



MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

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TO: Commissioners Helgeson, Brown, Mital, Simpson and Carlson
FROM: Mel Damewood, Chief Engineering & Operations Officer
DATE: February 7, 2017
SUBJECT: Strategic Discussion on Dark Fiber Pricing
OBJECTIVE: Board Direction on Dark Fiber Price Schedule

Issue

In May of 2016, management proposed a modification to the Dark Fiber Pricing schedule. The resulting Board direction included evaluating the fiber cost of service allocation. EWEB engaged a consultant, EES Consulting to assist in reviewing and updating the existing cost of service analysis (COSA) model which previously was updated in 2010. This memo provides background on the model update and resulting dark fiber pricing for Board discussion.

Dark Fiber Pricing Update

In anticipation of the Board strategic discussion on dark fiber, staff engaged a consultant to review the methodology for calculating the fiber pricing and provide recommendations. Two key questions related to the methodology include the current risk adder for commercial pricing of two times the public rate and review of the minimum miles increment.

EWEB's Customer Services Policies and Procedures currently stipulates a mile minimum for the first mile and billed at one-half mile for any circuit length in excess of one mile. Revision of the minimum length to one half mile will accommodate shorter distances in high density service areas such as the downtown business district.

The basis for the pricing methodology was derived by incorporating the 2002 EWEB Board approved dark fiber lease rate methodology that included three components described below.

1. Construction Recovery Cost Component – Recovers the cost of EWEB's fiber optic backbone over a twenty-year period of time.
2. Capital Reserve/Replacement Cost Component – Builds a reserve fund for replacement or major maintenance of the backbone system and of customer-funded fiber laterals.
3. Operation & Maintenance Cost Component – Covers operations and maintenance expense in the backbone system and in customer-funded fiber laterals.

The 2002 Board approved pricing principles are continued in the current proposal and used to update the current schedule, described below.

1. The K through 12 School Districts cost based pricing is intended to recover only the O&M component and not the capital or replacement components. The pricing was instituted under the 4J “Light the Apple” project and intended to provide low cost access to broadband communication capability. This rate was also extended to Bethel and Springfield school districts.
2. The Public Purpose cost based pricing is established using the cost of service principles and includes all three of the components described above. This pricing has been applied to public agency and medical customers like the City of Eugene, Lane County, LCOG, Peace Health, etc.
3. The Commercial market based pricing includes a risk adder of two times the Public Purpose price and applies to for-profit customers using EWEB’s fiber for commercial purposes.

Pricing Schedule	Current (per strand mile)	Proposed (per strand mile)	% Change
School Pricing	\$4.94	\$4.94	0%
Public Purpose	\$22.46	\$26.09	16.2%
Commercial	\$45.93	\$52.18	13.6%

Regional Comparators

In reviewing the methodology, staff worked with an external consultant, particularly the impact of risks associated with the commercial rate class, such as potential bad debt and additional administrative costs associated with serving these accounts. Staff also reviewed the regional market for dark fiber which has a range from \$19 per strand mile to \$295 per mile depending on location. The majority in close proximity is in the \$38 to \$55 per mile range.

EWEB Dark Fiber Price Comparison/Strand Mile	
EWEB (2016)	\$4.94 – K through 12 School Districts \$22.46 – Public Agencies \$45.93 – Commercial
EWEB (2017 proposals)	\$4.94 – K through 12 School Districts (Propose no change) \$26.09 – Public Agencies \$52.18 – Commercial
Burbank Water & Power	\$135 to \$200 depending on number of strands and length of contracts
CoastCom	\$40 to \$50
Grant County PUD	\$55 for strands 1&2 (\$20 for additional)
Central Lincoln PUD	\$37.50 (isolated case and don’t lease on a regular basis)
Springfield Utility Board	\$19
City of Bellevue Washington	\$47.50
Bonneville Power Administration	\$30 to \$45
Palo Alto Utilities	\$177 to \$295 depending on number of strands
Sacramento Regional Transit District	\$60 to \$125 depending on location
City of Santa Clarita	\$80

Downtown Network Economic Analysis

EWEB fiber lease prices and increments is a major factor in the success of the downtown fiber network, consistent with EWEB business growth and retention strategy.

Staff has conducted an economic analysis on the renewal and replacement of the fiber optic network.

Assumptions:

- 25-year useful life of the fiber optic cable
- Greater than 50-year useful life of micro tubes, replacement of tubes not included
- Inflation set at last 25-year average of ENR construction cost index (2% per year)
- Cost for repairs due to damage not included in analysis

The economic analysis was based on the COSA results for EWEB Commercial Dark Fiber price of \$52.18 per strand mile per month. Additionally, the 2040 replacement cost of the fiber (only) is estimated at \$1.1 million. Using the proposed pricing, the breakeven point requires leasing of 55 strand miles, over a 25 year annual average, of fiber out of a possible 393 miles at full capacity.

The commercial price is the Public Purpose price plus adder for risk and administration. The risk for the commercial class reflects the higher risk, bad debt, and additional administrative costs associated with serving these accounts. The risk adders recover the cost of the system over a shorter period of time. While public agency customers will likely remain customers until the fiber system is fully recovered, commercial customers have a higher turn-over rate. The administration adder accounts for the additional costs for opening and closing commercial accounts as customers come and go.

Recommendation

Management recommends adoption the new pricing based on the updated cost of service model and continuation of the risk adder for commercial customers based on the multiplier of two times the public agency pricing. Furthermore, management recommends reducing the minimum distance from one mile to one half mile.

Requested Board Action

Management requests the Board to provide feedback so staff can prepare the updates for the March Board meeting consent agenda. New pricing, upon Board approval in March, will take effect April 1, 2017.

If you have any questions please contact Mel Damewood at mel.damewood@eweb.org or 541-685-7145.