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Georgia Power and Gas Infrastructure Project (PGIP)

QUARTERLY REPORT

Q1 FY 2012: October, November, and December 2011



January 14, 2012

This publication was produced for review by the United States Agency for International Development. It was prepared by Tetra Tech, Inc.

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DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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[REDACTED]
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[REDACTED]
[REDACTED].

The cover photograph is of two residential gas metering installations in Poti by SOCAR, the gas distribution company for Poti. Gas provided by USAID's PGIP transmission gas pipeline from Senaki to Poti is delivered to SOCAR for distribution in Poti. Cover photo courtesy of [REDACTED].

Executive Summary

This Quarterly Report was prepared under USAID’s Task Order AID-EDH-00-08-00027 – AID-114-TO-10-00003: Georgia Power and Gas Infrastructure Project. The reporting period is for the first quarter of Federal fiscal year (FY) 2012: October 1, 2011 through December 31, 2011. Table 1 shows the contract’s active work orders during Quarter 1 of FY 2012.

Table 1. Active First Quarter FY 2012 Work Orders										
Work Order Type	Sector									
Administrative Work Orders	Power Infrastructure	Gas Infrastructure	Tender Documents	Construction Oversight	Capacity Building	Public Relations and Branding	Quality Assurance and Quality Control	Environmental Assessment	Design Activities	Procurement Plan

The project’s significant accomplishments under the PGIP electric and gas components this quarter were:

- Construction of the Senaki-Poti pipeline by the Georgia Oil and Gas Company (GOGC) was completed. In the second part of December the pipeline was accepted and commissioned, then placed into service by the Gas Transmission Company (GTC, the gas pipeline operating subsidiary of GOGC), and Poti began receiving gas.
- The Attachments to the Senaki 220 kV transmission line Request for Proposal (RFP) were completed. This included the specification, drawings, and design criteria. USAID/Caucasus is now preparing the RFP.
- Tetra Tech provided reviews and technical advice to USAID on the following for the Senaki-Abasha gas pipeline: development of technical specifications for material procurement, tender announcement, bid evaluation, and bid award.
- Tetra Tech also reviewed and provided technical advice to USAID on the development of technical specifications for material procurement, tender announcement, and bid opening for the Kutaisi-Abasha gas pipeline. The final evaluation is scheduled to take place in January 2012.

Acronyms

BEO	Bureau Environmental Officer
EA	Environmental assessment
exp	exp (Trow Construction Company)
FIZ	Free industrial zone
FY	Fiscal year (October through September)
GOGC	Georgia Oil and Gas Company
GRS	Gas regulating station
GSE	Georgia State Electrosystem
GTC	Gas Transmission Company
MAOP	Maximum allowed operating pressure
PGIP	Power and Gas Infrastructure Project
POWER	Power Engineers, Inc.
RFP	Request for proposals
SOCAR	State Oil Company of Azerbaijan
USAID	United States Agency for International Development

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1 Program Staffing

1.1 Expat Staffing

Deployment. Table 2 shows the deployment of PGIP’s international staff during the quarter. No short-term or other international consultants visited the project this quarter.

Table 2. International Staffing and Deployment			
Employee Name	Position	Georgia Arrival	Georgia Departure
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Staffing challenges. The technical support provided by [REDACTED] is coming to an end just as the three major construction projects are starting (the Abasha-Senaki gas pipeline, Kutaisi-Abasha gas pipeline, and the Menji-Tskaltubo 220 kV transmission lines). The need for continued support from [REDACTED] has been raised with Tetra Tech management, and USAID and Tetra Tech are scheduled to discuss this issue in late January 2012.

1.2 Local National Staffing

Disposition. Table 3 shows the local national staff currently assigned to the PGIP Project.

Table 3. Local National Staffing		
Employee Name	Position	Start Date
[REDACTED]	[REDACTED]	[REDACTED]

Staffing challenges. Tetra Tech is working to provide more rapid and timely translation services to the Component 2 gas team. At times the work load is high and the deadlines are short. [REDACTED]

2 Contract/Task Order Activities

2.1 Gas Infrastructure Development and Rehabilitation

2.1.1 Studies and Reviews Performed

This quarter, the PGIP team focused on providing support and oversight for the completion of the Senaki-Poti Free Industrial Zone (FIZ) project. The project was completed and commissioned by the end of December. The PGIP team dedicated special attention to all ongoing operations so as to ensure GOGC control over the project's quality, expenses, and implementation.

The team also supported the Senaki-Poti pipeline construction monitoring and in confirming the completion of construction. In the second half of December the construction was completed, the pipeline commissioned and placed in service, and the people of Poti began receiving gas. The PGIP team helped ensure the project's completion by drafting analyses, studies and reviews of the documentation submitted by the GOGC and project contractors, and providing relevant feedback and recommendations.

The PGIP team also supported the design and development of the Abasha-Senaki pipeline project and the Kutaisi-Abasha gas pipeline project.

Studies. The PGIP team prepared the following:

- Weekly reports for USAID on the status of project activities and their accomplishments.
- A draft Future Approaches Report, which is being finalized and is expected to be completed next quarter.
- An updated Performance Monitoring Plan, which reflects all changes in the project, describes the progress achieved to date, and presents some additional criteria for performance monitoring. It has been submitted to USAID for review and approval.
- The project's Annual Report, which provides detailed information in relation to all major activities, achievements, and issues encountered. The document is being finalized.

Reviews. During this quarter the PGIP team:

- Reviewed and evaluated provisional tender documentation for the gas regulation station (GRS) for the Senaki-Poti project. Our team considered the documentation to be in compliance with applicable legislation and with the project's technical parameters. Subsequently, when it was determined that the GRS was not needed, Tetra Tech issued a no objection letter, and the tender process was stopped.
- Studied and evaluated the aerial waterway crossing of the channel located between km 11+500 and km 12+500 of the Senaki-Poti pipeline. During construction the pipeline crossing was straight; however, after hydrostatic testing the pipeline crossing sagged. This work included site observations, reviews of the calculations provided by GOGC, and an evaluation using general steel

construction principles. The result of the evaluation was concurrence that the crossing is in compliance with SNiP III-42-80 Rules and Norms of Main Pipeline Construction. Thus, a letter of no objection was issued.

- Reviewed technical parameters and performed field studies in order to make a decision on the acceptance and commissioning of the Senaki-Poti gas pipeline and submitted a letter of no objection.
- Reviewed GOGC Voucher Number 04-18 and related documentation, and issued a letter of no objection.
- Reviewed the bid evaluation documents related to the pipe, valves and fittings to be purchased by GOGC for the Abasha-Senaki Section of gas pipeline and issued a letter of no objection.
- Reviewed the bidding documents for the procurement of materials for the Kutaisi-Abasha section of the pipeline. The documents were found to be in full technical compliance with the project requirements and a letter of no objection was issued.
- Reviewed the Abasha-Senaki pipeline work project, its engineering surveys and calculations, drawings, environmental issues, construction organization, and schedule. Several comments and concerns were raised. For example, in the case of the Tekhuri River aerial crossing, the underground crossing approach was reviewed and it was concluded that additional geological and hydrogeological surveys are needed. Overall, the project received a positive assessment.
- Reviewed the technological portions of the Abasha-Senaki pipeline project and provided a positive evaluation.
- Reviewed the Abasha-Senaki's pipeline anticorrosive protection issues and provided a positive evaluation.
- Reviewed the Kutaisi-Abasha pipeline plans' profile drawings # KUAB47-LW07-PL-ALS-00001 ÷ KUAB47-LW07-PL-ALS-00029 and concluded that its performance is in compliance with the GOGC technical order.
- Reviewed the December 9, 2011 bidding package for the Abasha-Senaki Gas Pipeline Project. The PGIP team made number of substantive and clarifying edits, and issued a letter of no objection on the technical aspects of the bidding package, with the proviso that the substantive edits are implemented.
- Reviewed the documentation in relation to GOGC Voucher number 05-19, confirmed that the work completion rates claimed by GOGC are correct, and issued a letter of no objection.

With respect to the Kutaisi-Abasha pipeline as reported in the previous quarter, the GOGC developed a scoping statement that the bidding package was approved by the Bureau Environmental Officer (BEO) on June 15. The GOGC, in coordination with Tetra Tech, later developed the project's environmental assessment (EA). The document was then revised based on the BEO's comments. The PGIP and GOGC specialists incorporated all comments and suggested changes and resubmitted the EA for final review. The document was approved this quarter.

2.1.2 Field Operations

In the fourth quarter of FY 2011, the PGIP team continued its very close monitoring of the Senaki-Poti pipeline construction. Due to the pipeline's commissioning and beginning of service, the team had to ensure its constant presence for participating in all major finalization activities as well for providing opinions on the reported work progress.

The observations and information obtained allowed the team to make decisions on no objections, issue recommendations, and draft other project-related documents.

2.1.3 Meetings

For accomplishing the project tasks, the PGIP team held number of formal and informal meetings with the involved parties. This allowed its close participation in the development processes and ensured the issuance of relevant recommendations for the GOGC, the construction companies and other involved parties.

The following Steering Committee meetings with GOGC and USAID occurred this quarter, and the listed topics were discussed. Tetra Tech proposed lists of topics and circulated them before each meeting, and prepared notes and distributed them after the meeting.

October 13, 2011

- Remaining issues for the acceptance of the Senaki-Poti pipeline.
- Forward approaches documentation.
- Deflection of aerial crossing on the Senaki-Poti pipeline.
- Status of the review of the bidding process for the Abasha-Senaki pipeline.
- Status of bidding for the construction of the Kutaisi-Senaki pipeline.
- Estimated cost of the R. Rioni crossing by HDD.
- Status of the cost waiver for the Kutaisi-Senaki pipeline.
- Pre-bid qualifications for the Kutaisi-Senaki pipeline.
- Use of existing bends on the Kutaisi-Senaki pipeline.
- Design status of the Kutaisi-Senaki pipeline.

November 16, 2011

- Remaining issues for the acceptance of the Senaki-Poti pipeline.
- Requirements for as-built drawings.
- Updated schedule for the Abasha-Senaki pipeline.
- No objection to bidding documents for the Abasha-Senaki pipeline.
- Updated schedule for the Kutaisi-Abasha pipeline.
- Final reports for the Senaki-Poti pipeline construction.
- Future approaches documents.
- Independent cost estimate of materials for the Kutisi-Abasha pipeline.
- Tender for materials for the Kutisi-Abasha pipeline.
- Agreement on materials for the Kutisi-Abasha pipeline.
- Environmental and construction permits for the Abasha-Senaki pipeline.

November 30, 2012

- Requirements for hydrostatic test equipment.
- Mill inspection of pipe.
- Future pigging capabilities.
- Open questions regarding commissioning.
- SOCAR receiving gas.
- Issue of tender for materials.
- Future approaches report.
- Request for an increase in maximum allowed operating pressure (MAOP).
- Invoices for Lots I and II.
- Connected customers in Poti.

December 20, 2011

- ROW reinstatement adjacent to Tengiz Juarelia property.
- Cathodic protection.
- Ownership/safety signs.
- Lock on valve enclosures.
- FIZ regulator.
- Futures approaches report.
- Field trip.
- Bidding documents.

2.1.4 Letters of No Objection

During the fourth quarter of FY 2011, the PGIP team issued letters of no objection regarding the following documents and submittals:

- **October 12:** A letter of no objection was issued in relation to the GOGC's bid evaluation process for the pipe, valves and fittings it was to purchase for the Abasha-Senaki section of the gas pipeline. The PGIP team did not detect a bias by the evaluation commission or the evaluation process for one bidder or against other bidders. The recommended bidder had the best price and a good track record.
- **October 13:** A letter of no objection was issued in relation to the aerial waterway crossing of the channel located between km 11+500 and km 12+500. Based on site observations, calculation reviews and evaluations using general steel construction principles, it was concluded that the sag in the crossing is in compliance with SNiP III-42-80 Rules and Norms of Main Pipeline Construction and is an acceptable amount of sag.
- **On November 10:** A letter of no objection was issued in relation to the bidding documents for the procurement of materials for the construction of a 47 kilometer section of pipeline "Kutaisi-Abasha." The studies and analyses performed showed that the bidding documents are in full technical compliance with the project requirements; therefore, there were no objections from the PGIP side.
- The PGIP team studied the aerial waterway crossing of the channel located between km 11+500 and km 12+500. The studies included site observations, a review of the calculations provided by GOGC, and an evaluation using general steel construction principles. Based on the evaluation it was

concluded that the crossing is in compliance with SNiP III-42-80 Rules and Norms of Main Pipeline Construction. **On November 10**, a letter of no objection was issued.

- **November 21:** A letter of no objection was issued on the acceptance and commissioning of the constructed Senaki-Poti gas pipeline at 7 bars pressure. Based on studies performed, the PGIP team concluded that acceptance and commissioning of the pipeline could be performed but with the following condition: Before increasing the maximum allowable operating pressure in the Senaki-Poti gas pipeline, an evaluation of the entire pipeline system shall be performed.
- **November 29:** A letter of no objection was issued in relation to GOGC Voucher Number 04-18. The PGIP team's observations and studies confirmed that the work completion rates claimed by the GOGC are correct.
- **December 7:** a letter of no objection was issued for the acceptance and commissioning of the Senaki-Poti gas pipeline at an MAOP of 12 bar.
- **December 22:** A letter of no objection was issued on GOGC Voucher Number 05-19. The field and documentation studies confirmed that the work completion rates claimed by the GOGC are correct.
- **December 16:** The team completed its studies and reviews of the documentation related to the bidding package of December 9, 2011 for the Abasha-Senaki Gas Pipeline Project. A number of substantive and clarifying comments were provided in relation to pipeline pigging and hydrotesting, invitation for bids, qualification of a bidder, Health and Safety Management Plan, etc. After communicating the comments and providing explanations to the GOGC staff, a letter of no objection was issued.

2.1.5 Site Visits

1. On November 21, a field trip was conducted by representatives of Tetra Tech and GOGC to observe the GOGC's Saguramo gas facility. The valves, regulators and metering for the existing east-west gas pipeline were visited. Next, the metering for the incoming Russian natural gas supply was observed. The new gas line from Navtlughi to Saguramo was seen coming into the Saguramo facility.
2. On December 7, PGIP engineers took a field trip to make a final inspection of the Senaki-Poti pipeline. The main purpose of the trip was to confirm the completion of all right-of-way restoration and related environmental and social requirements. The sites visited included the beginning point of the pipeline, four road crossings, the railroad crossing, the two cathodic protection rectifier stations, the Rioni crossing, the end point of the pipeline at the SOCAR GRS, and the FIZ regulator site.
3. On December 12 and 13, a field visit was made by representatives of Tetra Tech and PGIP to investigate some of the findings of the previous field trip. The same sites were visited. On this trip representatives of SOCAR opened the GRS cabinet and the metering cabinet for inspection. The team was not able to see inside these two SOCAR cabinets on previous trips.
4. On December 19, a field trip was held for representatives of USAID, Tetra Tech and the GOGC to observe the GOGC's Saguramo and Navtlughi gas facilities. This trip familiarized the participants

with the operations of the gas facilities and the routing and flow of the gas pipelines in east Georgia.

2.2 Power Infrastructure (Electricity Transmission Upgrade, Reconstruction, and Operation)

During this quarter, further progress was made on the electrical portion of the Georgia Power and Gas Infrastructure Project. The pertinent activities associated with the electrical transmission line and connecting substations during this period were:

- The PGIP team prepared a draft pre-qualification document and submitted it to USAID for consideration in the bidding on the Senaki 220 kV transmission line and the Menji and Tskaltubo substations. USAID decided not to use a separate pre-qualification process, and the document was revised to be feasible for qualification purposes during the bidding process.
- The team finalized the project design criteria. This document was revised based on the information obtained and observations made during the field visits. The document was submitted to USAID during the last quarter.
- The PGIP team continued to review and revise the overall project schedule (Gantt chart). The schedule will be revised on an as-needed basis to be consistent with the objectives of USAID.
- The PGIP team actively evaluated alternatives for the smart-grid element of the project. A team member based in Idaho, USA accompanied GSE personnel to SEL Laboratories (Pullman, Washington) to review available smart grid alternatives and solutions.
- The team hosted conference calls with USAID and Tetra Tech personnel to aid in the preparation of the RFP of the tender document for the Senaki 1 and 2 transmission line project. PGIP's role in the preparation of Volume 1 was to provide support when called upon.
- POWER's staff completed final design checks, incorporated USAID and GSE comments, and completed a constructability review and all quality control checks of the Attachments (Volume 2) of the Tender Documents on October 21, 2011.
- The PGIP team delivered the final Volume 2 of the tender documents to USAID on October 23rd. This design package was complete and included drawings, specifications, design criteria, and pertinent appendices.

As reported in previous quarters, the PGIP team tried to resolve problems with land registration and requested prices for the "Basiani 93." After consultations with USAID it was clarified that the action would be completed by GSE as part of GSE's contributions to the Senaki transmission line project. After clarifying this issue, several meetings were held with the GSE representatives and agreement was reached on:

1. Archeological surveys.
2. Identification of un-registered landowners and support in their ownership registration.
3. Agreement with landowners on receiving construction permission.

On October 5, PGIP and GSE team members inspected several sites along the Senaki transmission line route. They found some differences between the tower coordinates of Basiani-93 and GSE. The detailed studies indicated the appropriateness of the Basiani-93 tower coordinates.

By October 17, the project team had completed the translation of Volume 2 of the provisional transmission line project from English to Georgian and circulated it to interested parties. GSE's application to the Ministry of Economic and Sustainable Development for the construction permit required a Georgian language Volume 2. On November 2 the technical portion of the project was fully completed; the translation of this portion was completed and sent for printing and binding on November 14.

On November 28, both digital and hard copies of the Attachments for the RFP were submitted to USAID and GSE.

On November 29, the PGIP team visited the Eurocement cement factory and the Badeni foundation factory. The team concluded that these two factories can produce concrete foundations for the transmission poles. These companies will be kept aware of the project so that they can form supplier relationships with the bidding companies.

On December 13, 2011, Chief of Party [REDACTED] visited the Saqcabeli, Ltd. factory in Zestaponi. Saqcabeli makes electric wire and cable, and can manufacture the large-phase conductors for the project. Saqcabeli will be kept aware of the project so that it can form supplier relationships with the bidding companies.

On December, 5 the project team completed and submitted to GSE the project construction planning and implementation plan in MS Project and Excel Formats.

The Senaki 1 and 2 transmission line will be crossing the property of a commercial company, AgroGeorgia, which is affiliated with the Ferrero Company. The PGIP team helped the GSE to provide explanations to AgroGeorgia and to perform detailed studies of the amount AgroGeorgia needed for towers and for rights of way. AgroGeorgia wished to have this detailed information before concluding an agreement with GSE about compensations for damages during construction, and for easements under the transmission lines.

3 Capacity Building

The PGIP project team has and will continue to provide on-the-job and informal mentoring to both GSE and GOGC personnel.

In the last quarter of FY 2011, Tetra Tech investigated the capacity building needs of GSE and GOGC. The PGIP task order includes a task to conduct this study, but not to do the capacity development and training itself. The investigation and discussions with GSE and GOGC were completed and the report submitted to USAID. The report was subsequently given to the team at USAID's Georgia Human and Institutional Capacity Development Plus Project (HICD). HICD has a task order to conduct the needed capacity building.

4 Public Relations and Branding

PGIP prepared a success story on the CAPE software purchased for GSE and submitted it to USAID this quarter. After reviewing the document, it was sent back to the PGIP with number of comments and suggestions. Currently the team is working to finalize the document and expects to submit it to USAID in the next quarter.

5 Environmental Assessment

5.1 Electricity Component

As reported in the previous quarter, an environmental scoping statement was approved by the BEO on July 20 and the baseline survey was completed for the environmental assessment. The environmental assessment was drafted and submitted for BEO's approval on September 24, 2011. Several rounds of BEO and USAID comments were received and acted upon during the quarter. The EA is expected to be approved next quarter. The EA for the Government of Georgia is expected to be approved by the Government of Georgia next quarter.

5.2 Gas Component

The environmental assessment for the Kutaisi-Abasha-Senaki-Poti-FIZ gas pipeline was approved this quarter.

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