

Fiber Optic Backbone and eEnergy Vermont

Project Update-Operating Committee



Project Update

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Fiber Optic Backbone

Overview:

- The Fiber Backbone provides a communications network that currently entails approximately 1,020 miles of fiber installation to support the reliability needs of the transmission system and as an added benefit assist with the communications needs of the state's distribution utilities.
- The work consists of approximately 30 different subprojects with installation on both VELCO- and DU- Owned Infrastructure; the work is in varying stages of development; i.e. engineering, construction , and splicing.
- Costs to date for the project (through the end of June) are approximately \$19 M (36% spent) of a \$53 M project estimate for fiber installation only.
- The project remains “on track” to meet its budget and schedule goals, based upon analysis to date.

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Overview (continued)

- The project team is examining approximately 20 miles of transmission and 150 Miles of distribution work for possible scope reduction. The transmission reduction would result from incorporating the fiber into an upcoming transmission project and the distribution reduction may be realized through cooperative installation with recent awardees of federal broadband funding, e.g. VTel
- Interoperability testing for the proposed equipment is complete and the characterization of the existing fiber is currently being completed.
- Cost estimates for the lighting of the fiber continue to be developed as the architecture and implementation plans are refined.

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Engineering Design and Procurement

- Engineering is 80% complete, with over 700 miles issued for review, and approximately 600 miles issued “final”.
- A unit price contract procurement has been completed which has detailed pricing for a 500 mile block of Transmission and Sub Transmission make ready and fiber installation scope.

Field Work

- Make Ready is complete for approximately 200 miles.
- 235 miles of fiber installation is complete, with another 75 miles in construction.
- Approximately 90 miles of material is available.

Regulatory/Permitting Activities

- Negotiations advanced with private railroads for easements and we expect completion by the end of July.
- Section 10 Crossing Permits continue to be received well in advance of construction.
- VELCO continues to work with GMP to evaluate easements on GMP ROW, work with VEC will follow shortly.

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Schedule

- The work is currently scheduled to be completed at the end of 2012.
- Approximately 500 miles of the work is scheduled to be installed by the end of 2011.
- Splicing and testing is beginning in July 2011.
- Construction progress and coordination meetings continue with the Vermont Distribution Utilities.
- Scoping visits continue and surveying, when required, is being completed to support engineering.



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- **Risks, Challenges, and Management Items:**

- Ensuring schedule coordination among the project stakeholders (making sure that work supports AMI roll out).
- Making sure that material and project execution schedules coincide.
- Ensuring that review of preliminary design work is complete, in particular, field reviews to ensure smooth construction.
- Managing the impacts and opportunities presented by the merger of GMP and CVPS
- Availability of qualified resources to string the fiber (results from completed projects show that cable installation contractors are more efficient with installation).
- Integrating lessons learned from the winter construction into ongoing and future projects.



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- **Cooperation with Telcoms:**

- VELCO is currently working with both VTel and Sovernet to potentially swap fibers of equal value over each entity's network.
- These two providers were recipients of significant stimulus funding for broadband infrastructure improvement.
- Successful agreements with both providers will potentially allow the fiber project to avoid building 150 miles of distribution construction.
- VELCO has yet to reach agreement on a Letter of Intent (LOI) with Sovernet, issues c include the term of the agreement, valuation, and clawback provisions.
- VELCO believes that a compromise will be reached with VTel; and is not as encouraged given its discussions with Sovernet.



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eEnergy Vermont Project

- The eEnergy Vermont project has spent approximately \$25 million (18% spent) of its targeted \$138 million through the end of May 2011.
- The project remains on schedule to deliver a “Smart Grid” by April of 2013, with meter deployment beginning on a large scale this fall.
- VEC is nearly complete with its meter deployment and is focusing its efforts on the planned Consumer Behavior Study with the assistance of VEIC.
- BED’s bond issue vote was successful and is moving forward with deployment.
- The eEnergy Vermont team’s interaction with the DOE continues to positive and looks forward to feedback from the May project review.

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Reporting

- Monthly Earned Value (EV) Reporting shows that project is meeting its financial goals with a Cost Performance Index (CPI) of 1.19 and a Schedule Performance Index (SPI) of 0.80 and is reflecting some schedule delay.
- The anticipated delays are due to the AMI backhaul communications and Distribution Automation deployment; however, it should be noted that the funding spent to date reflects an efficient spend since the CPI is greater than 1.00.

Planning, Engineering Design, and Procurement

- CVPS and GMP continue to plan deployment to the substation level of detail which considers the interim communications approaches and substation and distribution automation components of the work.
- BED continues with its fiber deployment and is planning to begin its meter installation for Q4 2011/Q1 2012
- VEC has worked with VEIC and is beginning member recruitment for the Consumer Behavior Study.

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Field Work

- VEC's meter deployment is substantially complete.
- CVPS and GMP are completing preparatory work for the AMI and substation automation projects.
- BED is currently deploying fiber for intermediate communications for its proposed AMI and Distribution Automation system.

Regulatory/Permitting Activities

- Commissioner Miller hosted a meeting of utility leaders to gain concurrence on addressing consumer choice, cyber security, and data privacy approaches at the PSB.
- Permitting and regulatory efforts continue for the intermediate backhaul network.

Schedule

- BED, VEC, WEC, and Vermont Municipal Utilities work remains on track for completion within the grant period of performance.
- Schedule risk continues to exist for CVPS and GMP due to the coordination required for intermediate network with the "Connect Vermont" efforts; combining the efforts may impact the completion date of their portion of the work.