



Fiber Leasing Program

Public Utilities Department

City Council
July 11, 2017

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Fiber 101



Fiber Optic Cable

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Fiber 101



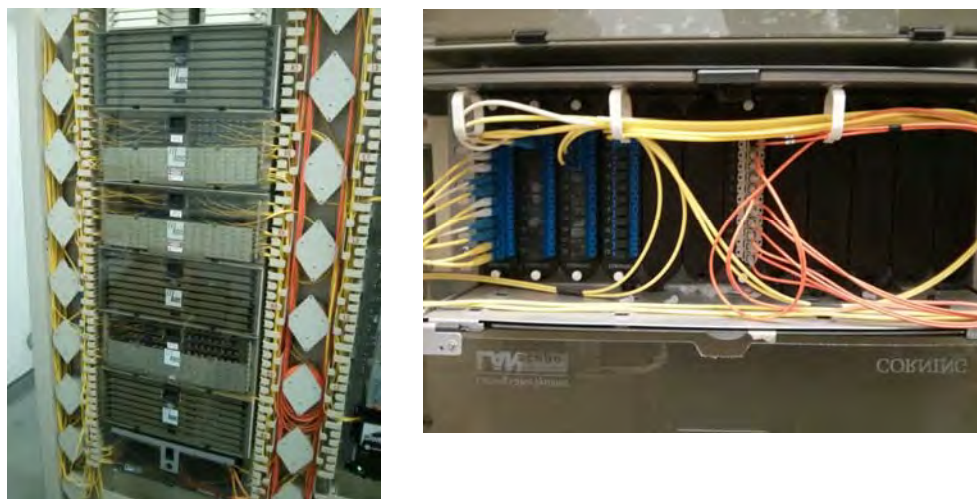
Overhead and Underground Installation



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Fiber Splices and Terminations



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Background

1. July 2014 Magellan Advisors engaged to prepare fiber business plan and roadmap
 - A. Assessment of RPU current practices
 - B. Opportunities to enhance dark fiber leasing
 - C. Identification and interviews with major stakeholders
 - D. Review of peer community offerings
2. Recommendations peer reviewed by Tellus Ventures



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Background

3. 2016 Board and City Council approved roadmap and Phase 1 recommendations to formalize business and brand
 - A. Assign internal project manager
 - B. Document existing assets
 - C. Implement fiber management system
 - D. Review and standardize agreements
 - E. Develop standard pricing
 - F. Publish rate tariff and terms



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Related Activity

1. Phase 2 recommendations included:
 - A. Determine RPU policies for expanding dark fiber
 - B. Develop pricing policies for system expansion
2. November 2016 Board approved PSA with Tellus Ventures to serve as extension of staff for Phase 1 implementation



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Summary Update of Actions

1. Fiber Expansion Considerations
 - A. Backbone master planned routes identified

RPU Master Planned Fiber Facilities: 2017- 2020		
Location	Extent	Capacity
Magnolia Avenue/Market Street	First Street to Buchanan Avenue	288 fiber
University Avenue	Market Street to Canyon Crest Drive	288 fiber
Chicago Avenue	Martin Luther King Boulevard to Marlborough Avenue	288 fiber
Iowa Avenue	Martin Luther King Boulevard to Palmyrita Avenue	288 fiber
Pierce Street	Magnolia Avenue to Riverwalk Parkway	96 fiber



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Pricing considerations – Master Planned Routes

Fiber Capital Cost Summary and Participation			
Facility	Cost Calculation	Customer Responsibility	Utility Participation
Master Planned	Work Order Cost +15%	50% of Actual	50% of Actual
Non-Master Planned	Work Order Cost +15%	100% of Actual	0
Fiber Drops – 12 strand (from nearest splice)	Work Order Cost +15%	100% of Actual	0

- Providing discount to master planned routes could encourage early investment by stakeholders



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Proposed Fiber Rates

Riverside Public Utilities – Fiber Network Rate Card		
Standard Fiber Service	Per Month	Notes
Strand-mile, first ten (10) strand miles	\$125.00	One (1) strand-mile minimum charge per leased strand, thereafter by tenth of mile (0.10)
Strand-mile, additional strand-miles	\$100.00	
Drops/laterals	\$150.00	Minimum per mile or tenth of mile (0.10) fraction thereof, up to twelve (12) strands
End Points	\$150.00	Up to twelve (12) strands
Additional Terms		
Discount for 10 year minimum term	30%	Per strand-mile, not applicable to drops/laterals or end points



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Additional Pricing Terms

1. Maximum 5 year rate lock-in
 - A. 2% annual price increase
 - B. Renewable in 5 year terms at then published rates
 - C. On-bill financing for capital contribution – public agencies
2. Existing Agreements continue through expiration, then renew at published rates
3. Case by case review for non-standard requests
4. Board and Council review IT rates and use within 6 months (provision of managed service possible)



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Physical and Cyber Security Policies

1. Establishes the foundation for planning, evaluating, implementing, and sustaining a Physical Security Program for RPU;
2. Specifies the duties of personnel specifically responsible for implementing the RPU Physical Security program, and;
3. Defines employee actions and behaviors necessary to support the physical security of RPU facilities.



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Physical and Cyber Security Policies

Requires that RPU:

1. Terminate fiber optic cable strands designated for customer's use only at that customer's premise.
2. RPU will not terminate fiber strands used anywhere else in the fiber optic cable system at customer's premise.

Use of physically separate fiber strands will ensure cyber and physical security of RPU and customer data.



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Fiber Cost Center

1. Establish designated fiber reserve from prior years leasing revenue - \$1,800,000
2. Appropriate with FY 2017/18 budget:
 1. \$1,200,000 for capital – dark fiber backbone expansion
 2. \$600,000 for operations expenditures
3. Future revenue to accrue to fiber revenue account



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Recommendations

That the City Council:

1. Approve the Dark Fiber Leasing Program;
2. Establish uniform lease pricing for the Dark Fiber Leasing Program;
3. Approve the Technology Physical Security Policy;
4. Approve the Master Fiber Lease License Agreement;



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Recommendations

5. Establish a new Dark Fiber Cost Center expense and revenue accounts, as determined by the Finance Department, to segregate fiber leasing costs and revenue from other electric fund operating expenses and revenues;
6. Establish a Dark Fiber designated reserve account, as determined by the Finance Department, and authorize the transfer of \$1,800,000 for prior years' revenue from dark fiber leasing activities to the designated reserve;



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Recommendations

7. Authorize a supplemental appropriation for fiscal year 2017/18 budget in the amount of \$1,800,000 with \$1,200,000 for capital expenditures and \$600,000 for operating costs, to account numbers as determined by the Finance Department for future fiber expansion projects;
8. Authorize the City Manager, or his designee, to execute Fiber Use License Agreements under the terms set forth in this staff report;



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Recommendations

9. Direct staff to return every 3 years to update the fiber planned routes, and lease pricing; and
10. Direct staff to return every 12 months with a status update on implementation progress of the Dark Fiber Leasing Program.



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