### Assessment of Broadband

The Telmarc Group, LLC September 15, 2005
Not for Public Distribution



#### Overview

- Prepared detailed engineering analysis of Rindge, NH, attached
- Provide a proposed schedule of necessary tasks
- Asses market plan
- Determine possible rollout
- Determine wireless options



### Expectations

- Fiorellis Law:
- Dissatisfaction=K [Expectations-Reality]
- McGarty's Rule
- "Avoid Ambiguity of Expectations"
- McGarty's Corollary

$$Dissatisfaction = K \sum_{i=1}^{N} \sum_{j=1}^{N} \left( Expect_i - Expect_j \right)^2$$



#### Conditions Precedent

- Before submitting RUS Loan App we must have
  - Franchise
  - Market Survey
  - Engineering Study
  - RUS Application
  - Equity
  - Management
  - Customer Commitment



#### Reality

- Conditions Precedent Met
- Real Market Exists
- Vendors Meet Specs
- RUS Delivers
- Pole Attachments Available in timely fashion
- Install may take 1-2 years for fiber!
- Content is accessible



# Schedule

			1st Half		2nd H	2nd Half		ılf	2nd H
ID	0	Task Name	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3
1		Engineering Study			-	]			
2		Market Study				<u>L</u>			
3		Vendor Negotiations							
4		Content Access					L		
5		Customer Commitment					<u> </u>	]	
6		Franchise							
7		Equity						<u>L</u>	
8		RUS Approval							<u> </u>
9		Pole Attachment							
10		Install							
11		Service Start							

## Rindge Engineering Analysis

The Telmarc Group, LLC September 10, 2005 Not for Public Distribution

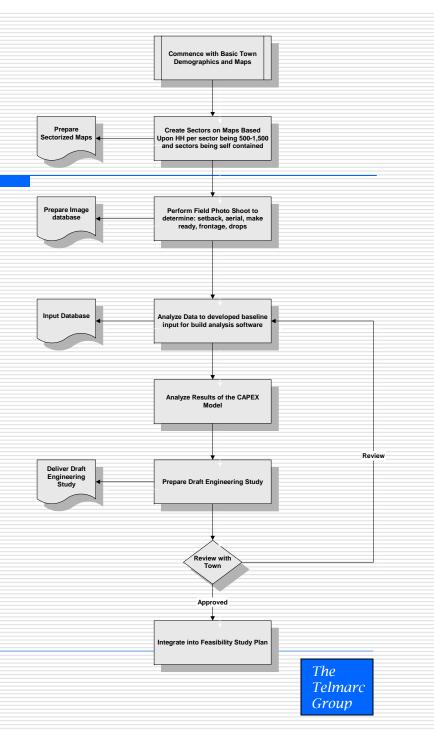


#### Overview

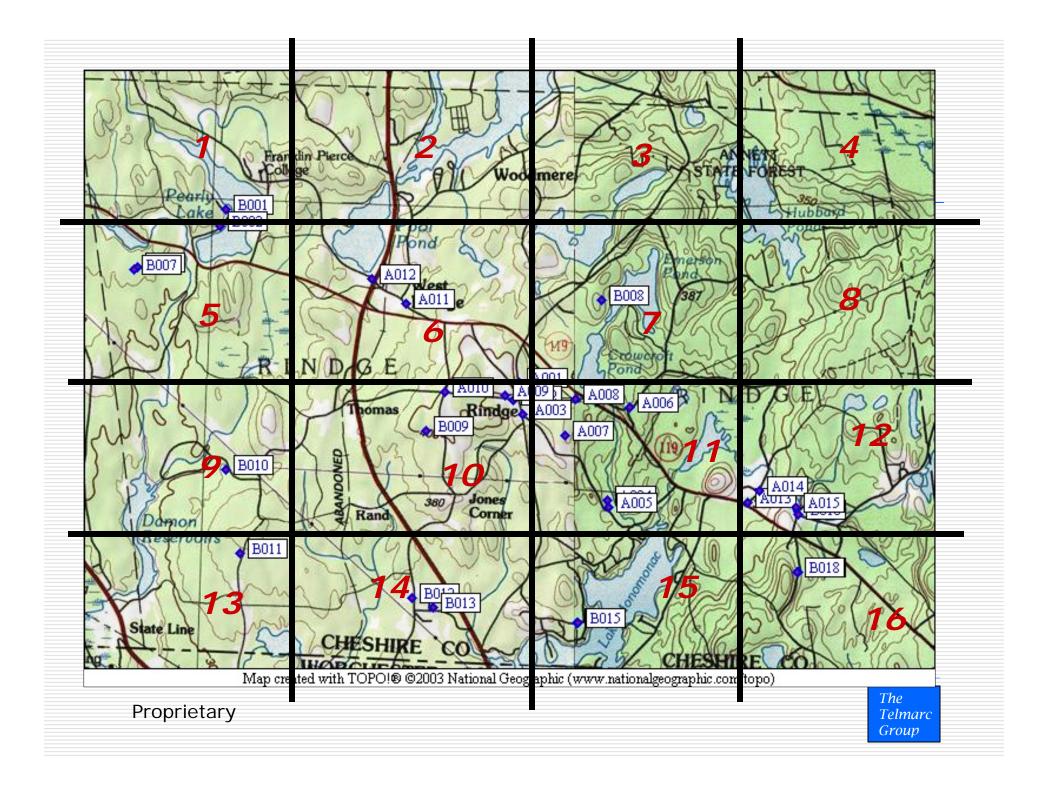
- Prepared detailed engineering analysis of Rindge, NH
- Obtained detailed data on build out of plant and sensitivity to costs
- Performed financial analysis of CAPEX requirements and demand sensitivity
- Performed analysis of USDA RUS financing possibility



# Engineering Methodology



Proprietary



# Core Data by Sector

Sum of HH	
Sector Number -	- Total
	91
2	2 662
3	61
Į į	5 128
(	168
7	7 227
8	3 29
(	9 42
10	223
1′	1 268
12	2 81
13	32
14	174
15	598
16	76
Grand Total	2,860

Sum of Miles	
Sector Number -	Total
1	4.23
2	23.12
3	4.40
5	5.20
6	9.45
7	9.15
8	1.50
9	2.13
10	11.08
11	11.35
12	5.21
13	1.75
14	4.80
15	21.00
16	6.30
Grand Total	120.66

# Key Data Elements

Average of Avg Set Back	
Sector	Total
1	70
2	60
3	100
5	70
6	
7	70
8	350
9	200
10	170
11	269
12	177
13	60
14	77
15	619
16	150
Grand Total	209

Average of Aeria		
Sector	7	Total
	1	100%
	2	100%
	3	100%
	5	100%
	6	100%
	7	100%
	8	100%
	9	100%
	10	74%
	11	100%
	12	100%
	13	100%
	14	54%
	15	100%
	16	100%
Grand Total		94%

Average of Avera	age Front	
Sector	▼	Total
	1	67
	2	65
	3	126
	5	170
	6	222
	7	80
	8	120
	9	300
	10	517
	11	597
	12	456
	13	130
	14	124
	15	879
	16	175
Grand Total		371

Average of Make	Ready	
Sector	▼	Total
	1	0%
	2	0%
	3	0%
	5	0%
	6	33%
	7	0%
	8	0%
	9	0%
	10	4%
	11	0%
	12	2%
	13	0%
	14	0%
	15	0%
	16	0%
Grand Total		4%

# **Key Financial Factors**

\$3,002

\$1,705

1.59

Number Users year 5 Percent effective penetration year 5	1,494 52.3%
Raw Cost per New Sub year 5	\$1,113.02
CAPEX per User Year 5	\$2,416
CAPEX Fiber per user year 5	\$1,522
CAPEX Other per user year 5	\$894
Revenue per user per month year 5	\$108.00
P&I per user per month year 5	\$16.37
Cost of Service per user per month year 5	\$48.11
OPEX per user per month year 5	\$34.60
Cash Flow per user per month year 5	\$8.93
IRR	29.05%
NPV (\$000)	\$238

Initial Penetration		35%	
Maximum Penetration		55%	
Penetration Increase per Year		50%	
Penetration of Base for Internet		100%	
Penetration of Base for Video		70%	
Penetration of Base for Voice		65%	
Percent HH Targeted		95%	
Feeder Overage		0%	
Distribution Overage		0%	
Effective HH per mile	23.83		
Effective users per mile year 5		15.57	
Number Build miles year 5		96.00	
Broadband Internet Fee per Month per user	\$	45.00	
Video Basic Fee per month per user	\$	49.00	
Basic Telephony per month per user	\$	39.00	
Cost of Capital		25.00%	
Terminal Cash Flow Multiple		10	
Sales per month per Rep		25	
Inbound Telemarket Contacts per Sale		10	
Percent Direct Sa:es		75%	
Percent Direct Sa,es		75%	

RUS Debt year 5

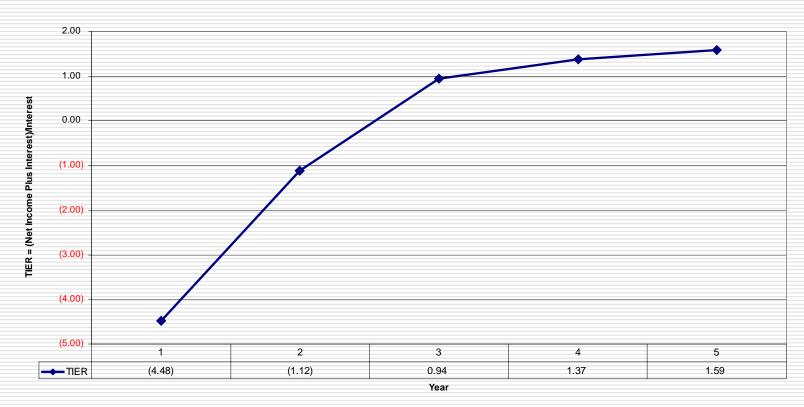
TIER Year 5

Equity and Other year 5

**Key Outputs** 

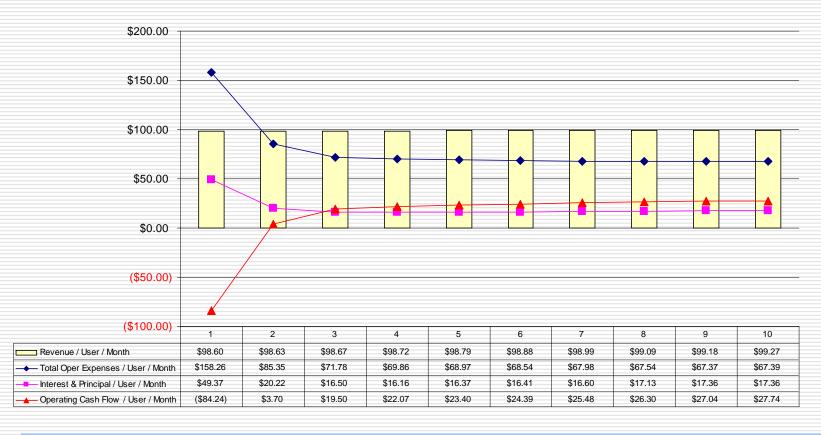
### **TIER**





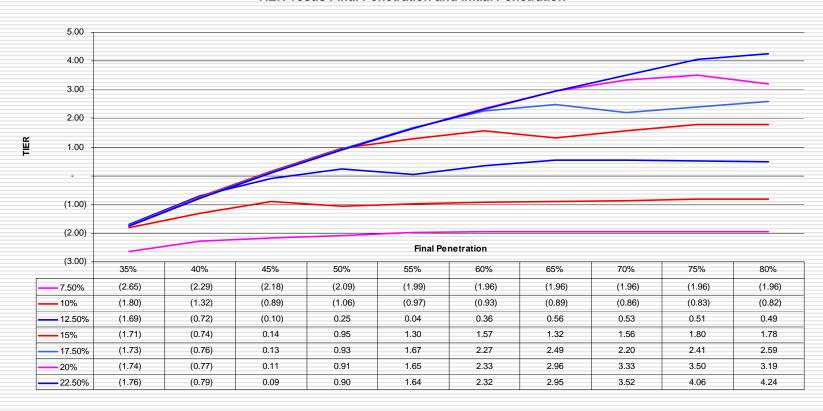
#### Per User

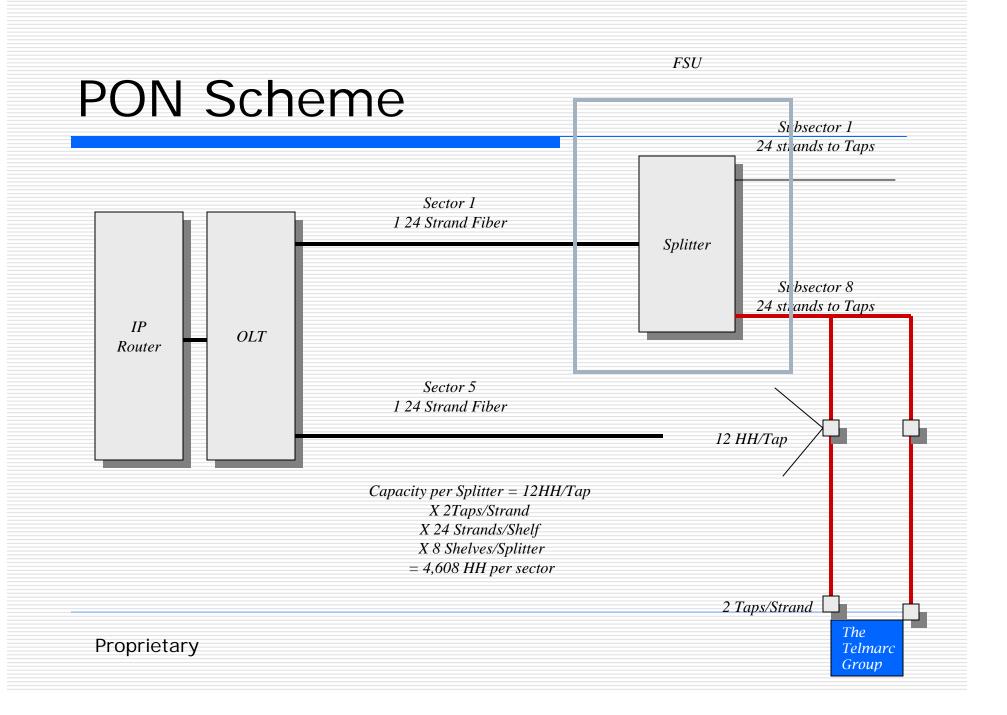
#### **Per User Metrics**



## TIER Sensitivity

#### **TIER vesus Final Penetration and Initial Penetration**





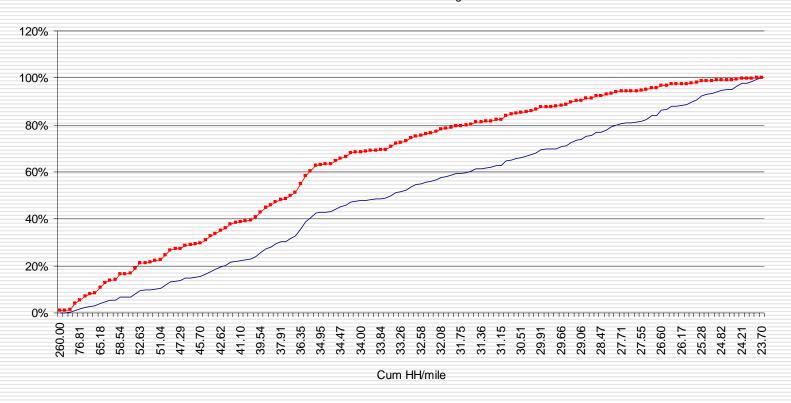
# CAPEX per Sub





#### HH and Miles Distribution

Cum HH % and Cum mi % vs Average HH/mi





# Make Ready etc

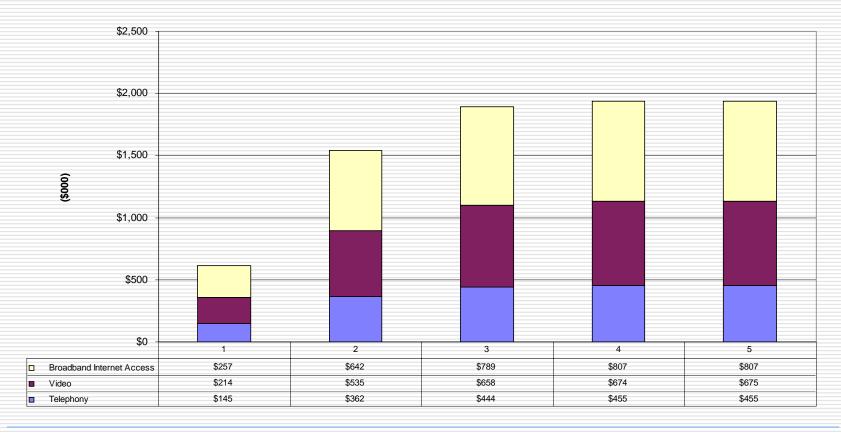




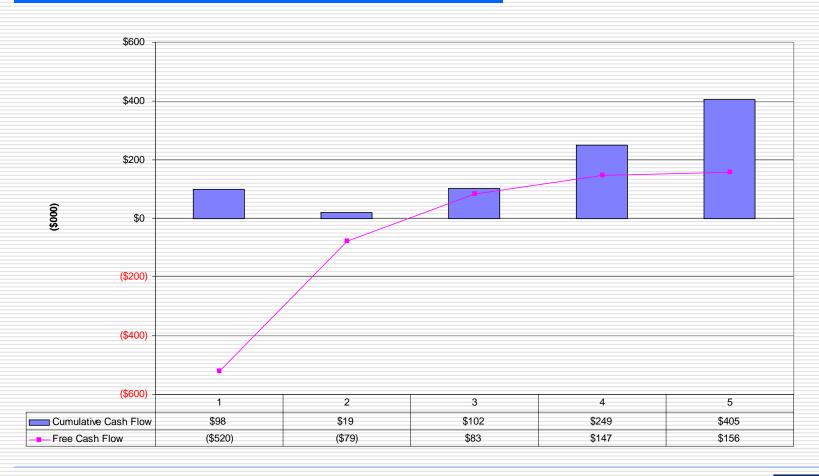


### Revenue

#### Revenue



### Cash Flow

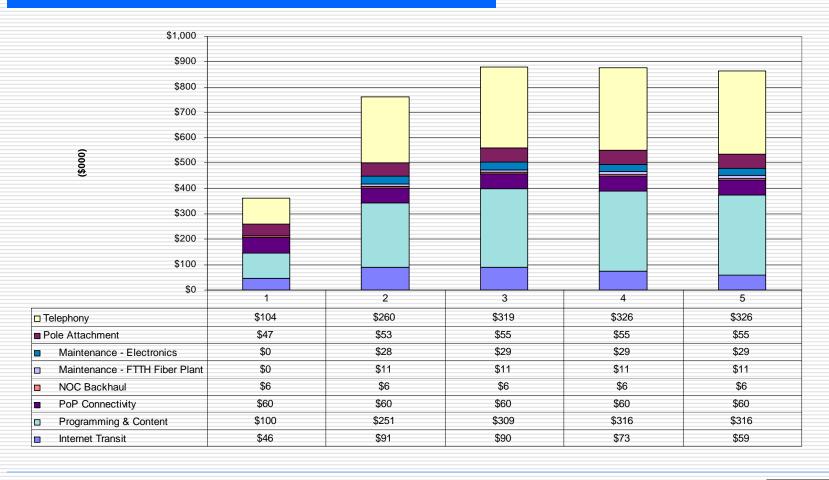


Proprietary

#### **OPEX**



#### Cost of Service



## **Total Costs**

Per User per Month					
Project Management	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Network Operations Center (NOC)	\$1.00	\$0.97	\$0.94	\$0.91	\$0.89
Video Headend	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Customer Service	\$3.00	\$2.91	\$2.82	\$2.74	\$2.66
Billing & Collections	\$2.86	\$2.77	\$2.69	\$2.61	\$2.53
Engineering Support	\$16.93	\$6.91	\$5.73	\$5.72	\$5.83
Sales & Marketing	\$54.01	\$18.99	\$12.07	\$11.77	\$11.73
Exec, Admin & Overhead	\$36.60	\$14.70	\$11.99	\$11.72	\$11.72
Total Operating Expenses	\$114.39	\$47.26	\$36.24	\$35.46	\$35.35
Maintenance - FTTH Fiber Plant	\$0.00	\$0.75	\$0.62	\$0.61	\$0.61
Maintenance - FTTH Electronics	\$0.00	\$1.99	\$1.68	\$1.64	\$1.63
NOC Backhaul	\$1.05	\$0.42	\$0.34	\$0.33	\$0.33
Point of Presence Connectivity	\$10.52	\$4.21	\$3.42	\$3.35	\$3.35
Programming & Content (per total user)	\$17.61	\$17.61	\$17.61	\$17.62	\$17.62
Internet Transit (per total user)	\$8.00	\$6.40	\$5.12	\$4.10	\$3.28
Pole Attachments	\$8.20	\$3.74	\$3.11	\$3.07	\$3.09
Telephony (per total user)	\$18.20	\$18.20	\$18.20	\$18.20	\$18.20
Total Cost of Service	\$63.58	\$53.31	\$50.11	\$48.90	\$48 11

## Cash Flows

Total Expenses per User per Month	\$177.97	\$100.57	\$86.35	\$84.36	\$83.46
Principal & Interest per User per Month	\$48.84	\$19.94	\$16.26	\$15.93	\$16.13
Total Operating Cash Expense per User per Month	\$226.81	\$120.51	\$102.61	\$100.29	\$99.59
Revenue per User per Month Operating Cash Flow per User per Month	\$107.87 (\$118.94)	\$107.89 (\$12.62)	\$107.92 \$5.30	\$107.95 \$7.67	\$108.00 \$8.42

#### Income Statement

Year Ending	0	1	2	3	4	5
Revenues	\$0	\$615,479	\$1,538,977	\$1,891,192	\$1,935,856	\$1,936,740
Cost of Service	\$0	\$362,757	\$760,494	\$878,158	\$876,911	\$862,674
Gross Margin % Gross Margin	\$0	\$252,722 41%	\$778,484 51%	\$1,013,034 54%	\$1,058,945 55%	\$1,074,066 55%
Operating Expenses	\$0	\$647,800	\$662,214	\$620,990	\$621,819	\$620,377
Operating Income Margin %	\$0	(\$395,078) -64%	\$116,270 8%	\$392,044 21%	\$437,126 23%	\$453,689 23%
Depreciation & Amortization	\$0	\$226,094	\$266,514	\$271,538	\$272,390	\$273,293
Profit Before Interest Margin %	\$0	(\$621,172) -101%	(\$150,244) -10%	\$120,506 6%	\$164,736 9%	\$180,397 9%
Interest Expenses	\$126,807	\$138,739	\$134,735	\$127,547	\$119,994	\$113,572
Profit Before Taxes Margin %	(\$126,807)	(\$759,911) -123%	(\$284,979) -19%	(\$7,042) 0%	\$44,742 2%	\$66,825 3%
Income Taxes	\$0	\$0	\$0	\$0	\$0	\$0
Net Income Margin %	(\$126,807)	(\$759,911) -123%	(\$284,979) -19%	(\$7,042) 0%	\$44,742 2%	\$66,825 3%