

Timeline – the road to Session #4

- **April 30th study session** (Subject to change)
 - Networks strategy review
- **May 9th (Wednesday) special session**
 - Integrated water strategy review
- **May 14th study session**
 - Wastewater strategy review
 - Review additional requested scenarios
 - Putting it all together
- **May 21st business meeting**
 - Hold for any additional requests
- **May 29th (Tuesday) study session**
 - Determine operating ratio and rate volatility strategies
 - Determine rate increase timeline, if adopted
- **June 4th business meeting**
 - Determine remaining policy calls
 - Any additional items that are needed
- **June 11th evening study session - Session #4**
 - Establish governing policies, guiding principles and action plans



**Chelan County PUD Networks
Planning Discussion Leading to Board Strategy Session #4
2007 Networks Update and Strategy Review**

April 30, 2007

www.chelanpud.org/fiber

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Agenda

Dual Purpose:

- ▼ **Current Status Update**
- ▼ **Policy Considerations for Session #4**

**This is an informational presentation
No action is required today**

2007 Current Plan

▼ Strategy

- Deploy cost effective technology innovations
- Target difficult build areas
- Build Index
 - Mitigated past risks
 - Not suited for rural builds

▼ Goals

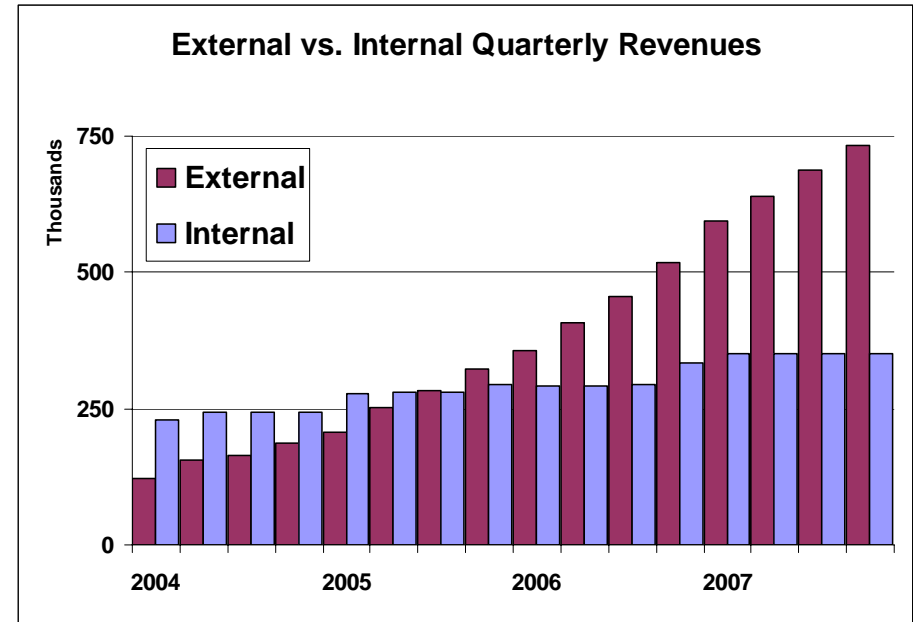
- Pass 6,000 additional homes/business
- Total new end-users – 1,800 (6,611 Total)
 - Internet – 1,800 (6,062 Total)
 - Telephone lines – 1,200 (4,136 Total)
 - Cable TV – 1,200 (2,827 Total)
 - Large Business – 25 (266 Total)
- Generate \$4.0M in revenue (\$2.6M external, \$1.4M internal)



Financial – Current Plan

▼ Revenues

- \$3 million in 2006
 - (\$1.8M external, \$1.2M internal)
- \$4 million projected in 2007
 - (\$2.6M external, \$1.4M internal)
- \$9 million projected in 2012
 - (\$7M external, \$2M internal)
- Revenue growth Q1`04 → Q1`07
 - Internal revenue growth – 54%
 - External revenue growth – 389%

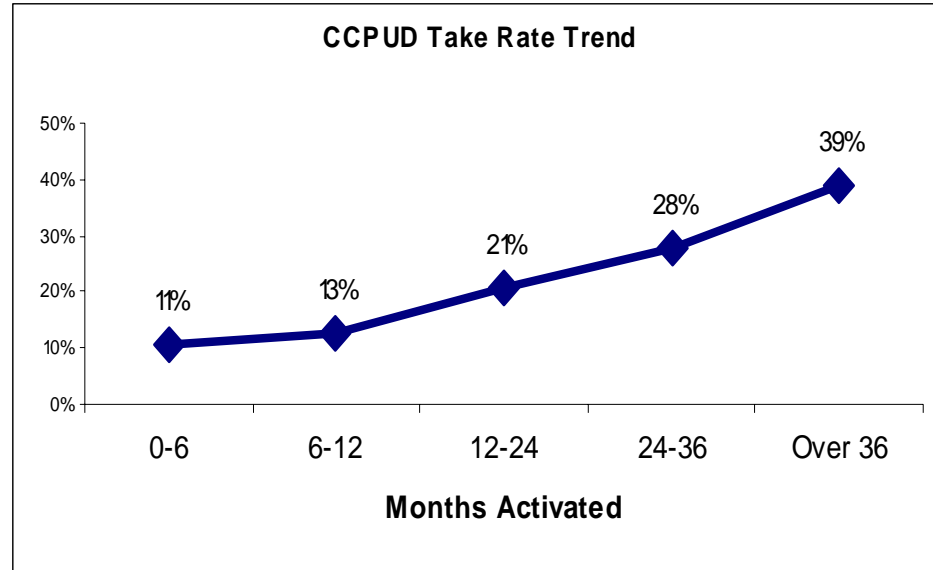


▼ Net Cash Expended

- \$65 million as of 12/31/06 (\$51 million in external debt, remainder in internal loans)
- \$80 million projected as of 12/31/07 (2007 Capital budget - \$11M)
- \$133 million projected as of 12/31/2012

Key Performance Metrics

	FTTP Deployments Nationwide	Actual to Date	CCPUD Business Plan EOY '07
Internet	34%	24%	25%
Telephone	30%	16%	17%
Television	26%	10%	11%
Combined	-	27%	27%

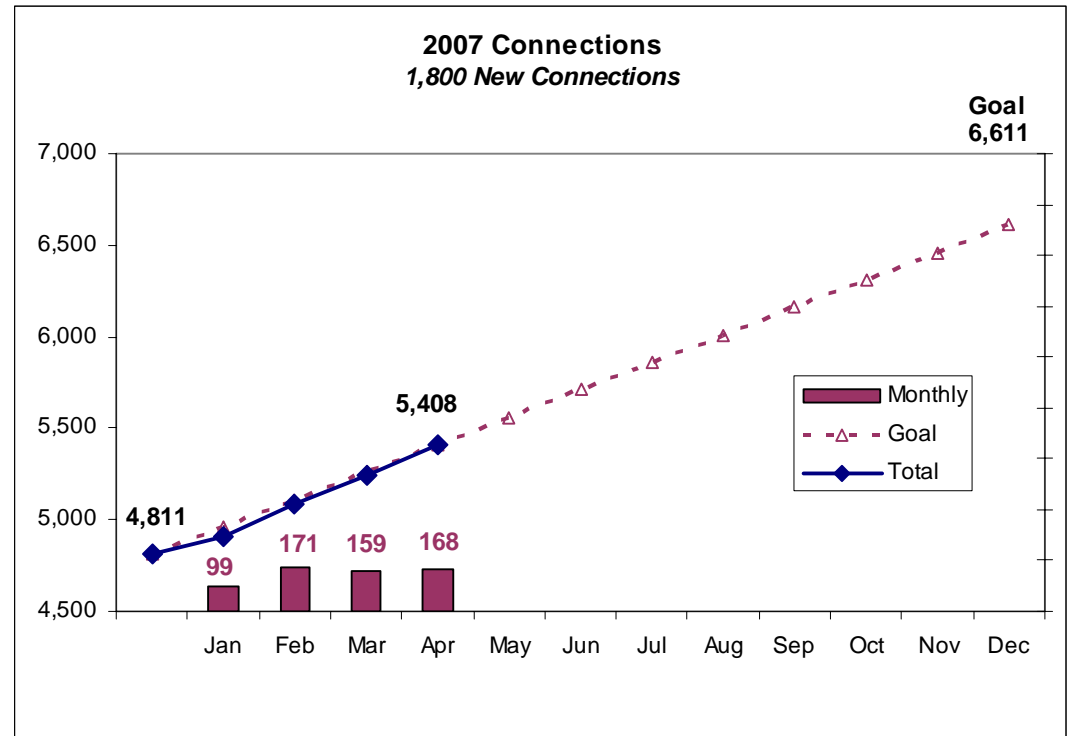


- Cost per drop (“line extension”) - \$1,350
- Cost per connection (“meter charge”) - \$1,100
- Average monthly revenue per customer - \$30 (excluding business services)
- Total monthly revenue per customer - \$40

Build-out Update

▼ Current Statistics

- Total Premises Drops – 19,756
- Total End-Users – 5,408
- Internet – 4,781
- Telephone – 3,283 (4,081 lines)
- Television – 2,071
- Large Business - 264



Industry update

▼ FTTP Build-outs around the world

- Verizon – Had over 3 million US homes/businesses passed in '05 and over 6 million at the end of '06
- Japan – currently has over 7.9 million FTTP subscribers
 - 30 million homes/businesses connected by 2010
- Europe – 2.5 million homes/businesses passed
- Other – 350 municipal build-outs throughout the US.
- The US is ranked 15th in broadband penetration
 - Higher penetrations in densely populated areas
 - Higher cost per Mbs

▼ Technology

- Verizon chose Alcatel-Lucent GPON, the same as ours
- Fiber will continue to be compatible with evolving technologies

Summary

Where we are

- ▶ On track with the current Board-approved plan (build-out to 75% of the county by end of 2008 and 95% by 2012)
- ▶ Technology decisions, Fiber To The Premises (FTTP) and Passive Optical Network (PON), are backed by the large telephone companies. We made the right choice.
- ▶ The “triple-play” is now a reality in Chelan County
- ▶ End user interest continues as shown in take-rates for services

History

- ▼ **PUD Internal Needs – 1999**
- ▼ **2000 – The wholesale model**
 - Senator Patty Murray's push to “bridge the digital divide”
 - Many utilities decided to move forward with Fiber-To-The-Premises (FTTP) immediately
 - Chelan waited to see results and evaluate technologies
- ▼ **Developed Business Plan**
 - Public/Private partnership
 - 15 Service providers
- ▼ **The “Pilot” programs - 2002**
 - Validate early assumptions
 - Gather public feedback
- ▼ **Board commitment – Dec. 2002**



Why Build a Public Telecom Network?

- ▼ **Services to rural areas**
 - Accelerate broadband deployment
 - Serve all areas, not just population centers
- ▼ **Lower cost telecommunications services**
 - Competition brings affordability
 - Internet, Telephone, Television
- ▼ **Improved Education, Healthcare and Government**
- ▼ **Resulting Economic Development**
 - Increasing business efficiency
 - Keeping the high-tech kids
 - Local job creation



Why did our Board decide to build a Public Telecom Network?

▼ District benefits

- Direct benefits

(Security, SCADA, District network, future load management)

- Indirect benefits

(Pole maintenance, GIS, cable replacement, NoaNet, CTC, assist with electric franchises)

▼ Community benefits

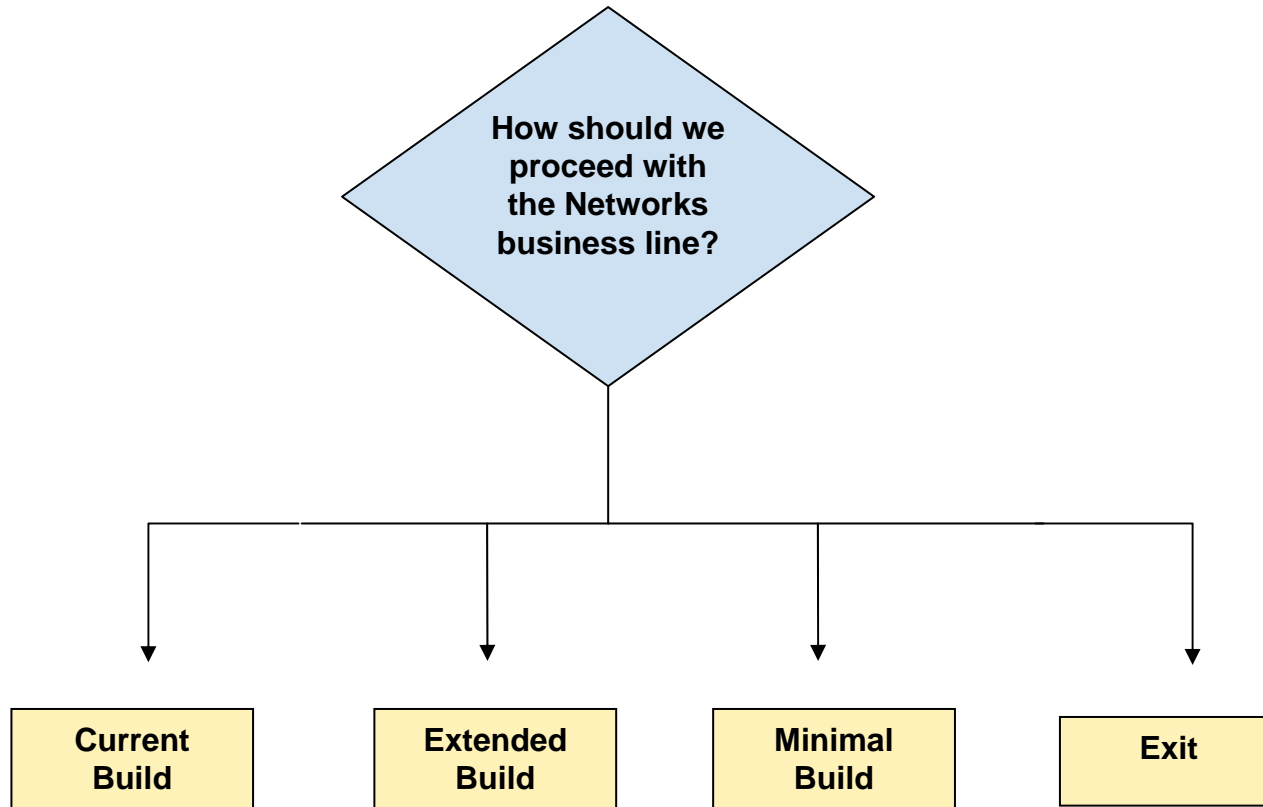
- Stimulates economic development

- Benefits for medical community and schools

- Provides additional choices in Chelan County (limited by number and price)

- Builds a foundation for the future

Board Policy Decisions



Current Build-out Strategy

▼ Key milestones

- Fiber to 75% of the County by the end of 2008
- Fiber to 95% of the County by the end of 2012

▼ Advantages

- Maximum availability of fiber to customer owners
- Flexibility to speed up and slow down
- Substitute alternative technologies for internet services in some of the rural areas

▼ Disadvantages

- Largest capital requirements
- Lower return on incremental invested capital

Current Build

Current Build-out Strategy

▼ The Next 5 Years

- Networks Operating Ratio: 129% → 82%
- Networks impact to District Cash Balance: Use of \$53M

Current Build

		<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Operating Ratio	Networks	129%	111%	97%	88%	82%
Capital Expenditures	Networks	\$12M	\$7M	\$7M	\$7M	\$8M
Cash Flow	Networks	-\$15M	-\$10M	-\$10M	-\$9M	-\$9M
Cash Balance	COMBINED	\$180M	\$147M	\$115M	\$97M	\$120M
Operating Ratio	COMBINED	107%	119%	128%	113%	86%
Coverage Ratio	COMBINED	2.0	0.9	0.0	1.1	6.3

Extended Build-out Strategy

▼ Key milestones

- Fiber to 60% of the County by the end of 2008
- Fiber to 76% of the County by the end of 2012
- Additional 2% per year after 2012

▼ Advantages

- Lower Capital requirements
- Better return on incremental invested capital
- Improves saturation of addressable market
- Provides time to validate assumptions
- Retains flexibility to speed up and slow down
- Substitute alternative technologies for internet services for some of the rural areas

▼ Disadvantages

- Slower build would mean some residents would have to wait longer for fiber

**Extended
Build**

Extended Build-out Strategy

▼ The Next 5 Years

- Networks Operating Ratio: 129% → 83%
- Networks impact to District Cash Balance: Use of \$43M

**Extended
Build**

		<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Operating Ratio	Networks	129%	113%	100%	91%	83%
Capital Expenditures	Networks	\$7M	\$6M	\$6M	\$6M	\$6M
Cash Flow	Networks	-\$10M	-\$9M	-\$8M	-\$8M	-\$8M
Cash Balance	COMBINED	\$184M	\$154M	\$123M	\$106M	\$131 M
Operating Ratio	COMBINED	107%	119%	128%	113%	86%
Coverage Ratio	COMBINED	2.0	0.9	0.0	1.0	6.3

Minimal Build-out Strategy

▼ Key milestones

- Fiber to 50% of the County by the end of 2008
- Fiber to 54% of the County by the end of 2012
- Additional 1% per year after 2012

Minimal Build

▼ Advantages

- Lower Capital requirements
- Best return on incremental invested capital
- Substitute alternative technologies for internet services to some of the rural areas

▼ Disadvantages

- Minimal build would mean many residents would never have access to fiber which doesn't fulfill the public power mission
- May require staffing changes which would limit flexibility to speed up

Minimal Build-out Strategy

▼ The Next 5 Years

- Networks Operating Ratio: 131% → 91%
- Networks impact to District Cash Balance: Use of \$31M

Minimal Build

		<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Operating Ratio	Networks	131%	115%	104%	96%	91%
Capital Expenditures	Networks	\$3M	\$3M	\$3M	\$3M	\$4M
Cash Flow	Networks	-\$7M	-\$6M	-\$6M	-\$6M	-\$6M
Cash Balance	COMBINED	\$188M	\$160M	\$131M	\$117M	\$144M
Operating Ratio	COMBINED	108%	119%	129%	114%	87%
Coverage Ratio	COMBINED	2.0	0.9	-0.1	1.0	6.2

Exit

Potential consequences of stopping the fiber business

- Negatively impact Balance Sheet equity (potential credit rating impact)
- Impact to local economy
- Over 5,000 end-users currently receiving services
- Significant impact to Networks staff
- Impact to 15 Local Service providers
- Legal risks including ongoing contractual obligations
- Security issues with backbone portion retained for our own use

Comparison of Build-out Strategies

	5-year Networks Operating Ratio	5-year Networks Capital Spending	5-year Networks Cash Flow Impact on Combined Cash Balance
Current	129%-82%	\$41M	-\$53M
Extended	129%-83%	\$31M	-\$43M
Minimal	131%-91%	\$16M	-\$31M

- ▶ Impact on Combined operating ratio and Combined debt coverage is less than 1%

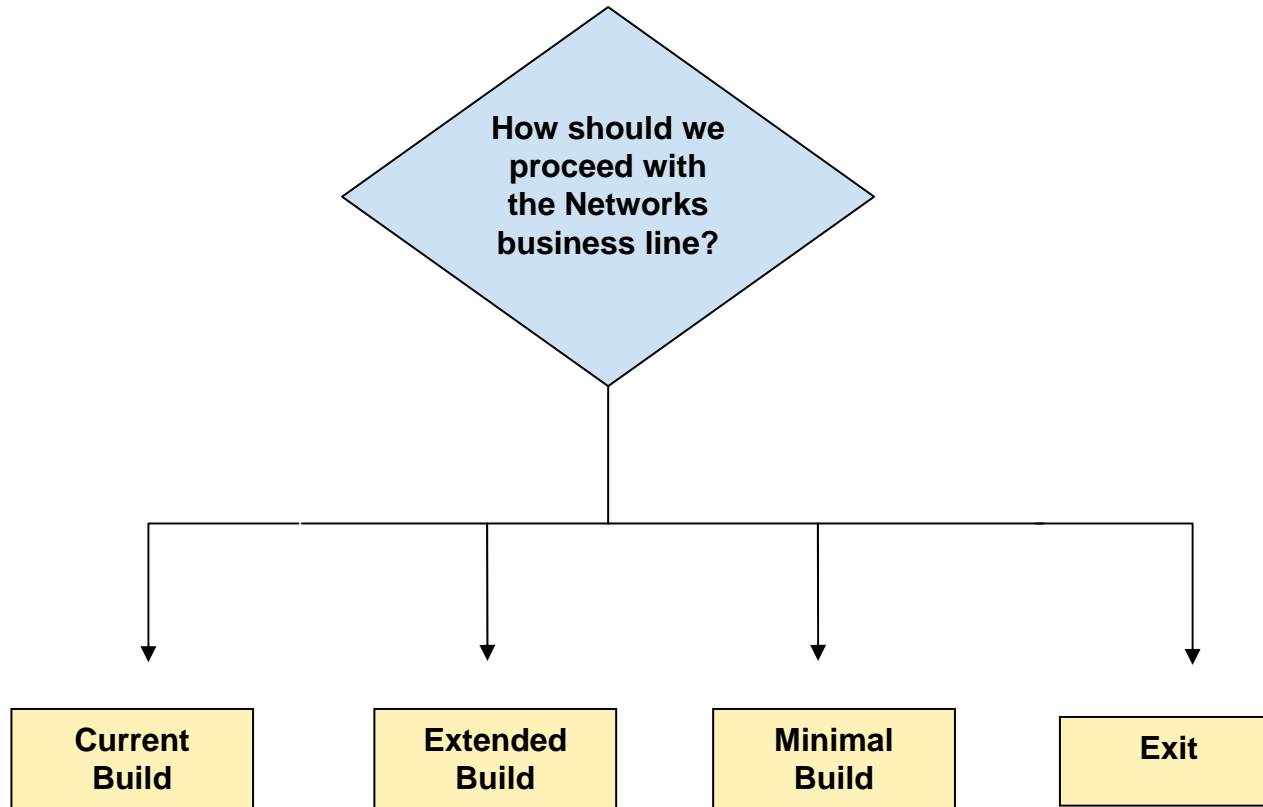
What if?

1. We focus our build-out on rural areas not served by others?
 - ▼ Higher costs to construct with less offsetting revenue - widens the gap
2. We use wireless to build the rest of the way?
 - ▼ Higher operating cost without the breadth of services as fiber - widens the gap
3. We charge a connection fee to the Service Provider for every new end-user?
 - ▼ Would not allow the Service Providers an opportunity to compete on a level playing field since the competitors do not charge a fee – widens the gap
4. We utilize the cash not spent in a reduced build-out and use it to pay down debt instead?
 - ▼ Tradeoff between interest income and interest expense – minimal net impact on gap

What if?

5. We develop a new strategy that would include principal and interest payments (instead of interest-only)?
 - ▼ Would have to borrow additional principal to pay existing principal – gap is the same
6. We don't utilize any of the Puget capacity reservation charge for a Networks cash infusion (example in Session #3)?
 - ▼ Separate scenario beyond fiber program – part of May 14 or other session
7. We look at the scenario of the “Balanced Strategy-5%” with the current Networks build-out?
 - ▼ Separate requested scenario – part of May 14 session
8. We initiate an independent review of the fiber program?
 - ▼ Can be done if the Board feels there is value in an external review and approves the necessary funding

Board Policy Decisions



Questions or Comments?

See <http://www.chelanpud.org/fiber> for more information