



CITY COUNCIL AGENDA REPORT

DATE: 12/2/2015

AGENDA OF: 12/8/2015

DEPARTMENT: Economic Development

SUBJECT: Santa Cruz Fiber Public-Private Partnership Approval (ED)

RECOMMENDATION: Motion to approve a public-private partnership with Cruzio Internet, Inc. for the Santa Cruz Fiber project and direct staff to complete negotiations of the terms and prepare a final agreement, in a form to be approved by the City Attorney, in order to initiate engineering network design and environmental review, and to prepare to seek lease revenue bonds to fund the Fiber-to-the-Premises network construction within twelve months.

BACKGROUND: City Council has identified broadband infrastructure, also known as fiber-optic networks, as a fundamental need for the City of Santa Cruz for several years. After approving the Ad-Hoc Committee on Technology's recommendations to develop a Broadband Master Plan, the City Council unanimously approved policy direction updates on April 22, 2014, October 28, 2014, and February 24, 2015, including directing staff to pursue opportunities for the City to partner with the private sector in order to spur significant broadband infrastructure investment to realize long-term economic growth.

On June 23, 2015, the City Council unanimously directed staff to enter into an Exclusive Negotiation Agreement with Cruzio Internet, Inc. in order to analyze and negotiate a possible public-private model to develop a municipally-owned, but privately operated fiber optic network to provide affordable, world-class gigabit-speed, ubiquitous internet service to City of Santa Cruz residents and businesses.

DISCUSSION: Since June 2015, City staff has analyzed the cost, business model, and overall viability of a public-private partnership with Cruzio Internet (Cruzio) with the assistance of Columbia Telecommunications Corporation (CTC), the nation's leading consultant for public-private partnership modeling for fiber optic networks and National Development Council (NDC), a national non-profit community development organization which has helped to finance over \$2 billion in public-private infrastructure projects for local governments and public institutions.

Three primary documents—the Cost Estimate (provided on June 23, 2015), the Financial Forecast & Partnership Report (Attachment 1 and 2), and the Market Survey (Attachments 3 and 4)—allow the City to prepare a conservative business model to sustain the debt and maintenance costs of the gigabit fiber network and set the path for success. Throughout the process, each report was further stress-tested against market conditions and additional analysis outside of CTC,

NDC and the City of Santa Cruz with Cruzio's assistance per the Exclusive Negotiation Agreement.

Through these three instruments, City staff has engaged with Cruzio over the last few months to determine how the public-private partnership can take advantage of the strengths of each party for the joint success of Santa Cruz Fiber as the first gigabit-level, Fiber-to-the-Premises network in the greater Silicon Valley Region.

Cost Estimate

CTC's initial cost estimate from May 2015 provided a robust network design with an upper limit cost of \$52 million to construct and operate a network solely paid for and run by the City of Santa Cruz (see Attachment 1). Through ongoing partnership discussions, Cruzio has agreed to be responsible for cost of the electronics that "light up" and activate the City's dark fiber network, further contributing Cruzio's internet exchange connection (sometimes called backhaul), while leasing and operating the network as the exclusive internet service provider on the publically-owned network.

Simplifying the model from a network solely run by the City—responsible for everything from the dark fiber, all electronics, and operating the business as a municipal internet service provider—the updated partnership model quantifies key responsibilities that benefit both parties, thereby reducing the initial cost estimate for the dark fiber, or outside plant, to under \$35 million (see Attachment 2). This cost reduction does not include the drop costs for hooking up subscribers between the network in the public right-of-way and each premises, which can influence capital needs at the beginning if the network is more successful than conservative projections. This savings can also be attributed to a revised hub-and-spoke Gigabit Passive Optical Network design (GPON) network design as well as up to 80% microtrenching techniques for installing the dark fiber on asphalt streets. Finally, this cost estimate was further tested with Cruzio hiring Henkels & McCoy (further vetted though CTC) to provide another estimate in the current market from an engineering and construction firm.

Financial Forecast & Partnership

CTC's initial Financial Forecast and Partnership Analysis used the same City-only model of a purely public fiber network in July 2015 (see Attachment 3), concluding that the City would have to obtain over 50% of the City's residents as subscribers if the City were to build and operate the public-only operated network. CTC's Addendum reflects the benefits of the public-private partnership model with Cruzio migrating over 3,000 initial customers as well as sharing significant costs and expertise, resulting in an subscriber take rate of 34% to have a conservatively viable and self-sustaining fiber network whereby the City is able to pay its debt and its share of maintenance costs and Cruzio is able to succeed as a local business with a world-class gigabit fiber product (see Attachment 2).

Throughout the modeling and negotiations, Cruzio and City staff have been committed to creating a business model where the City's debt is covered, including potential scenarios where subscription rates may not immediately reach the projected 34% take rate.

City staff will negotiate a combination of wholesale lease rates based on the number of potential customers that are passed by the network as well as based on the number of subscribing customers on the network. The "per passing" lease rate is designed to incentivize Cruzio to make strong sales while helping to cover the City's debt risk regardless of the number of customers on

the network. Meanwhile, the City will also include a “per subscriber” lease rate based on the number of customers on the network, potentially reducing the costs per subscriber to generate further sales incentives for Cruzio, while the City’s debt service and maintenance is paid for through the dual-fee structure. Balancing these fees based on the final cost of the network debt and maintenance costs along with the business impact for Cruzio will continue if City Council approves the public-private partnership model.

Market Survey

In October 2015, the City’s consultant conducted a random survey of 290 Santa Cruz households (out of 20,675), with a confidence interval of $\pm 5.7\%$. CTC and Clearspring Research then analyzed the raw data to conclude the following (see Attachment 3):

- 34% of Santa Cruz households would purchase 1 Gigabit per second (Gbps) internet service at a price point of \$85 per month
- 54% of Santa Cruz households would purchase 1 Gbps internet service \$75 per month
- 82% of Santa Cruz households would purchase 1 Gbps internet service at \$55 per month

The survey provides a high degree of confidence that Santa Cruz is a strong market for a competitive, high-speed fiber network because the current market is underperforming for consumers in terms of speed, reliability, and price. The data also illustrate how households are more and more dependent upon the internet for access to entertainment, working from home, and education.

This data can further be contextualized by Cruzio’s independent, voluntary respondent survey illustrating anecdotal evidence of strong support for Santa Cruz Fiber because of Cruzio’s role and brand as a local business in the public-private partnership model (see Attachment 4).

Public-Private Partnership Term Sheet

Since June 2015, City staff and Cruzio have not only analyzed and refined the network model, but we have also, out of necessity, begun negotiating key responsibilities and terms that form the foundation of a future agreement with Cruzio. CTC assisted the City of Santa Cruz in building a plain-language term sheet based on the cost estimate, the financial forecast, and the market survey data all influencing the best way to share risks and rewards while conservatively creating a project that does not risk the City’s debt service.

Four key terms have been established:

1. The City of Santa Cruz will be responsible for building and maintaining the dark fiber infrastructure (often referred to as the Outside Plant or Layer 1) while Cruzio will be responsible for the electronics (Layer 2) as well as the internet exchange and internet service provider as the exclusive retailer on the network (Layer 3)
2. Cruzio will pay a combination of per passing and per subscriber fees (to be determined once final costs are established)
3. Cruzio will share risk with the City of Santa Cruz by backfilling 80% of the debt service for bond payments should revenue fall short

4. Cruzio will design as the network partner, in partnership with the non-profit National Development Council, Economic Development's financial advisor and consultant for the bond issuance

If approved, staff will work with Cruzio, the City Attorney, specialist telecommunications attorneys at Best, Best, & Krieger (BBK), CTC and NDC to negotiate and finalize a contract based on the key terms and the public-private partnership model described in the Cost Estimate Addendum (Attachment 2).

FISCAL IMPACT: Funds for ongoing professional costs for CTC, NDC and BBK are available in the approved FY 2016 Economic Development Budget and are not estimated to exceed \$100,000. If directed to proceed, future costs associated with engineering and design of the Layer 1 Outside Plant and cost of bond issuance are currently estimated in the range of \$1.5-2 million and ultimate construction of the fiber network is estimated between \$45-50 million. Funding is projected to be available in the Economic Development Trust Fund to fund the initial effort of bringing the project through initial engineering and design and bridge the gap for initial construction costs prior to bond issuance. Staff will return to Council with the final agreement and authorization to fund future costs for Council consideration in early 2016.

The public-private model is designed in order to make the system self-sustaining where the revenue generated through subscriptions is more than the debt service costs and maintenance for the City of Santa Cruz's investment. Through the partnership model, Cruzio is further motivated and rewarded for providing a competitive gigabit internet service product and delivering excellent sales and service to the consumer.

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ATTACHMENTS:

- CTC Fiber-to-the-Premises (FTTP) Financial Forecast Initial Report – July 2015
- CTC Fiber-to-the-Premises (FTTP) Financial Forecast Report Addendum – November 2015
- CTC Market Survey Analysis – November 2015
- Cruzio Internet, Inc. Market Survey Results – November 2015