ENGINEERING PROGRESS

Progress for the engineering and design portions of the JGCHI project continue to be moving along as planned. The site work that is noticeable during this quarter was the initial civil construction of the North Douglas submarine cable termination yard. Other engineering included submittal review of the submarine cable specifications and preliminary surveys for the B-Road transmission line. In addition to the civil construction, engineering for the electrical installation of facilities at North Douglas was completed. The request for proposals for the Young Bay electrical portion of the termination yard was also drafted during this quarter.

The budget for engineering and design remains on target for all activities.

Below is a table of progress for the ongoing engineering and design functions required for the Juneau / Greens Creek / Hoonah Intertie Project. (Items in red text have been completed.):

Engineering Task	Performing Parties	Status
Power Flow Modeling and System Electrical Modeling	AELP / Power Engineers	100% Complete
North Douglas Submarine Cable Termination Yard Civil Design	AELP / R & M Engineering	100% Complete
North Douglas Submarine Cable Termination Yard Electrical Design	AELP / Tandem Systems	100% Complete
Young Bay & North Douglas Submarine Cable Termination Yard Civil Design	AELP / R & M Engineering	100% Complete
Young Bay & North Douglas Submarine Cable Termination Yard Electrical Design	AELP / Tandem Systems	100% Complete
Young Bay to Hawk Inlet (A-Road) Transmission and Fiber Optic Line Design	AELP / Power Engineers	100% Complete
Geotechnical Survey for Greens Creek A-Road	AELP / Power Engineers	100% Complete
Bid Specifications and Documents for Construction of the Young Bay to Hawk Inlet (A-Road) Transmission Line and Fiber Optic Line	AELP / Power Engineers	100% Complete
Road Surveys and Staking of the A-Road	AELP / Power Engineers	100% Complete
Routing Study/Marine Survey for North Douglas to Young Bay Submarine Cable	AELP / David Evans Assoc/Power Engineers/R & M Engineering	100% Complete
Bid Specifications and Documents for Installation of the Submarine Cable between N. Douglas and Young Bay	AELP / Power Engineers	100% Complete
Hawk Inlet to Greens Creek Mine (B-Road) Transmission and Fiber Optic Line Design	AELP / Power Engineers	75% Complete
B-Road Geotechnical Survey	AELP / R & M Engineering	10% Complete
B-Road Surveys and Staking	AELP / R & M Engineering	75% Complete
Bid Specifications and Documents for Construction of the Young Bay to Hawk Inlet (B-Road) Transmission Line and Fiber Optic Line	AELP / Power Engineers	50% Complete

SUBMARINE CABLE PROGRESS

On February 2, 2005 a Notice of Award and Notice to Proceed was given to Nexans Norway AS for the design, supply and installation of the 69kV submarine cable between North Douglas and Young Bay. Subsequently a Purchase Order was issued to Nexans for the conformed contract dated February 1, 2005.

On February 17, 2005 AELP sent Nexans a document control and correspondence protocol for the communications aspect of the cable design and supply. A pre-manufacture and "kick-off" meeting was held on March 3, 2005 to identify the project teams, project requirements, project reporting, schedule review, discuss design, provide Nexans an update on where AEL&P was with engineering and construction to-date and to finalize any contractual issues. Per the conformed contract, a wire transfer to Nexans was made on March 14, 2005 in the amount of $996,498 USD as progress payment #1 for the project.

On March 17, 2005 AELP had reached an agreement and contracted the Quality Assurance / Quality Control services for Nexans factory inspections to Parsons Brinckerhoff Quality Services (PBQS) of the UK. PBQS will be our representative for critical factory inspections during the manufacturing process of both the submarine cable and fiber optic element. A subsequent conference call was made between PBQS, AELP and Nexans in order to determine a preliminary inspection schedule for the project.

The first visit by PBQS to the factory was made on March 29 and 30, 2005. Items reviewed during the first visit were as follows:

1. Overview quality procedures / Quality manual.
2. Overview 69kV TKVA cable manufacturing process.
3. Check key manufacturing activities e.g. insulation extrusion process, air cleanliness.
4. Review quality documentation - material traceability, process monitoring, test result recording, equipment calibration etc
5. Review requirements & schedule for witness points on I & TP. (Also for fiber optic cable FAT at Nexans, Rognan, North Norway.)
6. Material procurement & incoming inspection
    a. Review how Nexans enforces QA at their suppliers' factories. E.g. insulation compound at Borealis.
7. Review Nexans incoming inspection procedures XLPE insulation
8. Review QA performed on incoming insulating and semi-conducting XLPE compounds before and during extrusion.
9. The characteristics of the screen packs used in the XLPE extruder.
    a. Procedures for examining the screen packs at the end of an extrusion run (~50,000'), to ensure no metal contaminants from the screen pack have entered the cable insulation.
10. Methods used to ensure that the cable insulation quality is uniformly good throughout the extrusion run.
11. Methods used in the factory to ensure that the specified cable dimensions and geometry are maintained throughout an extrusion run.
12. Procedures used to effectively degas each extrusion run prior to sheathing.
13. Methods used to ensure that extruded sheaths are leak free for the entire length.
14. Testing
    a. Review how Nexans ensure that all the specified production tests are done.
    b. Review basis for establishing the factory acceptance test voltage. (With reference to standard AEIC CS7-93)
    c. Non-conformances & Concessions

d. Procedure for reporting non-conformances and applying for concessions to AEL&P & PBQS.

15. Transportation to site – Review method for transporting the cable to site. AEL&P require cable to be transported to site without ship-to-ship transfers en route.
16. Status reporting - Nexans procedure for reporting production status.

This initial inspection visit went well and many of the items outlined above were clarified at the time of the visit. The schedule for the second visit was also made during this visit and is scheduled for May 4, 2005. All other activities for the cable design and manufacture are on schedule.

CONSTRUCTION PROGRESS

Work began with staking of the preliminary points of intersection for the B-Road transmission line. Engineers worked with surveyors much of February and March in designing this transmission line. It is expected that the line design will be completed and an RFP should be ready for distribution by the middle of May.

On February 18, 2005 an underwater video of the North Douglas submarine cable shore approach was made in order to allow the engineers to review the type of approach that the submarine cable would be making as it will come out of the water and onto the shore as it heads up to the submarine cable termination yard. Copies of this video are available upon request.

On March 4, 2005 AEL&P sent out a Request for Proposals for the civil construction of the North Douglas submarine cable termination yard. The bid closing for this was March 17, 2005 and a local civil contractor, North Pacific Steel Erectors was identified as the successful bidder. A formal purchase order was issued to NPE on March 22, 2005 and work commenced soon thereafter. As of the end of March, all preliminary dirt works had been completed and the concrete foundation forms were being prepared.

Miscellaneous photos for this quarter are attached below as Appendix A.

APENDIX A

Project Photographs

Photo 1 – Surveyor working in February '05. Marking power pole location along B-road. (Large ore-truck off in the distance.)

Photo 2 – Here's and engineer clearing snow around a stake for a power pole location after a winter storm covered the area in early February.

Photo 3 – Here a local contractor is preparing the "missile" ROV that was used for an underwater inspection of the submarine cable route at North Douglas.

Photo 4 – Here a local contractor is drilling and blasting for the submarine cable trench tat North Douglas.

Photo 5 – Here a local contractor is digging a test hole for the local geologist to inspect the soil conditions at the North Douglas submarine cable termination yard.

Photo 6 – Here is the 1st load of rock being delivered to the North Douglas submarine cable termination yard. (There's no access to the site from the Juneau Road system, hence the landing craft shown here.)

Photo 7 – This is the first week of civil/dirt works at the North Douglas site. Note that all rock was brought via dump truck on landing crafts. (See photo 6)

Photo 8 – As the dirt works continue at the North Douglas site, construction began on the concrete foundation forms for some of the equipment that will be delivered later this summer.