

Network Theorems

- Lower service price = Greater market share
- Greater minimum bandwidth = Greater market share
- Greater market share = Lower required subsidy per subscriber
- Universal property tax = Lower pricing than Infrastructure fees
- Fewer service speed options = Lower cost per unit
- Greater market share = Lower cost per unit
- Fewer competitors = Greater market share
- All fiber = Best Reliability & Best Speed
- Consumer owned = Greater adoption
- First entrant = Greater market share
- Greater scale = Pricing power

Timeline / Budget

Wayne - Municipal-owned Fiber-to-the-Home Network Project - Timeline / Budget																			
Task	Price	Mo 1	Mo 2	Mo 3	Mo 4	Mo 5	Mo 6	Mo 7	Mo 8	Mo 9	Mo 10	Mo 11	Mo 12	Mo 13	Mo 14	Mo 15	Mo 16	Mo 17	Mo 18
Engineering (poles, underground, locations, strand map only) - (Fixed Price)	\$50,000																		
Develop RFP's - (Fixed Price)	\$5,000																		
Manage RFP Process (estimated hourly & expense)	\$2,500																		
Contract Negotiations (estimated hourly & expense)	\$2,500																		
Subtotal Estimated Engineering / RFP costs	\$60,000																		
PUC Certification (estimated hourly & expense)	\$1,500																		
Pole Attachment Agreement Negotiation (estimated hourly & expense)	\$1,500																		
Pole Attachment Applications (estimated hourly & expense)	\$7,000																		
Pole Owner Joint Ride-out (estimated hourly & expense)	\$30,000																		
Subtotal Estimated Cost to determine Make-ready costs	\$40,000																		
Utility Pole Make-ready process (estimate pending pole owner quotes)	\$612,000																		
Construction (estimate pending RFP bids)	\$1,235,000																		
Subscriber Turn-up (100% take rate) (estimate pending RFP bids)	\$881,000																		
Owners Project Manager (OPM) (estimate hourly & expense)	\$105,800																		
Subtotal Estimated Construction Cost	\$3,033,800																		
Construction Contingency 10%	\$303,380																		
Total Estimated Construction Cost	\$3,337,180																		
Total Estimated Project Cost	\$3,437,180																		

Assumptions

- Project would not proceed without a minimum quantity of subscribers presubscribed
- Network would not be an open-access network



Conventional Loan vs Bond Financing			
2020 Wayne Real Estate Tax Commitment			
Total RE Assessed Value	\$ 180,014,020		
Total RE Taxes Collected	\$ 3,233,052		
Mil Tax Rate	0.01796		
Conventional Loan			
Construction Cost	\$ 3,473,530		
Borrowed at	2.70%		
For 20 Years	Fixed		
Monthly Payment	\$ 18,747		
Annual Payment	\$ 224,960		
Percent Tax Increase	6.95812%		
Mil Rate Increase	0.00125		
Bond Financing			
Construction Funds Needed	\$ 3,473,530		
Debt Service Reserve	\$ -	0.00%	<i>Of Total Bond Issued</i>
Cost of Issuance Financed	\$ 70,888	2.00%	<i>Of Total Bond Issued</i>
Total Bond Issued	\$ 3,544,418		
Maturity	20 years		
Bond Yield	2.700%		
Monthly Payments	\$ 19,129		
Interest returned on Debt Reserve	\$ -	2.700%	
Net Monthly Payment	\$ 19,129		
Annual Payment	\$ 229,551		
Percent Tax Increase	7.1001%		
Mil Rate Increase	0.00128		
<i>At maturity of the Bond, the Town gets back its Debt Service Reserve of</i>			<i>\$0</i>



Fiber-to-the-Home Financial Proforma							
			Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	Year 5 Total
Revenue	Cabled	Uncabled					
Potential subscribers	665	216					
Market share end of 1st year	25%	40%					
Market share end of 2nd year	30%	50%					
Market share end of 3rd year	35%	60%					
Market share end of 4th year	40%	70%					
Market share end of 5th year	45%	80%					
Subscribers added by month			253	55	55	55	55
Subscribers disconnected by month	0%		0	0	0	0	0
Subscribers in service, net of disconnects			253	308	362	417	472
Monthly recurring revenue	\$60		\$ 98,534	\$ 203,300	\$ 242,792	\$ 282,284	\$ 321,776
Non-Recurring Installation Charge per subscriber	\$ 1,000		\$ -	\$ 54,850	\$ 54,850	\$ 54,850	\$ 54,850
Total Revenue			\$ 98,534	\$ 258,150	\$ 297,642	\$ 337,134	\$ 376,626
Cumulative Revenue since Inception			\$ 98,534	\$ 356,683	\$ 654,325	\$ 991,458	\$ 1,368,084
Operating Expense							
Expense Inflation per year	3%						
<i>Cost of Goods Sold</i>							
IP Transit (Internet Capacity) - minimum amt	\$ 2,044		\$ 24,528	\$ 24,528	\$ 24,528	\$ 24,528	\$ 24,528
IP Transit (Internet Capacity) - % of MRC	6%						
Pole quantity	1,632						
Annual Pole & conduit license	\$ 20.00		\$ 32,640	\$ 33,619	\$ 34,628	\$ 35,667	\$ 36,737
Utilities / Fuel	\$ 300		\$ 3,600	\$ 3,708	\$ 3,819	\$ 3,934	\$ 4,052
Outside Plant Backbone Mileage	49.4						
Outside Plant Maintenance per mile per month	\$ 50		\$ 29,640	\$ 30,529	\$ 31,445	\$ 32,388	\$ 33,360
Insurance per month	\$ 4,000		\$ 48,000	\$ 49,440	\$ 50,923	\$ 52,451	\$ 54,024
<i>COGS subtotal</i>			\$ 138,408	\$ 141,824	\$ 145,343	\$ 148,968	\$ 152,701
<i>Gross Margin</i>			\$ (39,875)	\$ 116,325	\$ 152,298	\$ 188,166	\$ 223,925
			-40%	45%	51%	56%	59%
<i>Sales / General / Administrative</i>							
Network Operator - Base Management Fee	\$ 1,000		\$ 1,000	\$ 1,030	\$ 1,061	\$ 1,093	\$ 1,126
Network Operator - Fee per subscriber	\$ 25.00		\$ 41,056	\$ 84,708	\$ 101,163	\$ 117,618	\$ 134,073
Admin	\$ 5,000		\$ 5,000	\$ 5,150	\$ 5,305	\$ 5,464	\$ 5,628
Postage	\$ 500		\$ 500	\$ 515	\$ 530	\$ 546	\$ 563
Truck Maintenance	\$ 3,000		\$ 3,000	\$ 3,090	\$ 3,183	\$ 3,278	\$ 3,377
Equipment Upgrade Fund	\$ 10,688		\$ 10,688	\$ 11,008	\$ 11,338	\$ 11,679	\$ 12,029
Contingency	\$ 10,000		\$ 10,000	\$ 10,300	\$ 10,609	\$ 10,927	\$ 11,255
Annual Accounting / Legal	\$ 5,000		\$ 5,000	\$ 5,150	\$ 5,305	\$ 5,464	\$ 5,628
Bad debt (per month)	2%		(\$1,971)	(\$5,163)	(\$5,953)	(\$6,743)	(\$7,533)
Total Operating Expense			\$ 212,680	\$ 257,613	\$ 277,884	\$ 298,294	\$ 318,845
EBITDA			(114,147)	537	19,757	38,840	57,780
			-116%	0%	7%	12%	15%
Cumulative EBITDA			(\$114,147)	(\$113,610)	(\$93,853)	(\$55,013)	\$2,767
New Subscriber Installation Cost (CAPEX)	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -
Cumulative Cash Flow			(\$114,147)	(\$113,610)	(\$93,853)	(\$55,013)	\$2,767
Annual Bond Payment	\$ 229,551		\$ 229,551	\$ 229,551	\$ 229,551	\$ 229,551	\$ 229,551
Annual Mil Rate allocated to FTTH (Construction)			0.0013	0.0013	0.0013	0.0013	0.0013
Property Tax Impact							
Assessed Property Value	\$ 182,000						
Annual Property Tax Impact			\$ 232	\$ 232	\$ 232	\$ 232	\$ 232
Monthly Property Tax Impact			\$ 19	\$ 19	\$ 19	\$ 19	\$ 19
Subscriber Pricing							
Monthly Service Price	\$ 60		\$ 60	\$ 60	\$ 60	\$ 60	\$ 60
Total Subscriber Service Cost (Monthly Price + Monthly Tax Impact)	\$ 79		\$ 79	\$ 79	\$ 79	\$ 79	\$ 79



Pricing / Market Share Analysis										
Monthly Price	Cabled					Uncabled				
	1st Year	2nd Year	3rd Year	4th Year	5th Year	1st Year	2nd Year	3rd Year	4th Year	5th Year
\$65	25%	30%	35%	40%	45%	40%	45%	50%	55%	60%
\$60	30%	35%	40%	45%	50%	45%	50%	55%	60%	65%
\$57	35%	40%	45%	50%	55%	50%	55%	60%	65%	70%
\$54	40%	45%	50%	55%	60%	55%	60%	65%	70%	75%
\$52	45%	50%	55%	60%	65%	60%	65%	70%	75%	80%
\$50	50%	55%	60%	65%	70%	65%	70%	75%	80%	85%
\$48	55%	60%	65%	70%	75%	70%	75%	80%	85%	90%
\$48	60%	65%	70%	75%	75%	75%	80%	85%	90%	90%
\$48	65%	70%	75%	75%	75%	80%	85%	90%	90%	90%
\$49	70%	75%	75%	75%	75%	85%	90%	90%	90%	90%
\$50	75%	75%	75%	75%	75%	90%	90%	90%	90%	90%
\$88	25%	25%	25%	25%	25%	40%	40%	40%	40%	40%
\$77	30%	30%	30%	30%	30%	50%	50%	50%	50%	50%
\$70	35%	35%	35%	35%	35%	60%	60%	60%	60%	60%
\$64	40%	40%	40%	40%	40%	70%	70%	70%	70%	70%
\$60	45%	45%	45%	45%	45%	80%	80%	80%	80%	80%
\$56	50%	50%	50%	50%	50%	90%	90%	90%	90%	90%