

Summary of Approaches Proposed by CTC Technology & Energy

	Approach	Capital Expense	Impact on Broadband Availability	Likelihood Financial Success	Likelihood of Meeting Service Goals
FTTP	<p>A: City Offers Retail Services In addition to the FTTP network, the city owns and operates the network electronics and runs a business providing retail services</p>	<p>\$64.2 million citywide (or \$31.4 for low-density areas), at a 35 percent take-rate including drop costs</p>	High	Low	High
	<p>B. City Enables Open Access Same as A, except the City does not provide retail services; rather, it enables open-access services to approved ISPs</p>	<p>\$64.4 million citywide (or \$31.6 for low-density areas), at a 35 percent take-rate including drop costs (includes addition of management software)</p>	High	Low	Moderate
	<p>C. City Enables Private Open Access Provider Same as B, except that a third-party owns and operates the electronics and enables open-access services to ISPs</p>	<p>\$49.0 million citywide (\$30.8 million, low-density only) assuming City does not pay drop costs</p>	High	Low	Moderate
	<p>D. City Leases Dark FTTP The City only leases the dark FTTP to a private provider who owns and operates all electronics and provides retail service</p>	<p>\$49.0 million citywide (\$30.8 million, low-density only) assuming City does not pay drop costs</p>	High	Low	Moderate

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Middle Mile Fiber	<p>E. City Leases Dark Middle Mile City provides access to middle-mile fiber to third parties. The third parties own and operate last mile infrastructure—OSP and electronics—and provide retail services</p>	\$4.3 million	Low to Moderate	Low to Moderate	Low to Moderate
Incentives	<p>F: Offer Cash Incentives The City issues an RFP offering funds for any ISP willing to provide coverage guarantees with broadband service. Spectrum would be expected to respond, others might</p>	\$2.5 million to \$3.5 million (estimate based upon discussions with Spectrum)	Moderate to High	Moderate	Moderate
	<p>G. Expand Wireless Assets The City expands placement of poles and other assets for WISPs and streamlines permitting and other processes for underground fiber placement</p>	TBD, but minimal	Low	High	Low
	<p>H: Continue on Same Path The City supports pole additions as requested and streamlines permitting and other processes for underground fiber placement</p>	TBD, but minimal	Low	High	Low