

# Municipal Broadband: Optimistic Plan, Disappointing Reality

## A Study of the BVU OptiNet and Lafayette Utilities System Plan

By Steven Titch<sup>1</sup>

### 1. Introduction

The American Power Association reports 480 municipal utilities or public utility districts (PUDs) offer some form of broadband service. Only a small subset have chosen a fiber to the premises (FTTP) platform.

According to the May 2005 Fiber-to-the-Home Council Report, 25 municipal or PUD FTTP systems are operational. This represents about 6 percent of the total 398 FTTP systems in the country as of this writing. Some of these are city- or town-wide, but many are described as limited to real estate developments.<sup>2</sup>

Cross-referencing the FTTH Council's list against local newspaper reports and an interactive map on the CNET News Web site suggests a total of 48 municipal FTTP systems have been

This paper compares financial data from OptiNet, an FTTP system serving the Bristol, Virginia area, and an FTTP system proposed for the city of Lafayette, Louisiana.

---

<sup>1</sup> Steven Titch is senior fellow - IT and telecommunications for The Heartland Institute and managing editor of its monthly publication, *Info Tech & Telecom News*. The Heartland Institute is a 21-year-old nonprofit research organization based in Chicago.

<sup>2</sup> FTTH Council, Fiber Optic Communities of the United States (FOCUS), Telecommunications Industry Association, "U.S. Optical Fiber Communities 2005," May 10, 2005.

proposed.<sup>3</sup> Of that total:

- ! 16 are operating—that is, they have begun to offer services to consumers and businesses, although not necessarily throughout the entire franchise area.
- ! seven are stalled—that is, funding has been approved or construction has started, but delays—financial, technological, or legal—have impeded or halted progress on the project.
- ! two are in development—that is, are proceeding with construction as per plan.

LUS presents OptiNet as an example of a successful implementation of an FTTP platform and aims to use it as a model for the Lafayette system.

- ! two have been terminated, either due to sale or voter action.
- ! 21 are still in a proposal stage—they have either been floated as a concept for a community or have a feasibility plan in place. They may or may not go forward.

This paper compares financial data from OptiNet, an FTTP system serving the Bristol, Virginia area, and an FTTP system proposed for the city of Lafayette, Louisiana. We chose these two FTTP projects for three reasons.

- ! LUS presents OptiNet as an example of a successful implementation of an FTTP platform and aims to use it as a model for the Lafayette system.<sup>4</sup>
- ! The OptiNet business plan was developed by CCG Consulting Inc., the same consultant that has created the feasibility plan for LUS.
- ! Bristol, following requests by The Heartland Institute and Fiber 411, a Lafayette citizens group, released its annual income/expense statements. Between April 1 and April 13, The Heartland Institute requested the same information from Tacoma Power and the Borough of Kutztown, Pennsylvania—both of which have claimed in the media and on Web sites to be running FTTP systems that are meeting their costs<sup>5</sup>—but that material had not been provided as of May 10, 2005.

---

<sup>3</sup> [http://netscape.com.com/Municipal+broadband+and+wireless+projects+map/2009-1034\\_3-5690287.html](http://netscape.com.com/Municipal+broadband+and+wireless+projects+map/2009-1034_3-5690287.html)

<sup>4</sup> “Bristol, Virginia—A Success Story Inspires a New Chapter in Lafayette’s History,” <http://www.lus.org/site180.php>.

<sup>5</sup> “Our commercial revenues are covering our operating expenses,” wrote Diane R. Lachel, government and community relations manager for the Click! Network, Tacoma Power, in a letter posted on the Illinois Tri-Cities’ Fiber For Our Future site, <http://www.tricitybroadband.com/failures.htm>. “Backers point to a number of smaller efforts that have fared well since taking the leap, including Kutztown, Pa.,” writes Jim Hu, staff writer for CNET News.com, in “Tangled Up in Fiber,” [http://news.com.com/Tangled+up+in+fiber/2009-1034\\_3-5681122.html](http://news.com.com/Tangled+up+in+fiber/2009-1034_3-5681122.html).

## 2. Background

The fiscal problems of municipal broadband systems have been documented since the late 1990s. Most have failed to achieve their revenue goals and have required additional financing. Others have been sold or closed. Still others remain stalled as their backers look for financing.

Critics say these reports are dated and do not reflect the growth and maturity they claim municipal broadband systems have experienced in recent years.

The fiscal problems of municipal broadband systems have been documented since the late 1990s.

Since the term “municipal broadband” can cover a lot of ground, in advance of any analysis, it is essential to define the parameters.

*Broadband networks used by city government agencies*—These systems link city departments and provide Internet and World Wide Web access for municipal government employees. Access to these networks is not available to the general public. The city uses the network much like a corporation does—to facilitate communications, store data, host department Web sites, and streamline processes. Usually the city operates its own backbone using fiber or wireless.

*Wholesale broadband backbone networks*—The city owns and operates the backbone portion of these networks, offering connectivity to commercial Internet service providers, who then resell the capacity to businesses and consumers. The resellers are responsible for the “last mile” access link to customers, as well as marketing and customer service. The city participates through a revenue-sharing agreement or other such partnership. These systems usually grow out of government backbones described above. The broadband system planned for Provo, Utah is an example. The cost of these backbones usually has been covered by earlier revenue outlays. These systems often operate in competition with commercial network service providers who own their networks.

*Broadband networks to the home or business*—The municipality builds a complete end-to-end telecommunications system designed to deliver cable TV, high-speed Internet, and telephone service to every home and business in its jurisdiction. The platform choice is usually fiber optics. Under such a plan, the municipal utility company usually undertakes responsibility for planning, construction, purchasing, marketing, and billing. These are the most ambitious and expensive municipal broadband networks.

A common argument for the municipalization of broadband is that it is the twenty-first century equivalent of critical infrastructure-based services that municipalities have provided in the past, particularly power, water, sewer, and single-line narrowband telephone.

“Just as roads, bridges, power, water, and sewers have been essential infrastructure for the last 100 years, we consider fiber optic networks to be the vital infrastructure of the 21st century,”

LUS writes on its Web site.<sup>6</sup> “Private businesses can’t, or won’t, provide a complete fiber optic network to every home and business in the community because there is no profit incentive for them to do so. As your citizen-owned utility system, we believe it’s our responsibility to provide each and every member of the community with access to the telecommunication systems of the future.”

This notion that municipal broadband is like other public utilities is wrong for several reasons.

The Consumer Federation of America, Media Access Project, and Free Press reiterated this point in a joint report released in April 2005. “Municipal broadband plays a critical role in making the goal of universal deployment a reality. Traditionally, local governments have

proven vital in deploying necessary infrastructure. For example, local governments built municipal power systems as part of the efforts to electrify America in the first part of the 20th Century.”<sup>7</sup>

This notion that municipal broadband is like other public utilities is wrong for several reasons. Municipal broadband is unlike traditional utilities in many ways, some of them summarized in Table 1 on the following page. For example, municipal water and electricity are generally provided in a monopoly environment. Municipal broadband, by contrast, is generally a competitive alternative that requires extensive promotion and advertising to maintain and grow revenues and market share. Moreover, utilities require high investment up front, but low investment thereafter combined with lengthy amortization of infrastructure. Broadband requires not only high investment upfront, but continued high investment thereafter. Technology cycles are short, and frequent upgrades and change-outs are necessary.

The related notion, that municipal broadband follows a long history of successful municipalization of other services, has been strongly criticized for being inaccurate. Joseph Bast, president of The Heartland Institute, for example, writes, “In most cities, the competitive private sector was delivering [street lights, roads, and bus service] at low and falling prices before municipalization. Governments intervened, often with price controls and heavy assessments, and drove the companies into bankruptcy or took them over through eminent domain powers.”<sup>8</sup>

“Historically,” notes Bast, “municipalization of those services didn’t follow market failure, it *caused* market failure. The same would be true in broadband.”<sup>9</sup>

---

<sup>6</sup> <http://www.lus.org/site140.php>.

<sup>7</sup> Harold Feld, Gregory Rose, Mark Cooper, Ben Scott, *Connecting the Public: The Truth About Municipal Broadband*, Consumer Federation of America, Media Access Project, Free Press (Joint Report), April 2005, page 2.

<sup>8</sup> Joseph Bast, “Free Wi-Fi? There’s No Such Thing,” *Pittsburgh Post-Gazette*, March 13, 2005.

<sup>9</sup> *Ibid.*

<b>Table 1</b>		
<b>Characteristics of Conventional Public Utilities vs. Broadband</b>		
<b>Characteristic</b>	<b>Water, Power, and Landline Dial-Tone</b>	<b>Broadband Services</b>
Upfront investment	High	High
Ongoing investment	Low	High
Incremental cost of additional users	Low	High
Marketing costs	Low	High
Business model	Stable, predictable from year-to-year	Unstable, prone to disruption
Value proposition necessary for sustained market share	No	Yes
Allows long-term (>20 years) plant amortization	Yes	No
Predictable costs and revenues	Yes	No
Barriers to competitive entry	High	Low
Consumer price elasticity	Low	High
Speed of technology cycles	Slow	Fast
Nature of competition	Regulated and price controlled, where permitted	Unregulated; no price controls
<i>Source:</i> The Heartland Institute		

### **3. Analysis of Bristol Virginia Utilities OptiNet**

Bristol, Virginia is a town of approximately 17,400 people and 8,000 households.

OptiNet launched cable TV, Internet, and phone service in 2002. As of its fiscal year ended June 30, 2004, it had a net operating loss of \$3.3 million. (See Table 2.) The 2004 loss was a 25 percent improvement over 2002, when OptiNet lost \$4.4 million. Even so, the loss came despite a sizable increase in revenues to \$4.7 million in 2004 from \$754,000 in 2003.

OptiNet’s shortfalls are a function of its escalating operating expenses, which increased 67 percent to \$6.5 million in 2004 from \$3.9 million in 2003. Operating costs in 2003 represented a 148 percent increase over 2002. Non-operating costs, principally interest expenses, were \$1.5 million in 2004.

Going into its third full year of operation:

- ! BVU OptiNet had experienced revenue growth of 517 percent over 2003, from \$754,000 to \$4.65 million.
- ! Losses decreased from \$4.4 million to \$3.3 million.
- ! Overall debt stood at \$42.4 million and the unit's net deficit stood at \$8.6 million.

	2002	2003	2004
Total Operating Revenues	\$409,878	\$754,192	\$4,654,103
Total Operating Expenses	\$1,560,595	\$3,877,321	\$6,465,116
Total Non-Operating Expenses	\$156,763	\$1,290,794	\$1,508,985
<b>Net Loss</b>	<b>\$1,307,480</b>	<b>\$4,413,923</b>	<b>\$3,319,998</b>

OptiNet's costs stem from its need to compete in the broadband market. The chief contributors to OptiNet's deficit are the cost of promotion and marketing, the cost of programming, and the cost of borrowing. All three are examined in this section.

### **3a. Broadband Requires Marketing**

When a new housing development is built, a municipal power and water company can count on serving every new home. It can calculate the costs of getting infrastructure to every home in the development against the revenues it will receive from every single home. From there, it can project reliable cash flow forecasts for the future.

A municipal broadband provider, however, cannot count on the 100 percent uptake that a municipal power or water company can. Yet would-be municipal broadband providers sell their business plans as if this were the case, or set extremely optimistic goals, as in Lafayette's case, of attaining 50 percent within four years.<sup>10</sup> BVU has not disclosed cable or high-speed Internet penetration, but it is believed to be less than 50 percent.

---

<sup>10</sup> CCG Consulting Inc., "Feasibility Study Report: Fiber to the Home for Lafayette, Louisiana," October 18, 2004, page 17.

By contrast, in the commercial market, Comcast, which leads in market share among broadband Internet service providers, averages just 18 percent penetration across all of its markets. The national broadband penetration rate is 45 percent.

Although it is the opinion of many that broadband is “a necessity,” the market has yet to validate that opinion. If broadband were indeed a necessity, there would be 100 percent uptake in areas where it is available, as is true with electricity and water. On the contrary, *broadband needs to be marketed.*

If broadband were indeed a necessity, there would be 100 percent uptake in areas where it is available, as is true with electricity and water. On the contrary, *broadband needs to be marketed.*

In Bristol, the municipal broadband system is being sold against at least four other companies that already provide phone, Internet, and cable TV in their respective areas—Sprint, Charter Communications, DirecTV, and Dish Network. In Lafayette, LUS will face similar competition from BellSouth, Cox Communications, DirecTV, and Dish Network.

In 2004, BVU OptiNet spent more than \$220,000 on sales promotion. (See Table 3.) This is the cost of advertising, promotional material such as brochures and handouts, and any event sponsorships designed to build brand awareness or enroll customers. Those costs were more than double the \$96,000 OptiNet spent in 2003. For every revenue dollar in 2004, OptiNet spent about 5 cents on promotion.

By contrast, BVU’s electric utility—which has no competition and offers a service that is a necessity—spent \$44,500 on sales promotion in 2004. That is about two-tenths of a cent on each revenue dollar. Water and wastewater units had no promotion costs at all.

### **3b. Cable TV Incurs High Programming Costs**

BVU’s balance sheets include the line item “Communications.” That expense increased 88 percent to \$2.86 million in 2004 from \$1.52 million the previous year.

BVU does not describe what these costs are, and the company did not respond to inquiries seeking clarification. It can be assumed, however, that these expenses, which do not have counterparts in the other utility operations, include the cost of programming acquisition for OptiNet’s cable TV service.

Programming acquisition is the most volatile cost in the cable industry today. In their respective 2004 annual reports, the major cable companies reported the following increases in programming acquisition costs over 2003:

<b>Table 3</b>				
<b>BVU Annual Itemized Costs</b>				
<b>OptiNet vs. Other BVU Operations</b>				
	<b>OptiNet</b>	<b>Electric</b>	<b>Water</b>	<b>Wastewater</b>
2002				
<b>Communications*</b>	\$0	\$0	\$0	\$0
<b>Billing and Collection</b>	\$0	\$621,162	\$102,758	\$104,809
<b>Sales Promotion</b>	\$0	\$57,784	\$0	\$0
<b>Administrative and General</b>	\$98,964	\$1,757,141	\$415,009	\$297,400
<b>Interest Expense</b>	\$251,253	\$650,781	\$130,095	\$50,526
2003				
<b>Communications*</b>	\$1,519,552	\$0	\$0	\$0
<b>Billing and Collection</b>	\$62,950	\$724,319	\$156,255	\$153,900
<b>Sales Promotion</b>	\$95,755	\$38,800	\$0	\$0
<b>Administrative and General</b>	\$1,395,695	\$1,940,203	\$661,062	\$449,266
<b>Interest Expense</b>	\$1,392,487	\$496,719	\$45,951	\$37,855
2004				
<b>Communications*</b>	\$2,861,101	\$0	\$0	\$0
<b>Billing and Collection</b>	\$467,377	\$818,863	\$355,753	\$344,620
<b>Sales Promotion</b>	\$221,775	\$44,569	\$0	\$0
<b>Administrative and General</b>	\$1,178,419	\$1,925,032	\$856,015	\$745,277
<b>Interest Expense</b>	\$1,603,011	\$827,154	\$69,358	\$79,580
* Believed to include programming acquisition costs but not confirmed				

! Comcast: 6.1 percent;<sup>11</sup>

! Time Warner Cable: 12 percent;<sup>12</sup>

---

<sup>11</sup> Comcast 2004 Annual Report, page 22.

<sup>12</sup> Time Warner, 2004 Financial Information, page 29.

! Cox: 11 percent;<sup>13</sup>

! Charter: 8 percent.<sup>14</sup>

Among municipalities, the cost of programming is often cited as the reason for rate increases. OptiNet increased rates in July 2004 to offset increases in programming costs.<sup>15</sup> Elsewhere, the municipal system in Paragould, Arkansas has had to make annual increases it calls “programming cost adjustments.” Ashland Fiber Networks (now facing serious financial problems) has had to group popular but expensive cable channels, including ESPN, FX, and TNT, into its higher-priced tiers.<sup>16</sup>

The cost of programming is often cited as the reason for rate increases. OptiNet increased rates in July 2004 to offset increases in programming costs. Elsewhere, the municipal system in Paragould, Arkansas has had to make annual increases it calls “programming cost adjustments.”

### **3c. Interest Expense Continues to Grow**

OptiNet’s interest expenses have grown from \$251,253 in 2002 to \$1.4 million in 2003 to \$1.6 million in 2004. OptiNet’s interest expense is almost twice that of the BVU electric operation.

Moreover, the electric, water, and wastewater units have significant interest income, which offsets some of the expense. For example, while BVU electric had \$827,154 in interest expense, it also had \$643,120 in interest income, resulting in net interest expense of \$215,705. OptiNet’s \$1.6 million in interest expense was offset by only \$94,026 in interest income. Its net non-operating expenses were \$1.5 million, accounting for 81 percent of BVU’s total net interest expense.

---

<sup>13</sup> Cox Communications, “Cox Communications Announces Third Quarter and Year-To-Date Financial Results for 2004,” page 3. This was the last Cox financial report prior to a management-initiated buyout. The company is now privately held.

<sup>14</sup> Charter Communications, “Charter Reports Fourth Quarter and Annual 2004 Financial and Operating Results,” page 1.

<sup>15</sup> BVU News Release, “Bristol Virginia Utilities Requests Cable Rate Increase Effective July 1, 2004,” May 11, 2004, <http://www.bvub.com/index.htm>.

<sup>16</sup> AFN’s channel line-up and pricing can be viewed at <http://www.ashlandfiber.net/tv/channels.htm#3>. Its Tier 3 Basic Plan, which is required in order to receive channels such as ESPN, TNT, FX, Fox Sports Northwest, A&E, and the History Channel, is \$34.95 a month.

BVU's financial reports show OptiNet has had two sources of funding: revenue and refunding bonds and interfund transfers from BVU's electric unit.

**Revenue and refunding bonds.** As of June 30, 2004, OptiNet's long-term liability stood at \$27.49 million, compared to \$23.86 million for all other BVU operations combined. This OptiNet debt will be paid over 26 years, resulting in total estimated interest costs of \$20.8 million.<sup>17</sup>

As of June 30, 2004, OptiNet's long-term liability stood at \$27.49 million, compared to \$23.86 million for all other BVU operations combined.

**Intercompany transfers.** In addition, OptiNet owes BVU's electric operation \$14.89 million for loans for system construction.<sup>18</sup> Those loans, at interest rates ranging from 3.77 to 5.99 percent, are scheduled to be repaid over the next 20 years.

OptiNet's liabilities exert their weight on the balance sheet. OptiNet's net deficit in 2004 was \$8.6 million, about \$1,075 per Bristol household. That was a 36 percent increase over 2003.

#### 4. Analysis of Lafayette Utilities System (LUS) Proposal

As previously argued, it makes sense to examine the LUS feasibility plan for Lafayette alongside OptiNet's results. The income/expense projection for the first five years of the prospective LUS Communications Division, as it appears on page 8 of the CCG Feasibility Study, is reproduced on the following page in Table 4.

The success of the plan is tied to extremely fast growth of revenues—faster and more aggressive than OptiNet has seen in its market. CCG sees nearly \$2.2 million in total revenues by the end of Year 2 (the first full year of residential service). That compares well to \$754,000 for BVU, if we weight the figure for the respective number of households in each community.

CCG expects a similar growth spurt in the third year, a 377 percent increase, to \$10.4 million. For Year 4, CCG forecasts a near 100 percent increase in revenues, to \$20 million. And for Year 5, CCG predicts a near 50 percent increase, to \$29.1 million. By the end of Year 5, CCG forecasts LUS will have 50 percent of the cable TV market in Lafayette.

How realistic are these projections? Based on the actual performance of the OptiNet system—which LUS itself says is a model and whose business plan also was written by CCG—the answer is: Not very.

---

<sup>17</sup> Bristol Virginia Utilities, Financial Report Year-ended June 30, 2004, pages 15-16.

<sup>18</sup> Ibid, page 13.

**Table 4**  
**LUS Projected Operating Revenues/Expenses**  
**Years 1 Through 5 (in \$000s)**

	Year 1 (2005)	Year 2 (2006)	Year 3 (2007)	Year 4 (2008)	Year 5 (2009)
Telephone	\$0	\$403	\$3,574	\$6,914	\$9,314
Data	\$0	\$141	\$1,535	\$3,257	\$4,857
Cable TV	\$0	\$344	\$3,803	\$7,989	\$12,591
Wholesale	\$1,048	\$1,296	\$1,577	\$2,117	\$2,756
Less Bad Debt	\$0	(\$12)	(\$127)	(\$265)	(\$394)
<b>Total Operating Income</b>	<b>\$1,048</b>	<b>\$2,172</b>	<b>\$10,362</b>	<b>\$20,012</b>	<b>\$29,124</b>
Cost of Goods Sold	\$0	(\$171)	(\$1,798)	(\$3,856)	(\$5,834)
Operations	(\$666)	(\$2,711)	(\$3,697)	(\$3,699)	(\$3,744)
Sales/Marketing	(\$270)	(\$484)	(\$505)	(\$409)	(\$363)
Customer Service	\$0	(\$406)	(\$742)	(\$892)	(\$1,003)
Administration	(\$1,119)	(\$1,646)	(\$1,691)	(\$2,408)	(\$2,979)
<b>Total Operating Expenses</b>	<b>(\$2,055)</b>	<b>(\$5,418)</b>	<b>(\$8,433)</b>	<b>(\$11,264)</b>	<b>(\$13,923)</b>
<b>EBITA</b>	<b>(\$1,007)</b>	<b>(\$3,246)</b>	<b>\$1,929</b>	<b>\$8,748</b>	<b>\$15,201</b>
Depreciation/Amortization	(\$351)	(\$3,844)	(\$6,862)	(\$8,588)	(\$9,991)
Interest Expense-Bond	\$0	\$0	\$0	(\$4,640)	(\$5,211)
Interest Expense-LUS Transfer	\$0	\$0	\$0	(\$388)	(\$380)
ILOT and Taxes	\$0	\$0	\$0	\$0	\$0
<b>Total Non-Operating Expenses</b>	<b>(\$351)</b>	<b>(\$3,844)</b>	<b>(\$6,862)</b>	<b>(\$13,616)</b>	<b>(\$15,582)</b>
<b>Net Income</b>	<b>(\$1,358)</b>	<b>(\$7,090)</b>	<b>(\$4,933)</b>	<b>(\$4,868)</b>	<b>(\$381)</b>
<b>Reconciliation to Income Available for Debt Service</b>					
Depreciation/Amortization	\$351	\$3,844	\$6,862	\$8,588	\$9,991
Interest Expense-Bond	\$0	\$0	\$0	\$4,640	\$5,211
Interest Expense-LUS Transfer	\$0	\$0	\$0	\$388	\$380
Increase in Accounts Payable	\$211	\$371	\$120	\$236	\$222
Increase in Accounts Receivable	(\$96)	(\$264)	(\$503)	(\$804)	(\$759)
<b>Income Available for Debt Service</b>	<b>(\$892)</b>	<b>(\$3,139)</b>	<b>\$1,546</b>	<b>\$8,180</b>	<b>\$14,664</b>
<b>Debt Service</b>					
Bonds	\$0	\$0	\$0	(\$7,590)	(\$8,266)
LUS Transfer	\$0	\$0	\$0	(\$535)	(\$535)
<b>Total Debt Service</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>(\$8,125)</b>	<b>(\$8,801)</b>
<b>Surplus (Deficit) from Operations</b>	<b>(\$892)</b>	<b>(\$3,139)</b>	<b>\$1,546</b>	<b>\$55</b>	<b>\$5,863</b>

#### 4a. Cable TV, not Internet Access, Generates Revenue

CCG has pegged the third year of operation as the point where LUS will be cash-flow positive. But OptiNet was still losing money by the third year. It remains to be seen whether OptiNet can maintain its level of revenue growth for the next several years. To date, research has not found any residential municipal broadband system that has reached a break-even point.<sup>19</sup> System operators who claim to have done so have not released their balance sheets.

To date, research has not found any residential municipal broadband system that has reached a break-even point. System operators who claim to have done so have not released their balance sheets.

The CCG revenue plan is heavily dependent on LUS being successful in cable TV. The system's primary revenue source will be cable TV—even though LUS tends to emphasize the importance of a high-speed broadband Internet connection for its citizens and the local economy. LUS revenue projections show cable revenues going from 36 percent to 43 percent of total sales from

the third to fifth year of operation. Data service, by comparison, stays flat at 15 to 16.5 percent.

As LUS grows, business needs will demand that LUS give most of its attention to cable service and cable customers. That is actually sound business strategy, as it is content and customer service that serve as critical competitive differentiators. However, low-paying Internet-only customers—the very demographic group LUS is ostensibly being taxpayer-funded to serve—will likely get short-shrift. That is necessitated by the business plan. Internet-only customers will be contributing only 15 cents to each revenue dollar, while cable customers will account for three times that. To have a chance at attaining its revenue projections, LUS will have to set a marketing and customer service agenda that will allow it to compete head-to-head with commercial phone and cable companies.

OptiNet faced that problem, and addressed it by requiring all of its customers to spend at least \$44.95 a month on services.<sup>20</sup> So while OptiNet offers 1 Mb/s Internet access at an attractive \$26.36 a month, Bristol residents cannot buy that service alone. OptiNet addresses the issue plainly on the Frequently Asked Questions page of its Web site: anything less than \$44.95/month is not enough to cover the cost of equipment build-out to the premises.

OptiNet's minimum requirement of \$44.95/month reinforces the point made earlier—that broadband and cable TV do not follow the utility model. OptiNet justified its taxpayer-backed entry into broadband and cable based on the idea that only a municipal entity could deliver universal broadband access at prices below market. Once OptiNet implemented a minimum

---

<sup>19</sup> Research by and correspondence with Dr. Ronald J. Rizzuto, professor of finance, University of Denver, May 2005.

<sup>20</sup> Frequently Asked Questions, BVU Optinet Web site, <http://www.bvu-optinet.com/index.htm>.

purchase requirement, universal broadband service took a backseat to “average revenue per user,” or ARPU, the same measure commercial providers use for their decisions about network and service planning and rollout.

BVU electric does not require customers to purchase a minimum amount of kilowatt-hours per month. Bristol citizens are not required to use a minimum amount of water.

Unlike electric, water, or sewer, OptiNet could not build an FTTP network to every home and business and amortize the cost over a long period. It needed to focus on ARPU—customers who can afford at least \$45 per month on a bundle of services. From a business perspective, it’s the correct decision (and it’s still losing money). But from a city and social service perspective, it’s a complete aboutface. Sooner or later, LUS will face the same decision.

#### **4b. Marketing, Programming, and Debt**

We considered marketing, programming, and debt as key elements of OptiNet’s financial picture. When we look at these figures for LUS, further questions arise.

In the third year of operation, CCG projects LUS will spend \$505,000 on marketing and promotion. OptiNet, which serves a city one-fifth the size, in its third year spent almost half that, \$222,000, indicating CCG is underestimating marketing costs. Further, in CCG’s plan, marketing costs peak at the third year, and decrease the fourth and fifth. In Years 3 through 5, LUS plans to triple its revenue while cutting its marketing costs by almost 30 percent. Given the competitive nature of the market, and the strength of the competitors, this proposition is untenable.

In Years 3 through 5, LUS plans to triple its revenue while cutting its marketing costs by almost 30 percent. Given the competitive nature of the market, and the strength of the competitors, this proposition is untenable.

We noted earlier that OptiNet spends about 5 cents per revenue dollar on promotion. While LUS would match that figure in its third year, it forecasts spending only about 1 cent per revenue dollar by its fifth year.

If LUS is to achieve its ambitious revenue goals, its marketing costs must grow, not shrink. LUS has substantially underestimated its marketing and promotional costs.

We also noted earlier that the costs of programming acquisition are increasing annually at 6 to 12 percent and will be the most unpredictable expense going forward for commercial and municipal broadband service providers alike. Programming costs are rolled into “Cost of Goods Sold” in the CCG study. While it does not break out specifics, CCG says it anticipates programming costs to grow by only 4 percent a year, basing this projection on historical data

gathered by the FCC. That projection is out of sync with industry trends. Year to year, LUS' cost of goods sold, driven by the steeply rising costs of cable programming, will increase more rapidly than the feasibility study anticipates.

Finally, LUS will be taking on substantial debt to finance the Lafayette system. The Louisiana State Bond Commission has approved the issue of up to \$135 million in bond funding, an increase of 50 percent from the \$90 million projected last year. That bond issue will be the subject of a July 16 referendum. In addition, CCG anticipates intercompany transfers and loans.

The landscape is dotted with municipal broadband systems with well-publicized financial problems.

The steady increase in required funding also was seen in Bristol. OptiNet originally was funded by a \$15 million revenue bond issue. In 2004, the municipal cable operation was refunded at its current \$27.49 million.<sup>21</sup>

## 5. Conclusions

Municipal broadband systems do not follow traditional utility patterns in costs and revenues. Even operations regarded as successful, such as BVU OptiNet, are still millions of dollars short of breaking even. The landscape is dotted with municipal broadband systems with well-publicized financial problems. Municipalities that claim to have avoided or overcome these problems have not released their financial data.

From OptiNet's experience we learn that in municipal broadband, marketing, programming, and interest on debt are the costs most difficult to predict and control. All tend to be higher than anticipated, while at the same time, market penetration, sales, and revenues fall short of plan.

Even when compared to OptiNet, the Lafayette plan is optimistic. It predicts revenue growth from \$2.1 million to \$29.1 million in four years, while over the same period cutting marketing expenses and holding the line on programming costs and borrowing. Based on numbers from other municipal operations, as well as overall industry trends, Lafayette citizens and leaders should question whether the CCG plan, as it stands now, is achievable.

Copyright 2005 The Heartland Institute. Distributed by **The Heartland Institute**, a nonprofit and nonpartisan public policy research organization. Nothing in this report should be construed as reflecting the views of The Heartland Institute, nor as an attempt to aid or hinder the passage of legislation. Additional copies of this study are available for \$10 from The Heartland Institute, 19 South LaSalle Street #903, Chicago, IL 60603; phone 312/377-4000; fax 312/377-5000; email think@heartland.org; Web <http://www.heartland.org>.

---

<sup>21</sup> Bristol Virginia Utilities, page 15.