

**City of Seattle
Seattle, Washington
FTTP Network - Data Services
June 2015**

Construction in Communication Space & Required Take Rate

First is to ensure that all assumptions are clearly understood and their impact to the projected results. Second is to present a plausible outcome of the proposed broadband business. Third is to provide a guide to judge the progress of the broadband business as it unfolds. CTC does not warrant the analysis, the assumptions, or the success of the broadband business. CTC only offers this tool as a means of providing consultative advice. There will usually be differences between the projected and actual results, because events and circumstances frequently do not occur as expected, and those differences may be material.

City of Seattle
FOTP Network - Data Services
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City of Seattle
 FFTP Network - Data Services
 Construction in Communication Space & Required Take Rate
 June 2015

Income Statement

	Year	1	2	3	4	5	6	7	8	9	10
a. Revenues											
Video	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Internet - Residential		8,868,600	58,106,700	107,272,800	107,272,800	107,272,800	107,272,800	107,272,800	107,272,800	107,272,800	107,272,800
Internet - Business		1,193,400	4,162,620	7,135,920	7,135,920	7,135,920	7,135,920	7,135,920	7,135,920	7,135,920	7,135,920
Enterprise		-	-	-	-	-	-	-	-	-	-
Voice		-	-	-	-	-	-	-	-	-	-
Connection Fee (net)		1,653,600	8,643,000	8,631,600	-	-	-	-	-	-	-
Provider Fee		-	-	-	-	-	-	-	-	-	-
Assessments		-	-	-	-	-	-	-	-	-	-
Ancillary Revenues		-	-	-	-	-	-	-	-	-	-
Total	\$	11,715,600	70,912,320	123,040,320	114,408,720	114,408,720	114,408,720	114,408,720	114,408,720	114,408,720	114,408,720
b. Content Fees											
Internet	\$	206,310	1,172,495	2,137,680	2,137,680	2,137,680	2,137,680	2,137,680	2,137,680	2,137,680	2,137,680
Enterprise		-	-	-	-	-	-	-	-	-	-
Total	\$	206,310	1,172,495	2,137,680	2,137,680	2,137,680	2,137,680	2,137,680	2,137,680	2,137,680	2,137,680
c. Operating Costs											
Labor Costs	\$	4,740,570	15,311,620	24,709,880	25,196,510	25,692,870	26,199,160	26,715,570	27,242,310	27,779,590	28,327,610
Insurance		200,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000
Utilities		36,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000
Office Expenses		36,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000
Facility Lease		120,000	240,000	240,000	240,000	240,000	240,000	240,000	240,000	240,000	240,000
Locates & Ticket Processing		-	280,000	561,000	561,000	561,000	561,000	561,000	561,000	561,000	561,000
Peering		33,100	205,900	378,600	378,600	378,600	378,600	378,600	378,600	378,600	378,600
Contingency		200,000	400,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000
Billing Maintenance Contract		-	-	-	-	-	-	-	-	-	-
Fiber & Network Maintenance		1,181,210	2,362,430	2,362,430	2,362,430	2,362,430	2,362,430	2,362,430	2,362,430	2,362,430	2,362,430
Vendor Maintenance Contracts		-	-	-	-	-	-	-	-	-	-
Legal and Lobby Fees		750,000	500,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000
Planning		-	-	-	-	-	-	-	-	-	-
Consulting		500,000	500,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Marketing		2,400,000	2,400,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
Education and Training		186,300	604,230	973,250	992,720	1,012,570	1,032,820	1,053,480	1,074,550	1,096,040	1,117,960
Customer Handholding		13,230	82,370	151,430	151,430	151,430	151,430	151,430	151,430	151,430	151,430
Customer Billing (Unit)		6,610	41,190	75,710	75,710	75,710	75,710	75,710	75,710	75,710	75,710
Allowance for Bad Debts		117,160	709,120	1,230,400	1,144,090	1,144,090	1,144,090	1,144,090	1,144,090	1,144,090	1,144,090
Churn (acquisition costs)		82,680	514,830	946,410	946,410	946,410	946,410	946,410	946,410	946,410	946,410
Low Income Assistance		-	-	-	-	-	-	-	-	-	-
Pole Attachment Expense		263,180	263,180	263,180	263,180	263,180	263,180	263,180	263,180	263,180	263,180
Total	\$	10,866,040	24,946,870	34,674,290	35,094,080	35,610,290	36,136,830	36,673,900	37,221,710	37,780,480	38,350,420
d. EBITDA	\$	643,250	44,792,955	86,228,350	77,176,960	76,660,750	76,134,210	75,597,140	75,049,330	74,490,560	73,920,620
e. Depreciation											
	\$	17,739,900	42,184,320	53,648,530	53,673,620	53,698,720	52,554,460	46,853,390	41,160,530	41,160,530	41,160,530
f. Operating Income (EBITDA less depreciation)											
	\$	(17,096,650)	2,608,635	32,579,820	23,503,340	22,962,030	23,579,750	28,743,750	33,888,800	33,330,030	32,760,090
g. Non-Operating Income											
Interest Income	\$	-	114,470	85,950	113,940	144,510	180,340	154,910	63,630	84,380	125,220
Interest Expense (10 Year Bond)		(964,800)	(1,286,400)	(1,164,840)	(1,038,430)	(906,950)	(770,210)	(628,010)	(480,120)	(326,320)	(166,360)
Interest Expense (20 Year Bond)		(12,537,500)	(25,925,000)	(26,477,350)	(25,427,260)	(24,332,540)	(23,191,300)	(22,001,560)	(20,761,240)	(19,468,210)	(18,120,240)
Interest Expense (Loan)		-	-	-	-	-	-	-	-	-	-
Total	\$	(13,502,300)	(27,096,930)	(27,556,240)	(26,351,750)	(25,094,980)	(23,781,170)	(22,474,660)	(21,177,730)	(19,710,150)	(18,161,380)
h. Net Income (before taxes)											
	\$	(30,598,950)	(24,488,295)	5,023,580	(2,848,410)	(2,132,950)	(201,420)	6,269,090	12,711,070	13,619,880	14,598,710
i. Facility Taxes											
	\$	389,700	2,411,690	4,431,050	4,431,050	4,431,050	4,431,050	4,431,050	4,431,050	4,431,050	4,431,050
j. Net Income											
	\$	(30,988,650)	(26,899,985)	592,530	(7,279,460)	(6,564,000)	(4,632,470)	1,838,040	8,280,020	9,188,830	10,167,660

City of Seattle
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Income Statement

	Year	11	12	13	14	15	16	17	18	19	20	
a. Revenues												
Video	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Internet - Residential		107,272,800	107,272,800	107,272,800	107,272,800	107,272,800	107,272,800	107,272,800	107,272,800	107,272,800	107,272,800	
Internet - Business		7,135,920	7,135,920	7,135,920	7,135,920	7,135,920	7,135,920	7,135,920	7,135,920	7,135,920	7,135,920	
Enterprise		-	-	-	-	-	-	-	-	-	-	
Voice		-	-	-	-	-	-	-	-	-	-	
Provider Fee		-	-	-	-	-	-	-	-	-	-	
Assessments		-	-	-	-	-	-	-	-	-	-	
Ancillary Revenues		-	-	-	-	-	-	-	-	-	-	
Total	\$	114,408,720	114,408,720	114,408,720	114,408,720	114,408,720	114,408,720	114,408,720	114,408,720	114,408,720	114,408,720	
b. Content Fees												
Internet	\$	2,137,680	2,137,680	2,137,680	2,137,680	2,137,680	2,137,680	2,137,680	2,137,680	2,137,680	2,137,680	
Enterprise		-	-	-	-	-	-	-	-	-	-	
Total	\$	2,137,680	2,137,680	2,137,680	2,137,680	2,137,680	2,137,680	2,137,680	2,137,680	2,137,680	2,137,680	
c. Operating Costs												
Labor Costs	\$	28,886,590	29,456,750	30,038,310	30,631,510	31,236,570	31,853,730	32,483,230	33,125,320	33,780,260	34,448,290	
Insurance		400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	
Utilities		72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000	72,000	
Office Expenses		60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	
Facility Lease		240,000	240,000	240,000	240,000	240,000	240,000	240,000	240,000	240,000	240,000	
Locates & Ticket Processing		561,000	561,000	561,000	561,000	561,000	561,000	561,000	561,000	561,000	561,000	
Peering		378,600	378,600	378,600	378,600	378,600	378,600	378,600	378,600	378,600	378,600	
Contingency		600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	
Billing Maintenance Contract		-	-	-	-	-	-	-	-	-	-	
Fiber & Network Maintenance		2,362,430	2,362,430	2,362,430	2,362,430	2,362,430	2,362,430	2,362,430	2,362,430	2,362,430	2,362,430	
Vendor Maintenance Contracts		-	-	-	-	-	-	-	-	-	-	
Legal and Lobby Fees		250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	
Planning		-	-	-	-	-	-	-	-	-	-	
Consulting		200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	
Marketing		1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	
Education and Training		1,140,320	1,163,130	1,186,390	1,210,120	1,234,320	1,259,010	1,284,190	1,309,870	1,336,070	1,362,790	
Customer Handholding		151,430	151,430	151,430	151,430	151,430	151,430	151,430	151,430	151,430	151,430	
Customer Billing (Unit)		75,710	75,710	75,710	75,710	75,710	75,710	75,710	75,710	75,710	75,710	
Allowance for Bad Debts		1,144,090	1,144,090	1,144,090	1,144,090	1,144,090	1,144,090	1,144,090	1,144,090	1,144,090	1,144,090	
Churn (acquisition costs)		946,410	946,410	946,410	946,410	946,410	946,410	946,410	946,410	946,410	946,410	
Low Income Assistance		-	-	-	-	-	-	-	-	-	-	
Pole Attachment Expense		263,180	263,180	263,180	263,180	263,180	263,180	263,180	263,180	263,180	263,180	
Total	\$	38,931,760	39,524,730	40,129,550	40,746,480	41,375,740	42,017,590	42,672,270	43,340,040	44,021,180	44,715,930	
d. EBITDA	\$	73,339,280	72,746,310	72,141,490	71,524,560	70,895,300	70,253,450	69,598,770	68,931,000	68,249,860	67,555,110	
e. Depreciation	\$	41,160,530	41,160,530	41,160,530	41,160,530	41,160,530	41,160,530	41,160,530	41,160,530	41,160,530	41,160,530	
f. Operating Income (EBITDA less depreciator)	\$	32,178,750	31,585,780	30,980,960	30,364,030	29,734,770	29,092,920	28,438,240	27,770,470	27,089,330	26,394,580	
g. Non-Operating Income												
Interest Income	\$	149,660	118,540	87,550	128,400	108,950	113,290	82,160	51,180	92,030	132,880	
Interest Expense (10 Year Bond)		-	-	-	-	-	-	-	-	-	-	
Interest Expense (20 Year Bond)		(16,714,980)	(15,249,970)	(13,722,730)	(12,130,570)	(10,470,740)	(8,740,370)	(6,936,460)	(5,055,880)	(3,095,390)	(1,051,560)	
Interest Expense (Loan)		-	-	-	-	-	-	-	-	-	-	
Total	\$	(16,565,320)	(15,131,430)	(13,635,180)	(12,002,170)	(10,361,790)	(8,627,080)	(6,854,300)	(5,004,700)	(3,003,360)	(918,680)	
h. Net Income (before taxes)	\$	15,613,430	16,454,350	17,345,780	18,361,860	19,372,980	20,465,840	21,583,940	22,765,770	24,085,970	25,475,900	
i. Facility Taxes	\$	4,431,050	4,431,050	4,431,050	4,431,050	4,431,050	4,431,050	4,431,050	4,431,050	4,431,050	4,431,050	
j. Net Income	\$	11,182,380	12,023,300	12,914,730	13,930,810	14,941,930	16,034,790	17,152,890	18,334,720	19,654,920	21,044,850	

City of Seattle
 FTTP Network - Data Services
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Cash Flow Statement

	1	2	3	4	5	6	7	8	9	10
a. Net Income	\$ (30,988,650)	\$ (26,899,985)	\$ 592,530	\$ (7,279,460)	\$ (6,564,000)	\$ (4,632,470)	\$ 1,838,040	\$ 8,280,020	\$ 9,188,830	\$ 10,167,660
b. Cash Outflows										
Debt Service Reserve	\$ (15,956,000)	\$ (16,152,000)	\$ (1,250,000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interest Reserve	(27,004,600)	(27,387,810)	(2,084,510)	-	-	-	-	-	-	-
Depreciation Reserve	-	-	-	(12,344,930)	(12,350,710)	(21,021,780)	(18,741,360)	(16,464,210)	(16,464,210)	(16,464,210)
Financing	(3,191,200)	(3,230,400)	(250,000)	-	-	-	-	-	-	-
Capital Expenditures	(272,772,570)	(301,701,090)	(57,321,050)	(125,460)	(125,460)	(6,689,810)	(28,913,490)	(52,975,670)	(8,165,090)	(125,460)
Total	\$ (318,924,370)	\$ (348,471,300)	\$ (60,905,560)	\$ (12,470,390)	\$ (12,476,170)	\$ (27,711,590)	\$ (47,654,850)	\$ (69,439,880)	\$ (24,629,300)	\$ (16,589,670)
c. Cash Inflows										
Interest Reserve	\$ 13,502,300	\$ 27,211,400	\$ 14,741,210	\$ 1,022,010	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Depreciation Reserve	-	-	-	125,460	125,460	6,689,810	28,913,490	52,975,670	8,165,090	125,460
Start Up Capital	-	-	-	-	-	-	-	-	-	-
Start Up Funds	-	-	-	-	-	-	-	-	-	-
Grants (infrastructure)	-	-	-	-	-	-	-	-	-	-
Grants (customer premises)	-	-	-	-	-	-	-	-	-	-
10-Year Bond Proceeds	24,120,000	8,040,000	-	-	-	-	-	-	-	-
20-Year Bond Proceeds	295,000,000	315,000,000	25,000,000	-	-	-	-	-	-	-
Loan Proceeds	-	-	-	-	-	-	-	-	-	-
Total	\$ 332,622,300	\$ 350,251,400	\$ 39,741,210	\$ 1,147,470	\$ 125,460	\$ 6,689,810	\$ 28,913,490	\$ 52,975,670	\$ 8,165,090	\$ 125,460
d. Total Cash Outflows and Inflows	\$ 13,697,930	\$ 1,780,100	\$ (21,164,350)	\$ (11,322,920)	\$ (12,350,710)	\$ (21,021,780)	\$ (18,741,360)	\$ (16,464,210)	\$ (16,464,210)	\$ (16,464,210)
e. Non-Cash Expenses - Depreciation	\$ 17,739,900	\$ 42,184,320	\$ 53,648,530	\$ 53,673,620	\$ 53,698,720	\$ 52,554,460	\$ 46,853,390	\$ 41,160,530	\$ 41,160,530	\$ 41,160,530
f. Adjustments										
Proceeds from Additional Cash Flows (10 Year Bond)	\$ (24,120,000)	\$ (8,040,000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proceeds from Additional Cash Flows (20 Year Bond)	\$ (295,000,000)	\$ (315,000,000)	\$ (25,000,000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proceeds from Additional Cash Flows (Loan)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
g. Adjusted Available Net Revenue	\$ (318,670,820)	\$ (305,975,565)	\$ 8,076,710	\$ 35,071,240	\$ 34,784,010	\$ 26,900,210	\$ 29,950,070	\$ 32,976,340	\$ 33,885,150	\$ 34,863,980
h. Principal Payments on Debt										
10 Year Bond Principal	\$ -	\$ 3,038,890	\$ 3,160,450	\$ 3,286,860	\$ 3,418,340	\$ 3,555,080	\$ 3,697,280	\$ 3,845,170	\$ 3,998,970	\$ 4,158,930
20 Year Bond Principal	-	12,003,640	24,707,970	25,758,060	26,852,780	27,994,020	29,183,760	30,424,080	31,717,110	33,065,080
Loan Principal	-	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ 15,042,530	\$ 27,868,420	\$ 29,044,920	\$ 30,271,120	\$ 31,549,100	\$ 32,881,040	\$ 34,269,250	\$ 35,716,080	\$ 37,224,010
i. Net Cash	\$ 449,180	\$ 2,021,905	\$ 5,208,290	\$ 6,026,320	\$ 4,512,890	\$ (4,648,890)	\$ (2,930,970)	\$ (1,292,910)	\$ (1,830,930)	\$ (2,360,030)
j. Cash Balance										
Unrestricted Cash Balance	\$ 449,180	\$ 2,471,085	\$ 7,679,375	\$ 13,705,695	\$ 18,218,585	\$ 13,569,695	\$ 10,638,725	\$ 9,345,815	\$ 7,514,885	\$ 5,154,855
Depreciation Reserve	-	-	-	12,219,470	24,444,720	38,776,690	28,604,560	(7,906,900)	392,220	16,730,970
Interest Reserve	13,502,300	13,678,710	1,022,010	-	-	-	-	-	-	-
Debt Service Reserve	15,956,000	32,108,000	33,358,000	33,358,000	33,358,000	33,358,000	33,358,000	33,358,000	33,358,000	33,358,000
Total Cash Balance	\$ 29,907,480	\$ 48,257,795	\$ 42,059,385	\$ 59,283,165	\$ 76,021,305	\$ 85,704,385	\$ 72,601,285	\$ 34,796,915	\$ 41,265,105	\$ 55,243,825
Un-depreciated Value of Capital Assets	\$ 255,032,670	\$ 514,549,430	\$ 518,221,950	\$ 464,673,790	\$ 411,100,530	\$ 365,235,880	\$ 347,295,980	\$ 359,111,120	\$ 326,115,670	\$ 285,080,600
Debt Service Balance (10 Year Bond)	\$ 24,120,000	\$ 32,160,000	\$ 29,121,110	\$ 25,960,660	\$ 19,255,460	\$ 19,255,460	\$ 15,700,380	\$ 12,003,100	\$ 8,157,930	\$ 4,158,960
Debt Service Balance (20 Year Bond)	\$ 295,000,000	\$ 610,000,000	\$ 622,996,360	\$ 598,288,390	\$ 572,530,330	\$ 545,677,550	\$ 517,683,530	\$ 488,499,770	\$ 458,075,690	\$ 426,358,580
Debt Service Balance (Internal Loan)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt Service (P&I)	\$ 13,502,300	\$ 42,253,930	\$ 55,510,610	\$ 55,510,610	\$ 55,510,610	\$ 55,510,610	\$ 55,510,610	\$ 55,510,610	\$ 55,510,610	\$ 55,510,610
Debt Coverage Ratio	-	(18.53)	1.28	2.12	1.98	1.61	1.60	1.58	1.50	1.43
Debt Service Coverage Ratio	-	(20.34)	0.29	1.21	1.15	0.85	0.91	0.96	0.95	0.94

City of Seattle
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Cash Flow Statement

	11	12	13	14	15	16	17	18	19	20
a. Net Income	\$ 11,182,380	\$ 12,023,300	\$ 12,914,730	\$ 13,930,810	\$ 14,941,930	\$ 16,034,790	\$ 17,152,890	\$ 18,334,720	\$ 19,654,920	\$ 21,044,850
b. Cash Outflows										
Debt Service Reserve	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interest Reserve	-	-	-	-	-	-	-	-	-	-
Depreciation Reserve	(16,464,210)	(16,464,210)	(16,464,210)	(16,464,210)	(16,464,210)	(16,464,210)	(16,464,210)	(16,464,210)	(16,464,210)	(16,464,210)
Financing	-	-	-	-	-	-	-	-	-	-
Capital Expenditures	(6,689,810)	(28,913,490)	(28,856,790)	(125,460)	(24,244,340)	(14,729,440)	(28,913,490)	(28,856,790)	(125,460)	(125,460)
Total	\$ (23,154,020)	\$ (45,377,700)	\$ (45,321,000)	\$ (16,589,670)	\$ (40,708,550)	\$ (31,193,650)	\$ (45,377,700)	\$ (45,321,000)	\$ (16,589,670)	\$ (16,589,670)
c. Cash Inflows										
Interest Reserve	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Depreciation Reserve	6,689,810	28,913,490	28,856,790	125,460	24,244,340	14,729,440	28,913,490	28,856,790	125,460	125,460
Start Up Capital	-	-	-	-	-	-	-	-	-	-
Start Up Funds	-	-	-	-	-	-	-	-	-	-
Grants (infrastructure)	-	-	-	-	-	-	-	-	-	-
Grants (customer premises)	-	-	-	-	-	-	-	-	-	-
10-Year Bond Proceeds	-	-	-	-	-	-	-	-	-	-
20-Year Bond Proceeds	-	-	-	-	-	-	-	-	-	-
Loan Proceeds	-	-	-	-	-	-	-	-	-	-
Total	\$ 6,689,810	\$ 28,913,490	\$ 28,856,790	\$ 125,460	\$ 24,244,340	\$ 14,729,440	\$ 28,913,490	\$ 28,856,790	\$ 125,460	\$ 125,460
d. Total Cash Outflows and Inflows	\$ (16,464,210)	\$ (16,464,210)	\$ (16,464,210)	\$ (16,464,210)	\$ (16,464,210)	\$ (16,464,210)	\$ (16,464,210)	\$ (16,464,210)	\$ (16,464,210)	\$ (16,464,210)
e. Non-Cash Expenses - Depreciation	\$ 41,160,530	\$ 41,160,530	\$ 41,160,530	\$ 41,160,530	\$ 41,160,530	\$ 41,160,530	\$ 41,160,530	\$ 41,160,530	\$ 41,160,530	\$ 41,160,530
f. Adjustments										
Proceeds from Additional Cash Flows (10 Year Bond)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proceeds from Additional Cash Flows (20 Year Bond)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proceeds from Additional Cash Flows (Loan)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
g. Adjusted Available Net Revenue	\$ 35,878,700	\$ 36,719,620	\$ 37,611,050	\$ 38,627,130	\$ 39,638,250	\$ 40,731,110	\$ 41,849,210	\$ 43,031,040	\$ 44,351,240	\$ 45,741,170
h. Principal Payments on Debt										
10 Year Bond Principal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20 Year Bond Principal	34,470,340	35,935,350	37,462,590	39,054,750	40,714,580	42,444,950	44,248,860	46,129,440	48,089,930	24,742,620
Loan Principal	-	-	-	-	-	-	-	-	-	-
Total	\$ 34,470,340	\$ 35,935,350	\$ 37,462,590	\$ 39,054,750	\$ 40,714,580	\$ 42,444,950	\$ 44,248,860	\$ 46,129,440	\$ 48,089,930	\$ 24,742,620
i. Net Cash	\$ 1,408,360	\$ 784,270	\$ 148,460	\$ (427,620)	\$ (1,076,330)	\$ (1,713,840)	\$ (2,399,650)	\$ (3,098,400)	\$ (3,738,690)	\$ 20,998,550
j. Cash Balance										
Unrestricted Cash Balance	\$ 6,563,215	\$ 7,347,485	\$ 7,495,945	\$ 7,068,325	\$ 5,991,995	\$ 4,278,155	\$ 1,878,505	\$ (1,219,895)	\$ (4,958,585)	\$ 16,039,965
Depreciation Reserve	26,505,370	14,056,090	1,663,510	18,002,260	10,222,130	11,956,900	(492,380)	(12,884,960)	3,453,790	19,792,540
Interest Reserve	-	-	-	-	-	-	-	-	-	-
Debt Service Reserve	33,358,000	33,358,000	33,358,000	33,358,000	33,358,000	33,358,000	33,358,000	33,358,000	33,358,000	33,358,000
Total Cash Balance	\$ 66,426,585	\$ 54,761,575	\$ 42,517,455	\$ 58,428,585	\$ 49,572,125	\$ 49,593,055	\$ 34,744,125	\$ 19,253,145	\$ 31,853,205	\$ 69,190,505
Un-depreciated Value of Capital Assets	\$ 250,609,870	\$ 238,362,830	\$ 226,059,080	\$ 185,024,010	\$ 168,107,810	\$ 141,676,720	\$ 129,429,670	\$ 117,125,930	\$ 76,090,850	\$ 35,055,780
Debt Service Balance (10 Year Bond)	\$ 30	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt Service Balance (20 Year Bond)	\$ 391,888,240	\$ 355,952,890	\$ 318,490,300	\$ 279,435,550	\$ 238,720,970	\$ 196,276,020	\$ 152,027,160	\$ 105,897,720	\$ 57,807,790	\$ 33,065,170
Debt Service Balance (Internal Loan)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt Service (P&I)	\$ 51,185,320	\$ 51,185,320	\$ 51,185,320	\$ 51,185,320	\$ 51,185,320	\$ 51,185,320	\$ 51,185,320	\$ 51,185,320	\$ 51,185,320	\$ 25,794,180
Debt Coverage Ratio	1.53	1.45	1.37	1.30	1.23	1.17	1.10	1.04	0.99	0.92
Debt Service Coverage Ratio	1.04	1.02	1.00	0.99	0.97	0.96	0.95	0.93	0.92	0.92

City of Seattle
 FTTP Network - Data Services
 Construction in Communication Space & Required Take Rate
 June 2015

Capital Additions

	1	2	3	4	5	6	7	8	9	10
Network Equipment										
Headend- Data	\$ 24,118,880	\$ 8,039,630	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TBD	-	-	-	-	-	-	-	-	-	-
TBD	-	-	-	-	-	-	-	-	-	-
TBD	-	-	-	-	-	-	-	-	-	-
TBD	-	-	-	-	-	-	-	-	-	-
Additional Annual Capital	-	-	-	-	-	-	-	-	-	-
Total	\$ 24,118,880	\$ 8,039,630	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Outside Plant and Facilities										
Total Backbone and FTTP	\$ 236,242,600	\$ 236,242,600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Additional Annual Capital	-	-	-	-	-	-	-	-	-	-
Total	\$ 236,242,600	\$ 236,242,600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Last Mile and Customer Premises Equipment										
CPE Gbps Commercial	\$ 1,141,920	\$ 2,841,140	\$ 2,845,040	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CPE Residential & Small Commercial	5,121,730	28,435,640	28,394,060	-	-	-	-	-	-	-
Enterprise CPE and Drop	-	-	-	-	-	-	-	-	-	-
IP Telephone Adapter (2 telephones)	-	-	-	-	-	-	-	-	-	-
Average Drop Cost	4,951,440	25,880,080	25,845,950	-	-	-	-	-	-	-
TBD	-	-	-	-	-	-	-	-	-	-
TBD	-	-	-	-	-	-	-	-	-	-
TBD	-	-	-	-	-	-	-	-	-	-
Digital Set-top Box and CAT-5 Wiring	-	-	-	-	-	-	-	-	-	-
Additional Annual Replacement Capital	-	-	-	125,460	125,460	125,460	125,460	125,460	125,460	125,460
Total	\$ 11,215,090	\$ 57,156,860	\$ 57,085,050	\$ 125,460	\$ 125,460	\$ 125,460	\$ 125,460	\$ 125,460	\$ 125,460	\$ 125,460
Miscellaneous Implementation Costs										
Splicing	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Vehicles	300,000	-	-	-	-	-	-	-	-	-
Emergency Restoration Kit	50,000	-	-	-	-	-	-	-	-	-
Work Station, Computers, and Software	96,000	262,000	236,000	-	-	-	-	-	-	-
Fiber OTDR and Other Tools	150,000	-	-	-	-	-	-	-	-	-
Generators & UPS	100,000	-	-	-	-	-	-	-	-	-
Billing Software	250,000	-	-	-	-	-	-	-	-	-
Additional Annual Capital	-	-	-	-	-	-	-	-	-	-
Total	\$ 1,196,000	\$ 262,000	\$ 236,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Replacement Costs for Depreciation										
Network Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 24,118,880	\$ 8,039,630	\$ -
Last Mile and Customer Premises Equipment	-	-	-	-	-	5,607,550	28,578,430	28,542,530	-	-
Miscellaneous Implementation Costs	-	-	-	-	-	956,800	209,600	188,800	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,564,350	\$ 28,788,030	\$ 52,850,210	\$ 8,039,630	\$ -
Total Capital Additions	\$ 272,772,570	\$ 301,701,090	\$ 57,321,050	\$ 125,460	\$ 125,460	\$ 6,689,810	\$ 28,913,490	\$ 52,975,670	\$ 8,165,090	\$ 125,460
		\$ 631,794,710	\$ 464,708,720							

Depreciation Reserve Contribution	\$	-	\$	-	\$	-	\$	12,344,930	\$	12,350,710	\$	21,021,780	\$	18,741,360	\$	16,464,210	\$	16,464,210	\$	16,464,210
Draws from Depreciation Reserve		-		-		-		(125,460)		(125,460)		(6,689,810)		(28,913,490)		(52,975,670)		(8,165,090)		(125,460)
Net Depreciation Reserve Balance	\$	-	\$	-	\$	-	\$	12,219,470	\$	24,444,720	\$	38,776,690	\$	28,604,560	\$	(7,906,900)	\$	392,220	\$	16,730,970

City of Seattle
FTTP Network - Data Services
June 2015

Capital Additions

		11	12	13	14	15	16	17	18	19	20									
Network Equipment																				
Headend- Data	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-								
TBD		-		-		-		-		-		-								
TBD		-		-		-		-		-		-								
TBD		-		-		-		-		-		-								
TBD		-		-		-		-		-		-								
TBD		-		-		-		-		-		-								
Additional Annual Capital		-		-		-		-		-		-								
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-								
Outside Plant and Facilities																				
Total Backbone and FTTP	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-								
Additional Annual Capital		-		-		-		-		-		-								
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-								
Last Mile and Customer Premises Equipment																				
CPE Gbps Commercial	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-								
CPE Residential & Small Commercial		-		-		-		-		-		-								
Average Drop Cost		-		-		-		-		-		-								
Additional Annual Replacement Capital		125,460		125,460		125,460		125,460		125,460		125,460								
Total	\$	125,460	\$	125,460	\$	125,460	\$	125,460	\$	125,460	\$	125,460								
Miscellaneous Implementation Costs																				
Splicing	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-								
Vehicles		-		-		-		-		-		-								
Emergency Restoration Kit		-		-		-		-		-		-								
Work Station, Computers, and Software		-		-		-		-		-		-								
Fiber OTDR and Other Tools		-		-		-		-		-		-								
Generators & UPS		-		-		-		-		-		-								
Additional Annual Capital		-		-		-		-		-		-								
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-								
Replacement Costs for Depreciation																				
Network Equipment	\$	-	\$	-	\$	-	\$	24,118,880	\$	8,039,630	\$	-								
Last Mile and Customer Premises Equipment		5,607,550		28,578,430		28,542,530		-		5,607,550		28,578,430								
Miscellaneous Implementation Costs		956,800		209,600		188,800		-		956,800		209,600								
Total	\$	6,564,350	\$	28,788,030	\$	28,731,330	\$	-	\$	24,118,880	\$	14,603,980								
Total Capital Additions	\$	6,689,810	\$	28,913,490	\$	28,856,790	\$	125,460	\$	24,244,340	\$	14,729,440								
										\$	28,913,490		\$	28,856,790		\$	125,460		\$	125,460

PROJECT ASSUMPTIONS

Page Title Information

Organization	City of Seattle Seattle, Washington				
Plan Name	FTTP Network - Data Services Construction in Communication Space & Required Take Rate		Power Space?	No	
Date	June 2015				

Financial Assumptions

10 Year Bond or Loan	
Finance Rate	4.00%
Period (Years)	10
Principal Repayment Period Start	2
Bond Issuance Cost	1.00% of issue
Debt Service Reserve	5.00%
Interest Reserve	yes

20 Year Bond	
Finance Rate	4.25%
Period (Years)	20
Principal Repayment Period Start	3
Bond Issuance Cost	1.00% of issue
Debt Service Reserve	5.00%
Interest Reserve	yes

Loan					
	Year				
	1	2	3	4	5
Finance Rate	6.00%	6.00%	6.00%	6.00%	6.00%
Period (Years)	3	3	3	3	3
Principal Repayment Start	3	2	1	1	1

Other	
Interest Earned on Available Cash	0.25% only applied to reserve funds in calculation

Source of Funds		Year												
	Amount Issued													
Cash flow w/o investment funds, grants, bonds, loans, or interest		\$ (624,288,520)	\$ (601,804,165)	\$ 10,718,900	\$ 61,536,930	\$ 60,023,500	\$ 26,900,210	\$ 29,950,070	\$ 32,976,340	\$ 33,885,150	\$ 34,863,980			
Cash flow after investment funds (no principle payments)		\$ (318,670,820)	\$ (305,975,565)	\$ 8,076,710	\$ 35,071,240	\$ 34,784,010	\$ 26,900,210	\$ 29,950,070	\$ 32,976,340	\$ 33,885,150	\$ 34,863,980			
Unrestricted cash balance (years 1 to 10)		\$ 449,180	\$ 2,471,085	\$ 7,679,375	\$ 13,705,695	\$ 18,218,585	\$ 13,569,695	\$ 10,638,725	\$ 9,345,815	\$ 7,514,885	\$ 5,154,855			
Total cash balance		\$ 29,907,480	\$ 48,257,795	\$ 42,059,385	\$ 59,283,165	\$ 76,021,305	\$ 85,704,385	\$ 72,601,285	\$ 34,796,915	\$ 41,265,105	\$ 55,243,825			
Unrestricted cash balance (years 11 to 20)		\$ 6,563,215	\$ 7,347,485	\$ 7,495,945	\$ 7,068,325	\$ 5,991,995	\$ 4,278,155	\$ 1,878,505	\$ (1,219,895)	\$ (4,958,585)	\$ 16,039,965			

Use Start Up Capital		Year									
		1	2	3	4	5					
Start Up Capital	\$ -	no	no	no	-	-	IRR	-5.01% Calculated from cash flow w/start-up capital			
Start Up Funds	\$ -	-	-	-	-	-					
Grants (infrastructure)	\$ -	-	-	-	-	-					
Grants (customer premises)	\$ -	-	-	-	-	-					
		0.00%	0.00%	0.00%	0.00%	0.00%	Weighted rate				
		89.39%	94.95%	94.93%	100.00%	100.00%	Percent Residential				
		10.61%	5.05%	5.07%	0.00%	0.00%	Percent Commercial				
10-Year Bond Proceeds	\$ 32,160,000	\$ 24,120,000	\$ 8,040,000	\$ -	\$ -	\$ -					
20-Year Bond Proceeds	\$ 635,000,000	\$ 295,000,000	\$ 315,000,000	\$ 25,000,000	\$ -	\$ -					
Loan Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -					
Sub-total	\$ 667,160,000										
Total	\$ 667,160,000										

Depreciation (Straight Line)		Years		Annual Rate						
Outside Plant and Facilities	20	5.00%	Sheet D1	If years changed, need to change CA sheet (when replenishments occur)						
Network Equipment	7	14.29%	Sheet D2	If years changed, need to change CA sheet (when replenishments occur)						
Miscellaneous Implementation Costs	5	20.00%	Sheet D3	If years changed, need to change CA sheet (when replenishments occur)						
Last Mile and Customer Premises Equipment	5	20.00%	Sheet D4	If years changed, need to change CA sheet (when replenishments occur)						

Depreciation Reserve (years 1 to 10)	-	-	-	12,219,470	24,444,720	38,776,690	28,604,560	(7,906,900)	392,220	16,730,970
Depreciation Reserve (years 11 to 20)	26,505,370	14,056,090	1,663,510	18,002,260	10,222,130	11,956,900	(492,380)	(12,884,960)	3,453,790	19,792,540
	1	2	3	4	5	6	7	8	9	10

Funded Depreciation	0%	0%	0%	23%	23%	40%	40%	40%	40%	40%
Replacement/Upgrade Costs (Percent of Total Costs)								Start in year	3	

Replacement

PROJECT ASSUMPTIONS

Network Equipment	100%
Miscellaneous Implementation Costs	80%
Last Mile and Customer Premises Equipment	50%

Revenues

Property Taxes	246,635 Total taxable properties										N/A	\$ -	per month per property (taxes)
	Will be different mix, needs updating if used										N/A	\$ -	fees per property
												\$ -	average cost (per property)
Annual Assessment	1	2	3	4	5	6	7	8	9	10			

Internet Services

	Monthly Retail Price												
Dial-up	\$ -	\$ -	\$ -	100.00%	Oversubscription								
R 30 Mbps	\$ -	\$ -	\$ -	100.00%						30			
R 50 Mbps	\$ -	\$ -	\$ -	100.00%						30			
R 100 Mbps	\$ -	\$ -	\$ -	100.00%						30	-5.01%		
R 250 Mbps	\$ -	\$ -	\$ -	100.00%						30			
R 1 Gbps	\$ 75.00	\$ -	\$ 75.00	100.00%	Alcatel & others report .5 to .8 Mbps per user at peak demand					400			
B 30 Mbps	\$ -	\$ -	\$ -	100.00%						400			
B 100 Mbps	\$ -	\$ -	\$ -	100.00%						400			
B 250 Mbps	\$ -	\$ -	\$ -	100.00%						400			
B 1 Gbps	\$ 85.00	\$ -	\$ 85.00	100.00%						400			
10 Gbps	\$ -	only used with enterprise customer											

Unrestricted Cash Balance (yr. 1 to yr. 10)	\$ 449,180	\$ 2,471,085	\$ 7,679,375	\$ 13,705,695	\$ 18,218,585	\$ 13,569,695	\$ 10,638,725	\$ 9,345,815	\$ 7,514,885	\$ 5,154,855
Unrestricted Cash Balance (yr. 11 to yr. 20)	\$ 6,563,215	\$ 7,347,485	\$ 7,495,945	\$ 7,068,325	\$ 5,991,995	\$ 4,278,155	\$ 1,878,505	\$ (1,219,895)	\$ (4,958,585)	\$ 16,039,965

Other Revenues/Services

	Annual Retail Price						
Digital Equipment Rental	\$ - per month per digital customer						
Advertising	Year 1	Year 2	Year 3	Year 4	Year 5+	(Revenue per year)	
Utility Allocation	\$ -	\$ -	\$ -	\$ -	\$ -	-5.01%	
Provider Fee (open access)	\$ -	\$ -	\$ -	\$ -	\$ -	per residential Internet service per month	
	\$ -	\$ -	\$ -	\$ -	\$ -	per business Internet service per month	
	\$ -	\$ -	\$ -	\$ -	\$ -	per residential cable service per month	
	\$ -	\$ -	\$ -	\$ -	\$ -	per business cable service per month	
	\$ -	\$ -	\$ -	\$ -	\$ -	per residential telephone service per month	
	\$ -	\$ -	\$ -	\$ -	\$ -	per business telephone service per month	
Connection Fee (new Internet customer)	\$ 150						
Data Storage Annual Revenue per Space	\$ -	Spaces	Year 1	Year 2	Year 3	Year 4	Year 5+
Late Payment Fee	\$ -	per bill	1.0%	Late			

Operation and Maintenance Expenses

	Annual Fixed Operating Expense					
Insurance	Year 1	Year 2	Year 3	Year 4	Year 5 plus	
Utilities	\$ 200,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	
Office Expenses	\$ 36,000	\$ 72,000	\$ 72,000	\$ 72,000	\$ 72,000	
Facility Lease	\$ 36,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	
Locates & Ticket Processing	\$ 120,000	\$ 240,000	\$ 240,000	\$ 240,000	\$ 240,000	
Peering	\$ -	\$ 280,000	\$ 561,000	\$ 561,000	\$ 561,000	\$ 3,750 per month per 50 miles
Contingency	\$ 33,100	\$ 205,900	\$ 378,600	\$ 378,600	\$ 378,600	0.5 Mbps per customer
Billing Maintenance Contract	\$ 200,000	\$ 400,000	\$ 600,000	\$ 600,000	\$ 600,000	
Fiber & Network Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	
Vendor Maintenance Contracts	\$ -	\$ 834,000	\$ 834,000	\$ 834,000	\$ 834,000	Link to Network Sheet
Legal and Lobby Fees	Year 1	Year 2	Year 3	Year 4	Year 5 plus	
Planning	\$ 750,000	\$ 500,000	\$ 250,000	\$ 250,000	\$ 250,000	
Consulting	\$ -	\$ -	\$ -	\$ -	\$ -	
Marketing	\$ 500,000	\$ 500,000	\$ 200,000	\$ 200,000	\$ 200,000	
	\$ 2,400,000	\$ 2,400,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 200,000 \$ 2,400,000

Annual Variable Operating Expense (not including DIA)

Education and Training	4%	percent of direct payroll
Customer Handholding	\$ 0.10	per subscriber per month
Customer Billing (Unit)	\$ 0.05	per bill
Allowance for Bad Debts	1.00%	percentage of revenues
Customer Churn (annual)	2.50%	Customer Promotions/Acquisition \$ 300

PROJECT ASSUMPTIONS

Internet Connection Fee	Year 1	Year 2	Year 3	Year 4	Year 5+			
Minimum BW	\$ 206,310	\$ 1,172,495	\$ 2,137,680	\$ 2,137,680	\$ 2,137,680	\$ 0.50	per Mbps per month	-5.01%
	2,000	Mbps	\$ 1,000	per month	\$ 0.50	per Mbps per month		
Pole Attachment Expense								
Attachment Fees	13,159 poles at		\$ 20.00 per year		3,289,661 feet	250	per span	
	Charge even if in Power Space - perception							
Taxes								
Franchise Fees	0%	percent of access fee revenue	Starts in year	6				Overhead 1,912.17 75.42%
City and State Tax	3.8730%	percent of revenue	State	3.8730%	City	0.0000%		Underground 623.04 24.58%
Property Tax	0.00%	of outside plant	Starts in year	2				2,535.22
Low Income Assistance								
Assistance Rate	0%	for	0%	of households	based on assessment and access fee			
Labor Expense								
Labor (Direct)								
New Employees								
	Year 1	Year 2	Year 3	Year 4	Year 5+	Labor Cost		
Business Manager	1.00	1.00	1.00	1.00	1.00	1.00	170,000	229,500
Market & Sales Manager	1.00	1.00	1.00	1.00	1.00	1.00	120,000	
Broadband Service Engineer	1.00	2.00	2.00	2.00	2.00	2.00	120,000	
Headend Technician	-	-	-	-	-	-	-	
Telephone Technician	-	-	-	-	-	-	-	
Internet Technician (staff in field tech support)	-	-	-	-	-	-	-	
Customer Service Representative	5.00	28.00	51.00	51.00	51.00	51.00	50,000	2,500 1 Number of Customers per CSR-Number of St Based on Wilson
Service Technicians/Installers & IT Support	5.00	28.00	51.00	51.00	51.00	51.00	70,000	2,500 1 Number of Customers per Tech Number of St Based on Wilson 4
Sales and Marketing Representative	10.00	10.00	10.00	10.00	10.00	10.00	75,000	with commissions
Call Center Support (24x7)	14.00	87.00	159.00	159.00	159.00	159.00	50,000	750 1 Ratio for 24x7 Based on Wilson Wilson 750
Fiber Plant O&M Technicians	11.00	22.00	22.00	22.00	22.00	22.00	90,000	120 Miles of line per technician In power space- lineperson required
TBD	-	-	-	-	-	-	-	2,535 Miles of line 3 for 350 miles (Wilson)
Total New Staff	48	179	297	297	297	297	50.00%	In Year 1
Existing Employees								
	Year 1	Year 2	Year 3+	Labor Cost				
Broadband Service Manager	-	-	-	\$ 50,000	Seattle Min Wage	\$ 15.00	per hour	
Broadband Technician	-	-	-	\$ 70,000		\$ 31,200	per year	
Switch Technician	-	-	-	\$ 75,000				internet 250 calls per month
Customer Service Representative	-	-	-	\$ 50,000				call customers month
Service Technicians	-	-	-	\$ 90,000				dedicated 24X7 10 staff
Sales and Marketing Representative	-	-	-	\$ -				7500
Total Existing Staff	-	-	-	\$ -				750 customers
Total Existing Staff	-	-	-	\$ -				
Service Position Total								
	Year 1	Year 2	Year 3	Year 4	Year 5+	Year 1 Salary		
Business Manager	1.00	1.00	1.00	1.00	1.00	1.00	\$ 170,000	
Market & Sales Manager	1.00	1.00	1.00	1.00	1.00	1.00	\$ 120,000	
Broadband Service Engineer	1.00	2.00	2.00	2.00	2.00	2.00	\$ 120,000	
Headend Technician	-	-	-	-	-	-	\$ -	
Telephone Technician	-	-	-	-	-	-	\$ -	
Internet Technician (staff in field tech support)	-	-	-	-	-	-	\$ -	
Customer Service Representative	5.00	28.00	51.00	51.00	51.00	51.00	\$ 50,000	
Service Technicians/Installers & IT Support	5.00	28.00	51.00	51.00	51.00	51.00	\$ 70,000	
Sales and Marketing Representative	10.00	10.00	10.00	10.00	10.00	10.00	\$ 75,000	
Call Center Support (24x7)	14.00	87.00	159.00	159.00	159.00	159.00	\$ 50,000	
Fiber Plant O&M Technicians	11.00	22.00	22.00	22.00	22.00	22.00	\$ 90,000	\$ 1,980,000
TBD	-	-	-	-	-	-	\$ -	
Total Existing Staff	-	-	-	-	-	-	\$ -	
Total	48.00	179.00	297.00	297.00	297.00	297.00		
Total Customers	11,024	68,644	126,188	126,188	126,188			
Customers per Employee	229.67	383.49	424.88	424.88	424.88			
Total Salaries	\$ 3,450,000	\$ 10,970,000	\$ 17,330,000					
Benefits	35%	of base salary						
Total Direct Labor Cost	\$ 4,657,500	\$ 14,809,500	\$ 23,395,500	Not including multiplier (multiplier applied on sheet E1)				
Salary Multiplier	2.00%	annual multiplier (i.e. salaries increase by x percent faster than ability to increase fees)						
Operation Support Services								
Help Desk Fee	\$0	set-up fee +						

PROJECT ASSUMPTIONS

ISP Hosting	\$0.00	per customer per month	outsource avoid
	\$0	set-up fee +	
Billing	\$0.00	per customer per month	
	\$50,000	set-up fee +	
Core Network Monitoring, Installation and Configuration	\$0.25	per customer per month	
	\$0	set-up fee +	
	\$0.00	per month	

Unrestricted cash balance (years 1 to 10) \$ 449,180.00 \$ 2,471,085.00 \$ 7,679,375.00 \$ 13,705,695.00 \$ 18,218,585.00 \$ 13,569,695.00 \$ 10,638,725.00 \$ 9,345,815.00 \$ 7,514,885.00 \$ 5,154,855.00

Market Size

Residential	
Number of Potential Subscribers	220,725
Potential Multi-Housing	0 Applies to All Services
Subscriber Growth Rate	0.00%

		From Survey		CPE Funding
City of Seattle	220,725	60.00%	MS Ceiling	0.00%
tbd	-	40.00%	MS Ceiling	0.00%
tbd	-	40.00%	MS Ceiling	0.00%
	220,725	60.00%	MS Weighted	0.00%

Commercial	
Number of Potential Subscribers	25,910 Applies to All Services
Subscriber Growth Rate	0.00%

				CPE Funding
City of Seattle	25,910	30.00%	MS Ceiling	0.00%
tbd	-	0.00%	MS Ceiling	0.00%
tbd	-	0.00%	MS Ceiling	0.00%

Penetration Rates - Data

Residential Internet Services	
Existing Dial-up Customers	0
Number of Potential New Subscribers	220,725

Initial Data Users	96%	From Survey
Occupancy Rate	93%	Census Data

Input to Network Cost Estimate 51.16% Take Rate of all households/businesses passed

Residential	54.0%	220,725	119,192
Business	27.0%	25,910	6,996
		246,635	126,188

Projected Market Size	Year 1	Year 2	Year 3	Year 4	Year 5
	89%	90%	90%	90%	90%
	Year 6	Year 7	Year 8	Year 9	Year 10+
	90%	90%	90%	90%	90%

Market Share	Year 1	Year 2	Year 3	Year 4	Year 5
Percentage of Market	5%	33%	60%	60%	60%
	Year 6	Year 7	Year 8	Year 9	Year 10+
	4.5%	29.3%	54.0%	54.0%	54.0%

yr. 1	yr. 2	yr. 3
1.00	33%	60%
5%		

Market share multiplier for sensitivity analysis

Package Take Rate	Year 1	Year 2	Year 3	Year 4	Year 5
R 30 Mbps	0%	0%	0%	0%	0%
R 50 Mbps	0%	0%	0%	0%	0%
R 100 Mbps	0%	0%	0%	0%	0%
R 250 Mbps	0%	0%	0%	0%	0%
R 1 Gbps	100%	100%	100%	100%	100%

Commercial Internet Services	
Number of Potential Subscribers	25,910

Initial Data Users	95%	Estimate
Occupancy Rate	95%	Estimate

Projected Market Size	Year 1	Year 2	Year 3	Year 4	Year 5
	90%	90%	90%	90%	90%
	Year 6	Year 7	Year 8	Year 9	Year 10+
	90%	90%	90%	90%	90%

Market Share	Year 1	Year 2	Year 3	Year 4	Year 5
Percentage of Market	5%	18%	30%	30%	30%
	Year 6	Year 7	Year 8	Year 9	Year 10+
	4.5%	15.8%	27.0%	27.0%	27.0%

yr. 1	yr. 2	yr. 3
1.00	18%	30%
5%		

-5.01%

Package Take Rate	Year 1	Year 2	Year 3	Year 4	Year 5
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PROJECT ASSUMPTIONS

B 30 Mbps	0%	0%	0%	0%	0%
B 100 Mbps	0%	0%	0%	0%	0%
B 250 Mbps	0%	0%	0%	0%	0%
B 1 Gbps	100%	100%	100%	100%	100%
10 Gbps	0%	0%	0%	0%	0%

Capital Additions

Network Equipment

	1	2	3	4	5	1	2	3	4	5
Headend- Data	\$ 24,118,880	\$ 8,039,630	\$ -	\$ -	\$ -	\$ 32,158,500	75.00%	25.00%	0.00%	0.00%
TBD	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	100.00%	0.00%	0.00%	0.00%
TBD	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	75.00%	25.00%	0.00%	0.00%
TBD	\$ -	per	1 residential subscribers							
TBD	\$ -	per	1 GB business subscribers							
TBD	\$ -	per	1 business subscribers							
Additional Annual Capital	0%	(% of turn-key cost)		Starts in year	4					

Outside Plant and Facilities

	1	2	3	4	5	1	2	3	4	5
FTTP OSP (passing)	\$ 236,242,600	\$ 236,242,600	\$ -	\$ -	\$ -	\$ 472,485,200	50.00%	50.00%	0.00%	0.00%
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	50.00%	50.00%	0.00%	0.00%
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	50.00%	50.00%	0.00%	0.00%
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	100.00%	0.00%	0.00%	0.00%
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	100.00%	0.00%	0.00%	0.00%
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	100.00%	0.00%	0.00%	0.00%
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	100.00%	0.00%	0.00%	0.00%
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	100.00%	0.00%	0.00%	0.00%
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	100.00%	0.00%	0.00%	0.00%
Total Backbone and FTTP	\$ 236,242,600	\$ 236,242,600	\$ -	\$ -	\$ -	\$ 472,485,200	50.00%	50.00%	0.00%	0.00%
	\$ 236,242,600	\$ 236,242,600	\$ 472,485,200	\$ 472,485,200	\$ 472,485,200	\$ 472,485,200	50.00%	50.00%	0.00%	0.00%
Additional Annual Capital	0%	(% of turn-key cost)		Starts in year	4					

Last Mile and Customer Premises Equipment

	1	2	3	4	5					
CPE Gbps Commercial	\$ 1,141,920	\$ 2,841,140	\$ 2,845,040	\$ -	\$ -					
CPE Residential & Small Commercial	\$ 520	per new subscriber (average)								
CPE Gbps Commercial	\$ 976	per new subscriber (average)								
IP Telephone Adapter (2 telephones)	\$ -	per new telephone subscriber			\$ 2,394	\$ 504,643,700				
Average Drop Cost	\$ 449	per new residential subscriber				\$ 400.00	overhead	75.42%	\$ 400.00	overhead
Average Drop Cost	\$ 449	per new commercial subscriber				\$ 600.00	underground	24.58%	\$ 600.00	underground
TBD	\$ -	per	1 residential subscribers				Residential			
TBD	\$ -	per	1 residential subscribers							
TBD	\$ -	per	1 residential subscribers							
Digital Set-top Box and CAT-5 Wiring	\$ -	per television		\$ 125	Wiring					
Additional Annual Replacement Capital	0.10%	(% of CPE's in service ²)		Starts in year	4	\$ 504,643,700				

ONT Kit - Basic	\$ 395	20%
ONT Kit - Premium	\$ 455	80%
ONT Kit - Basic (MDU)	\$ 766	20%
ONT Kit - Premium (MDU)	\$ 826	80%
ONT Kit - Premium (Bus.)	\$ 976	

Miscellaneous Implementation Costs

	1	2	3	4	5				
Splicing	\$ 250,000	\$ -	\$ -	\$ -	\$ -				
Vehicles	\$ 300,000	\$ -	\$ -	\$ -	\$ -	175,057	SFU	79.31%	\$ 443
Emergency Restoration Kit	\$ 50,000	\$ -	\$ -	\$ -	\$ -	45,668	MDU	20.69%	\$ 814
Work Station, Computers, and Software	\$ 2,000	per employee							12330.36
Fiber OTDR and Other Tools	\$ 150,000	\$ -	\$ -	\$ -	\$ -				
Generators & UPS	\$ 100,000	\$ -	\$ -	\$ -	\$ -				
Billing Software	\$ 250,000	\$ -	\$ -	\$ -	\$ -				
Additional Annual Capital	0%	(% of Year 1)		Starts in year	4				

²Approximate required additional annual capital, set to equal full reinvestment in replacement CPE.

City of Seattle
FTTP Network - Data Services
Construction in Communication Space & Required Take Rate
June 2015
Supplemental Tables

	Year 1	Year 5	Year 10	Year 15	Year 20
Operating Expenses					
Insurance	\$ 200,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000
Utilities	36,000	72,000	72,000	72,000	72,000
Office Expenses	36,000	60,000	60,000	60,000	60,000
Facility Lease	120,000	240,000	240,000	240,000	240,000
Locates & Ticket Processing	-	561,000	561,000	561,000	561,000
Peering	33,100	378,600	378,600	378,600	378,600
Contingency	200,000	600,000	600,000	600,000	600,000
Billing Maintenance Contract	-	-	-	-	-
Fiber & Network Maintenance	1,181,210	2,362,430	2,362,430	2,362,430	2,362,430
Vendor Maintenance Contracts	-	834,000	834,000	834,000	834,000
Legal and Lobby Fees	750,000	250,000	250,000	250,000	250,000
Planning	-	-	-	-	-
Consulting	500,000	200,000	200,000	200,000	200,000
Marketing	2,400,000	1,200,000	1,200,000	1,200,000	1,200,000
Education and Training	186,300	1,012,570	1,117,960	1,234,320	1,362,790
Customer Handholding	13,230	151,430	151,430	151,430	151,430
Customer Billing (Unit)	6,610	75,710	75,710	75,710	75,710
Allowance for Bad Debts	117,160	1,144,090	1,144,090	1,144,090	1,144,090
Churn (acquisition costs)	82,680	946,410	946,410	946,410	946,410
PSTN Connection Fee	-	-	-	-	-
Internet	206,310	2,137,680	2,137,680	2,137,680	2,137,680
Sub-Total	\$ 6,068,600	\$ 12,625,920	\$ 12,731,310	\$ 12,847,670	\$ 12,976,140
Labor Expenses	\$ 4,740,570	\$ 25,692,870	\$ 28,327,610	\$ 31,236,570	\$ 34,448,290
Attachment Fees	263,180	263,180	263,180	263,180	263,180
Sub-Total	\$ 5,003,750	\$ 25,956,050	\$ 28,590,790	\$ 31,499,750	\$ 34,711,470
Total Expenses	\$ 11,072,350	\$ 38,581,970	\$ 41,322,100	\$ 44,347,420	\$ 47,687,610
Principal and Interest	\$ 13,502,300	\$ 55,510,610	\$ 55,510,610	\$ 51,185,320	\$ 25,794,180
Facility Taxes	389,700	4,431,050	4,431,050	4,431,050	4,431,050

City of Seattle
 FTTP Network - Data Services
 Construction in Communication Space & Required Take Rate
 June 2015
 Supplemental Tables

Sub-Total	\$	13,892,000	\$	59,941,660	\$	59,941,660	\$	55,616,370	\$	30,225,230
Total Expenses, P&I, and Taxes	\$	24,964,350	\$	98,523,630	\$	101,263,760	\$	99,963,790	\$	77,912,840

		Year 1		Year 5		Year 10		Year 15		Year 20
a. Revenues										
Internet - Residential	\$	8,868,600	\$	107,272,800	\$	107,272,800	\$	107,272,800	\$	107,272,800
Internet - Business	\$	1,193,400	\$	7,135,920	\$	7,135,920	\$	7,135,920	\$	7,135,920
Connection Fee (net)		1,653,600		-		-		-		-
Provider Fee		-		-		-		-		-
Assessments		-		-		-		-		-
Ancillary Revenues		-		-		-		-		-
Total	\$	11,715,600	\$	114,408,720	\$	114,408,720	\$	114,408,720	\$	114,408,720
b. Content Fees										
Internet	\$	206,310	\$	2,137,680	\$	2,137,680	\$	2,137,680	\$	2,137,680
Total	\$	206,310	\$	2,137,680	\$	2,137,680	\$	2,137,680	\$	2,137,680
c. Operating Costs										
Operation Costs	\$	5,862,290	\$	10,488,240	\$	10,593,630	\$	10,709,990	\$	10,838,460
Labor Costs		4,740,570		25,692,870		28,327,610		31,236,570		34,448,290
Pole Attachment Expense		263,180		263,180		263,180		263,180		263,180
Total	\$	10,866,040	\$	36,444,290	\$	39,184,420	\$	42,209,740	\$	45,549,930
d. EBITDA										
	\$	643,250	\$	75,826,750	\$	73,086,620	\$	70,061,300	\$	66,721,110
e. Depreciation										
		17,739,900		53,698,720		41,160,530		41,160,530		41,160,530
f. Operating Income (EBITDA less Depreciation)										
	\$	(17,096,650)	\$	22,128,030	\$	31,926,090	\$	28,900,770	\$	25,560,580
g. Non-Operating Income										
Interest Income	\$	-	\$	125,220	\$	125,220	\$	108,950	\$	132,880
Interest Expense (10 Year Bond)		(964,800)		(166,360)		(166,360)		-		-

**City of Seattle
 FTTP Network - Data Services
 Construction in Communication Space & Required Take Rate
 June 2015**

Supplemental Tables

Interest Expense (20 Year Bond)	(12,537,500)	(18,120,240)	(18,120,240)	(10,470,740)	(1,051,560)
Interest Expense (Loan)	-	-	-	-	-
Total	\$ (13,502,300)	\$ (18,161,380)	\$ (18,161,380)	\$ (10,361,790)	\$ (918,680)

h. Net Income (before taxes) \$ (30,598,950) \$ (2,132,950) \$ 14,598,710 \$ 19,372,980 \$ 25,475,900

i. Facility Taxes \$ 389,700 \$ 4,431,050 \$ 4,431,050 \$ 4,431,050 \$ 4,431,050

j. Net Income \$ (30,988,650) \$ (6,564,000) \$ 10,167,660 \$ 14,941,930 \$ 21,044,850

	Year 1	Year 5	Year 10	Year 15	Year 20
Net Income	\$ (30,988,650)	\$ (6,564,000)	\$ 10,167,660	\$ 14,941,930	\$ 21,044,850
Cash Flow	\$ 449,180	\$ 4,512,890	\$ (2,360,030)	\$ (1,076,330)	\$ 20,998,550

	Year 1	Year 5	Year 10	Year 15	Year 20
Principle Payments	\$ -	\$ 30,271,120	\$ 37,224,010	\$ 40,714,580	\$ 24,742,620
Interest Payments	13,502,300	25,239,490	18,286,600	10,470,740	1,051,560
Total Debt Service	\$ 13,502,300	\$ 55,510,610	\$ 55,510,610	\$ 51,185,320	\$ 25,794,180

	Year 1	Year 5	Year 10	Year 15	Year 20
Unrestricted Cash Balance	\$ 449,180	\$ 18,218,585	\$ 5,154,855	\$ 5,991,995	\$ 16,039,965
Funded Depreciation	-	24,444,720	16,730,970	10,222,130	19,792,540
Restricted Cash Balance (Interest Reserve)	13,502,300	-	-	-	-
Restricted Cash Balance (Debt Service Reserve)	15,956,000	33,358,000	33,358,000	33,358,000	33,358,000
Total Cash Balance	\$ 29,907,480	\$ 76,021,305	\$ 55,243,825	\$ 49,572,125	\$ 69,190,505

Capital Additions

	Year 1	Year 2	Year 3	Total Years 1 to 3
Network Equipment				

City of Seattle
FTTP Network - Data Services
Construction in Communication Space & Required Take Rate
June 2015

Supplemental Tables

Headend- Data	\$	24,118,880	\$	8,039,630	\$	-	\$	32,158,510
TBD		-		-		-		-
Total	\$	24,118,880	\$	8,039,630	\$	-	\$	32,158,510

Outside Plant and Facilities

Total Backbone and FTTP	\$	236,242,600	\$	236,242,600	\$	-	\$	472,485,200
Additional Annual Capital		-		-		-		-
Total	\$	236,242,600	\$	236,242,600	\$	-	\$	472,485,200

Last Mile and Customer Premises Equipment

CPE Gbps Commercial	\$	1,141,920	\$	2,841,140	\$	2,845,040		
CPE Residential & Small Commercial	\$	5,121,730	\$	28,435,640	\$	28,394,060	\$	61,951,430
Enterprise CPE and Drop		-		-		-		-
IP Telephone Adapter (2 telephones)		-		-		-		-
Average Drop Cost		4,951,440		25,880,080		25,845,950		56,677,470
Total	\$	11,215,090	\$	57,156,860	\$	57,085,050	\$	125,457,000

Miscellaneous Implementation Costs

Splicing	\$	250,000	\$	-	\$	-		
Vehicles		300,000		-		-		
Emergency Restoration Kit		50,000		-		-		
Work Station, Computers, and Software	\$	96,000	\$	262,000	\$	236,000	\$	594,000
Fiber OTDR and Other Tools		150,000		-		-		150,000
Generators & UPS		100,000		-		-		100,000
Billing Software		250,000		-		-		250,000
Additional Annual Capital		-		-		-		-
Total	\$	1,196,000	\$	262,000	\$	236,000	\$	1,694,000

Total Capital Additions	\$	272,772,570	\$	301,701,090	\$	57,321,050	\$	631,794,710
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