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EX PARTE OR LATE FILED

*Ex Parte Notice*

May 18, 2001

Ms. Magalie Roman Salas  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW – TWB-204  
Washington, DC 20554

RECEIVED

MAY 18 2001

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Dear Ms. Salas:

**Re: Use of Unbundled Network Elements to Provide Exchange Access Service, CC Docket No. 96-98**

**Joint Petition of BellSouth, SBC and Verizon  
CC Docket No. 96-98**

The United States Telephone Association (“USTA”) hereby files the attached document entitled “CLEC Network Extension Cost Model” and requests that the document be made a part of the record in the above-referenced proceeding. The CLEC Network Extension Cost Model was cited in the “Reply Declaration of Robert W. Crandall” which was filed as an attachment to USTA’s Reply Comments filed April 30, 2001 in the above-referenced proceeding.

Should you have any questions regarding this filing please contact the undersigned counsel for USTA at (202) 326-7371.

Sincerely,

Keith Townsend  
Director Legal and Regulatory Affairs  
And Senior Counsel

cc: (See attached)

No. of Copies 02  
USABODE

*Ex Parte Notice* of United States Telecom Association  
May 18, 2001

cc: Chairman Michael K. Powell  
Commissioner Susan Ness  
Commissioner Harold Furchtgott-Roth  
Commissioner Gloria Tristani  
Kyle D. Dixon  
Samuel Feder  
Jordan Goldstein  
Sarah Whitesell  
Dorothy Attwood  
Michele Carey  
Jodie Donovan-May  
Jeremy Miller  
Julie Veach  
Richard Rubin, AT&T Corp.  
Rick Beckner, Sidley & Austin (AT&T Counsel)



[www.csmgusa.com](http://www.csmgusa.com)

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Boston, MA 02108  
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# CLEC Network Extension Cost Model

*Prepared for:*

**The Industry**

*Prepared by:*

**Cambridge Strategic Management Group**

**26 April 2001**

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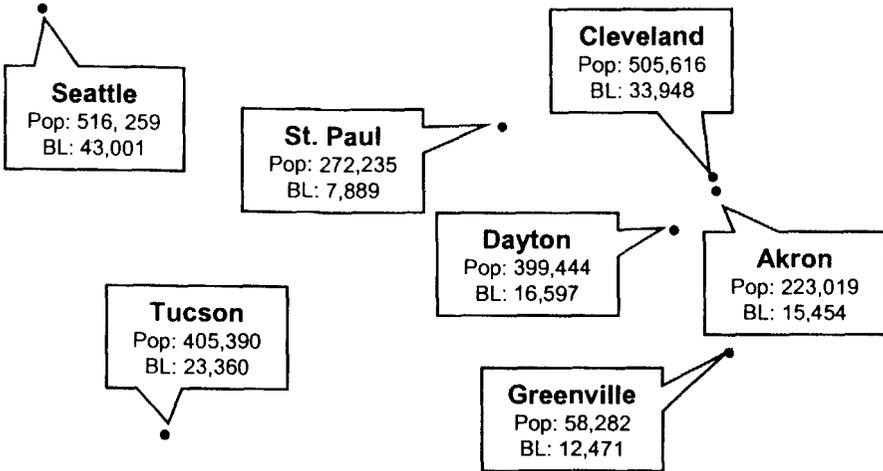


## Today's discussion

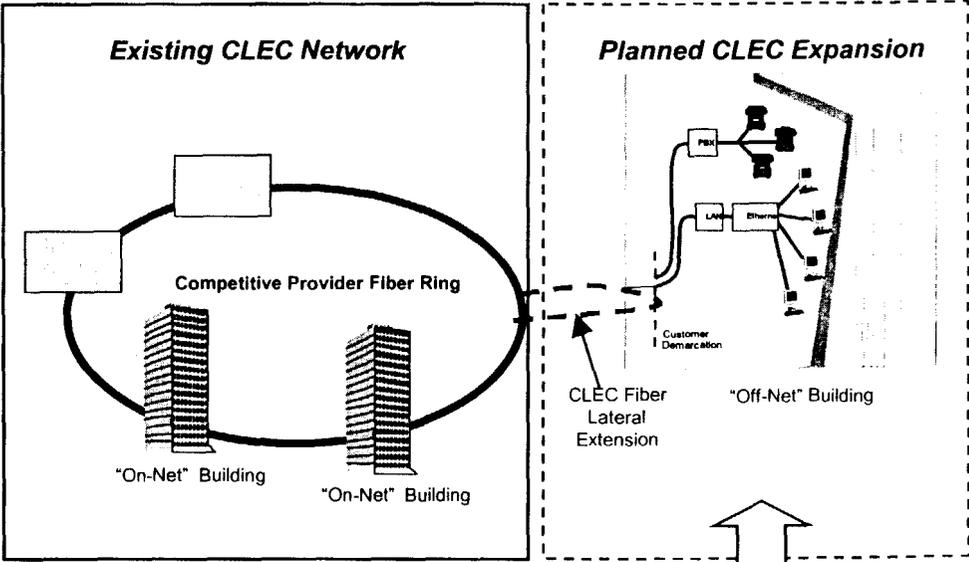
- Background & Introduction
- Current Results
- Model Architecture Design
- Assumptions and Sources

The Industry has asked CSMG and Criterion to determine the proportion of currently “off-net” buildings that can be profitably served by CLECs within a set of seven representative US cities...

**Representative Cities**  
Population and Business Lines



**Competitive Provider Network**



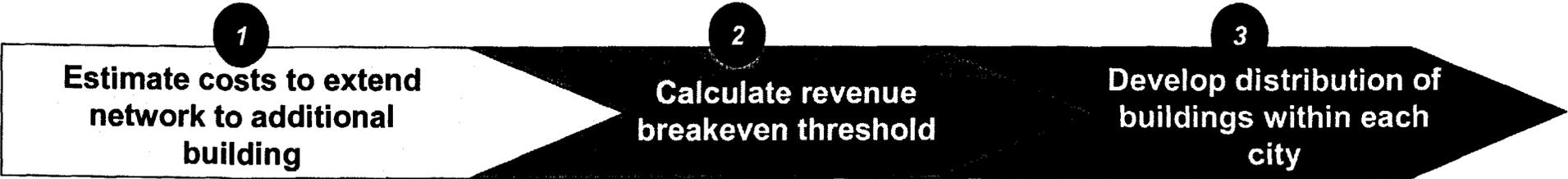
Source: Criterion and CSMG Wirecenter Database

| Tier 1 Cities  | Tier 2 Cities  | Tier 3 Cities   |
|--|--|---|
| <ul style="list-style-type: none"> <li>• Cleveland</li> <li>• Seattle</li> </ul> | <ul style="list-style-type: none"> <li>• St. Paul</li> <li>• Tucson</li> </ul> | <ul style="list-style-type: none"> <li>• Akron</li> <li>• Dayton</li> <li>• Greenville</li> </ul> |

- Build Considerations**
- Distance
  - Trenching & Labor Costs
  - Fiber & Electronics Costs
  - Addressable Voice & Data Revenue in Target Building

**This analysis requires an understanding of both CLEC costs and revenues**

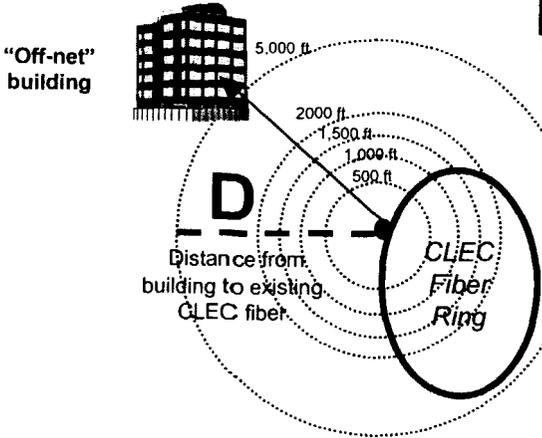
This task has been split into the following three steps . . .



Description

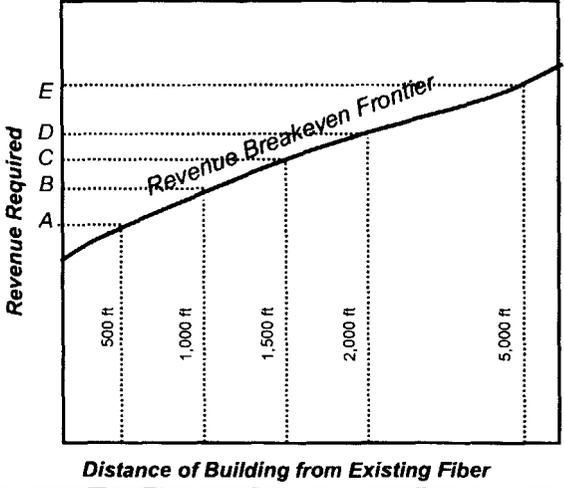
- For a building at a given distance from existing CLEC fiber, what are the total (operating & capital, fixed & variable) costs to build fiber to that building?

Illustration



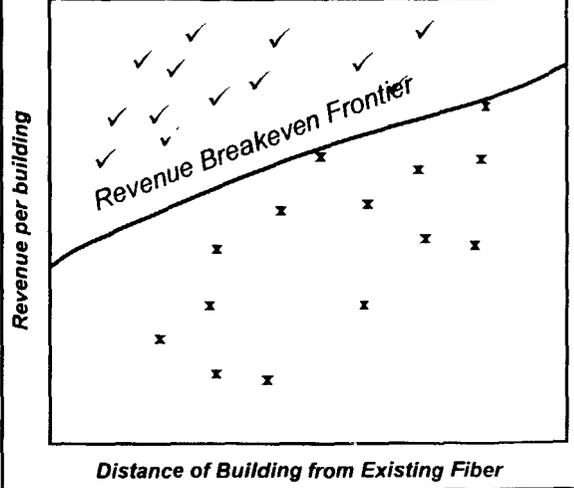
- Within each of the seven markets, what is the revenue required from an "off net" building in order to recoup incremental costs and investment for the gamut of distances away from existing CLEC fiber?

*Illustrative Revenue Breakeven Frontier*

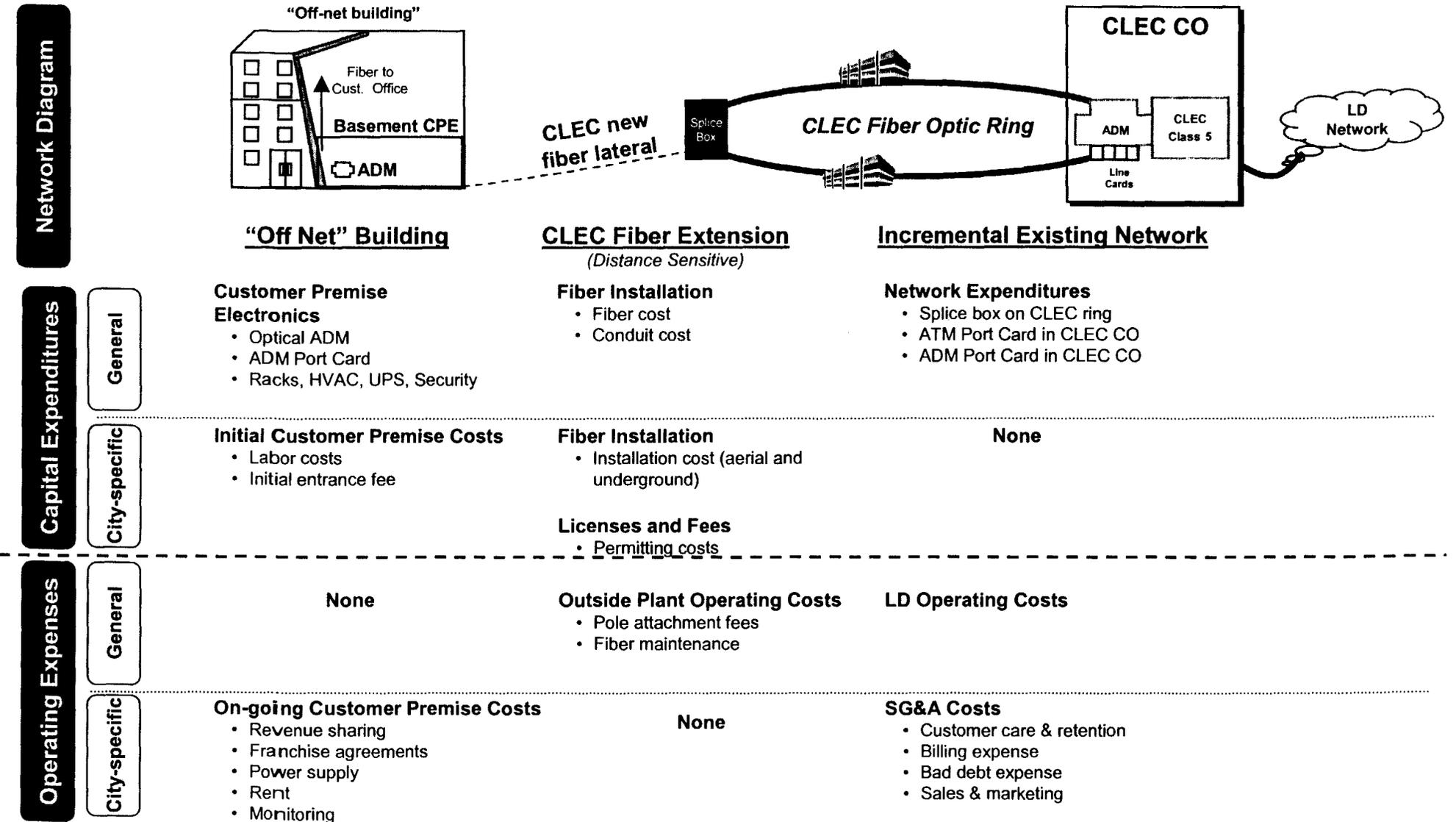


- For each building within a given city, what is the revenue a CLEC could expect to receive over time?
- Which buildings lie above the revenue frontier based on their distance from fiber and their expected revenues?

*Illustrative Distribution of Buildings*



In order to carry out Step One for each market, we calculate total costs associated with installing and operating fiber to connect and service an “off-net” building at any given distance from an existing CLEC fiber ring with a SONET architecture



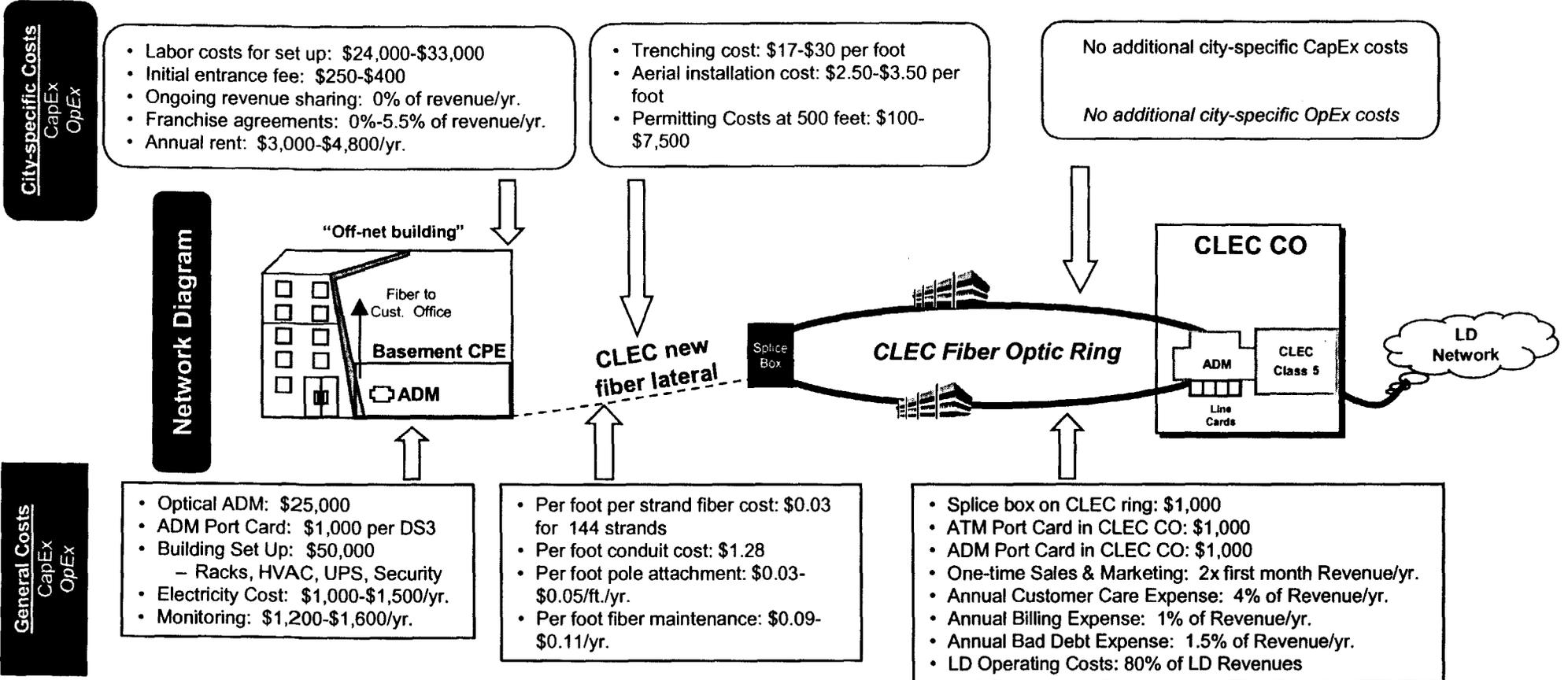
For each of these cost components, we have developed detailed input assumptions...

**"Off Net" Building**

**CLEC Fiber Extension**

**Incremental Existing Network**

*(Distance Sensitive)*

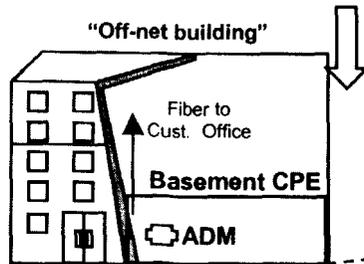


Many of the cost inputs vary considerably by city. Here are some examples...

### City Specific Costs

#### "Off Net" Building

- Labor costs for set up: \$24,000-\$33,000
- Initial entrance fee: \$250-\$400
- Ongoing revenue sharing: 0% of revenue/yr.
- Franchise agreements: 0%-5.5% of revenue/yr.
- Annual rent: \$3,000-\$4,800/yr.



#### CLEC Fiber Extension (Distance Sensitive)

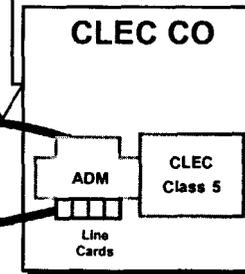
- Trenching cost: \$17-\$30 per foot
- Aerial installation cost: \$2.50-\$3.50 per foot
- Permitting Costs at 500 feet: \$100-\$7,500

CLEC new fiber lateral

CLEC Fiber Optic Ring

#### Incremental Existing Network

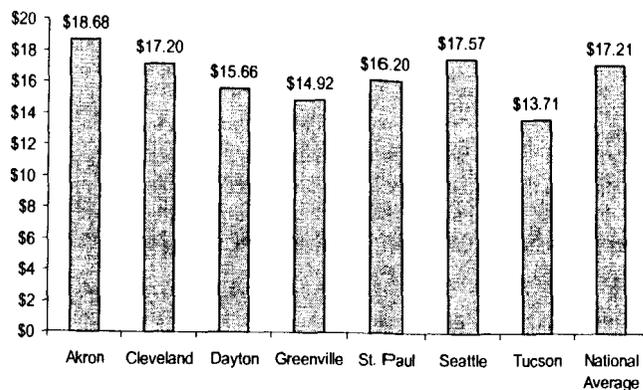
- No additional city-specific CapEx costs
- No additional city-specific OpEx costs



LD Network

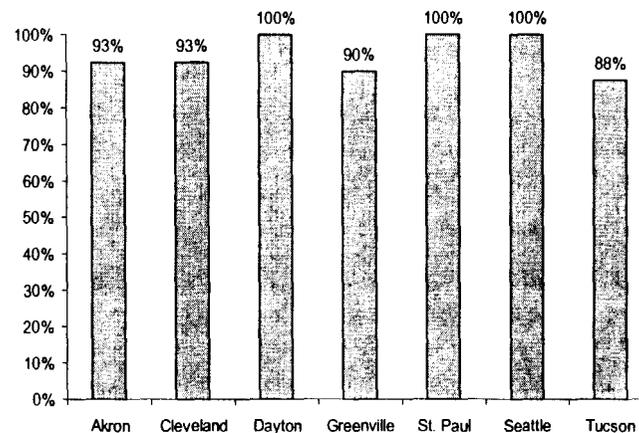
Network Diagram

Telecommunications Line Installer and Repairer Hourly Wages



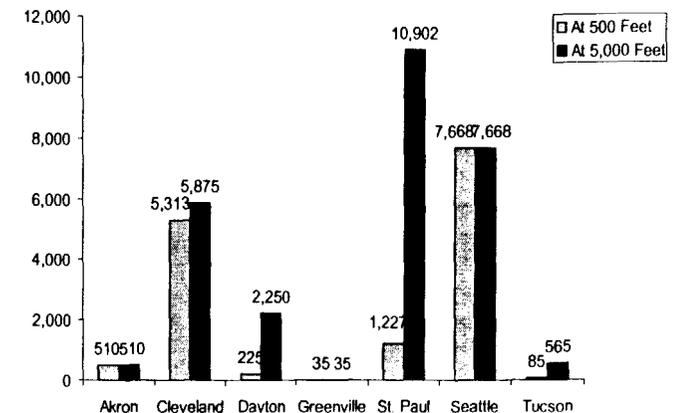
Source: Bureau of Labor Statistics

Percent Terrestrial Build



Source: Conversation with City officials

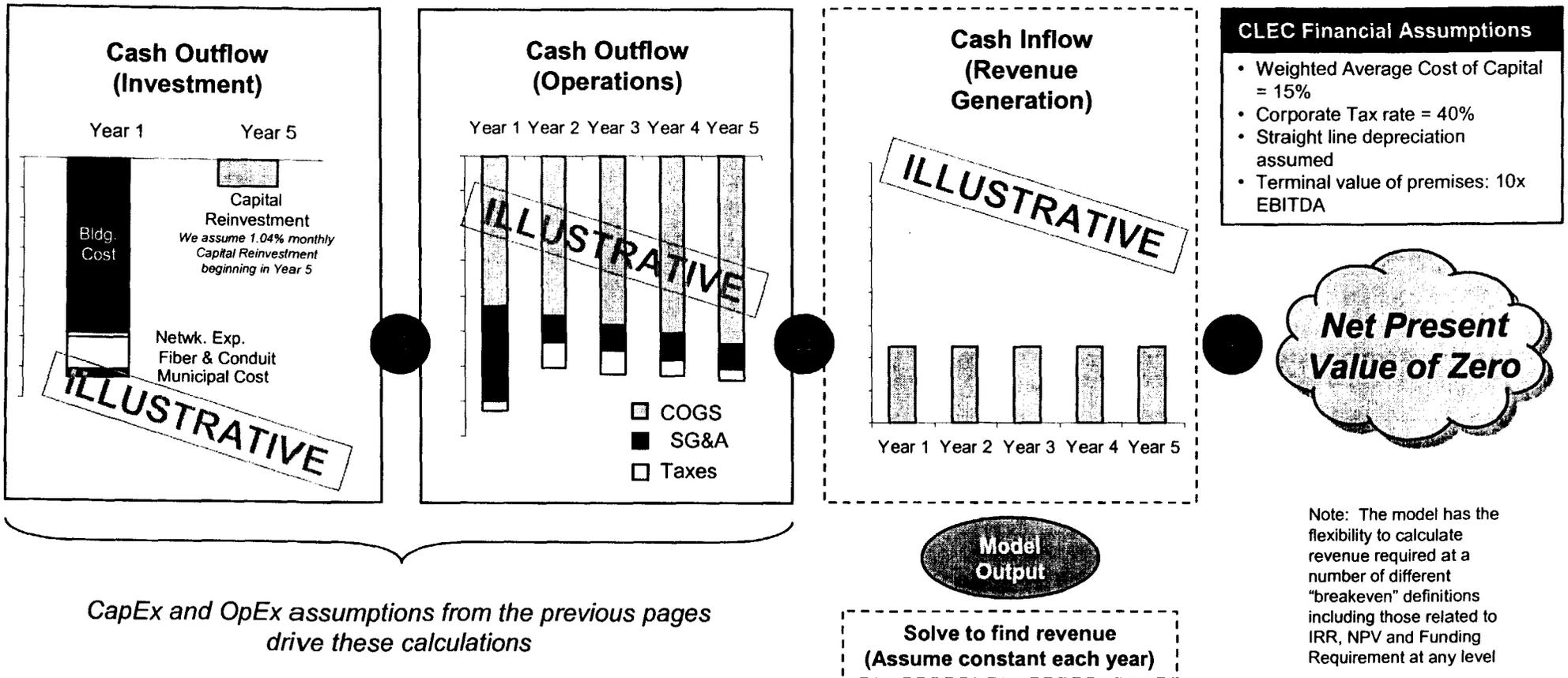
Terrestrial Trenching Permit Costs



Source: City Officials

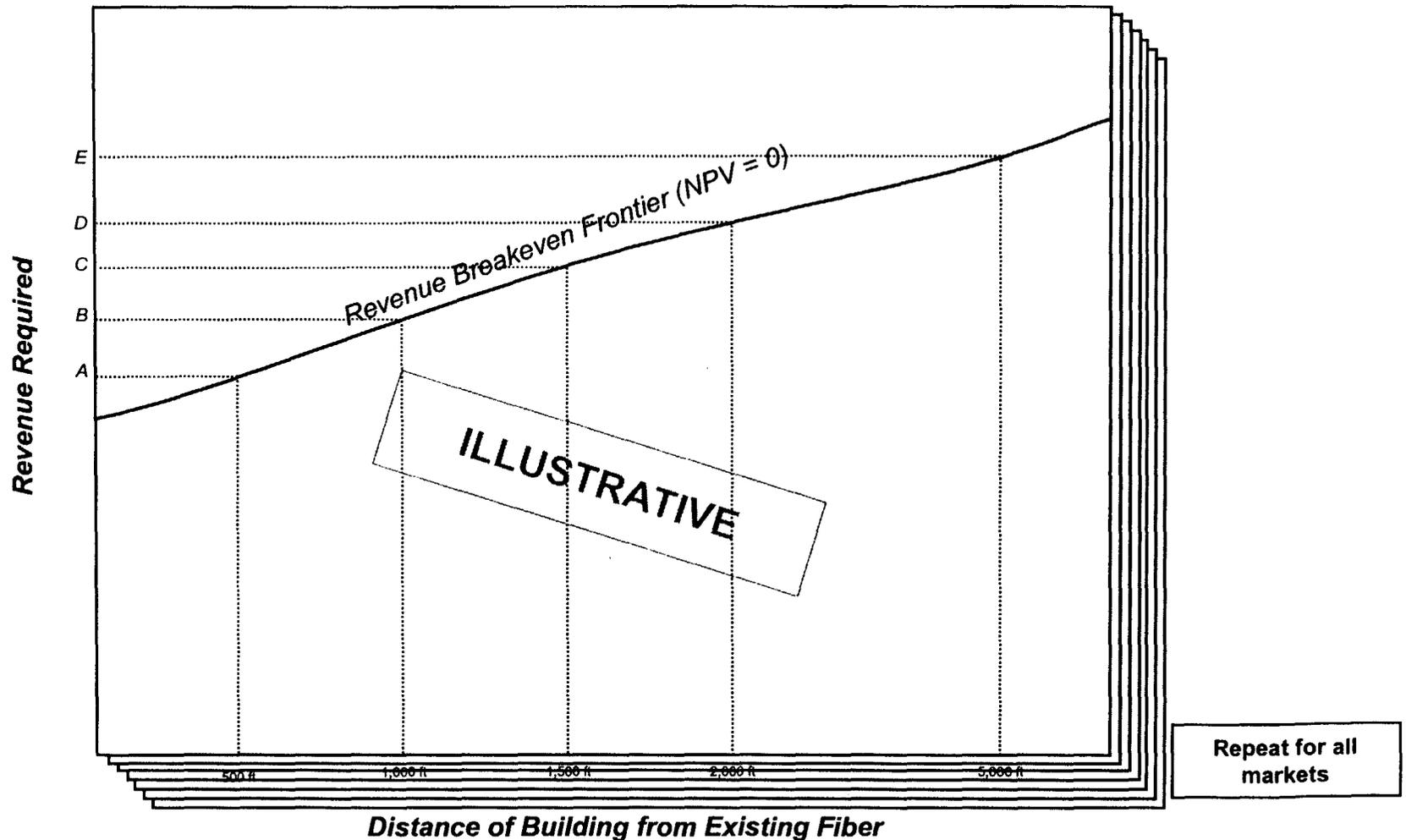
The model output is the revenue generation required from the “off-net” building in order for the CLEC to “break even” based on expected cash outflows from investment and operations. This result is sensitive to the building’s market location and its distance from existing CLEC fiber...

- Since some costs scale with revenue (and usage), the algorithm becomes an iterative process



We calculate the model output (revenue generation required by building to ensure breakeven) over a wide range of distances for each of the seven markets to create a revenue breakeven frontier...

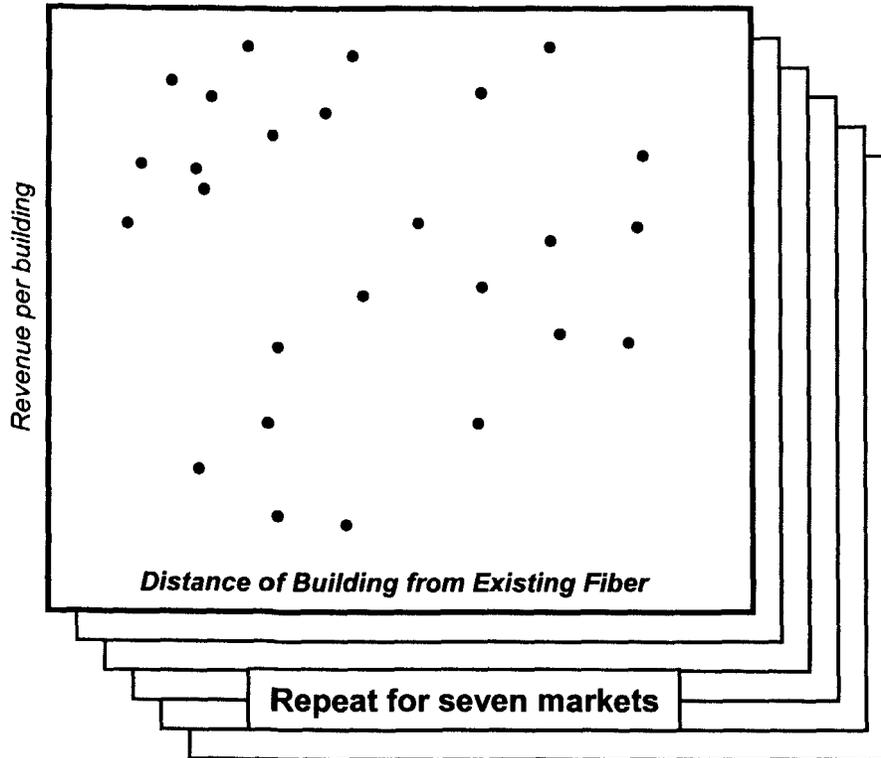
Example Revenue Breakeven Frontier



Our final draft revenue breakeven frontier assumptions are presented today

In every city, Criterion has plotted each building's distance from CLEC fiber and expected revenue. These points can then be compared to the revenue-distance breakeven frontier to determine which buildings justify a CLEC investment

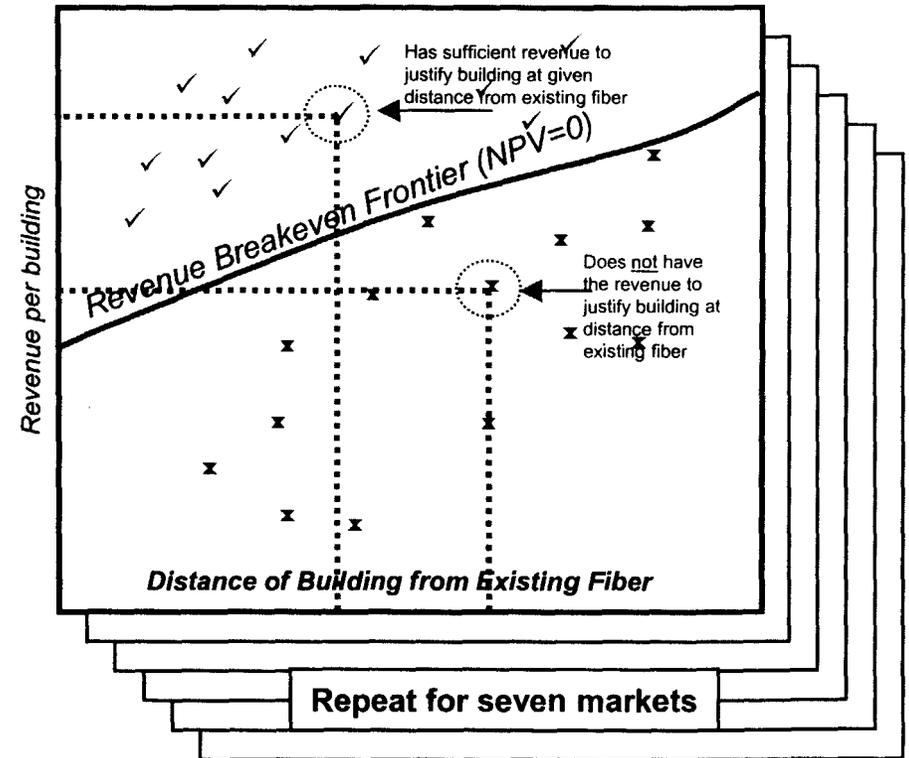
Profile of buildings in sample city



Legend

- Building (Distance, revenue expectations)

Addressability Test



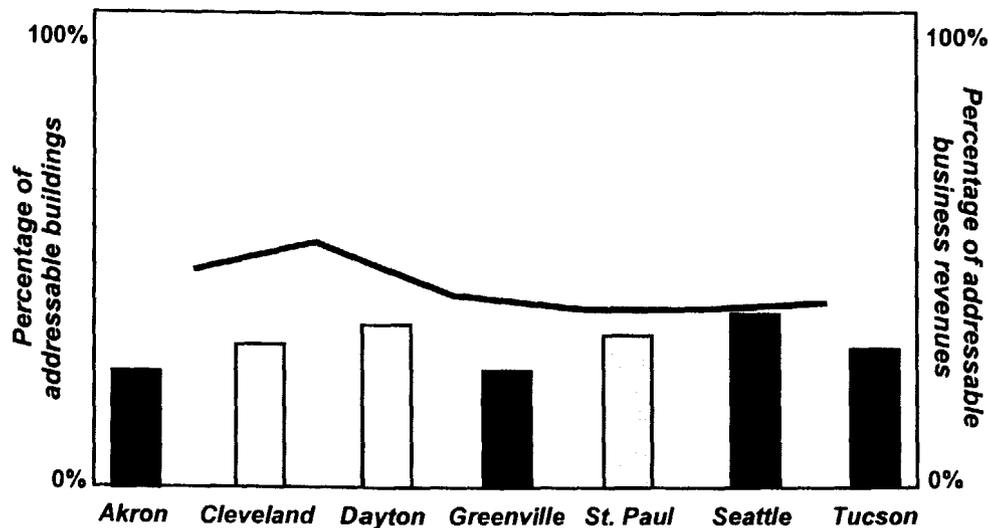
Legend

- ✓ Addressable Buildings
- x Non-Addressable Buildings
- Breakeven frontier

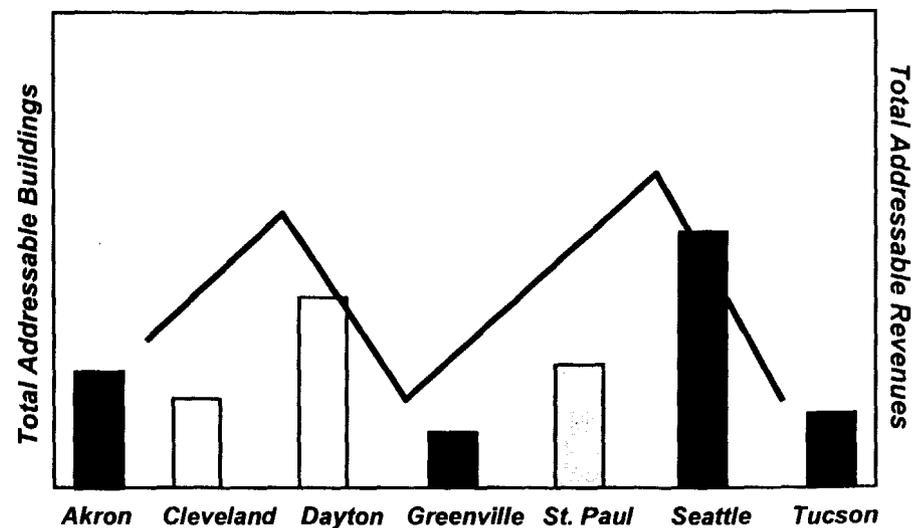
Completed in conjunction with Criterion

# The Industry can use this analysis to understand the addressability of buildings and revenues in seven representative US markets

Percentage of addressable "off-net" buildings and revenues in seven markets



Total addressable "off-net" buildings and revenues in seven markets



Completed in conjunction with Criterion

## Today's discussion

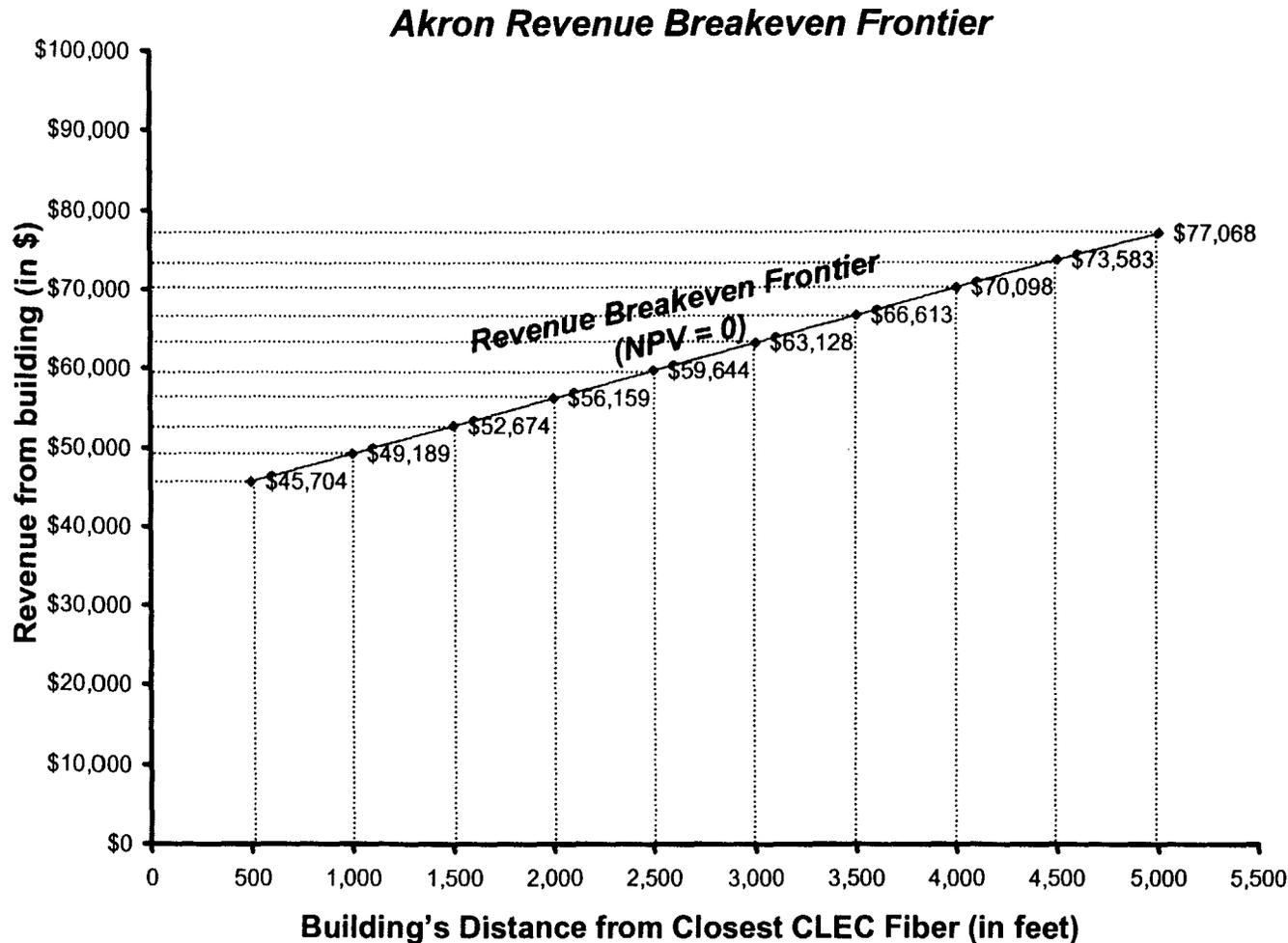
- Background & Introduction
- Current Results
- Model Architecture Design
- Assumptions and Sources

Using a SONET based architecture for every city, we have calculated the revenue breakevens at various distances...

**Annual Revenue Breakeven Threshold (NPV = 0) by Distance per Building**

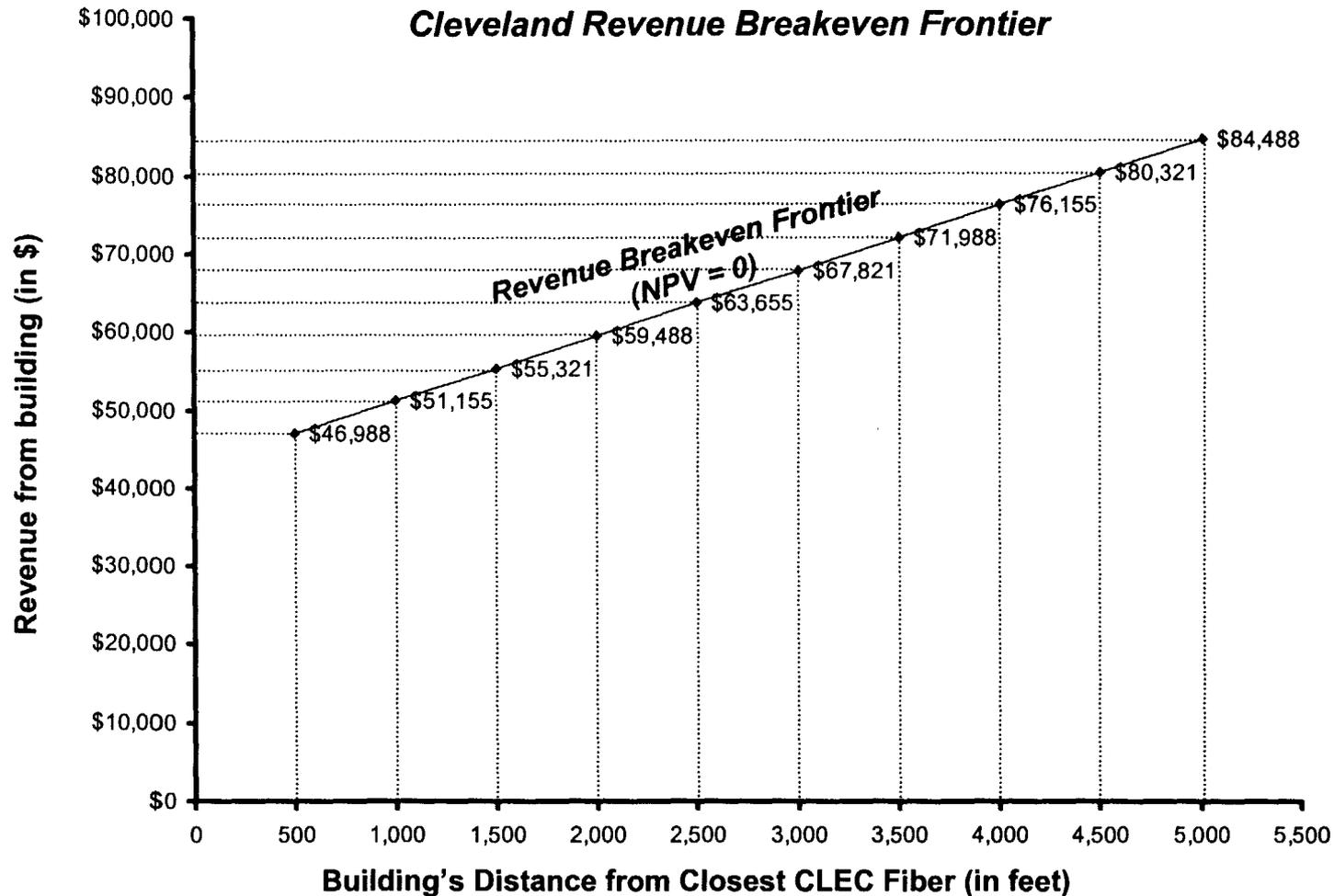
| Market                     | 500 feet | 1,000 feet | 1,500 feet | 2,000 feet | 2,500 feet | 3,000 feet | 3,500 feet | 4,000 feet | 4,500 feet | 5,000 feet |
|----------------------------|----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Akron, Ohio                | \$45,704 | \$49,189   | \$52,674   | \$56,159   | \$59,644   | \$63,128   | \$66,613   | \$70,098   | \$73,583   | \$77,068   |
| Cleveland, Ohio            | \$46,988 | \$51,155   | \$55,321   | \$59,488   | \$63,655   | \$67,821   | \$71,988   | \$76,155   | \$80,321   | \$84,488   |
| Dayton, Ohio               | \$40,476 | \$43,656   | \$46,836   | \$50,015   | \$53,195   | \$56,375   | \$59,555   | \$62,734   | \$65,914   | \$69,094   |
| Greenville, South Carolina | \$40,294 | \$42,970   | \$45,646   | \$48,322   | \$50,998   | \$53,674   | \$56,350   | \$59,026   | \$61,702   | \$64,378   |
| St. Paul, Minnesota        | \$42,800 | \$46,816   | \$50,833   | \$54,850   | \$58,867   | \$62,883   | \$66,900   | \$70,917   | \$74,933   | \$78,950   |
| Seattle, Washington        | \$47,079 | \$51,561   | \$56,044   | \$60,526   | \$65,009   | \$69,491   | \$73,974   | \$78,456   | \$82,938   | \$87,421   |
| Tucson, Arizona            | \$44,124 | \$47,399   | \$50,677   | \$53,955   | \$57,233   | \$60,509   | \$63,780   | \$67,051   | \$70,322   | \$73,593   |

... And used these to develop revenue breakeven frontiers. In Akron, a building 500 feet from fiber requires \$46,000 in annual revenues to justify a lateral, while a building at 5,000 feet requires \$77,000 annually



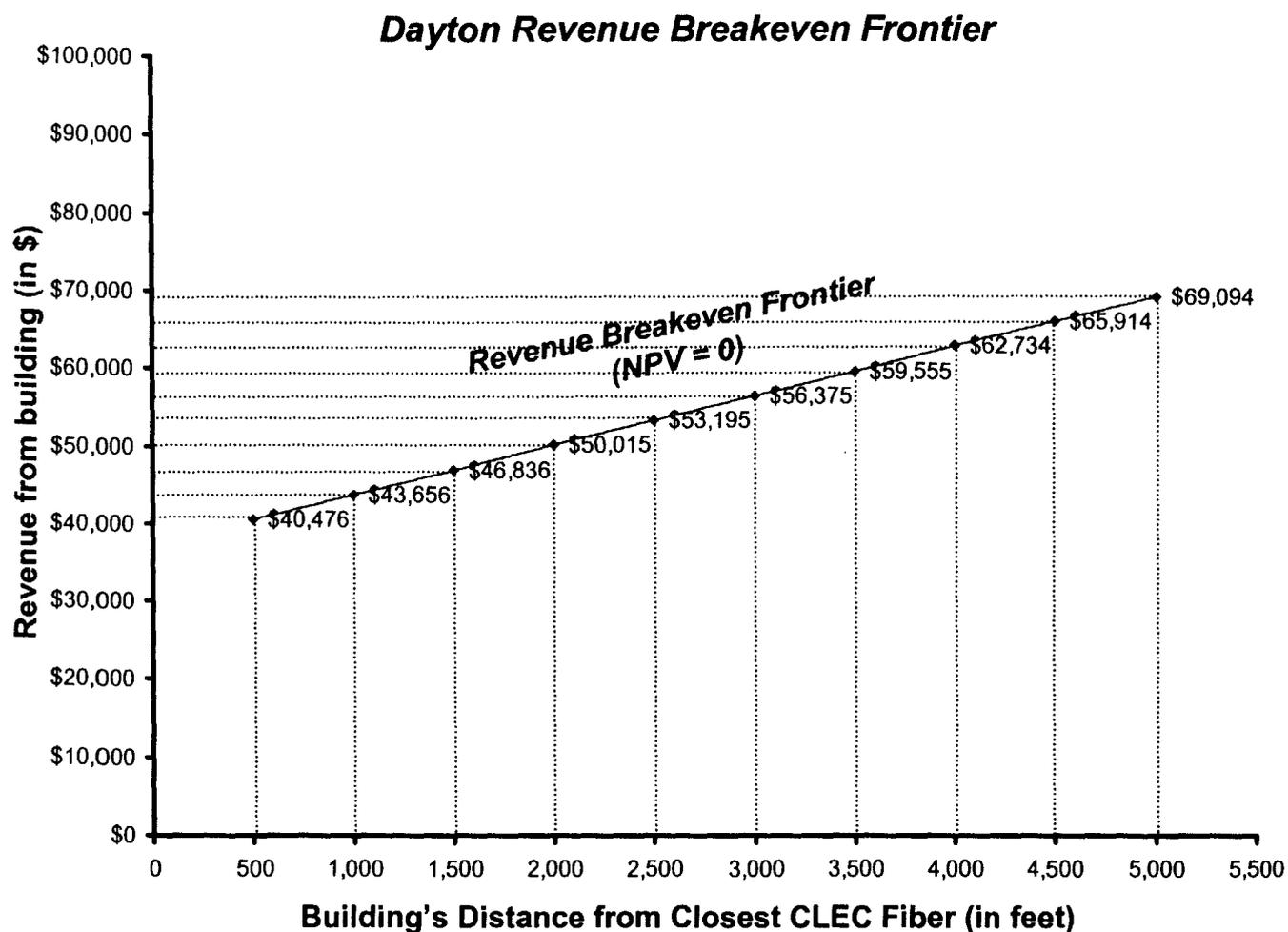
| Market | 500 feet | 1,000 feet | 1,500 feet | 2,000 feet | 2,500 feet | 3,000 feet | 3,500 feet | 4,000 feet | 4,500 feet | 5,000 feet |
|--------|----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Akron  | \$45,704 | \$49,189   | \$52,674   | \$56,159   | \$59,644   | \$63,128   | \$66,613   | \$70,098   | \$73,583   | \$77,068   |

In Cleveland the annual revenue required from an off-net building ranges from \$47,000 at 500 feet to \$84,000 at 5,000 feet in order to justify the cost of laying fiber



| Market    | 500 feet | 1,000 feet | 1,500 feet | 2,000 feet | 2,500 feet | 3,000 feet | 3,500 feet | 4,000 feet | 4,500 feet | 5,000 feet |
|-----------|----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Cleveland | \$46,988 | \$51,155   | \$55,321   | \$59,488   | \$63,655   | \$67,821   | \$71,988   | \$76,155   | \$80,321   | \$84,488   |

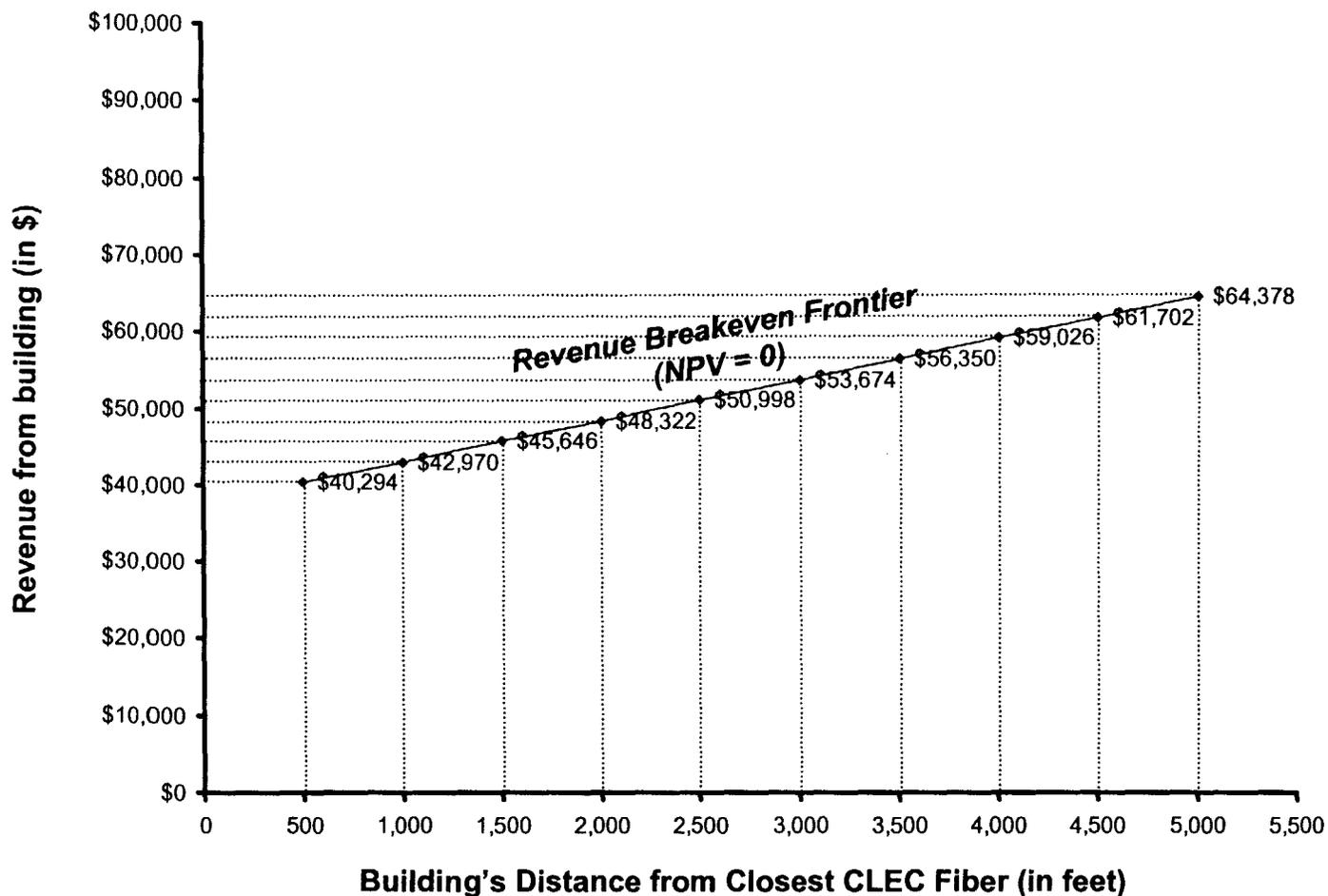
In Dayton, a building 500 feet from fiber requires \$40,000 in annual revenues to justify a lateral, while a building at 5,000 feet requires \$69,000 annually



| Market | 500 feet | 1,000 feet | 1,500 feet | 2,000 feet | 2,500 feet | 3,000 feet | 3,500 feet | 4,000 feet | 4,500 feet | 5,000 feet |
|--------|----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Dayton | \$40,476 | \$43,656   | \$46,836   | \$50,015   | \$53,195   | \$56,375   | \$59,555   | \$62,734   | \$65,914   | \$69,094   |

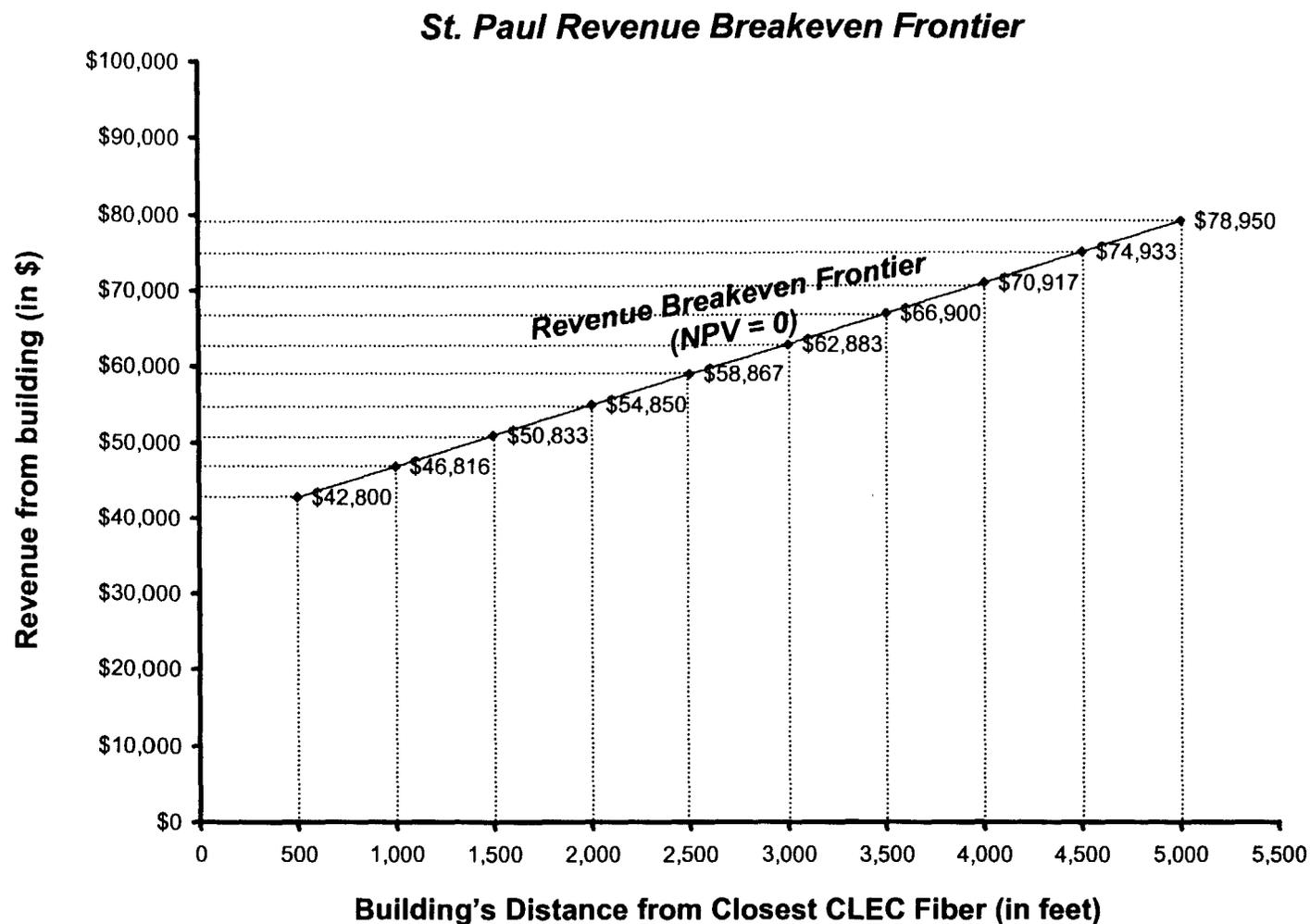
Of all our cities, Greenville requires the lowest breakeven revenue for any given distance

**Greenville Revenue Breakeven Frontier**



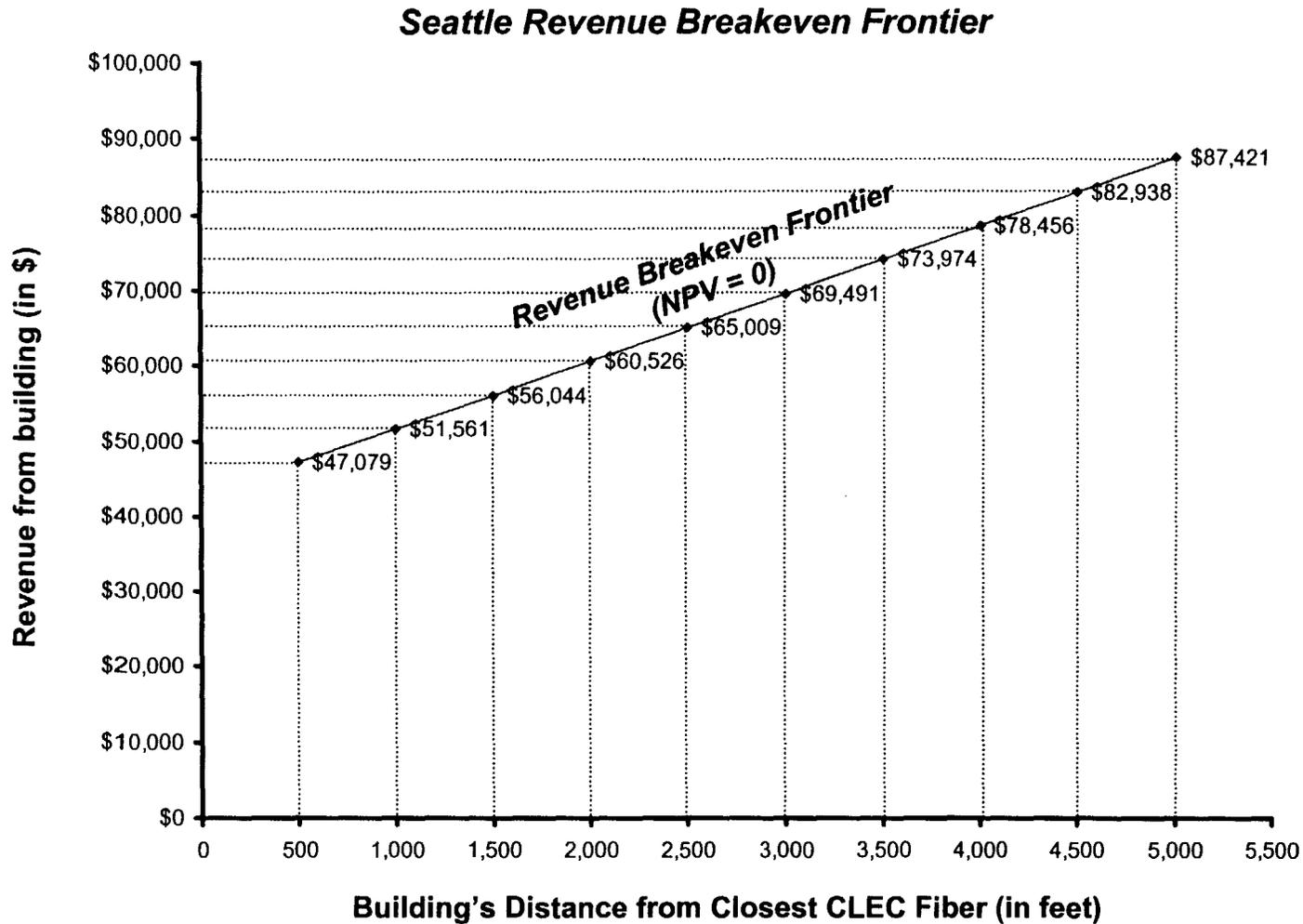
| Market     | 500 feet | 1,000 feet | 1,500 feet | 2,000 feet | 2,500 feet | 3,000 feet | 3,500 feet | 4,000 feet | 4,500 feet | 5,000 feet |
|------------|----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Greenville | \$40,294 | \$42,970   | \$45,646   | \$48,322   | \$50,998   | \$53,674   | \$56,350   | \$59,026   | \$61,702   | \$64,378   |

# St. Paul requires \$43,000 to \$79,000 annually from a building in order to justify the cost of laying fiber



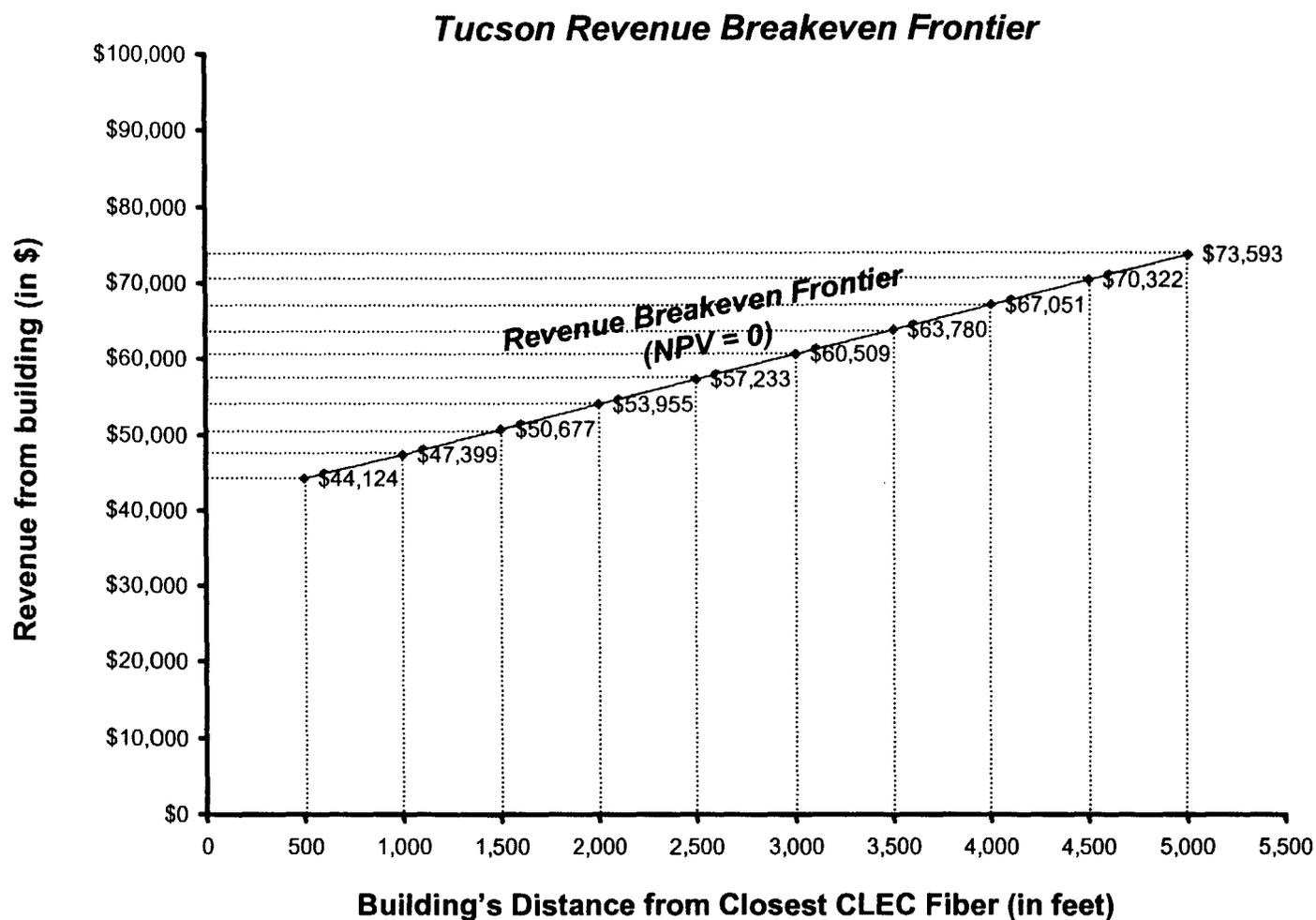
| Market   | 500 feet | 1,000 feet | 1,500 feet | 2,000 feet | 2,500 feet | 3,000 feet | 3,500 feet | 4,000 feet | 4,500 feet | 5,000 feet |
|----------|----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| St. Paul | \$42,800 | \$46,816   | \$50,833   | \$54,850   | \$58,867   | \$62,883   | \$66,900   | \$70,917   | \$74,933   | \$78,950   |

# Seattle has the highest revenue breakeven frontier of any of the seven cities



| Market  | 500 feet | 1,000 feet | 1,500 feet | 2,000 feet | 2,500 feet | 3,000 feet | 3,500 feet | 4,000 feet | 4,500 feet | 5,000 feet |
|---------|----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Seattle | \$47,079 | \$51,561   | \$56,044   | \$60,526   | \$65,009   | \$69,491   | \$73,974   | \$78,456   | \$82,938   | \$87,421   |

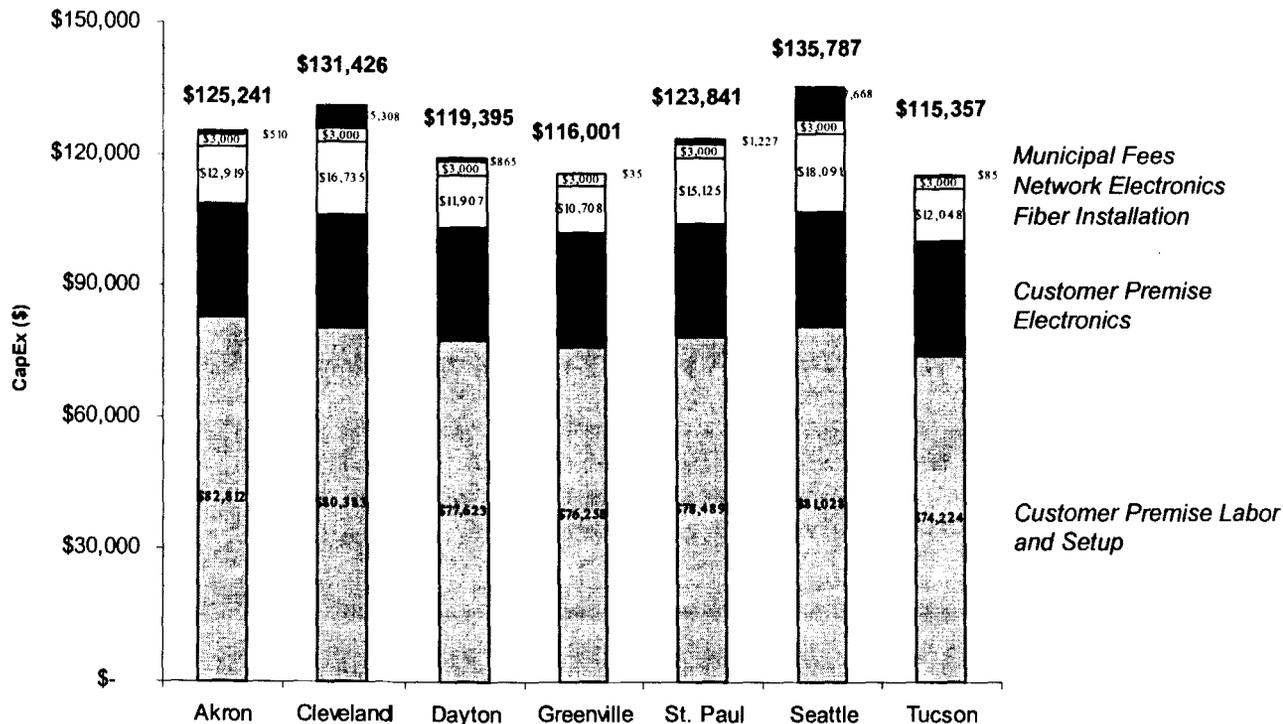
**Tucson is in the middle of the range of cities in terms of revenue required from a new building at a given distance from existing CLEC fiber**



| Market | 500 feet | 1,000 feet | 1,500 feet | 2,000 feet | 2,500 feet | 3,000 feet | 3,500 feet | 4,000 feet | 4,500 feet | 5,000 feet |
|--------|----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Tucson | \$44,124 | \$47,399   | \$50,677   | \$53,955   | \$57,233   | \$60,509   | \$63,780   | \$67,051   | \$70,322   | \$73,593   |

**Year 1 capital expenditures are highest in Seattle and lowest in Tucson primarily because of differences in fiber installation costs**

**Year 1 CapEx by Market for Building at 500 Feet**

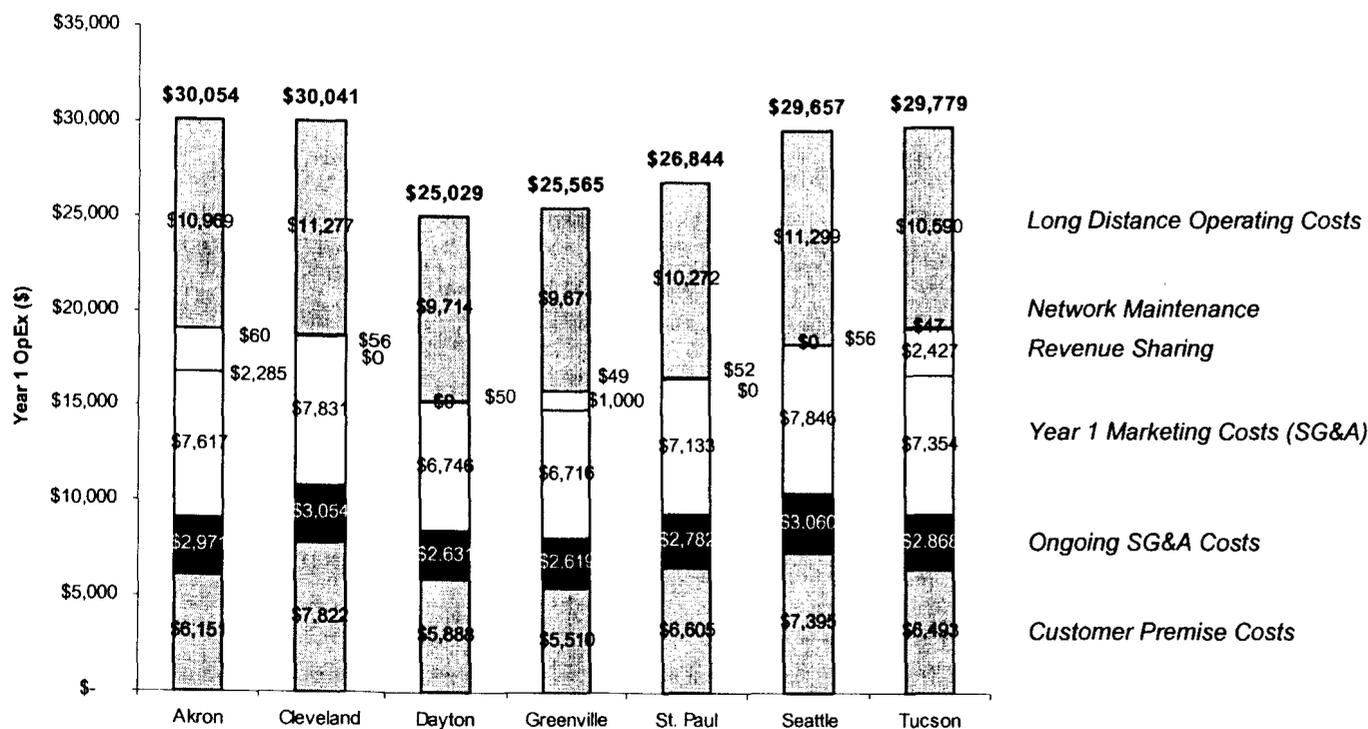


**Primary Drivers**

- Labor costs vary widely from market to market, directly affecting both fiber installation costs and customer premise labor and setup costs
  - Tucson has the lowest labor cost of the seven markets
  - Seattle has the highest labor cost of the seven markets
- Municipal fees fluctuate substantially for each city
  - Tucson has a very low permit cost of \$85 at 500 feet
  - Seattle has a high permit cost of \$7,668 at 500 feet

# Differences in operating costs are primarily due to differences in customer premise costs

Year 1 OpEx by Market for Building at 500 Feet



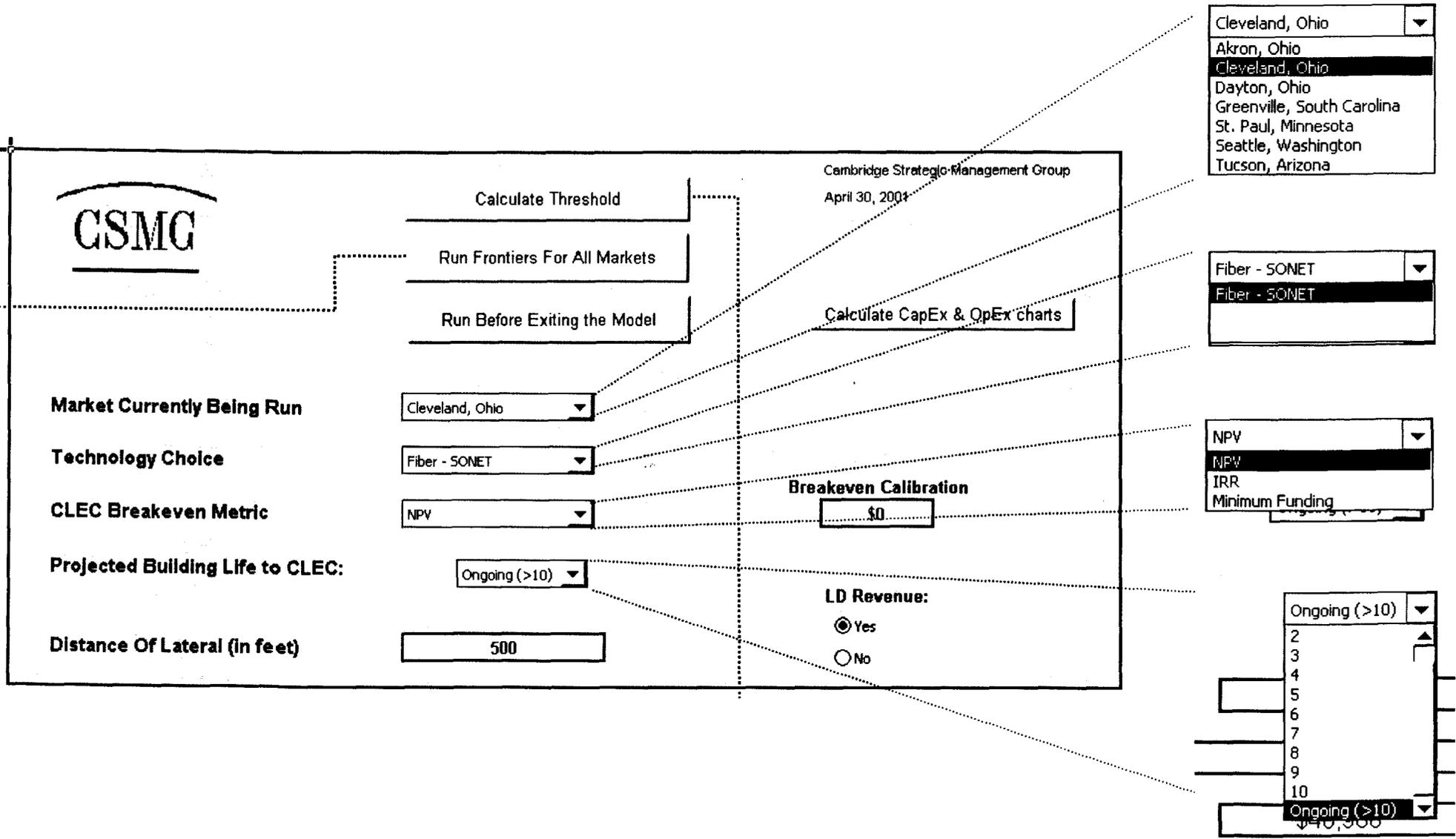
## Primary Drivers

- Customer Premise costs have the greatest impact on OpEx differences across markets
  - Variations in rent to building owners account for much of this variation
  - Rents for Tier 1 cities can be 50% more than those for a Tier 3 city due to demand
- Differences in franchise agreements also account for a significant portion of the variation
  - Cleveland, Dayton, St. Paul, and Seattle do not have any franchise agreements (but have higher upfront for permitting costs)
  - Tucson has a very high franchise agreement cost at 5.5% of annual revenues
  - Greenville charges an annual fee of \$1,000 in lieu of a percent of revenues

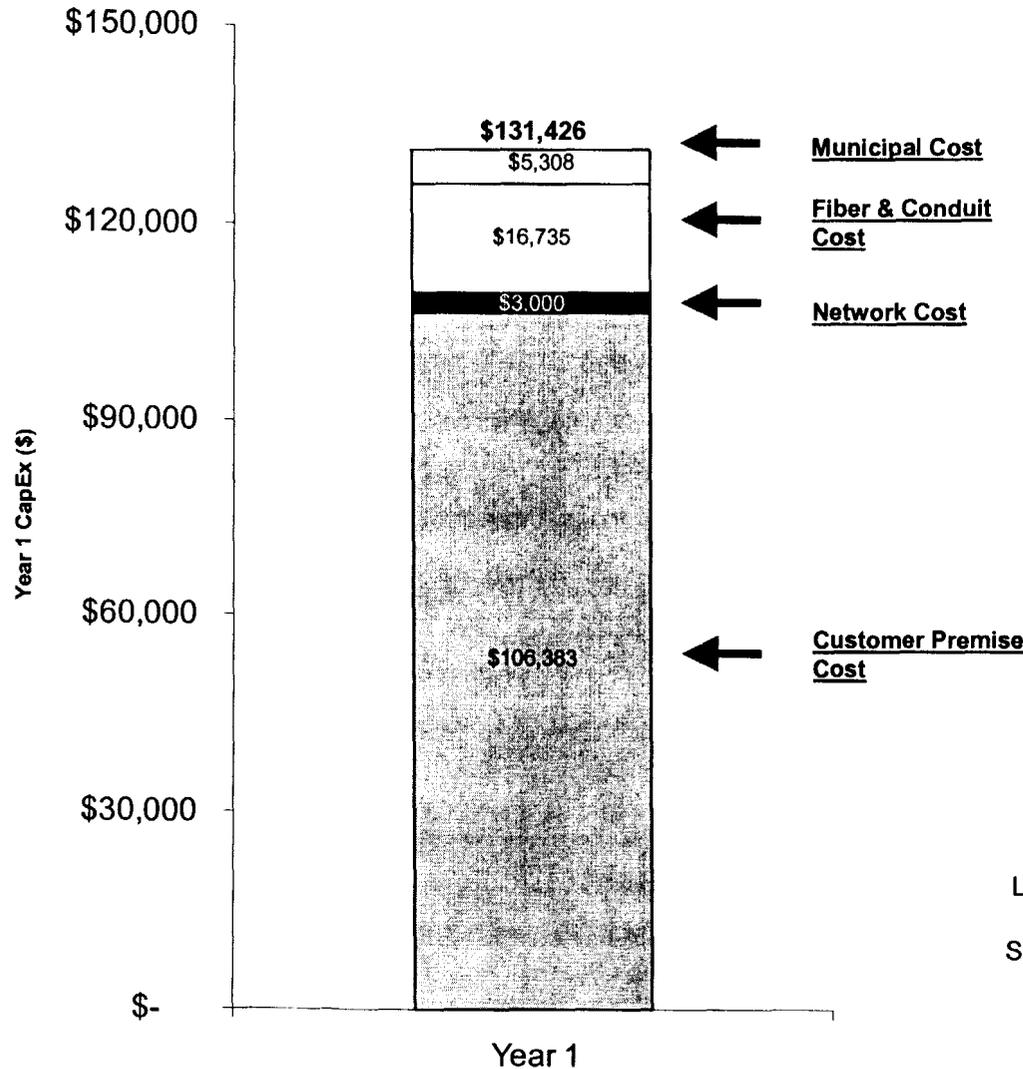
## Today's discussion

- Background & Introduction
- Current Results
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- Assumptions and Sources

The model builds on a choice of city, a choice of technology, what we define as "breakeven", and a lateral distance



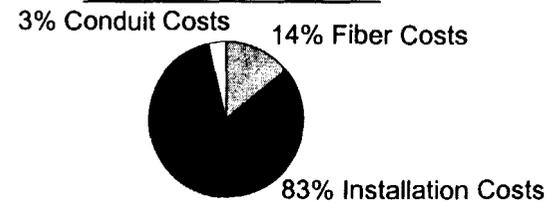
# For a building in Cleveland at 500 feet from CLEC fiber, we have the following capital expenditures...



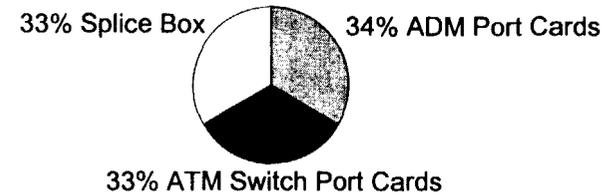
### Municipal Cost

- Application Fee
- Per Foot Trenching Fee
- Inspection Fee
- Other

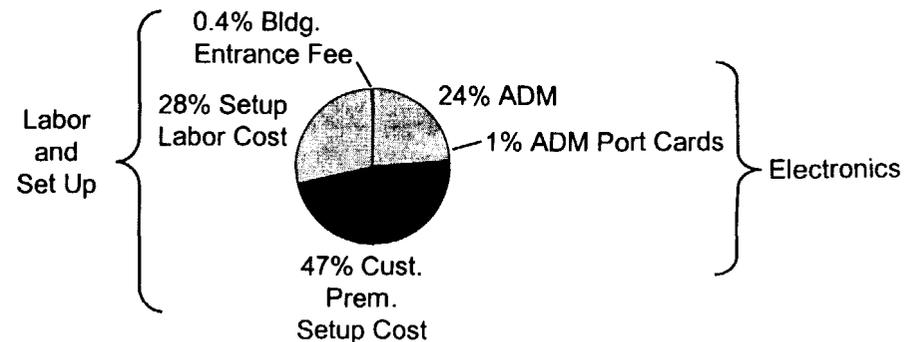
### Fiber & Conduit Cost



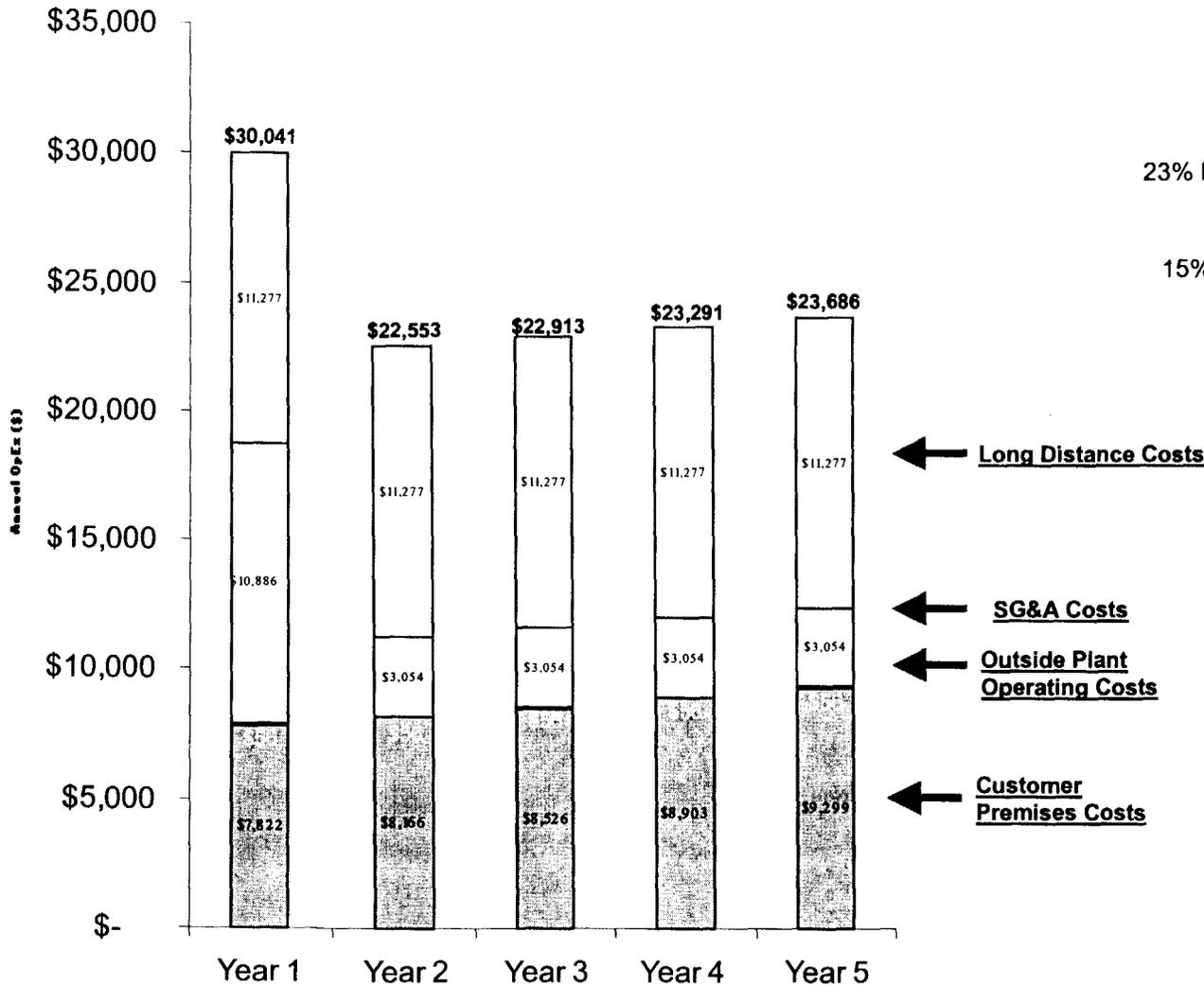
### Network Cost



### Customer Premise Costs



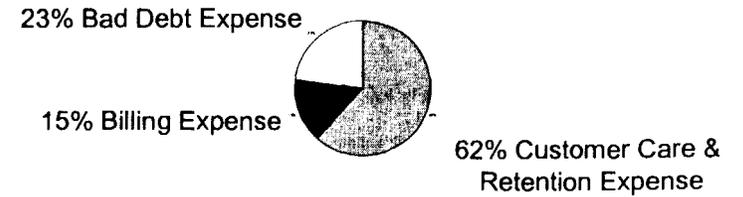
# The same Cleveland building results in the following operating expenses through year 5...



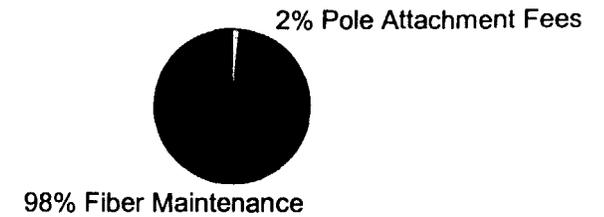
### LD Costs

- Customer Care & Retention Expense
- Cost of Goods Sold
- Access
- POP-to-POP Transport
- Other

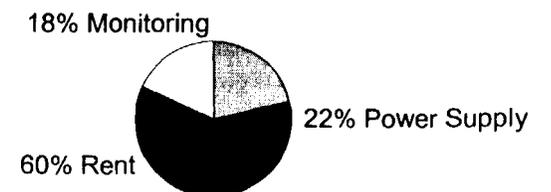
### Year 5 SG&A Costs



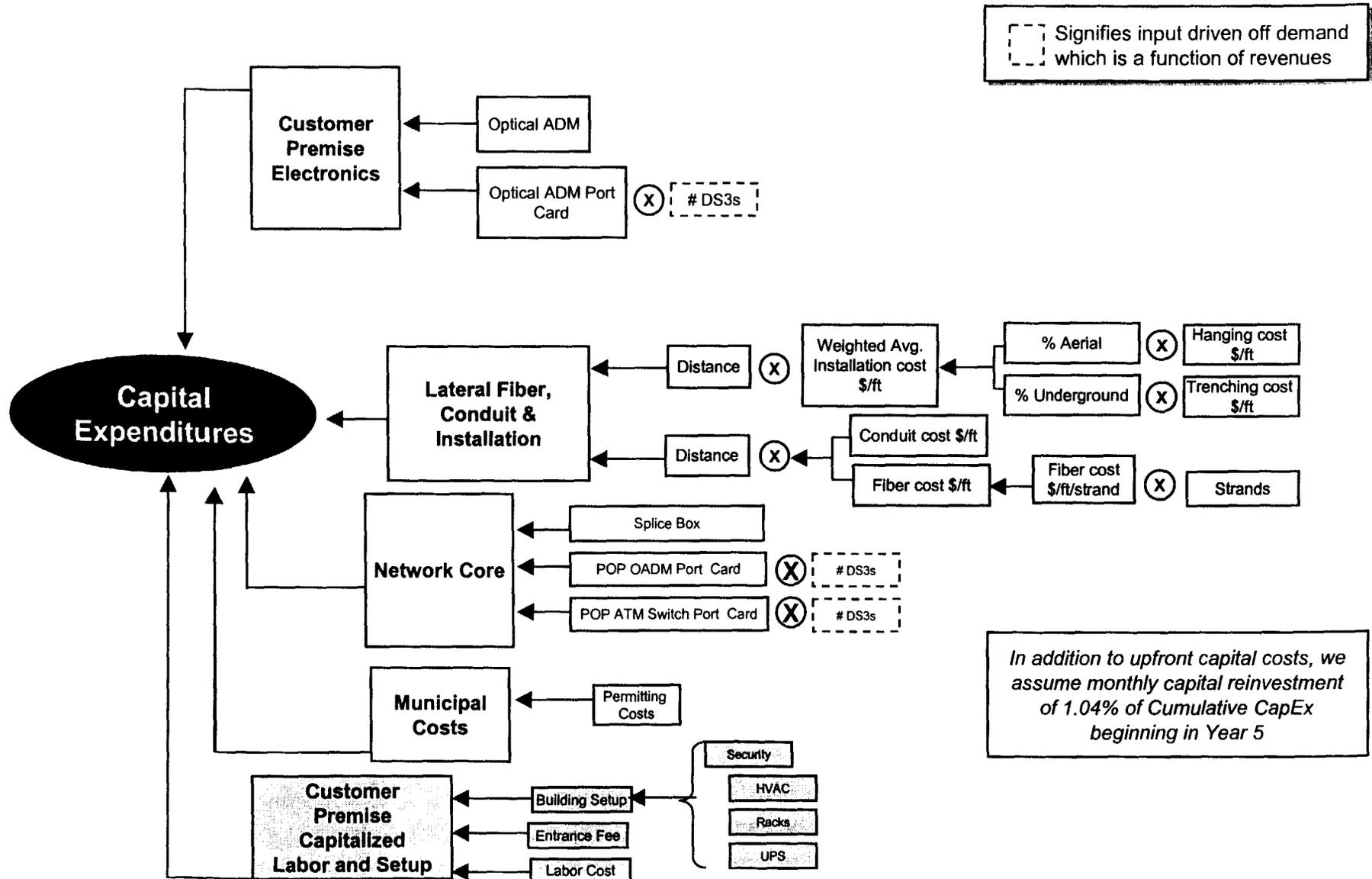
### Year 5 Outside Plant Operating Costs



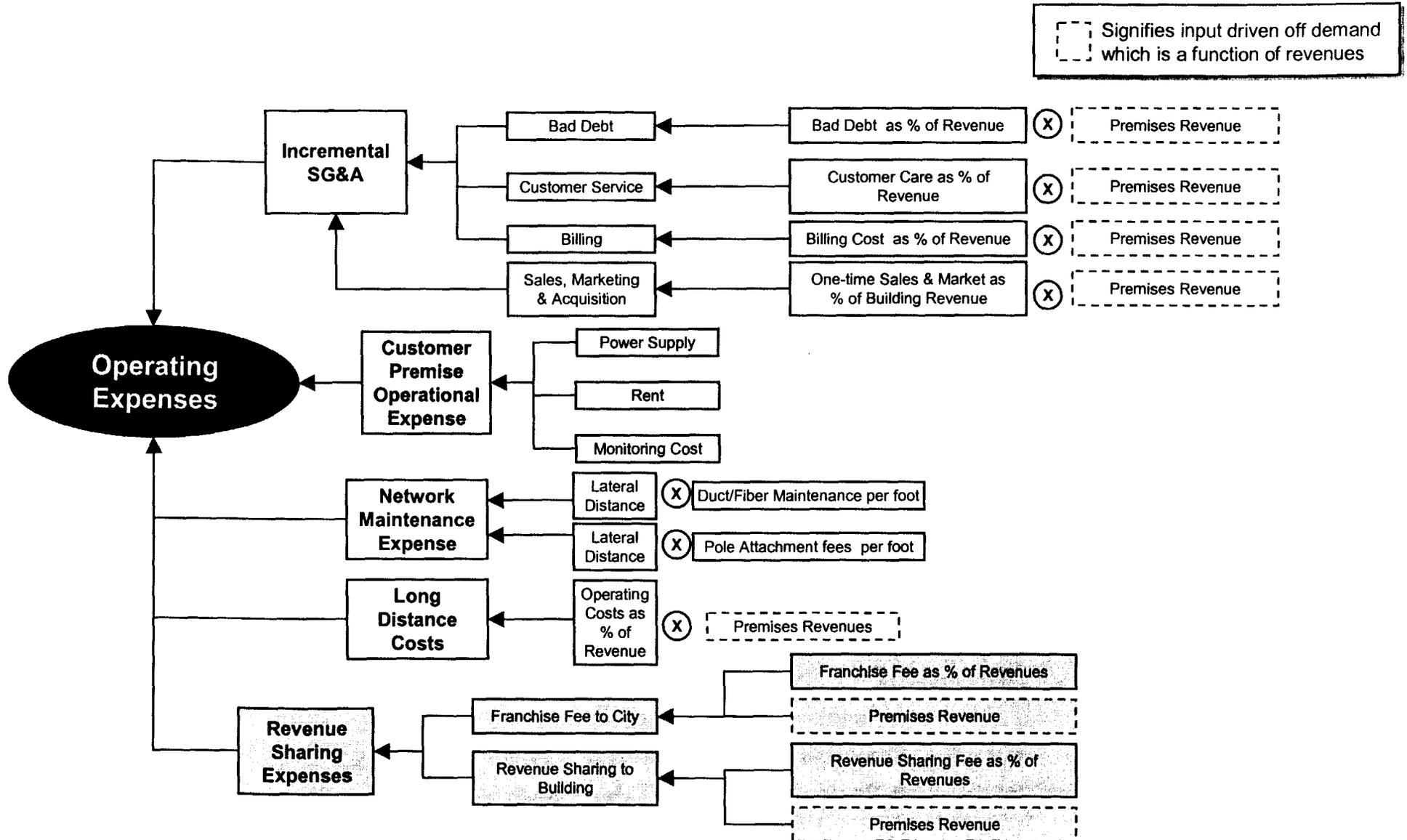
### Year 5 Customer Premises Costs



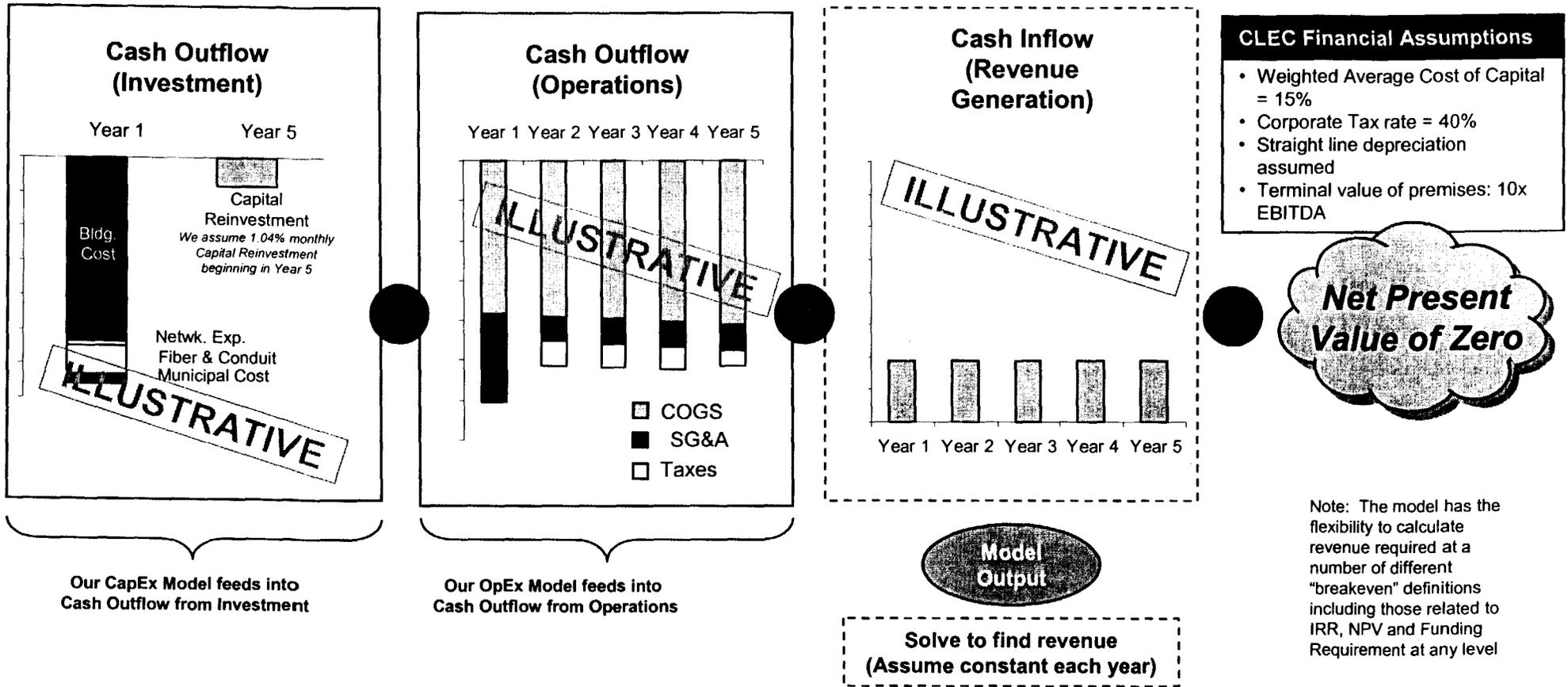
The capital expenditures are driven by five main investment components: building electronics, lateral fiber and conduit, network core, municipal costs, and capitalized labor and setup



# Operating expenses are driven by five components: SG&A, customer premise expenses, maintenance expense, long distance costs and revenue sharing



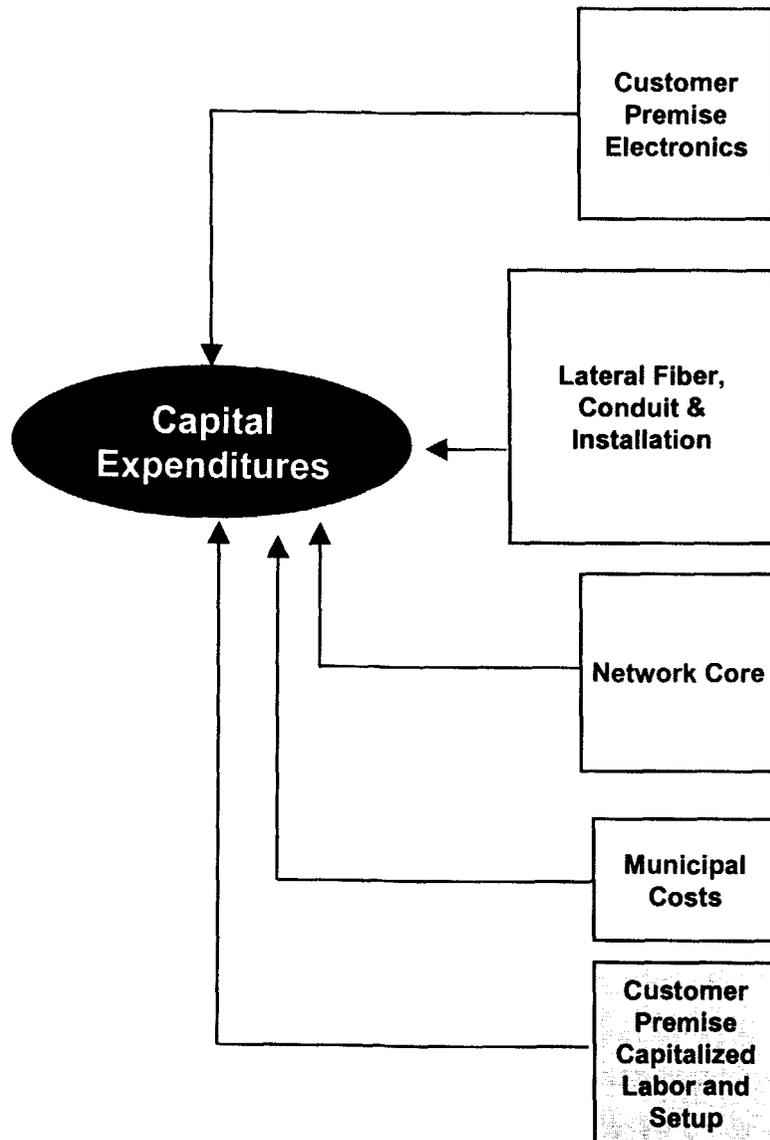
From the CapEx and OpEx models we develop cash outflows from investment and operations and then solve to find the breakeven revenue that results in net present value of zero



## Today's discussion

- Background & Introduction
- Current Results
- Model Architecture Design
- Assumptions and Sources

The following are the specific market inputs for capital expenditures...



| Customer Premise Electronics       | Akron    | Cleveland | Dayton   | Greenville | St. Paul | Seattle  | Tucson   |
|------------------------------------|----------|-----------|----------|------------|----------|----------|----------|
| Optical ADM (Cisco 15454 or 15327) | \$25,000 | \$25,000  | \$25,000 | \$25,000   | \$25,000 | \$25,000 | \$25,000 |
| Optical ADM Port Card (per DS-3)   | \$1,000  | \$1,000   | \$1,000  | \$1,000    | \$1,000  | \$1,000  | \$1,000  |

Sources: Interview with facilities-based provider; Interviews with network engineers; CSMG analysis

| Lateral Fiber, Conduit & Installation           | Akron   | Cleveland | Dayton  | Greenville | St. Paul | Seattle | Tucson  |
|---|---------|-----------|---------|------------|----------|---------|---------|
| %Age Underground Conduit                        | 93%     | 93%       | 100%    | 90%        | 100%     | 100%    | 88%     |
| Cost of Fiber (per strand per foot)             | \$0.03  | \$0.03    | \$0.03  | \$0.03     | \$0.03   | \$0.03  | \$0.03  |
| Number of Strands per cable                     | 144     | 144       | 144     | 144        | 144      | 144     | 144     |
| Cost of Terrestrial Conduit (per duct per foot) | \$1.28  | \$1.28    | \$1.28  | \$1.28     | \$1.28   | \$1.28  | \$1.28  |
| Cost of Fiber Trenching (per foot)              | \$21    | \$30      | \$18    | \$17       | \$24     | \$30    | \$21    |
| Cost of Aerial Fiber Install (per foot)         | \$3.58  | \$3.30    | \$3.00  | \$2.86     | \$3.10   | \$3.37  | \$2.63  |
| Minimum Cost of Installation                    | \$1,789 | \$1,648   | \$1,500 | \$1,429    | \$1,552  | \$1,683 | \$1,313 |

Sources: Interviews with city officials for each market; Interview with facilities-based provider; Quotes from equipment vendors; Interviews with fiber installer contractors from various markets; Bureau of Labor Statistics; CSMG analysis

| Network Core                         | Akron   | Cleveland | Dayton  | Greenville | St. Paul | Seattle | Tucson  |
|--------------------------------------|---------|-----------|---------|------------|----------|---------|---------|
| Splice Box                           | \$1,000 | \$1,000   | \$1,000 | \$1,000    | \$1,000  | \$1,000 | \$1,000 |
| POP Optical ADM Port Card (per DS-3) | \$1,000 | \$1,000   | \$1,000 | \$1,000    | \$1,000  | \$1,000 | \$1,000 |
| POP ATM Switch Port Card (per DS-3)  | \$1,000 | \$1,000   | \$1,000 | \$1,000    | \$1,000  | \$1,000 | \$1,000 |

Sources: Interview with facilities-based provider; Interviews with network engineers; CSMG analysis

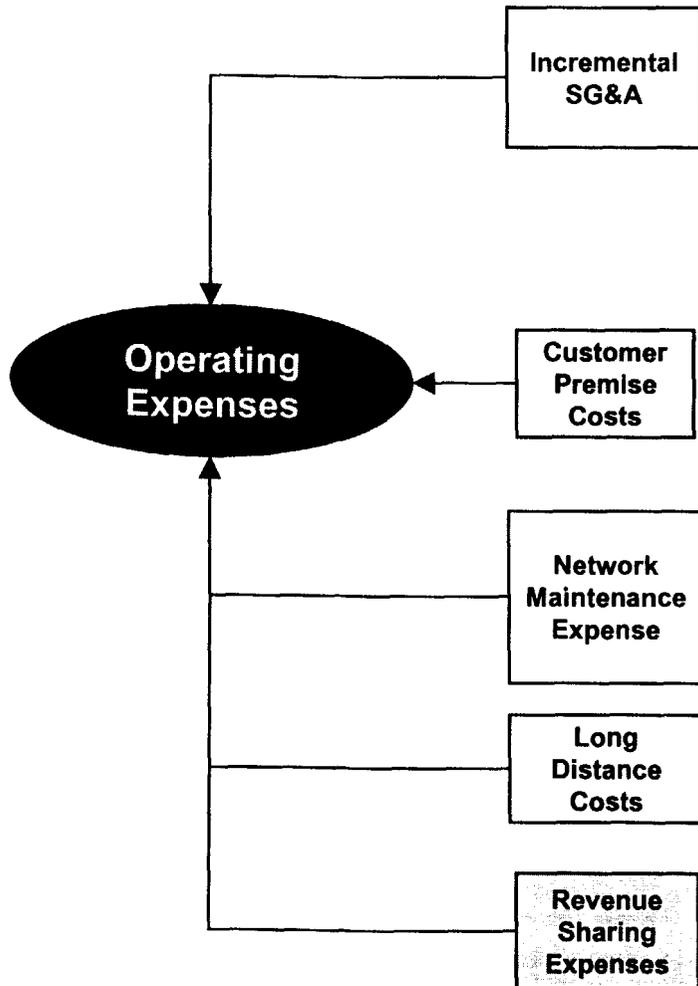
| Municipal Costs  | Akron | Cleveland | Dayton | Greenville | St. Paul | Seattle | Tucson |
|------------------|-------|-----------|--------|------------|----------|---------|--------|
| Permitting Costs | \$510 | \$5,308   | \$865  | \$35       | \$1,227  | \$7,668 | \$85   |

Sources: Interviews with city officials from each market; CSMG analysis

| Customer Premises Capitalized Labor & Setup         | Akron    | Cleveland | Dayton   | Greenville | St. Paul | Seattle  | Tucson   |
|---|----------|-----------|----------|------------|----------|----------|----------|
| Building Setup (Racks, HVAC, Security, UPS, Risers) | \$50,000 | \$50,000  | \$50,000 | \$50,000   | \$50,000 | \$50,000 | \$50,000 |
| Labor Cost for Setup                                | \$32,562 | \$29,983  | \$27,298 | \$26,008   | \$28,239 | \$30,628 | \$23,899 |
| Initial Entrance Fee                                | \$250    | \$400     | \$325    | \$250      | \$250    | \$400    | \$325    |

Sources: Interviews with network engineers; Interview with national building owner/operator; Bureau of Labor Statistics; CSMG analysis

The following are the specific market inputs for operating expenses...



| Incremental SG&A Expenses  |      |
|--|------|
| Customer Care Expense  | 4%   |
| Billing Expense  | 1%   |
| Bad Debt Expense   | 1.5% |
| Sales & Marketing Expense (As a multiple of 1st month's revenue) | 2.00 |

Sources: CLEC Annual Reports; CSMG analysis

| Customer Premise Costs                | Akron   | Cleveland | Dayton  | Greenville | St. Paul | Seattle | Tucson  |
|---------------------------------------|---------|-----------|---------|------------|----------|---------|---------|
| Electricity Cost (per bldg. per year) | \$1,523 | \$1,523   | \$1,523 | \$1,210    | \$1,293  | \$1,064 | \$1,398 |
| Annual Power Rate Increase            | 7%      | 7%        | 7%      | 7%         | 7%       | 7%      | 7%      |
| Rent (per bldg.)                      | \$3,000 | \$4,800   | \$3,000 | \$3,000    | \$3,900  | \$4,800 | \$3,900 |
| Annual Rent Increase                  | 4%      | 4%        | 4%      | 4%         | 4%       | 4%      | 4%      |
| Monitoring Cost (per bldg.)           | \$1,628 | \$1,499   | \$1,365 | \$1,300    | \$1,412  | \$1,531 | \$1,195 |
| Annual Monitoring Cost Increase       | 3%      | 3%        | 3%      | 3%         | 3%       | 3%      | 3%      |

Sources: Interviews with fiber installer contractors; Energy Information Association; Interview with national building owner/operator; Bureau of Labor Statistics; CSMG analysis

| Network Maintenance Expenses    | Akron  | Cleveland | Dayton | Greenville | St. Paul | Seattle | Tucson |
|---------------------------------|--------|-----------|--------|------------|----------|---------|--------|
| Fiber Maintenance (per foot)    | \$0.12 | \$0.11    | \$0.10 | \$0.10     | \$0.10   | \$0.11  | \$0.09 |
| Pole Attachment Fees (per foot) | \$0.03 | \$0.03    | \$0.03 | \$0.03     | \$0.03   | \$0.04  | \$0.05 |

Sources: Bureau of Labor Statistics; Interviews with facilities-based providers; CSMG analysis

| Long Distance Costs                         | Akron | Cleveland | Dayton | Greenville | St. Paul | Seattle | Tucson |
|---|-------|-----------|--------|------------|----------|---------|--------|
| Long Distance Revenue as % of total Revenue | 30%   | 30%       | 30%    | 30%        | 30%      | 30%     | 30%    |
| Long Distance Cost as % of LD Revenue       | 80%   | 80%       | 80%    | 80%        | 80%      | 80%     | 80%    |

Sources: CSMG analysis

| Revenue Sharing Costs                     | Akron | Cleveland | Dayton | Greenville | St. Paul | Seattle | Tucson |
|---|-------|-----------|--------|------------|----------|---------|--------|
| Ongoing Revenue Sharing (%age of Revenue) | 0%    | 0%        | 0%     | 0%         | 0%       | 0%      | 0%     |
| Franchise Agreements (% of rev. per year) | 5.0%  | 0.0%      | 0.0%   | 0.0%       | 0.0%     | 0.0%    | 5.5%   |
| Flat Franchise Agreement (\$ per Year)    | \$0   | \$0       | \$0    | \$1,000    | \$0      | \$0     | \$0    |

Sources: Interview with national building owner/operator; Interviews with city officials from each market; CSMG analysis

**Note that we assume there is no existing conduit available for lease, a relatively conservative assumption. If we run the model assuming a CLEC leases conduit, the revenue breakeven frontiers are substantially reduced, especially at longer distances...**

**Annual Revenue Breakeven Threshold (NPV = 0) by Distance per Building**

| Market                     | 500 feet | 1,000 feet | 1,500 feet | 2,000 feet | 2,500 feet | 3,000 feet | 3,500 feet | 4,000 feet | 4,500 feet |
|----------------------------|----------|------------|------------|------------|------------|------------|------------|------------|------------|
| Akron, Ohio                | \$43,657 | \$44,624   | \$45,592   | \$46,559   | \$47,527   | \$48,495   | \$49,462   | \$50,430   | \$51,397   |
| Cleveland, Ohio            | \$44,126 | \$45,030   | \$45,934   | \$46,838   | \$47,742   | \$48,646   | \$49,550   | \$50,453   | \$51,357   |
| Dayton, Ohio               | \$38,597 | \$39,533   | \$40,469   | \$41,405   | \$42,341   | \$43,277   | \$44,213   | \$45,149   | \$46,085   |
| Greenville, South Carolina | \$38,867 | \$39,768   | \$40,670   | \$41,571   | \$42,472   | \$43,374   | \$44,276   | \$45,178   | \$46,079   |
| St. Paul, Minnesota        | \$40,219 | \$41,277   | \$42,335   | \$43,393   | \$44,451   | \$45,509   | \$46,568   | \$47,626   | \$48,684   |
| Seattle, Washington        | \$43,925 | \$44,844   | \$45,763   | \$46,682   | \$47,601   | \$48,520   | \$49,440   | \$50,359   | \$51,278   |
| Tucson, Arizona            | \$42,180 | \$43,164   | \$44,151   | \$45,137   | \$46,124   | \$47,109   | \$48,089   | \$49,068   | \$50,092   |