MEMO

To: Rachelle Chong

From: Siggi Babcock

Re: California Broadband Taskforce and Broadband Executive Order

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Short summary:

The California Broadband Taskforce (CBTF) strongly emphasizes the importance of cooperation between local, state, public, and private entities to more efficiently deploy broadband (and related services, such as tele-health and tele-commuting) throughout the state, and streamlining the necessary processes and permits required to begin (and continue) the deployment and maintenance of broadband infrastructure.

Executive Order:

The Governor's order establishes the CBTF because of the importance of broadband access to California, for quality of life, technological leadership, economic benefits, and to promote the good health and education of Californians.

The Executive Order (EO) lays out the goals and reasoning for investing in broadband:

"…deploying broadband networks and advanced communication services throughout California will enable continue improvements in healthcare, public safety, education, and the economy…"[1]

"…section 709 of the California Public Utilities Code establishes that it is the State's policy to encourage expanded access to sate-of-the-art technologies for rural, inner-city, low-income, and disabled Californians." [2]

"…the increased State use of broadband networks and advanced communication services will enhance government operations through telemedicine for healthcare, distance learning for education, and better coordination in the areas of public safety." [3]

CBTF Preliminary Report:

"Governor Schwarzenegger signed an Executive Order (EO) S-21-06 on October 27, 2006 (amended November 28, 2006 as S-23-06), titled "Twenty-First Century Government: Expanding Broadband Access and Usage in California." In addition to other policies, the EO created the…CBTF… to 'bring together public and private stakeholders to remove barriers to broadband access, identify opportunities for increased broadband adoption, and enable the creation and deployment of new advanced communication technologies.'"[4]

The CBTF recommends that the Governor: increase access to existing state & federal resources; coordinate state assets, improve emergency services; coordinate conduit deployment; and promote broadband adoption.

Before launching into a description of relevant recommendations, it may be prudent to consider the following, from recommendation 3.2: "These… groups

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[1] Executive Order S-23-06." Office of the Governor. p. 1 <http://gov.ca.gov/index.php?/print-version/executive-order/4585/>

[2] "Executive Order S-23-06." Office of the Governor. p. 2 <http://gov.ca.gov/index.php?/print-version/executive-order/4585/>

[3] IBID

[4] Preliminary Report "Recommended Administrative Actions that Can Immediately Promote Broadband Access and Usage." California Broadband Task Force. p. i

together possess a greater potential to spur the development of a common network than each would alone,"[5] and this concluding statement: "Universal broadband access will accelerate California's ability to succeed in the global marketplace through new opportunities to conduct business, implement entrepreneurial ideas, deliver new educational programs, improve health care options, and streamline the delivery of government services."[6] Additionally, those involved in the deployment of broadband may find it worthwhile to note that, according to the General Accounting Office, rural households are no less likely to subscribe to broadband than urban households, once broadband availability and demographics are taken into account.[7] Californians are willing to buy, if broadband is made available. To that end, the CBTF has put forward their aforementioned five recommendations.

The first step in the first recommendation (increasing access to existing state and federal resources) is to coordinate the University of California (UC) system, the Business, Transportation, ad Housing Agency (BTH), and the Health and Human Services Agency (HHS) to establish, in association with public and private sector stakeholders, "…a sustainable business model for an e-health network." Currently, "[c]ollaboration between the state, the University of California, the Corporation for the Network Initiatives in California (CENIC), and other stakeholders is taking place…"[8] A secondary step would be to increase broadband access by requiring that all new affordable housing is outfitted with broadband infrastructure, or appropriate conduits, when the housing is being designed or constructed.[9] The fifth aspect of the first recommendation encourages the Governor to increase state

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[5] Preliminary Report "Recommended Administrative Actions that Can Immediately Promote Broadband Access and Usage." California Broadband Task Force. p. 10
[6] Preliminary Report "Recommended Administrative Actions that Can Immediately Promote Broadband Access and Usage." California Broadband Task Force. p. 16
[7] Preliminary Report "Recommended Administrative Actions that Can Immediately Promote Broadband Access and Usage." California Broadband Task Force. p. 1
[8] Preliminary Report "Recommended Administrative Actions that Can Immediately Promote Broadband Access and Usage." California Broadband Task Force. p. 3
[9] Preliminary Report "Recommended Administrative Actions that Can Immediately Promote Broadband Access and Usage." California Broadband Task Force. p. 4

compliance with AB 855.[10] That law requires that "…the Department of General Services to develop an inventory of state-owned real property that wireless telecommunications providers could lease for 'wireless telecommunications facilities."[11]

An important part of the coordination of state assets should be to "instruct agencies and departments, particularly those located in rural areas where there is no broadband access today, to consider ways in which they may become an anchor tenant in the community, thereby enabling infrastructure deployment by services providers who will then be able to offer consumer and business broadband services."[12] Furthermore, the state should help the Public Utilities Commission (PUC) to bring broadband providers and communities together to "inventory assets that could be used for broadband deployment and… encourage the development of common standardized agreements for these assets." [13] In addition, the public and private sectors should work together to jointly create geographic information databases.

The deployment of broadband will be of great use in improving emergency services. Recommendation 3.1 of the preliminary report suggests that communities without any backup broadband should coordinate with the state "…to assure continual emergency service response until additional broadband connections and route diversity can be provided…"[14]The second part of the third recommendation (improve emergency services) also suggests that BTH, CBTF, the California Statewide Interoperability Executive Committee (CALSIEC), and the Public Safety Radio Strategic Planning Committee (PSRPC) work together, bringing their

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[10] Preliminary Report "Recommended Administrative Actions that Can Immediately Promote Broadband Access and Usage." California Broadband Task Force. p. 5
[11] IBID
[12] Preliminary Report "Recommended Administrative Actions that Can Immediately Promote Broadband Access and Usage." California Broadband Task Force. p. 7
[13] Preliminary Report "Recommended Administrative Actions that Can Immediately Promote Broadband Access and Usage." California Broadband Task Force. p. ii
[14] Preliminary Report "Recommended Administrative Actions that Can Immediately Promote Broadband Access and Usage." California Broadband Task Force. p. 10

knowledge of broadband deployment and emergency response techniques, to increase the use of broadband as a tool in dealing with emergency situations.

The fourth major recommendation of the CBTF is to create common standards to allow the placement of conduits (of any type) in state rights-of-way (ROW), as state installation will be more efficient in terms of permits and similar delaying processes. These standards should detail installation practices, as "[c]reating these guidelines and infrastructure will greatly accelerate broadband deployment, while also benefitting the state by reducing permitting time and roadway restrictions, and increasing asset tracking for tax purposes. Accordingly, all state agencies should place conduit (of the standard agreed upon above when other work would facilitate this placement and where demand for broadband is identified."[15]

The fifth and final recommendation of the preliminary report includes a subsection that suggests creating an awards system and honor roll for communities that "support broadband and technology for their businesses and residents…"[16] and "highlight[ing] promising practices that foster advanced communication access and use throughout California's communities." [17] That latter quote illustrates the issue at the heart of the report – the CBTF wants to encourage and assist in any way the deployment and use of broadband throughout all of California.

The State of Connectivity – CBTF's Final Report:

The final report of the CBTF stresses that "[i]ncreasing broadband infrastructure will require a creative and coordinated effort among all stake-holders."[18] Furthermore, "the CBTF believes that California's stake-holders will need to achieve the following objectives:…[e]nsure ubiquitous and affordable

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[15] Preliminary Report "Recommended Administrative Actions that Can Immediately Promote Broadband Access and Usage." California Broadband Task Force. p. 12
[16] Preliminary Report "Recommended Administrative Actions that Can Immediately Promote Broadband Access and Usage." California Broadband Task Force. p. 15
[17] IBID
[18] "The State of Connectivity: Building Innovation through Broadband." California Broadband Task Force. p.11

broadband infrastructure, made available through a variety of technologies, across all of California…"; "[d]rive the creation and use of all applications that produce the greatest economic, educational health and other benefits for California's economy and communities…"; and "[d]eploy next-generation broadband infrastructure and position California as the global economic leader…"[19]

The seven specific recommendations of the CBTF in their final report are[20]: build out high-speed broadband infrastructure to all Californians; develop model permitting standards and encourage collaboration among providers; increase the use and adoption of broadband and computer technology; engage and reward broadband innovation and research; create a statewide e-health network; leverage educational opportunities to increase broadband use; and continue state level and statewide leadership.

Recommendation one contains many useful suggestions for broadband deployment and cooperation, including broadening access to state infrastructure for broadband providers and providing various financial incentives for providing broadband access to rural or underdeveloped areas. These incentives could be funded through bond money, the California Public Utilities Commission, or taxes (the CBTF recommends tax credits for capital expenditures for broadband investment - 10% for investments in current generation broadband, and 20% for investments in next generation broadband). The Task Force also recommends that the California Teleconnect Fund (CTF) be expanded – community-based organizations that qualify for the support should be made aware of the fact (through 2-1-1), and the possibility of broadening organizations that receive funds from the CTF, such as Community Colleges, should be considered. Recommendation one also stresses the importance of the California Rural Telecommunications Program, which provides grants to telecommunication construction projects. In another attempt to promote construction and deployment of broadband facilities, the first

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[19] "The State of Connectivity: Building Innovation through Broadband." California Broadband Task Force. p. 50-51

[20] "The State of Connectivity: Building Innovation through Broadband." California Broadband Task Force. p. 51

recommendation of the report suggests that "[t]o address the cost of infrastructure in unserved areas and encourage network upgrades in other areas, the state should offer, at cost, small spaces on state-owned properties on which collocation facilities can be constructed."[21] Much like in the preliminary report, the final report of the CBTF argues for greater enforcement and compliance with AB 855, streamlining access to ROW[22], and agencies serving as anchor tenants.

Recommendation two also contains many relevant sections – mostly involving streamlining the applications and permitting process for the deployment of broadband. To accomplish this, the CBTF recommends establishing "…a statewide group of stakeholders…[that will] develop standard application forms, policies, and timelines that governments can adopt voluntarily."[23] Ideally, this standardization would apply to paperwork for the California Environmental Quality Act (CEQA) and allow broadband providers to only need one application for work that crosses multiple jurisdictional lines. E-permits would be another timesaving measure for providers and agencies alike. Time is a very important factor to businesses, and for that reason the CBTF recommends that applications be processed within a maximum of sixty days – thirty, optimally. For further streamlining, reasons for application rejection should be submitted to the applier in writing, and applications that are amended in accordance to such a list of refusal reasons are to be accepted within thirty days (assuming everything written has been addressed). Also, the concept of blanket permits, which grant the stamp of approval for repeated tasks over a specified period of time in a single permit, should be considered. The CBTF also urges the removal of moratoriums on above-ground facilities in situations where underground infrastructure "...is not complete or ready within a specific

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[21] "The State of Connectivity: Building Innovation through Broadband." California Broadband Task Force. p. 58

[22] The mutually beneficial nature of this relationship is described very well on page 58 of the report: "A public-private partnership between the state and broadband providers would provide broadband vendors with an easy location for the installation of wireless broadband equipment and, at the same time, aid the state in the maintenance of its public safety communications system."

[23] "The State of Connectivity: Building Innovation through Broadband." California Broadband Task Force. p. 61

number of months…;" as well as providing waivers in the case of ROW access denial; providing incentives for the placement of extra conduits for the future by local governments and notice to providers of joint trenching opportunities; and the maintenance and expansion of the Fiber Collaboration Database to local governments. Finally, the second recommendation asks that the conduit standards detailed in the preliminary report of the CBTF be accepted.

Recommendation three includes a plan for the creation of a public-private partnership to help California move towards the goal of "California Kids – 100 percent up to speed,"[24] which would entail that every household with a child would have access to broadband. This partnership formed of key stakeholders should, over three years, meet and develop a plan, set goals and measure their progress in meeting those goals, and decide how to best ensure that "every household with a child is able to have a computer with high-speed Internet in the home and the ability to use it."[25] Such a lofty goal further indicates the importance the state is placing on the construction and deployment of broadband! In pursuit of that goal the CBTF suggests that the partnership should consider bulk purchase rates for computers for low-income families, low or no interest computer loans, and refurbishing or recycling computers. The partnership should involve community organizations in this project.

Recommendation four mostly concerns research, and is therefore mostly irrelevant, however one section describes giving money "…to public-private partnerships to experiment with new applications—such as smart infrastructure, telecommuting, digital cinema, telemedicine, and e-government—on the advanced infrastructure of CENIC's CalREN, the state's ultra- broadband network (currently 1-10 Gbps)."[26]

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[24] "The State of Connectivity: Building Innovation through Broadband." California Broadband Task Force. p. 64
[25] "The State of Connectivity: Building Innovation through Broadband." California Broadband Task Force. p. 64
[26] "The State of Connectivity: Building Innovation through Broadband." California Broadband Task Force. p. 67

Recommendation five concerns the establishment and maintenance of a statewide tele-health network. This is perhaps not directly concerned with physical broadband deployment, but it may have an impact, and the attendance of members of such networks possibly makes it relevant. Recommendation five, then, suggests that a public-private advisory body and an accountable entity within state government be created, and together they should "develop and implement a strategic plan and sustainable business model for an e-health network."[27] These two groups will also work together to ensure funding is available to nurture e-health networks, and assist in coordinating e-health network providers and those who wish to use their services.

Recommendation six includes a directive to establish broadband throughout K-12 schools in California, assisting in this by facilitating access to the E-Rate program. The Corporation for Education Network Initiatives in California (CENIC) and the California K-12 High Speed Network (K12HSN) program, along with the California Research and Education Network (CalREN) and the California Department of Education are the main agencies involved in providing this service to schools. While California schools benefit from these agencies' hard work as can be seen in the high level of broadband access in K-20 classrooms and schools, "[t]o fully leverage the benefits of the K12HSN, it is critical to identify and seek solutions for schools and district offices that remain unconnected."[28] There is still deployment to be done in this crucial area.

Recommendation seven endorses the establishment of Community Broadband Leadership Councils (or CBLCs) through a statewide public-private partnership. These CBLCs will help spread information about their community and network with broadband providers, the state, and other CBLCs, to bring broadband into their community. Critical community information CBLCs may be able to share with providers and agencies include small things, like which businesses or

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[27] "The State of Connectivity: Building Innovation through Broadband." California Broadband Task Force. p. 71

[28] "The State of Connectivity: Building Innovation through Broadband." California Broadband Task Force. p. 74

residences in the community are willing and able to purchase broadband, or big things, such as who or what may serve as an anchor tenant in the community, or even spotting potential critical infrastructures or partnerships with nearby communities. Recommendation seven additionally supports the occasional reconvening of the CBTF, so that it may "…monitor and provide feedback on both the recommendations contained in this report and other broadband initiatives underway in the state."[29]

Additionally, the final report of the CBTF discussed how many countries are integrating broadband with the physical infrastructure of the state, in order to assist in infrastructure maintenance (networked sensors would keep an 'eye' on the status of their symbiotic infrastructure). These sensors would also be able to more quickly notify agencies of a disaster in the area, as well as generally "…extend[ing] the reach, connectivity, and functionality of today's Internet to other networks such as the state's utility system… [c]onnecting every piece of equipment – including customer-premise appliances – to the state's electricity grid…"[30] allowing real-time monitoring. Such an integrated infrastructure, however, would be a difficult task, and would surely require the combined efforts of the state and broadband providers.

For all these reasons, the "Task Force believes that California must make available ubiquitous and affordable broadband infrastructure….and continually deploy the best-generation broadband infrastructure. Achieving these goals will not be easy and will require the combined efforts of state and local government, academia, industry, and the non-profit sector."[31] The CBTF final report illustrates why cooperation between governmental, public, and private sectors is so important. The best way to deploy broadband quickly and efficiently is to work together – coordinate resources, including land, money, manpower, skills, and knowledge. By

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[29] "The State of Connectivity: Building Innovation through Broadband." California Broadband Task Force. p. 77
[30] "The State of Connectivity: Building Innovation through Broadband." California Broadband Task Force. p. 16
[31] "The State of Connectivity: Building Innovation through Broadband." California Broadband Task Force. p. 78

providing incentives and increasing availability and ease of deployment, the government can move closer to its goal of providing broadband access for all Californians; private broadband providers can, through government subsidies if necessary, form profitable business relationships with heretofore underserved communities; and communities and the organizations that serve them can better provide services to the people of California.

Additional Notes:

I am perfectly willing to provide additional research or answer questions as wanted or needed.

As you already have your own copies of the CBTF's reports, I have only appended this memo with a copy of the Governor's EO.