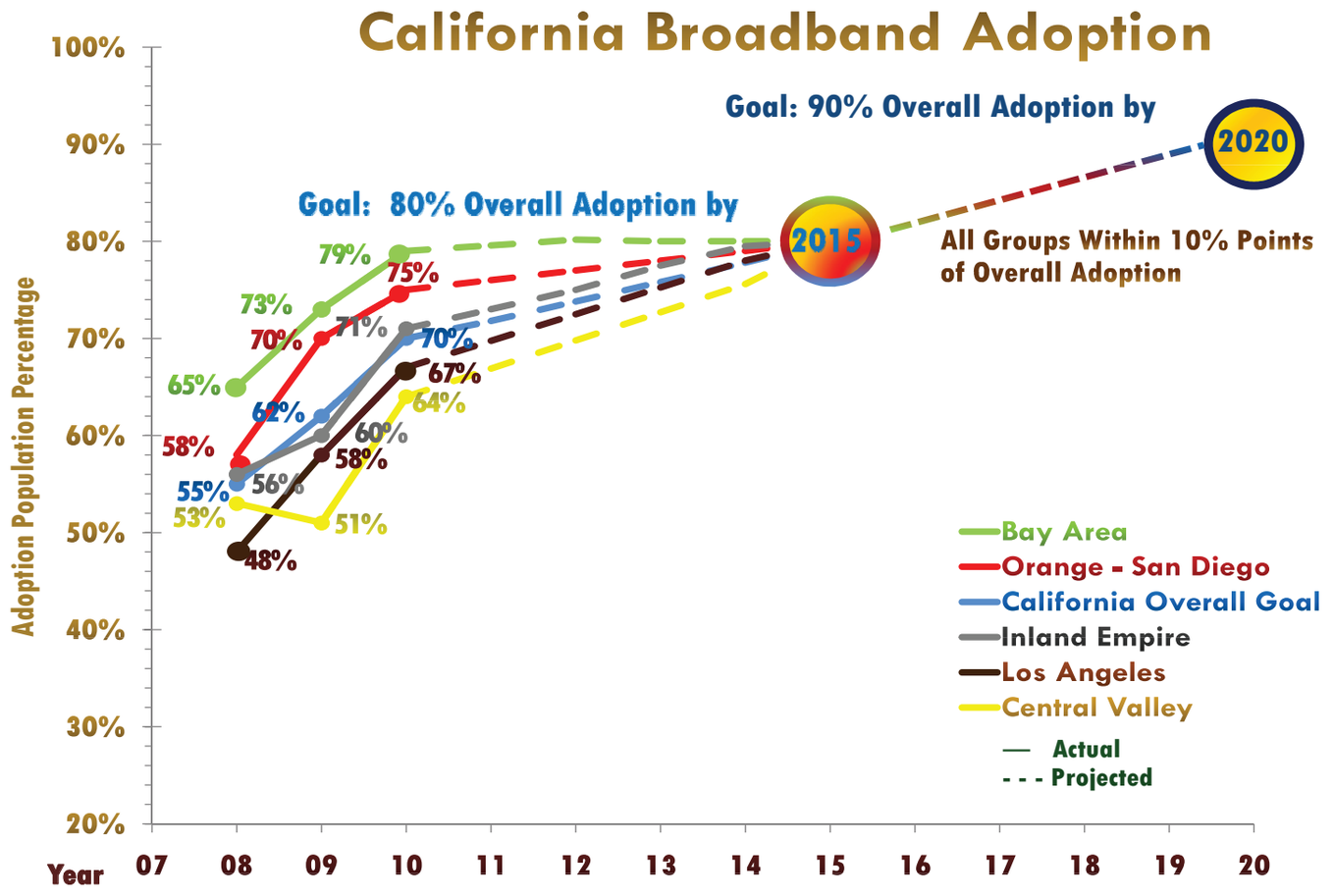
California a Global Leader in Deployment and Adoption

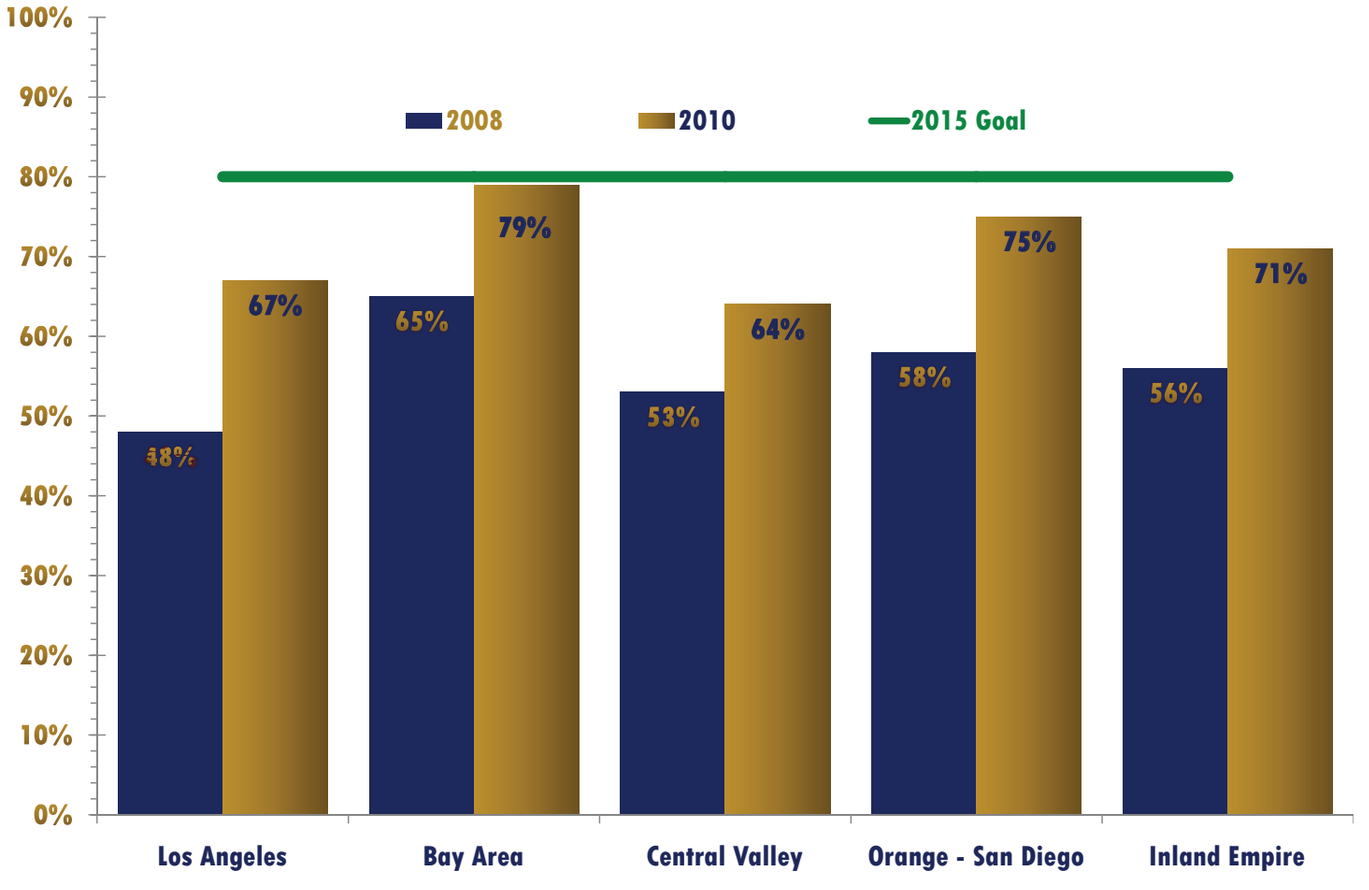
- **Appropriate and Sufficient Speeds for Consumer Applications that Drive Adoption**
- **Increased Economic Productivity**
- **Reduced Environmental Impacts**

California Broadband Adoption






California Broadband Adoption
Goal: 90% Overall Adoption by
2020
Goal: 80% Overall Adoption by
2015
All Groups Within 10% Points of Overall Adoption
Adoption Population Percentage
Year
100%
90%
80%
70%
60%
50%
40%
30%
20%
07
08
09
10
11
12
13
14
15
16
17
18
19
20
79%
75%
73%
70%
71%
70%
65%
67%
64%
62%
60%
58%
58%
56%
55%
53%
51%
48%
Bay Area
Orange - San Diego
California Overall Goal
Inland Empire
Los Angeles
Central Valley
Actual
Projected


100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2008
2010
2015 Goal
48%
67%
65%
79%
53%
64%
58%
75%
56%
71%
Los Angeles
Bay Area
Central Valley
Orange - San Diego
Inland Empire

5 Overarching Strategic Actions

To achieve the optimal impact and a higher return on investment of seed capital, CETF uses 5 overarching strategic actions:

- **Civic Leader Engagement**
- **Venture Philanthropy Grantmaking**
- **Public Policy Initiatives**
- **Public Awareness and Education**
- **Strategic Partnerships**

1. Civic Leader Engagement

Civic leaders and elected officials are key voices to urge residents to "Get Connected!" CETF is working with leaders from 7 Rural Regional Consortia covering 35 counties (see map) to aggregate demand, encourage broadband deployment, and support telemedicine. As a result, more than 80% of the proposed deployment projects to provide broadband to unserved and underserved communities have been stimulated by the Regional Consortia. CETF also conducted 6 Urban Regional Roundtables to identify opportunities to integrate broadband adoption into existing initiatives aimed at advancing economic prosperity (see Summaries on CETF website).

2. Venture Philanthropy Grantmaking

CETF regards grants as "investments" for which there must be measureable returns and tangible results. Grantees are selected because of their capacity to deliver outcomes and because they also are trusted messengers for residents in the priority consumer communities. To date, CETF has committed $23M in seed capital in grants to more than 70 non-profit and community-based organizations (CBOs).

Several grantees are completing their projects and final reports are posted on the CETF website. For example, a number of the Rural Regional Consortia have finished their Demand Aggregation Projects and were able to encourage broadband providers to compete for CPUC and federal funding. Also, the EmpowerNet consortium developed a comprehensive web-based toolkit to assist CBOs establish effective IT workforce training for the disadvantaged and underemployed.

CETF has received 2 grants totally $14.3M from the National Telecommunications and Information Agency (NTIA) for funding from the American Recovery and Reinvestment Act (ARRA) to increase broadband adoption in California which supports the work of 19 CBOs . The ARRA investment builds upon and leverages the CETF investment in *Get Connected!*

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3. Public Policy Initiatives

The pace at which the Digital Divide can be closed is significantly determined by the policy environment in which grantmaking and other strategies are employed. CETF has launched major policy initiatives to accelerate broadband adoption. The following summarizes the progress during the last year.

Digital Literacy

The Governor signed an Executive Order (a) establishing Digital Literacy as a goal for all students, workers and residents and (b) directing the development of an action plan to coordinate the activities and integrate the resources of all state agencies to achieve the goal. The Action Plan has been prepared and implementation is beginning.

School2Home

School2Home (S2H) is an innovative statewide program to close both the Achievement Gap and the Digital Divide by integrating the use of computers and broadband technologies into teaching and learning at low-performing middle schools throughout California with an emphasis on parental involvement and home connectivity. CETF and The Children's Partnership co-sponsor S2H, which was designed by a broad spectrum of policy leaders and stakeholders. School2Home has been protoyped and beta tested in 2 schools: Stevenson Middle School in Los Angeles Unified School District in collaboration with the Partnership for Los Angeles Schools; and Central Middle School in Riverside Unified School District. CETF is planning to expand School2Home to 20 schools if sufficient funds can be secured.

Telehealth – Telemedicine

CETF is providing $3.6 million to match a grant of $22.1 million from the Federal Communications Commission to build the California Telehealth Network (CTN) for which the University of California (UC) is the fiscal agent and managing partner on behalf of a consortium of state agencies, foundations, and provider organizations. UC has completed the procurement process to select a vendor to connect the first 800+ sites, bringing expertise from medical centers to facilities providing access to services and improved quality of care to rural and urban medically-underserved communities. The consortium has established a new non-profit, public-private governing structure for CTN. UC Merced has connected the initial telemedicine sites in the San Joaquin Valley with a grant from CETF and other partners. CETF also is funding the California Dental Association and the Veterans Administration to coordinate services and resources with CTN.

Smart Housing

CETF formulated a model policy for Smart Housing, briefed state and local government policymakers, and convened 3 regional workshops. CETF and the California Department of Housing and Community Development jointly requested that the U.S. Department of Housing and Urban Development amend federal policies and regulations to support Smart Housing. CETF is partnering with the Non-Profit Housing Association of Northern California and other affordable housing organizations to promote the adoption of Smart Housing Policies at the federal, state and local levels of government.

Smart Communities

CETF and Community Partners, California Community Technology Policy Group, and the Broadband Institute of California (Santa Clara University School of Law) published a summary and analysis of government-led wireless projects titled "*Wired for Wireless"* which provides local governments and stakeholders with critical information and a checklist to guide consideration of wireless initiatives. CETF and the Center for the New Orange County compiled examples of existing local government policies regarding broadband and promulgated a comprehensive sample policy as a resource for local and regional government leaders. And, CETF is working with the State Librarian to promote libraries as hubs for digital literacy and wireless "hot spots" throughout California.

4. Public Awareness and Education: Get Connected!

CETF launched *Get Connected!* to raise overall awareness about the benefits of broadband as a foundation and support for all other strategic actions. The initial 2-year goal was to increase adoption among low-income and Latino households statewide by 10 percentage points—and there was a 16 percentage point increase. *Get Connected!* developed a website (GetConnectedToday.com) to help non-users learn the basics about computers and broadband, produced public service announcements in several languages, and conducted numerous Community Connect Fairs in target neighborhoods. Counties, cities and school districts throughout California are adopting *Get Connected!* resolutions to promote awareness.

5. Strategic Partnerships

In order to optimally leverage the CETF seed capital and close the Digital Divide by 2017, it will be essential for CETF to forge strategic partnerships with government, foundations and employers to joint venture on major projects and expand initiatives such as the California Telehealth Network, Smart Housing, School2Home and *Get Connected!* All of these efforts take to scale "what works"—what is known to be successful in increasing broadband adoption—and they envision breakthrough results that improve California's economic competitiveness and quality of life for all residents. CETF has $10M remaining uncommitted Seed Capital which will be leveraged at least 5-fold through Strategic Partnerships.

Progress on *Get Connected!* Resolutions

Pending

- ✓ Glenn
- ✓ Imperial
- ✓ Inyo
- ✓ Kings
- ✓ Lassen 12/14
- ✓ Monterey
- ✓ Napa
- ✓ Orange
- ✓ Placer
- ✓ Plumas
- ✓ Riverside
- ✓ Sacramento 11/30
- ✓ San Bernardino
- ✓ San Joaquin 11/23
- ✓ Santa Barbara
- ✓ Santa Cruz
- ✓ Sierra
- ✓ Sutter

Approved *Get Connected!*

- ✓ Alameda
- ✓ Alpine
- ✓ Amador
- ✓ Butte
- ✓ Calaveras
- ✓ Colusa
- ✓ Contra Costa
- ✓ Del Norte
- ✓ El Dorado
- ✓ Fresno
- ✓ Humboldt
- ✓ Kern
- ✓ Lake
- ✓ Los Angeles
- ✓ Madera
- ✓ Marin
- ✓ Mariposa
- ✓ Mendocino
- ✓ Merced
- ✓ Modoc
- ✓ Mono
- ✓ Nevada
- ✓ San Benito
- ✓ San Diego
- ✓ San Francisco
- ✓ San Luis Obispo
- ✓ San Mateo
- ✓ Santa Clara
- ✓ Shasta
- ✓ Siskiyou
- ✓ Solano
- ✓ Sonoma
- ✓ Stanislaus
- ✓ Tehama
- ✓ Trinity
- ✓ Tulare
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- ✓ Yolo
- ✓ Yuba

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Economic and Environmental Benefits of Broadband

Broadband has many economic and environment benefits. Broadband enhances the economy by spurring job generation and improving business efficiencies which attracts capital investment. The use of broadband for telecommuting, teleconferencing, obtaining information, researching products, and avoiding the use of paper significantly reduces impacts to the environment.

Economic Benefits of Broadband – Quick Facts

- Communities that gain access to broadband service experience an employment increase of 1-1.4 percentage points and increases in rental value of up to 6 percentage points. [U.S. Department of Commerce, 2006]
- For every $1 U.S. consumers spend online, information available on the Internet influences a further $3.45 spent in stores. Broadband leads to well-informed purchase decisions, travel reduction by pre-locating the product, and facilitating cost comparisons between vendors. [eMarketer, 2008]
- From 1998 to 2002 communities with mass-market broadband service experienced greater growth in overall employment, an increase in the total number of businesses, and more IT-intensive businesses than communities without broadband service. [33rd Research Conference on Communication, Information and Internet Policy, 2006]
- Broadband contributed 198,000 jobs and $11.6 billion to the California economy 2002-2005. Over the next decade, it is estimated that broadband if aggressively deployed and adopted could generate 1.8 million jobs and contribute $132 million payroll above the baseline. [Sacramento Regional Research Institute, 2008]
- Live videoconferencing at 115 health facilities reduced the cost of follow-up care by 42% and reduced overall costs by 6%. [California HealthCare Foundation, 2008]

Environmental Benefits of Broadband – Quick Facts

- Broadband deployment and adoption has the potential to reduce greenhouse gas emissions by more than 1.1 billion tons over the next 10 years. Of these reductions, 60% was a direct result of telecommuting efficiencies, 18% from electronic commerce simplifying business processes and distribution, 17% from teleconferencing replacing meetings, and 5% from electronic media replacing paper and/or plastic products. The potential greenhouse gas reduction is equivalent in emission savings to a decrease of 11% of U.S. oil imports. [The American Consumer Institute, 2007]
- Electronic commerce, as compared to conventional shopping, generates 36% less air pollutants, 23% less hazardous waste, and 9% less greenhouse gases. [Institute of Electrical and Electronics Engineers, 2001 International Symposium on Electronics and the Environment]
- Electronic grocery shopping with e-delivery generates 18% to 87% less greenhouse gases than conventional grocery shopping. [Institute of Electrical and Electronics Engineers, 2001 International Symposium on Electronics and the Environment]

Provide leadership statewide to close the "Digital Divide" by accelerating the deployment and adoption of broadband to unserved and underserved communities and populations.

Ensure that California is a global leader in the availability and use of broadband technology.

CETF
CALIFORNIA EMERGING TECHNOLOGY FUND

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