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**From**

# **UNDERSTANDING THE DEBATE OVER GOVERNMENT-OWNED BROADBAND NETWORKS:**

Context, Lessons Learned, and a Way  
Forward for Policy Makers

## **UTOPIA Case Study**

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## UTOPIA, Utah

The multi-city GON in Utah, dubbed UTOPIA, was initially seen as an ambitious attempt to marshal municipal resources in support of an open access FTTH network that would, eventually, deliver significant value to residents and business across every member city. For a number of reasons, UTOPIA has become financially problematic and has yet to deliver on many of the promises made by supporters prior to its launch.<sup>1</sup>

An emerging public-private partnership may eventually help to resurrect this network, but, thus far, the enormous costs of this network may overshadow any benefits that have emerged. As a result, UTOPIA offers a cautionary tale about municipal intervention into the broadband space. In April 2014, Macquarie expressed its desire to move forward with its plan to “build out the network, make it financially viable, assume the business risks and boost cash flow, ultimately retiring millions of dollars in public debt.”<sup>2</sup> To do so, Macquarie proposed a “new utility fee on all residents of cities that opt into its plan. Estimated at \$18 to \$20 a month, the charge per household would apply even for residents who don’t want its basic Internet service.”<sup>3</sup>

## Background

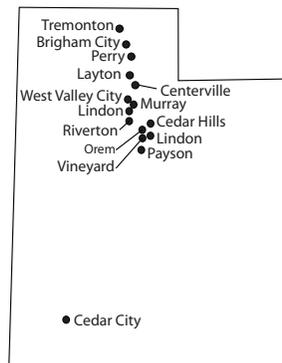
In 2002, 16 cities in Utah agreed to jointly build a fiber-optic network, with 11 of the 16 cities pledging to finance the project through bond issuances.<sup>4</sup>

The Utah Telecommunications Open Infrastructure Agency—UTOPIA—was formed to manage this endeavor.<sup>5</sup> In the following years, several of the member cities issued bonds to finance the project.<sup>6</sup>

The initial deployment plan for UTOPIA, circa 2003, was ambitious. It consisted of a three-phase build-out that would be completed in three or four years.<sup>7</sup> In 2005, UTOPIA’s board announced that the first phase had been a success—the network achieved “take rates high enough to meet business plan objectives.”<sup>8</sup> Shortly thereafter, however, the GON stumbled and subsequently entered a downward trajectory.

In June 2006, the agency found out that its new network might qualify for additional financing through the Rural Utility Service (RUS), a federal agency that funds rural electric utility and telecommunications projects.<sup>9</sup> RUS ultimately agreed to provide UTOPIA with up to \$66 million in debt financing if UTOPIA would prioritize network construction in rural cities with populations of less than 20,000 residents.<sup>10</sup> The agency accepted these terms and shifted its focus to bringing the network to its smaller member cities first.<sup>11</sup> The first installment of federal funds—\$21 million in total—was released in 2007.<sup>12</sup> Soon thereafter, RUS suspended its support of UTOPIA until it “improved its financial condition and developed a new business plan.”<sup>13</sup> As a result, UTOPIA spent several years attempting to resolve its dispute with RUS while also searching for additional funding to complete the network.<sup>14</sup> UTOPIA was able to obtain two rounds of refinancing via the creation of a sister program—the Utah Infrastructure Agency

## UTOPIA, Utah At-A-Glance



**Total Population of 15 Member Cities:**  
526,172 (2012)\*

**Year of Network Launch:** 2008

**Current Status:** Partially Built

**Number of subscribers:** 8,240

**Revenues:** \$11.7 million

**Operating Expenses:** \$12.4 million

\* Total Population 10 Cities Now Receiving Service:  
441,334 (2012)

**Note:** Additional information on the UTOPIA network is contained in Table 1 and in Appendix I.

(UIA)<sup>15</sup>—which qualified for up to \$65 million in debt financing.<sup>16</sup> In August 2010, UTOPIA obtained \$16.2 million from the federally funded Recovery Act to help install fiber-optic lines directly to subscribing homes and businesses.<sup>17</sup>

UTOPIA has not met its goals for deployment and adoption. In 2007, UTOPIA made service available to 37,160 addresses, less than one-third of its original goal.<sup>18</sup> Moreover, the take-rate was disappointing as well. UTOPIA expected to have 49,350 subscribers in 2007, but only had 6,161.<sup>19</sup> By 2011, UTOPIA began to rely on payments from its newly formed affiliate, the UIA, to cover most of its annual operating deficit.<sup>20</sup>

## Cost and Financing

The cost of UTOPIA has been very high: factoring in debt service and other payments, the total cost of the network approaches \$500 million.<sup>21</sup> Of this, \$185 million stems from long-term bond debt; the cost of the infrastructure itself was \$110 million.<sup>22</sup> Construction delays and lack of consumer interest required the network to use a significant amount of its bond proceeds to service its debt (\$48 million) and make up for operating deficiencies (\$27 million).<sup>23</sup>

UTOPIA has liabilities that total at least \$205 million.<sup>24</sup> This amount is expected to grow by \$13 million each year that UTOPIA runs an operating deficit.<sup>25</sup> According to a state audit in 2012, UTOPIA had total net assets of negative \$120 million.<sup>26</sup> Member cities are obligated to use taxpayer money to continue funding the network and servicing its debts until it is able to generate profits sufficient for these purposes.<sup>27</sup>

In December 2013, the financially troubled network announced an agreement with Macquarie Capital, a worldwide capital investment group, to work toward a public-private partnership.<sup>28</sup> Macquarie has invested in or advised on a number of public projects, including airports, roads, bridges, rail projects, sea ports, water and gas projects, and communications businesses in television, telephone, and radio.<sup>29</sup> It has a track record of bringing projects in on budget and on deadline.<sup>30</sup> The proposed partnership with UTOPIA hopes to complete deployment of the network infrastructure and increase its dwindling subscriber rate, while reducing costs.<sup>31</sup> Macquarie Capital will also assist with outside infusions of money, network design, buildout, finance and maintenance.<sup>32</sup>

The first stage of the partnerships entails an engineering and feasibility study to examine operational aspects of the current network and assess possible paths toward completion.<sup>33</sup> The ultimate goal is to develop a private-public partnership with any of the UTOPIA cities willing to participate, with Macquarie paying to build out network infrastructure and then operating it under a 30-year revenue-sharing contract.<sup>34</sup> The network will remain open access; Macquarie will partner with third-party service providers.<sup>35</sup> The member cities will continue to own the network and remain responsible for paying off the initial debt, while Macquarie Capital would be liable for any future debts.<sup>36</sup>

This emerging partnership is not without controversy. In the lead-up to the announcement, some 50 public officials from the network's member cities were required to sign non-disclosure agreements.<sup>37</sup> Many worry that this will undermine transparency, but UTOPIA's management believed that such discretion was needed to complete the deal.<sup>38</sup>

## The Network

UTOPIA is owned and operated by the following member cities: West Valley City, Centerville, Murray, Lindon, Brigham City, Tremonton, Midvale, Orem, Payson, Perry, Layton, Cedar Hills, Cedar City,

Vineyard, and Riverton.<sup>39</sup> The network is an open-access FTTH system, which means that UTOPIA “leases lines to private [ISPs] who deliver service to subscribers.”<sup>40</sup>

The network is partially operational and available to citizens of Brigham City, Centerville, Layton, Lindon, Midvale, Murray, Orem, Payson, Tremonton and West Valley City.<sup>41</sup> It intends to expand service to Cedar City, Cedar Hills, Perry, Riverton and Vineyard, but completion has been delayed by ongoing financial difficulties.<sup>42</sup> While the network is operating in many of its intended cities, it is still not 100 percent complete in any individual city; completion rates span from 0 percent in Perry to 96 percent in Brigham City and Tremonton.<sup>43</sup> Planners intended to pass through 141,000 addresses by September of 2007, but the network only passed 62,000 addresses as of June 2012, with 8,240 subscribers, or a 13 percent take rate, far below expectations.<sup>44</sup> UTOPIA had predicted it would have five times that amount by 2007.<sup>45</sup>

As an open access system, UTOPIA relies on local ISPs to provide customers with services. Some ISPs offer service only in one city, while some are systemwide. Brigham-net, for example, offers Internet, television, and telephone service only in Brigham City.<sup>46</sup> Customers can purchase a symmetrical 20 Mbps Internet connection for \$34.95 per month and can upgrade to a 50 Mbps connection for an additional \$5 per month.<sup>47</sup> A bundle including the 20 Mbps connection, television, and telephone costs \$124.90.<sup>48</sup> Several other options are available depending on the city.<sup>49</sup> Several different ISPs offer 1 Gbps connections in select areas.<sup>50</sup> The cost ranges from \$65 to \$75 per month.<sup>51</sup>

UTOPIA continues to operate at a loss, as it has done since its launch over a decade ago.<sup>52</sup> The network’s public-private partnership with Macquarie Capital may help alleviate these financial problems, but it cannot recover the system’s high startup costs over the past decade.

## Community Impact

Despite lofty aspirations about UTOPIA being a broadband utopia for residents and businesses,<sup>53</sup> there is broad agreement this GON has been a financial failure.<sup>54</sup> Criticism of this network has been sharp from residents, media outlets, and elected officials, some of whom were elected on anti-UTOPIA platforms. Brigham City Mayor Dennis Fife, who was elected in 2009 in part because of his criticism of the network, has repeatedly expressed disbelief that there is still support for the system after years of losses and hundreds of millions of dollars of debt.<sup>55</sup> There is a consensus that UTOPIA suffered from over-ambition, wasteful spending, poor planning, and ineffective leadership.

Citizens in particular have voiced criticism about the excessive and ongoing cost of a network that has yet to be fully built and is unable to generate enough revenue to service its debt and fund future deployments.<sup>56</sup> Citizens are particularly anxious about the financial state of UTOPIA because they are ultimately responsible for paying the bill. As discussed above, member cities are obligated to follow through on their pledges to provide sales tax revenue as security for their bonds.<sup>57</sup> This raises the possibility of tax hikes to cover these costs or a costly default that could devastate some or all of the member cities. Another route, which Orem recently took, is to continue issuing bonds in the hope that the system can turn itself around and implement a profitable business model.<sup>58</sup>

Perhaps the most scathing criticism of UTOPIA was included in a 2012 audit prepared at the request of the Utah state legislature.<sup>59</sup> The analysis concluded that the network had not met any of its expectations, that bond proceeds were used wastefully, and that management had done a poor job of planning and executing.<sup>60</sup> The report stated, “We believe an underlying problem throughout UTOPIA’s expansion is the lack of a carefully prepared development plan and policies to guide the construction of the network,” and when the committee asked to see planning documents for UTOPIA’s expansion, the “staff were unable to produce one.”<sup>61</sup>

## Assessment

To date, the failure of UTOPIA offers a number of important lessons for other cities now considering creating a GON. First, with regard to planning and managing expectations, the ambitious nature of the project led to a high-risk undertaking by local officials who were attracted by the promise of a FTTH network. The fanfare around this network, which was poised to be the largest of its kind when the project began, was fed by intense political pressure to deploy the network to every city at once.<sup>62</sup> This decision drove up costs without creating a single revenue-generating city network as a base to sustain future deployments.<sup>63</sup> As the network began to experience problems, this project stranded half-built infrastructure in some cities and left many others without anything to show for their investment.<sup>64</sup>

Second, and related, there was little effort to manage costs and adhere to a budget. Political pressure and the all-in mindset that drove UTOPIA from the start resulted in runaway costs that are now nearing a half-billion dollars. Initial concerns were countered by visions of using the new multi-city broadband network to encourage local economic development and transform these rural towns into competitive global hubs.<sup>65</sup> This has certainly not been the case as the network struggles to add subscribers.

In looking ahead to the future of UTOPIA, there continue to be different opinions as to the likelihood of future success. Some believe the network can be salvaged either by tweaking the business model<sup>66</sup> or continuing to build out in the hope more people will eventually subscribe and generate enough revenue to begin paying down debts.<sup>67</sup> The risk is that such determination to finish what has already been started will result in more debt, which in turn increases the likelihood of either a costly default or large tax hikes to continue servicing a mountain of debt.

UTOPIA's partnership with Macquarie Capital is a promising step toward getting the network on a more sustainable path and relieving taxpayers of future debt burdens. Nevertheless, the past, in the form of major debt loads and poor planning, weighs heavily on this network and may in due course lead to the conclusion that it failed to achieve its original ambitious objectives.

## Endnotes

- 1 Analyses of the failure of UTOPIA abound. See, e.g., Steven Titch, *Despite Glossy Reports, Muni Broadband is Still a Net Loser*, May 6, 2013, Reason, available at <http://reason.org/news/show/apr-2013-municipal-broadband>; Andrew Moylan and Brent Mead, *Municipal Broadband: Wired to Waste*, at p. 11-12, NTU Policy Paper #129, National Taxpayers Union (April 9, 2012), available at <http://www.ntu.org/news-and-issues/ntu-pp-128-municipal-broadband-wired-to-waste-1.pdf>. Numerous other analyses are cited *infra*.
- 2 See Tony Semerad, *Australian firm proceeds with plan to take over struggling UTOPIA*, April 29, 2014, Salt Lake Tribune, available at <http://www.sltrib.com/sltrib/home3/57881464-200/network-macquarie-utopia-cities.html.csp>.
- 3 *Id.*
- 4 See City of Orem, UTOPIA Information, <http://orem.org/index.php/public-information/utopia-information>.
- 5 UTOPIA was formed pursuant to Utah's Interlocal Cooperation Act. See Utah Code 11-13-101 et seq. available at, [http://le.utah.gov/code/TITLE11/hm/11\\_13\\_010200.htm](http://le.utah.gov/code/TITLE11/hm/11_13_010200.htm).
- 6 See *A Performance Audit of the Utah Telecommunication Open Infrastructure Agency*, at p. 2, Report to the Utah Legislature, No. 2012-08 (Aug. 2012), available at [http://le.utah.gov/audit/12\\_08rpt.pdf](http://le.utah.gov/audit/12_08rpt.pdf) (“UTOPIA Audit”).
- 7 *Id.* at 6.
- 8 *Id.* at 7.
- 9 *Id.*
- 10 *Id.*
- 11 *Id.*
- 12 *Id.*
- 13 *Id.*
- 14 *Id.*
- 15 “The UIA is network is...connected to UTOPIA fiber optic network pursuant to an Indefeasible Right of Use Agreement between UIA and UTOPIA, which grants UIA access to certain facilities of and capacity in the UTOPIA network.” See *Utah Infrastructure Agency Financial Statements—June 30, 2012*, at p. 2, Electronic Municipal Market Access, Municipal Securities Rulemaking Board (Dec. 13, 2012), available at <http://emma.msrb.org/EP732731-EP568532-.pdf> (“*Utah Infrastructure Agency Financial Statements—June 30, 2012*”).
- 16 *Id.*
- 17 See Cathy McKittrick, *UTOPIA in Layton and Centerville Grows through Federal Funds*, Aug. 3, 2011, Salt Lake Tribune, available at <http://www.sltrib.com/sltrib/news/52290138-78/utopia-centerville-layton-fiber.html.csp>.
- 18 UTOPIA Audit at p. 8.
- 19 *Id.*
- 20 *Utah Infrastructure Agency Financial Statements—June 30, 2012* at p. 8.
- 21 See Tony Semerad and Vince Horiuchi, *UTOPIA: Fiber-Optic Nirvana or a Nightmare with No Way Out?*, Dec. 3, 2012, Salt Lake Tribune, available at <http://www.sltrib.com/sltrib/news/55284692-78/utopia-network-fiber-west.html.csp> (“*UTOPIA: Fiber-Optic Nirvana or a Nightmare with No Way Out*”).
- 22 UTOPIA Audit at p. 11.
- 23 *Id.* at p. 13.
- 24 These encompass the \$185 million in revenue bonds, nearly \$16 million in notes to member cities, and \$4.4 million in other liabilities. *Id.* at p. 10.
- 25 *Id.* at p. 12.
- 26 *Id.* at p. 9.
- 27 *Id.* at p. 11.
- 28 See Genelle Pugmire, *UTOPIA Announces Partnership with Private Capital Company*, Dec. 20, 2013, Daily Herald, available at [http://www.heraldextra.com/news/local/central/orem/utopia-announces-partnership-with-private-capital-company/article\\_e364dbb4-6901-11e3-ad10-0019bb2963f4.html](http://www.heraldextra.com/news/local/central/orem/utopia-announces-partnership-with-private-capital-company/article_e364dbb4-6901-11e3-ad10-0019bb2963f4.html) (“*UTOPIA Announces Partnership with Private Capital Company*”).
- 29 See Vince Horiuchi & Tony Semerad, *Has Utah's UTOPIA network found a savior?*, Dec.19, 2013, Salt Lake Tribune, available at <http://www.sltrib.com/sltrib/money/57282051-79/macquarie-utopia-network-projects.html.csp>.
- 30 *Id.*
- 31 UTOPIA Announces Partnership with Private Capital Company.
- 32 *Id.*
- 33 *Id.*
- 34 *Id.*
- 35 *Id.*
- 36 *Id.*
- 37 See Tim Gurrister, *UTOPIA Officials Bullish about Possible Major Partnership*, Nov. 30, 2013, Standard-Examiner, available at <http://www.standard.net/stories/2013/11/30/utopia-officials-bullish-about-possible-major-partnership> (“*UTOPIA Officials Bullish*”).
- 38 See *Our View: UTOPIA Dealings Must be in Open*, Nov. 18, 2013, Standard-Examiner, available at <http://www.standard.net/stories/2013/11/15/our-view-utopia-dealings-must-be-open>.
- 39 See UTOPIA, Board Members, <http://www.utopianet.org/board-members>.
- 40 See UTOPIA, About, <http://www.utopianet.org/about-utopia/>. Utah law requires public entities to offer municipally-owned broadband services on a wholesale basis. See Utah Code 10-18-101 et seq.
- 41 See UTOPIA, FAQ, <http://www.utopianet.org/faq/>.
- 42 *Id.*
- 43 UTOPIA: *Fiber-Optic Nirvana or a Nightmare with No Way Out*.
- 44 See *Utah Telecommunication Open Infrastructure Agency, Financial Statements*, p. 2, June 20, 2012, UTOPIA, available at [https://web.archive.org/web/20130203105656/http://utopianet.org/uploads/files/177\\_UTOPIA\\_Report\\_2012\\_-\\_Final.pdf](https://web.archive.org/web/20130203105656/http://utopianet.org/uploads/files/177_UTOPIA_Report_2012_-_Final.pdf).
- 45 *Id.*

46 See Brigham-net, Home, <http://www.brigham.net/>.  
47 See Brigham-net, UTOPIA, <http://www.brigham.net/utopia.htm>.  
48 *Id.*  
49 See UTOPIA, Providers, <http://www.utopianet.org/providers/>.  
50 See *UTOPIA Service Providers Reduce Price of Utah's Fastest Internet Connection*, Sept. 15, 2013, UTOPIA Net, available at <http://www.utopianet.org/utopia-service-providers-reduce-price-of-utahs-fastest-internet-connection/>.  
51 *Id.*  
52 *UTOPIA: Fiber-Optic Nirvana or a Nightmare with No Way Out*.  
53 See, e.g., Steven Cherry, *A Broadband Utopia*, April 28, 2006, IEEE Spectrum, available at <http://spectrum.ieee.org/computing/networks/a-broadband-utopia> (“*Broadband Utopia*”).  
54 See, e.g., *UTOPIA: Fiber-Optic Nirvana or a Nightmare with No Way Out* (highlighting discontent).  
55 *UTOPIA: Fiber-Optic Nirvana or a Nightmare with No Way Out*.  
56 *Utopia Audit* at p. 11.  
57 *Id.*  
58 See Emiley Morgan, *Orem Pledges \$24M Bond to Fund UTOPIA Construction*, Feb. 28, 2013, Desert News, available at <http://www.deseretnews.com/article/865574488/Orem-pledges-24M-bond-to-fund-UTOPIA-construction.html?pg=all> (“*Orem Pledges*”).  
59 See generally *Utopia Audit*.  
60 *Id.*  
61 *Id.* at p. 24.  
62 *Id.*  
63 *Id.*  
64 *Id.* at p. 16.  
65 See, e.g., *Broadband Utopia; UTOPIA: Fiber-Optic Nirvana or a Nightmare with No Way Out*.  
66 See, e.g., *Orem Pledges* (discussing a recent bond issuance by a member city and the negative response by residents).  
67 See, e.g., *UTOPIA: Fiber-Optic Nirvana or a Nightmare with No Way Out* (quoting optimistic UTOPIA executives).

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