

GONE DARK

New fiber network sparks questions about transparency, bidding practices and the model chosen

BY PAM ZUBECK & GRETA ANDERSON | ZUBECK@CSINDY.COM AND GRETA.ANDERSON@CSINDY.COM

COLORADO SPRINGS UTILITIES has launched a project that officials claim will give all residents an opportunity to access gig-speed internet and position the city as America's biggest so-called "gig city" with total coverage.

The city leapt into the project through questionable procurement practices, including increasing a \$244,940 consulting contract with The Broadband Group (TBC) of Las Vegas to \$73.5 million in less than a year — with scant competitive bidding.

Through interviews and records obtained through the Colorado Open Records Act, the *Indy* found:

- TBC got the contract without Utilities following a formal selection process and

adherence to other procedures. It then not only conducted the feasibility study, but also is helping develop the project, a practice business experts frown upon.

- The entire project, which includes building a fiber network to serve Utilities' own needs, with excess fiber capacity to lease to internet service providers (ISPs), has been shrouded in secrecy.

- Utilities staff never briefed the Utilities Board, comprised of City Council members, about financial details of the project in an open public meeting, and now Utilities refuses to disclose the data it relied on to push forward.

- Utilities also refuses to release key details, including the dollar amount, of a 25-year lease with its chosen "anchor tenant" ISP, Ting Fiber Inc., given first

crack at the excess fiber capacity. That means ratepayers can't know for sure if the fiber project makes sense practically or fiscally. The deal also raises questions regarding an April 2017 ballot measure preventing the city from selling or leasing substantial parts of Utilities property without a vote of the people.

- While Utilities officials contend that revenue from selling fiber network leases to ISPs will "significantly offset" the cost of the project, others say its design will preclude all but the anchor tenant, Ting, from participating. The model also does not guarantee Ting will provide services to all parts of the city.

- Similar projects conceived by TBC for other municipal utilities did bear positive results for utility service deliv-

ery, but their costs exceeded original estimates and haven't yielded a competitive environment for ISPs. These "successful" projects, though, are Utilities' basis for its chosen model.

Utilities CEO Aram Benyamin refused an interview, and in written responses to questions didn't comment on why time was a significant factor in quickly expanding TBC's contract.

Utilities officials say the project's lack of transparency protects ratepayers from risks of disclosing key information that could be exploited by competitors.

Now, as Utilities works to get fiber in the ground, two fiber-based internet companies have moved in to compete head-to-head for customers on their own networks and on their own dime.

HIGH FIBER

Utilities' contract with TBG swells 300-fold, to \$73.5M, in nine months

BY PAM ZUBECK | ZUBECK@CSINDY.COM

IN JULY 2020, COLORADO Springs Utilities hired a consultant to do a feasibility study for building an oversized fiber backbone network — and only nine months later expanded the project's scope, increasing the cost 300-fold.

The four-year contract with Las Vegas-based The Broadband Group (TBG) cited a cost "not to exceed" \$244,940.

But it morphed into a \$73.5 million, nine-year deal with far-reaching tasks, including tenant acquisition, construction oversight and design and engineering, according to records obtained by the *Indy* through the Colorado Open Records Act (CORA).

The Utilities Board — composed of City Council members — didn't approve the contract, because policy doesn't require it.



Utilities CEO Aram Benyamini

Though Utilities' *Excellence in Governance Policy Manual* promotes "competitive acquisition practices," it hired TBG for the feasibility study and then, through a "sole source" justification, amended the contract to add development tasks costing more than \$70 million.

Moreover, there's little evidence Utilities collected meaningful competing proposals prior to expanding TBG's deal.

Hiring the same firm that performs a feasibility study for actual project

development creates "an ethical minefield," a business management expert says.

The goal of the project is to improve existing fiber lines used by Utilities to manage electric, gas and water utilities and add excess capacity to be leased to internet service providers (ISPs) to deliver high-speed broadband capabilities citywide.

The entire project, which will cost \$600 million, according to a report in *Broadband Communities* magazine, has progressed under a cloud of secrecy. The consultant's reports the *Indy* received are heavily redacted and detailed briefings have been held in Utilities Board closed executive sessions that exclude the public.

Utilities at first said all purchasing rules were followed but later admitted a "misinterpretation" led to omission of a sole-source justification. It also said withholding information from the public assures ratepayers will get the best deal while Utilities complies with disclosure laws.

Asked why there's been little or no community engagement, CEO Aram Benyamini said in a statement, "This network is necessary to maintain modern utility systems.... Implementing a digital communications platform will allow us to connect every source and demand for utilities in our service territory with secure and reliable high-bandwidth communication."

RECORDS SHOW THAT UTILITIES refers to a Request for Qualifications for the feasibility study in internal email communications, but there was no posting of the fiber consultant work on a public website Utilities uses to



Metronet, a telecommunications company, will also build a fiber network and deliver internet services in the Springs.

advertise solicitations.

According to emails obtained by the *Indy*, three firms responded: The Broadband Group, which didn't provide a price quote; CTC Technology & Energy, of Kensington, Maryland, which did provide a price quote; and Stowe Utility Group, Chattanooga, Tennessee, which was deemed in May 2020 as lacking capacity because it was a "one-man show," a Utilities official noted.

The emails note all three were associated with a Huntsville, Alabama, fiber project.

On May 22, 2020, CTC provided a "fiber planning proposal," which was forwarded from one Utilities official to another with the advisory, "see attached from CTC this should help with the creation of a SOW [scope of work]."

Utilities withheld the CTC and TBG proposals from the *Indy*, citing a CORA trade secrets exemption. Stowe apparently didn't submit a proposal but rather a résumé.

On July 22, 2020, Utilities' chief energy services officer Travas Deal signed a professional services agreement with TBG, for one year with three one-year renewal options. The \$244,940 cost was to cover "conceptual fiber network architecture and system level design and market analysis"; a design cost estimate; a financial and business analysis, including a 10-year "functional financial model"; market analysis; identification of a private partner, and help with negotiating a specific agreement for such a partner; and "identifying and evaluating the political and regulatory feasibility concerns to executing a fiber network system...."

In other words, TBG was to conduct a feasibility study within six months.

In October, \$65,700 was added to the contract, with Utilities officials citing reasons in a sole-source justification as "fiber network design and engineering for the downtown Central Business District and the 'New Downtown' area" and "business necessity."

In February 2021, Utilities submitted a sole-source justification to its procurement department to increase the contract's cost by \$66 million, saying TBG was uniquely qualified.

The two-page form cited TBG's "unique/specialized skill set," fears that hiring another company would lead to "leaking information," and a savings of time and money, though procurement rules state that sole-sourcing "should not be used for lack of planning."



During a tour of the Downtown area in late March, the Utilities Board, composed of City Council, toured work on improving electric and gas lines.

"To align with another firm would have lengthened the overall project timeline by another six to eight months with additional money spent for the other firm to familiarize itself with the work conducted by The Broadband Group," Utilities says via email in response to the *Indy*'s questions.

The justification also cited TBG's "successful implementations" in Huntsville, Alabama, and Springfield, Missouri, and noted that Utilities had contacted two other firms deemed unfit for the work — CTC and Stowe.

continued on p. 14 →



→ continued from p. 13

Utilities has not produced evidence that CTC and Stowe were contacted again in 2021 before expanding TBG's contract to \$73.5 million.

Jay Stowe, who ran Stowe Utility Group from fall 2019 until he was hired in November 2020 as CEO of Jacksonville, Florida's power utility, served as president and CEO of Huntsville Utilities from 2014 to 2016 when the fiber project was launched with TBG as the consultant.

"I don't think I ever submitted anything formal," Stowe tells the *Indy*.

CTC didn't respond to requests for comment.

The two-page sole-source justification was approved by Utilities Telecommunications Enterprise Manager Brian Wortinger, who says in an interview he didn't know how Utilities came to hire TBG to begin with because it predated his April 2021 hire.

But he says he did know that the Huntsville project served as an incentive, because TBG helped

tenants "to improve the financial return metrics of the network." It also added tenant acquisition; pre-construction preparation; engineering; and network construction and activation.

That led TBG to select an anchor tenant — Ting Fiber, Inc., Charlottesville, Virginia — without an open competitive process.

Most of the financial information contained in TBG's report about the project, called Colorado Springs Utilities Fiber Network Expansion Plan, was redacted, before it was released to the *Indy*, making it impossible for ratepayers to determine whether the project is financially viable and how much it will cost.

Wortinger says confidentiality is required "to protect our ratepayers" by allowing Utilities to get the best deal with other ISPs that want to use the fiber system.

Utilities Board Chair Wayne Williams admitted he didn't

know the exact size of the contract until told by an *Indy* reporter on April 8, nearly a year after Utilities increased the contract's value.

"There are a number of contracts that I do not know the precise amount [of]," Williams said. "Some are presented [to Utilities Board], some are not."

Utilities policies don't require board approval of contracts.

SOLE-SOURCE CONTRACTING isn't unheard of but the rules are usually rigorous. Other agencies, including the federal govern-

ment, the state and El Paso County, require documentation of why a vendor is uniquely qualified. Some require an estimated cost outline and public posting of the intent to award a sole-source contract.

Utilities' procurement policies call for competition but allow personnel to acquire supplies, materials, equipment, construction or services costing up to \$99,999 without competitive bids, though three documented quotes are "highly encouraged."

Purchases of \$99,999 to \$249,999 require "three actual bids that are written," received by phone or email. If none can be found, "the file must be documented showing efforts made to obtain at least three bids."

Sole-sourcing requires officials to submit a request that contains "a price analysis to document rationale supporting price reasonableness." Neither sole-source request — for the feasibility study and project development — contained such an analysis.

Utilities now clarifies via email that the *Indy*'s questions prompted "a deeper review" of the contract's history and a realization that "a misinterpretation" of policies occurred at the time the \$244,940 contract was approved. Policy required a sole source justification prior to signing that \$244,940 contract, which didn't happen. "Staff will review them [policies] again to ensure sole source justification requirements are clear and adhered to in the future," Utilities says.

City Auditor Jacqueline Rowland ruled, in response to a complaint filed by Utilities watchdog Sam Masias in early March about the TBG contract, that purchases under \$250,000 "generally do not require a formal sourcing event." But she notes to the *Indy*, a review of policies was "in progress."

Utilities says it's spent \$2,956,207 on the fiber project so far; all but \$32,870 was paid to TBG.

Meanwhile, it appears others might have bid on the contract that went to TBG, given the chance.

Chris Kramer, vice president of Spectrum Planning of Saint Charles, Missouri, says his firm helps power cooperatives deliver fiber links to homes. "There are six companies I know that could have bid on this," he says.

Patrick Gault, chief revenue officer for JSI of Greenbelt, Maryland, says JSI is a "complete broadband" company that handles feasibility, engineering, implementation, design, deployment and compliance.

"We work with utilities leasing dark fiber to other ISPs," he says. "We've been heavily involved in electric co-ops where we helped them lease excess fiber to others." He also noted there are many similar broadband companies across the country.

HIRING THE SAME FIRM TO CONDUCT a feasibility study for a project and then to carry it out is considered bad business practice, experts say.

Andrew Clarke, president of Ground Floor Partners consultancy in Chicago, specializes in feasibility studies for counties and municipalities, industrial parks and manufacturing facilities. He says it's important that the consultant performing the feasibility study remain unbiased to give the client the unvarnished truth about a proposed project.

If serving in both [feasibility and development] roles on the same project, "My incentive to be positive about it are immense," he says, "because I stand to make millions of dollars [in developing the project]."

Told of the extension of TBG's contract, Clarke called it a "conflict of interest" and says if Utilities wanted to award TBG the project development work, a second feasibility study was in order to "get a different viewpoint."



Scott Van Ness, instructor of operations management in the UCCS School of Business, calls such a dual role "an ethical minefield."

Responding to *Indy* questions in which the players were not identified, Van Ness says, "Just from a smart business practice, I would always open that up and let other people have a shot at it. I would say don't limit yourself."

"It raises questions you don't need to have raised. It's almost like a case of what not to do," says Van Ness, who also serves as assistant director of the Daniels Fund Ethics Initiative at UCCS. "They may do everything right, but you just cast a shadow over the process [that] you didn't need to do. It's not good business."

continued on p. 16 →

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— CHRIS KRAMER

"successfully deploy" the same model Utilities wanted to build. (See "Mixed signals," p. 14.)

Wortinger later said via email TBG "had both the experience and capability to ensure a successful project."

After Wortinger approved the justification on April 21, the request navigated the procurement process in less than a day, records show. The contract extension increasing the contract to \$73,526,940 was signed on April 28, 2021.

The amendment added design and operation of network infrastructure for Utilities' purposes and design of the "dark" fiber for lease by third-party

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WAS A PUBLIC VOTE NEEDED?

In April 2017, Colorado Springs voters adopted Issue 1, a City Charter change that bars the city from selling, conveying or leasing "all or any substantial part of the property of Utilities" without a 60 percent majority vote of the people.

On Jan. 7, Colorado Springs Utilities announced it had signed a 25-year lease with Ting Fiber Inc., as the chief lessee, called the "anchor tenant," of Utilities' planned fiber network that will be overbuilt to allow excess to be used for Ting's customers.

Utilities Board Chair Wayne Williams asserts those two actions don't clash, because Utilities already leases strands from its existing fiber line to others, and Utilities says the Ting deal doesn't lease a "substantial part" of Utilities assets.

Whether a formal legal opinion about those factors was ever rendered isn't publicly known.

Ting was chosen without an open competitive process through Utilities' consultant, Las Vegas-based The Broadband Group (TBG), which itself went through a questionable hiring process and then saw its \$244,940 contract spike to \$73.5 million.

TBG stated in a report produced under its consulting contract: "TBG's interpretation is that the ordinance would not restrict the sale or lease of excess capacity to anchor tenants but recommends confirmation by legal counsel."

The *Indy* sought the legal opinion under the Colorado Open Records Act (CORA), but Utilities responded to the request saying, "No records exist."

Williams, a lawyer, seemed unaware of any such legal opinion and says, "To the extent there is an opinion that was shared with Council in executive session, if that were to exist, it would be attorney-client [privilege]."

That privilege is an exemption from disclosure under CORA.

Asked why the Ting lease doesn't violate Issue 1, Williams pointed to a built-in exemption in the ballot measure that allows for sales, leases or conveyances of property that occur "in the ordinary course of business."

He notes Utilities has long leased fiber strands from its existing line to others. Asked to name those entities, he wasn't able to identify any. (Utilities later said in an email that lessees include El Paso County and UHealth Memorial Hospital.)

That said, the Ting lease is the only lease of Utilities' fiber line since the ballot measure was approved that's triggered a news release and a news conference attended by Mayor John Suthers, Utilities Board members and Utilities CEO Aram Benyamin, who proclaimed the new line would make "Colorado Springs ... one of the largest gig cities in the country."

Also, this is the first time Utilities

has overbuilt the size of a fiber line with the intent of leasing excess capacity to a private company.

As for the "substantial part" criteria, Utilities says the leased fiber capacity falls below that threshold, though the fiber project is significant enough that Ting's parent company disclosed in a Securities and Exchange Commission filing its contractual obligation of \$593 million for the Colorado Springs project.



Utilities Board Chair
Wayne Williams

Moreover, Utilities cites a separate City Charter provision that limits "franchise, lease or right to use the property of the City ... for a longer term than twenty-five years."

It's worth noting the long-term Ting lease wasn't discussed in an open public meeting and details have been withheld under a CORA exemption for "trade secrets, privileged information, and confidential commercial [and] financial" data.

Andy Pico, who served on the Utilities Board before resigning in late 2020 to take a Colorado House seat, says Issue 1 stemmed from concerns the electric utility would be sold. A companion measure, Issue 3 on the April 2017 ballot, exempted the city from a state law barring cities from providing broadband service, which Pico says concerned him and others, "because it would put us in competition with others [internet service providers] and we didn't want to do that."

In contrast, city officials *did* ask voters to weigh in on a 40-year lease of city-owned Memorial Hospital to UHealth in 2012. Voters approved it overwhelmingly.

The city also refused to disclose in response to a CORA request a legal opinion on the decision to submit the Memorial lease to voters, saying if those documents exist, they would be protected under attorney-client privilege.

The Memorial lease was debated for two years in dozens of public meetings. A task force sought competitive proposals, and UHealth was chosen.

As Kevin Walker, who represented one of the bidders, said at the time, "We learned we can get through a process like this and come to the right conclusion in an open and transparent way."

— Pam Zubeck

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→ continued from p. 14

TBG President Jeff Reiman disputed that there's a conflict between performing the feasibility study and carrying out the project.

The city of Fountain opted to separate the two parts of its fiber project. Officials began investigating a broadband system in 2018 and posted a request for proposals (RFP) for a feasibility study in 2019. Twelve responses were received.

A staff committee reviewed them and chose Finley Engineering of Slayton, Minnesota, for the \$64,800 contract, Fountain's Technical Services Director Lisa Godwin says in an interview. The scope of work included reviewing potential designs, market analysis and financial modeling.

Finley's 148-page feasibility study was released to the *Indy* without redactions.

"We wanted to have someone to come in and walk us through the process, and we wanted to be fully transparent," Godwin says. "We were really interested in the own-and-operate model. But we wanted someone to be a realist to us whether or not that was feasible. Just because something in another community was successful doesn't mean it would be successful here."

Fountain opted for a partnership model, which led to a competitive process in which Underline Infrastructure Inc. was chosen.

BESIDES REDACTING PERTINENT market and financial data from TBG's report, Utilities has failed to brief the Utilities Board during public sessions. All briefings took place in closed executive session under the guise of legal advice and matters subject to negotiations, topics allowed for closed meetings by the Open Meetings Law.

Two days after a closed session on Dec. 15, 2021, CEO Benyamin signed the 25-year, no-bid contract with anchor tenant Ting Fiber. Utilities has refused to disclose how much Ting will pay, saying via email, "In order to negotiate with subsequent tenants most effectively on behalf of our customers, it would not be in their interest to provide the exact amount of the Ting lease payments."

As previously noted, much of the information in TBG's reports was redacted, but one report contains this cautionary statement: "It is impossible to calculate an Internal Rate of Return for the model's project option due to the periods of *negative cash flow* created by *debt service payments*." (Emphasis added.)

That conflicts with Utilities' statements that the fiber project will be funded with cash on hand, not debt.

Utilities also asserts that customer rates won't be increased to fund the project, but that money will come from "existing base rates." In 2022, for example, Utilities' budget contains \$390.4 million for capital projects, of which \$45 million has been set aside for the fiber project. It was unclear as of the *Indy's* press time which capital projects have gotten sidelined to fund the fiber line.

MIXED SIGNALS

Utilities promised a competitive internet environment; that's not what happened in other cities using this model

BY GRETA ANDERSON | GRETA.ANDERSON@CSINDY.COM

COLORADO SPRINGS UTILITIES paints its fiber broadband buildout as a win-win for ratepayers, bringing improvements to service delivery and access to multiple options for fast and reliable internet in all neighborhoods.

"It will be all about competition," Utilities CEO Aram Benyamin said during a Jan. 7 press conference announcing the project, indicating that multiple internet service providers (ISPs) would join the network.

"Ting [Fiber Inc.] is going to provide these services, but Ting is going to compete with anybody else that can provide the service cheaper, better, faster," Benyamin said at the time. Springs Utilities signed a 25-year agreement with ISP Ting to be first on the network.

Utility-owned fiber networks in other cities using the same model have delivered on the first half of this promise — improving utility operations — according to experts and officials involved with building these fiber "backbones."

But creating consumer-friendly competition between ISPs has not panned out. Also, the projects have run millions of dollars over original cost estimates. The projects including Springs Utilities, have the same

consultant, The Broadband Group (TBG), which devised the model and whose contract with Utilities saw a 300-fold cost increase in just nine months.

It's reasonable to wonder how the local project will fare, especially when experts disagree about which community broadband models provide the best outcome for internet subscribers, while also serving utilities' needs.

"It really depends on what your goals are when you set out," says Chris Mitchell, director of the Community Broadband Networks Initiative at the Institute for Local Self-Reliance, a national nonprofit.

THE BROADBAND WORLD HAS ITS OWN language and it isn't always easy to grasp.

One major debate — or "holy war," as Mitchell called it — is whether community broadband projects should be built as "open access" models. And what makes a network "open access" is itself debated.

Some consider the TBG model to be open access, because the backbones it produces are not explicitly restricted to one ISP, Mitchell says.

The TBG model is unique in the broadband world; it allows municipal utilities to expand their own fiber capacity and build excess infrastructure — called "dark" fiber strands — to lease to ISPs.

The model is appealing because it allows utilities to deliver traditional services and problem-solve more efficiently, leading to fewer outages. Plus, the buildout is theoretically largely funded by lease payments from the "anchor tenant" ISP, who signs on early to lease fiber, says Jeff Reiman, TBG president.

TBG and the municipal utilities using their model claim it creates a fiber network that's "non-exclusive" to any one ISP, and Springs Utilities' contract with "anchor tenant" Ting says as much.

But the model is not conducive to open competition between multiple ISPs, says Roger Timmerman, executive director and CEO of UTOPIA Fiber, one of the nation's oldest

...It doesn't ensure the best end result for the consumers.

— ROGER TIMMERMAN



“open access” fiber networks, owned by a consortium of 11 Utah cities.

Timmerman argues UTOPIA’s model is open access in its purest form: Cities own the infrastructure that connects all the way to residents’ homes, allowing them to freely switch between 16 ISPs, who compete for subscribers. This is similar to the model that Underline, a private company, is building in the city of Fountain, although the network will be privately owned.

By contrast Timmerman called the Huntsville Utilities project in Alabama, which uses the TBG model and was completed in 2020, “essentially a subsidy” for anchor tenant Google Fiber.

“It’s designed to make sure that Huntsville gets a city-owned system and that they’re able to pay their bills, but it doesn’t ensure the best end result for the consumers, in the sense that they should get a competitive open access system,” he says. “For various practical reasons, it’s not really feasible that they’d ever expect a lot of providers and competition on the system.”

These “practical reasons” are as follows. UTOPIA’s network provides “fiber to the home,” and the burden is on the city, which owns the network, to build and maintain the infrastructure that connects homes and businesses to the internet, Timmerman says. On the other hand, the TBG model relies on ISPs to install and manage their own infrastructure on this “last mile” of the network. As stated in the Colorado Springs Utilities Fiber Network Expansion plan authored by TBG, the tenant, Ting, “builds drop fiber as service is ordered” and “provides service connection.”

In other words, the TBG model “goes 30 to 40 percent of the way to solving the problem,” if that problem is the digital divide between the internet haves and have-nots in a community, Timmerman says. The model is “very dependent on private companies coming in and doing the rest,” and smaller ISPs are at a disadvantage, he says.

“If you’re lucky, maybe two [ISPs] can actually come in and finish the rest of the network and run and operate a successful system, because they’re going to have to do everything — they’re going to have to have technicians, they have to do their own locating and maintenance, repair,” Timmerman says. “That is a huge lift.”

ISPs may decide it’s not in their best interest to connect to certain neighborhoods, or to lease at all, if their return on investment (from paying internet subscribers) does not offset lease payments to utilities, says Jeremy Nelson, director of networking services

for Insight, a technology solutions company that has worked with cities on community broadband projects.

“We saw pockets of the country that ended up getting underserved during one of the hardest times in our country’s history” amid the pandemic, Nelson told the *Indy*. “It was all because it wasn’t financially viable for anybody to extend service into those communities.”

Reiman defends the TBG model. The network is “not built to advance broadband connectivity,” but rather to serve Colorado Springs Utilities’ internal needs, he told the *Indy*. The gig-speed internet access Utilities says all neighborhoods will gain from the fiber project — “that’s a byproduct,” he said.

He also contends that it’s better to put the financial burden of building the “last mile” on private companies versus utilities. Reiman noted that during UTOPIA’s first decade in existence, the organization was in tremendous debt — it’s more expensive and “logistically, incredibly challenging” to install fiber to the home in a community, and everyone may not even want it.

“There are open access evangelists and I get it,” Reiman says. “But the premise that it’s the only solution — it’s just categorically not true, and it doesn’t scale.”

Mitchell says different models are going to work better for different communities, depending on “what they’re trying to achieve.”

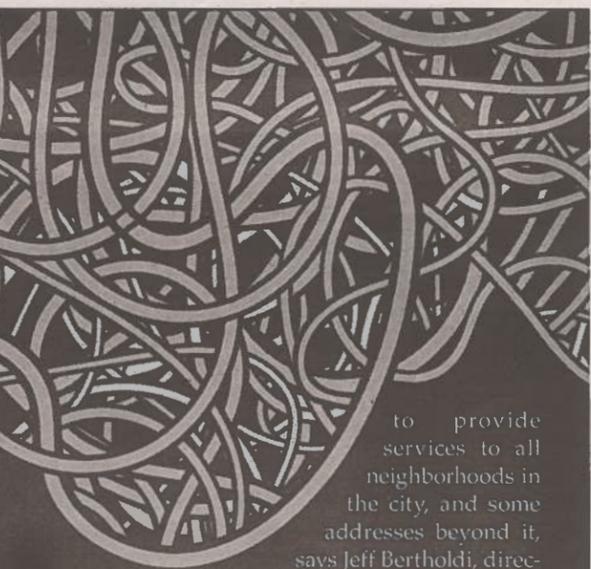
“There’s some cities for whom just getting that one additional, very high quality competitor is enough to shake up the market and bring lower prices and more investment,” he says.

SIX YEARS IN, A NEAR-IDENTICAL PROJECT to Utilities’ in Huntsville has resulted in only one ISP, anchor tenant, Google Fiber, providing gig-speed internet access to residents via the backbone. This is despite Huntsville Utilities’ 2016 agreement with Google Fiber that says the utility is free to lease additional dark fiber to other ISPs.

Public records also show that the Huntsville project and TBG model used in Springfield, Missouri, have seen cost overruns from their original estimates.

Huntsville Utilities, which finished its citywide fiber network in 2020, expects it will take a decade of full lease payments from Google Fiber to offset the \$110 million of capital it spent building the network. And HU plans to budget \$2 million each year moving forward to continue expanding the backbone.

For City Utilities in Springfield, anchor tenant Quantum Fiber (CenturyLink/Lumen) is the only ISP on CU’s not-yet-completed backbone that has agreed



to provide services to all neighborhoods in the city, and some addresses beyond it, says Jeff Bertholdi, director of SpringNet, CU’s internet service arm. Select subdivisions of the city also have access to ISP Total Highspeed, he says.

That has worked out great for customers, and addressed the “digital divide” between neighborhoods, Bertholdi told the *Indy*.

“We’re guaranteeing that you’ve got a gigabit option when you had zero,” he says.

Wes Kelley, CEO of Huntsville Utilities, said the backbone there has been a net positive for utility operations and, for now, they aren’t seeking more ISPs to offer retail internet services.

“Quite honestly, from a bandwidth perspective, we’re just still digesting what we’ve already done,” Kelley told the *Indy*. “We’re not looking to take it to the next level.”

Kelley and Bertholdi also addressed how their cities’ projects cost more than original estimates. The projects, mostly in terms of network design and size, grew, morphed and became more concrete over time, they say.

2021 financial statements published by CU show that an initial estimate of \$120 million for the fiber expansion project grew to \$145.5 million about two years into construction.

Multiple media outlets have reported that the estimated cost of expanding HU’s fiber backbone would be \$57 million — a figure that Kelley says he cannot find in HU records and that Reiman, of TBG, says is inaccurate.

HU actually ended up spending \$110 million over the course of the four-year project, according to Warne Heath, general counsel for HU, who responded in writing to a records request from the *Indy*.

Kelley did say that HU lacked “detailed engineering” for the network when it began construction in 2016, meaning the utility had not budgeted accurately. CU also started construction without a design and “never really formalized the budget,” Bertholdi says.

That’s typical of fiber projects, he says — they “are fairly fluid.” CU added 10,000 to 15,000 addresses to its fiber plan since the project started in 2019, and that accounts for much of the cost increase.

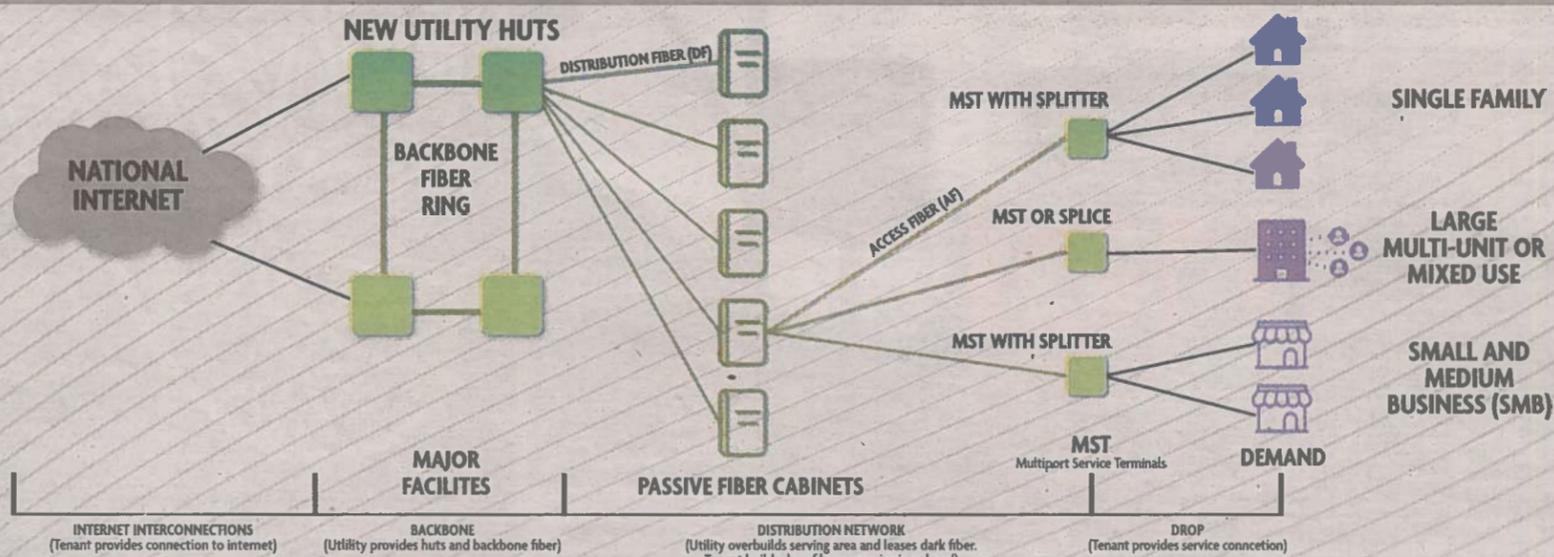
“You look at it completely differently than a very fixed approach to a construction project, ... because you’re not building a building, you’re building a net-

continued on p. 18 →



Wes Kelley, CEO of HU

MARKET-WIDE OVERBUILD LEASING ALL BUSINESS & RESIDENTIAL FIBER



A 2021 Fiber Network Expansion Plan prepared by TBG for Colorado Springs Utilities proposes this architectural design concept for the fiber network.

→ continued from p. 17

work, and networks are meant to grow constantly," Bertholdi says. "You're adding new customers, you're adding new revenue."

Kelley describes HU as being thrust into the project by city officials, because of their eagerness to become a "gig city."

"Because of the excitement around the project, it was go, go, go," Kelley told the *Indy*. "[HU officials] did not follow what I think is a more traditional municipal broadband, retail broadband approach, which is, you do the feasibility study, you do the market penetration analysis, then you engineer it, you develop your construction documents, then you go out for bid."

"That's not what Huntsville did," he adds — and evidently, it's not what Colorado Springs Utilities did either (see "High fiber," p. 13).

"Huntsville was on the express train," Kelley says. "They were moving and shaking while they were still getting all the details worked out."

As a result, the original accounting and plan for the project were way off. When Kelley became CEO in 2017, after the project was underway, the utility renegotiated and narrowed the services included in its \$4.46 million contract with TBG, from "general consulting services" to "very tangible construction-related activities," he explains.

The original TBG contract reads as if the group was contracted to provide full architectural, design and engineering services — a full rollout of the project. However, "that was not the way it was playing out," Kelley says.

"I think early on, there may have been an expectation that 'Oh, well, TBG will wrap all that in,'" he says. "However, I don't think TBG ever had that expectation."

Even in reducing the scope of the TBG contract, HU paid the firm about \$2 million more than the amount of the original contract, bringing TBG's payment to \$6.6 million, Kelley says.

This exercise was one of the most important lessons learned, he says. At industry conferences, Kelley instructs utilities officials to develop a detailed engineering plan, so that costs, fiber mileage and the role of firms contracted to complete the build are explicit before starting.

According to TBG's February 2021 fiber expansion plan for Colorado Springs, the group completed engi-

neering surveys and a "preliminary assessment" of the fiber network expansion, but the "Conceptual Fiber Design" is redacted on the copy the *Indy* received in response to its Colorado Open Records Act (CORA) request. About three months after the plan was delivered, Springs Utilities expanded its contract with TBG to include "Fiber Network Architecture and System Design and Engineering."

WHILE THE EXACT DESIGN PLAN IS unclear, Brian Wortinger, Springs Utilities' telecommunication enterprise manager, maintains that multiple ISPs can share space on the fiber backbone and will be able to compete for subscribers in the same neighborhoods.

"You can imagine it as an apartment building," he explains. "Ting might have three or four 'apartment units' out of 20 that are available in the 'hut.' And if we ran out of space in that 'apartment building' on that site, we can always build another 'apartment building' on that same site."

But even if the space for additional ISPs is available, it "of course" doesn't guarantee others will join, Wortinger says.

The Springs Utilities backbone will include 12 "colocation structures" or "huts" around the city that house Utilities equipment and extra "rack space" open for ISPs to lease, according to Wortinger. Of the "several hundred" available rack spaces, Ting will lease "likely one to two dozen" spaces, he says.

Additionally, Ting will lease "distribution fiber" and "access fiber" that connect their equipment to the backbone on one end and to Multiport Service Terminals (MSTs), neighborhood-based structures with ports for ISPs to "drop" equipment, on the other end.

The number of homes that each rack space, MST and hut connect to and the locations of these structures are redacted from the 2021 expansion plan and from Ting's agreement with Utilities, which the *Indy* received through its CORA request.

Wortinger also told the *Indy* that there is a spending plan for the project "laid out for each year," but detailed capital expenditures are redacted from the expansion plan. Utilities has maintained that the project, in total, will take six years

to complete and cost \$45 million to \$100 million each year, but has not said exactly how much the project will cost each year.

The annual cost range is large because there are "ramp up costs" early on in the project that will decrease over time, Wortinger says.

However, Wortinger told the *Indy*, "Ting's contribution does not completely offset the cost of the network," and a 2022 Securities and Exchange Commission filing by Tucows, Ting's parent company, says Ting's 25-year lease is worth about \$593 million, "based on a fully completed fiber-to-the-home network."

Media reports, most recently by the publication *Broadband Communities*, have called it a \$600 million project.

The rest of the construction costs, outside of what's covered by Ting, rely on Utilities capital, Wortinger says.

In Huntsville Utilities' experience, Google Fiber lease payments, which on the completed network are now up to \$7 million each year, allow for an "11-year payback" on project costs, Kelley says.

City leaders in Fountain aren't willing to take that financial risk.

Instead of building its own backbone, Fountain has an "informal partnership" with Underline, which is also building a private fiber network in parts of Colorado Springs.

Fountain officials considered investing in a city-owned fiber network, but found that the city didn't have the "financial means" or "political will" to pay an estimated \$3 million for it, says Dan Blankenship, the city's utilities director.

"If we were going to build it and operate it in-house, we would have to have generated all of the capital, and then we would have taken all the risk," Blankenship told the *Indy*. "And when I say 'we,' I mean that is ratepayers' money. We would have put all the burden and risk on our ratepayers."

