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Georgia Power and Gas Infrastructure Project (PGIP)

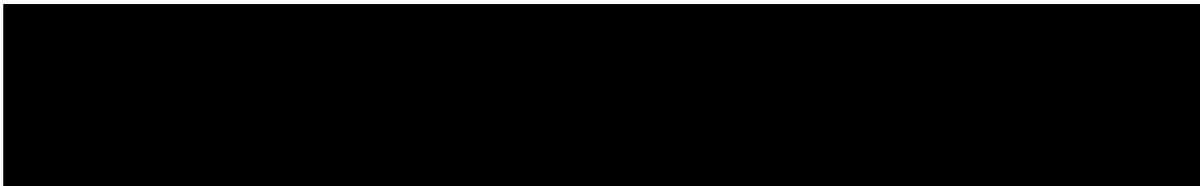
QUARTERLY REPORT
Q1 FY 2011

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Implemented by:

Tetra Tech, Inc



In association with:



GEORGIA POWER AND GAS INFRASTRUCTURE PROJECT QUARTERLY REPORT FY 2011

April 29, 2011

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1.0 Executive Summary

This is the Fourth Quarterly Report submitted under Task Order **AID-EDH-00-08-00027 – AID-114-TO-10-00003**; Georgia Power and Gas Infrastructure Project. The reporting period is for January 1, 2011 through March 31, 2011.

Table 1-1 Active Q1 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
Long Term Orders										

2.0 Program Staffing

2.1 Expat Staffing

Table 2-1 International Staffing and Deployment			
Employee Name	Position	Georgia Arrival	Georgia Departure

2.2 Expat Staffing Challenges

On February 4, 2011, [REDACTED], submitted a resignation notice to the [REDACTED]. [REDACTED] was serving as the PGIP Senior Engineer, responsible for implementation of the Component 2 (the Gas Transit Infrastructure Construction, Replacement and Rehabilitation). [REDACTED] is searching a permanent replacement for the position. Before such candidate is identified, the project manager [REDACTED], is ensuring relevant support for the PGIP team.

2.3 Local National Staffing

Table 2-2 Local National Staffing		
Employee Name	Position	Start Date
[REDACTED]	[REDACTED]	[REDACTED]

2.4 Local National Staff Challenges

Tetra Tech has no local national staffing challenges.

3.0 Contract/Task Order Activities

3.1 Gas Infrastructure Development and Rehabilitation

3.1.1. Performed Studies and Reviews

In the First Quarter of 2011 the main stream of the PGIP team activities was continuously related to preparation and implementation of the Senaki – Poti – FIZ and the Saguramo – Khashuri pipeline rehabilitation projects.

In this quarter the team was involved in all major operations primarily related to the construction monitoring. These activities included studies and reviews of the following documents provided by the GOGC and the project contractors:

- HSS control implementation documents.
- Procedures and plans related to project implementation developed by the project contractors and GOGC. Implementation of Specifications, QA/QC Inspection procedures.
- The amended pipeline project details: engineering surveys, calculations, drawings, environmental issues, technological issues and organizational part. As a result, the team made positive assessment of general project. Exception was an implementation schedule. The schedule was reconsidered based on the PGIP team recommendations.
- Calculations related to Rioni aerial crossing performed by specialists of LTD „Transport“. During this process some mistakes were detected and corrected based on the team’s recommendations.
- Studied and provided opinions about the project implementation methods, speed and solutions for its acceleration.
- All invoices submitted to USAID by the companies (relevant Letters on No Objection were issued)
- Environmental assessments, project implementation schedules and etc...

3.1.2. Field Operations

The PGIP team had carried out a very close monitoring of the field activities.

Namely:

- The team has performed constant visits to construction sites, as well to GOGC and contractor’s warehouses and construction preparation fields (More details about the visits are presented in following paragraphs).
- Based on the site observations, the team has continued to propose changes and amendments in construction processes. They were related to: health and safety

rules, environmental issues, amendments in quality control mechanisms, quality of performed works, usage of excavators and bulldozers. In addition, other recommendations were made in relation to engineering and management solutions.

- The team took part in development of plans for speeding up the construction progress, for meeting the time schedule requirements.

3.1.3. Meetings

The PGIP team has held large number of official and informal meetings for ensuring full involvement in the processes and providing appropriate recommendations.

The PGIP team recorded and reported the following formal meetings:

On **January 13, 2011**, an internal meeting was held at PGIP Office. During the meeting the parties have reviewed design changes for the Lot IV aerial crossing of the river Rioni. According to the procedures, the design changes documents have been submitted to National Forensic Bureau. As soon as PGIP team receives the Expert Conclusion from National Forensic Bureau, they will submit their NO on design changes.

On **January 14, 2011** during the meeting with USAID the sides have discussed issues related to approval of the riv. Rioni crossing for the Senaki Poti project. The review as well has covered the following items:

- I. Saguramo – Khushiri project
 - USAID indicated that there is a realistic possibility to participate in Senaki – Vani gas pipeline project instead of the Saguramo – Khushiri construction and rehabilitation. If such change takes place, USAID participation will consist from financial support, design review and quality assurance. The last two tasks will be performed with the PGIP team assistance.
- II. Senaki – Poti – FIZ Project
 - GOGC has already submitted to two companies the required documents (including the design change drawings). The companies have to review and approve:
 - The change on the span between pillars from 30 m to 37 m.
 - The change of the pillar depth from 32 m to 24 m.

Furthermore the sides discussed:

- GOGC will not submit a Request for Payment for Lot IV until they receive the final approval regarding the design changes from the Ministry of Energy
- The PGIP was informed that the contractor for Lots I, II and III (Sakhydro) had financial difficulties and might abandon the project.

On the same day, the meeting was held with GOGC representatives. The discussions were related to:

- I. Senaki – Poti – FIZ Project
 - The changes in the design of Lot IV, the riv. Rioni Crossing, and the required documentation and information.
 - Approval from the Ministry of Energy on design change.
 - Approval from the other engineering firms.
- II. It was agreed the PGIP team to provide to GOGC a list of documents required for approval (for the Lot IV).
- III. Based on GOGC information, due to financial complications, it is possible the contractor Sakhydro to refuse to continue works on the lots I, II and III.
- IV. Alternative Project – Senaki – Vani
 - According to GOGC information the survey for the design drawings on the project will be initiated in nearest future.
 - GOGC did not decide which method is more appropriate in the mountainous areas (HDD or conventional tunneling) and would like to ask USAID for the PGIP team involvement in determination process.

On **January 17, 2011** the PGIP team and GOGC representatives met and discussed the following items:

- I. Senaki – Poti Project, Lots I, II and III
 - GOGC informed PGIP that contractor will not be able to complete the works within the set timeframes (February 28,2011) of the revised schedule.
 - As the access road's condition is terrible, the PGIP recommended GOGC to request the contractor to restore the road to the condition that was before he started the project works. On the access road at Sagvichio, the contractor stacked concrete weights on the edge of the road, which collapsed from the weights into a drainage channel.
 - The Contractor agreed on the PGIP team remark that the latter needs to expedite the installation of the concrete weights and to begin lowering the pipeline.
 - Station construction cannot begin due to terrain conditions and rainy season.
- II. Senaki – Poti Project, Lot IV
 - GOGC informed that the Request for Payment for the period from November 15th to December 15th for Lot IV will be submitted very soon. PGIP indicated that additional information is required before making the payment decision.

III. Senaki – Vani Project

- Some general discussions about the project outlines were initiated, but the PGIP team has informed GOGC that USAID didn't issue any instructions or authorizations to the PGIP and therefore the team doesn't have any rights to undertake any actions.

On **January 21, 2011** the PGIP team and GOGC discussed the issues related to the additional information required for approving the design revisions, as well construction of Lot IV of the Senaki – Poti project.

During the meeting on **January 26, 2011** the PGIP team and GOGC representatives reviewed and discussed the following items:

I. Senaki – Poti – FIZ Project

- Design Changes on the riv. Rioni Crossing
- Design Review by the Real Estate Ltd.
- Design Review by the National Forensic Bureau
- Design Review by the Ministry of Energy
- Hydrostatic testing
- Welding and XRay records
- Senaki – Poti Project - Lots I, II and III
- Construction completion date

II. Saguramo – Khashuri Project

- GOGC was requested to replace the rehabilitation of the Saguramo-Khashuri section (planned within the framework of East-West Main Gas Pipeline Rehabilitation Project) by the rehabilitation of the Senaki-Kutaisi section.

On **January 27, 2011**, a presentation on the East-West Main Gas Pipeline Rehabilitation Project was made by GOGC at USAID Office. According to the proposed project, the rehabilitation of the next 85km of pipeline will consist the following two sections:

1. Abasha-Senaki 28 km section;
2. Kutaisi-Abasha 57 km section;

Abasha-Senaki section:

The existing 28km Senaki-Abasha section of the 500mm pipeline, heavily corroded but operational, currently represents the part of the connecting gas main in Western Georgia, as the only source for the gas supply to important cities/towns such as Batuni, Kobuleti, Zudgidi, Khobi, Senaki and Poti (the construction of the Senaki-Poti section was financed by USAID and currently is close to completion).

The proposed design solution considers construction of the new pipeline next/parallel to the old pipeline within the existing ROW (without any new land development) and final reconnection (tie-in) to main line with limited period of gas supply disruption.

Kutaisi-Abasha Section:

For this section of the main pipeline the two alternatives, Northern and Southern, are proposed.

The Northern Alternative considers new pipeline in parallel with the existing one, running along the right bank of the Rioni River. The Southern Alternative considers new pipeline in parallel with the existing oil pipeline (WREP – Western Route Export Pipeline, built by BP), and its connection to/with the main at the Tsivi River crossing.

The meetings and discussions related to aforesaid project were planned to be held in following months.

On **January 31, 2011** the PGIP met with USAID and GOGC and discussed the following:

- I. Senaki – Poti Project - Lot IV - Design Changes on the Rioni River Crossing and Requests of Payment
 - GOGC indicated that National Forensic Bureau would send their approval letter on January 31, 2011. Once GOGC receives this letter, they will send the rest of the documents for review.
 - The contractor is waiting for the design changes to be resolved before submitting the last Request for Payment.
 - The PGIP team reported about observations of debris on the east river bank; GOGC noted that the debris will be removed by the Contractor.

- II. Senaki – Poti Project - Lots I, II and III - Status vs. New Project Schedule and Requests of Payment
 - The contractor has concentrated its effort on Lot III.
 - GOGC is assured that contractor will finish the major works by February 28, including the construction of the Gas Station on Lot II. For the time of these discussions the contractor was still working on some minor activities, including the following:
 - The reinstatement of some activities according to the EMP.
 - Reparation of access roads, including an access road that is partially collapsed due to the placement of the concrete weights.
 - A request for payment was received from the contractor on January 28. GOGC plans to submit the RFP in a few days.
 - As soon as PGIP receives it from USAID, PGIP team will proceed with review in order to make decision about the Letter of No Objection.

- GOGC decided not to impose any penalties on the contractor (at this point). The PGIP indicated that the issue of the penalties is an internal business of GOGC.

On **January 31, 2011** the PGIP and GOGC teams met and discussed the issues related to the Senaki – Abasha – Samtredia Pipeline Rehabilitation Project:

- The representative of GOGC indicated that GOGC informally informed USAID that the next project (Phase II) of the East – West Georgian Pipeline will be the Senaki – Abasha – Samtredia pipeline rehabilitation. GOGC presented a topographic map of the area, which includes the existing pipeline. The new pipeline will run in parallel of the existing one.
- On February 1, GOGC plans to send project personnel to the area (hydrologist, geologist, surveyors, ROW and environmental specialists) to begin the data collection, required for design drawings preparation. Following data collection, it will take from two to three months for preparing the drawings.
- It was agreed that PGIP should be involved in the project from the initial stage.
- GOGC will send a letter to USAID and request to grant a waiver of policy based on which the only pipelines allowed to be used should be from the US, Russia and other eleven (11) counties of former Soviet Union.

On **February 11, 2011**, based on agreement the Tt team and USAID had developed a Work Plan for following up on all project related actions. The Work Plan was submitted to USAID.

On **March 2, 2011**, PGIP team met USAID for reviewing the PGIP Work Plan. USAID representatives have provided their comments and remarks and the PGIP team members their explanations. It was agreed USAID to send all comments in written form integrated in the document.

On **March 8, 2011**, USAID provided the document for further revision and changes. All corrections available at this stage are integrated in the Work Plan and the PGIP team is waiting for several decisions to be made in order to finalize and resubmit it.

On **March 15, 2011** PGIP met with GOGC regarding commencement of the Abasha-Senaki Pipeline Project. GOGC informed the PGIP that they have received the permission from USAID to start preliminary works (design, assessments, land issues, etc.). GOGC has formally asked the Tt team to get involved in the project.

On **March 17, 2011** during the meeting with USAID and GOGC, the parties discussed the start of the Abasha-Senaki Pipeline work. GOGC expressed desire to have the first kick off meeting for preliminary EA and design work, with the expectations that design will be complete by early May. The design documents on the project are anticipated to be received on April, 2011.

3.1.4. Letters of No Objection

1. In the Q1 the PGIP team has issued letters of No Objection regarding the documents and activities related to the Senaki – Poti – FIZ Project:

On **January 28, 2011** the Letter on No Objection was issued for Sakhydro Energomsheni invoice related to the Lots I, II and III. Based on PGIP team's observations and construction oversight, it was confirmed that percent completion items shown in the Invoice are matching with the completed activities. Therefore the PGIP team didn't have any objections.

On **February 23, 2011** the Letter on No Objection was issued for Sakhydro Energomsheni another invoice related to the I, II, and III Lots. Based on the team's observations and construction oversight, it was confirmed that percent completion items shown in the Invoice are matching with the completed activities; therefore the PGIP team didn't have any objections. PGIP team recommended that the remaining invoice and payment for work on Lot III be evaluated so that the remaining funds relative to the contracts price (corrected) reserve adequate funds so that the final site restoration and repairs (if any are needed) can be completed by contract following commissioning and startup of the facilities.

On **March 11, 2011** the PGIP team provided the No Objection Opinion in relation to the piers installation design changes on Lot IV. The PGIP team has reviewed the design drawings, conducted inspections, reviewed reports from the national Forensic Bureau and the PGIP gas engineers. As a result the team had no objections to the acceptance of the construction of the piers on lot four.

On **March 16, 2011** the PGIP team issued the Letter on No Objection in relation to invoice submitted by Kidmsheni, Senaki – Poti project Construction Company. The PGIP team has reviewed the accuracy and compliance with the payment procedures. Based on the review of the progress and inspections made during the construction, PGIP team concluded that there are no objections to the final payment.

On **March 24, 2011** the PGIP team issued the Letter of No Objection in relation to invoice submitted by SAHYDRO related to the progress payment for work conducted on the Lots I, II, and III of the Senaki-Poti-FIZ Pipeline Project. The PGIP team reviewed the overall progress for the major construction activities and provided No Objection to the payment of the invoiced amount. Additionally, the PGIP team recommended that the cumulative payments to SAHYDRO do not exceed 90 percent of the sum of the contract price (corrected) for the three Lots. This will ensure that adequate funds remain for final site restoration and repairs (if any are needed) following commissioning and startup of the facilities. Considering these invoices and prior payments, there should be adequate sums remaining for such works.

3.1.5. Site Visits

On **January 17, 2011** a site visit was made to the Senaki-Poti-FIZ project area and route to verify construction status for all three lots. Generally there were deviations from the planned activities and the following comment was made:

- The contractor is behind the schedule on concrete weights and the entire pipeline lowering actions should be expedited.

A meeting with GOGC's representatives was planned for discussing the overall status of the project.

On **February 1, 2011** site visits were made for observing the ongoing project construction status and for verifying the proposed route for potential Abasha – Senaki pipeline project. Following observations were recorded:

- Some pipeline sections were not lowered
- All construction activities were completed on Lot IV (East Bank of Rioni River)

The PGIP team members held several discussions in relation to crossing methods, including HDD, aerial (on pillars) and open cut.

On **February 17, 2011** the visit was performed to the gas pipeline construction site and the following findings were reported:

- N4 and N7 piers of Rioni riverbed are not constructed in accordance with the corrected project. Violations indicated in the report of 17.12.2010 were confirmed, in other words, height of the mentioned piers is less comparing with the height envisaged in the corrected project.
- Expert opinion regarding the bearing power (durability and toughness) of N4 and N7 piers was not received from the National Forensic Bureau;
- No pipeline testing instructions were received, which made it impossible to plan site visit with the purpose of observing the testing process.

During the construction site visit on **February 25, 2011**, it was determined that :

- As it was already reported in the previous field trip report, N4 and N7 piers of Rioni riverbed were not constructed in accordance with the corrected project.
- Expert opinion regarding the bearing power (durability and toughness) of N 4 and N 7 piers was not received from the National Forensic Bureau
- After the meeting with the specialists of Transport Ltd, it was confirmed that GOGC had provided to LTD Transport the results of detailed engineering-geotechnical surveys of the soil, which was under the above-mentioned piers (piers that did not comply with the construction norms).

During a three-day site visit from **March 9 to March 11**, the PGIP engineers made following observations:

- Construction works were under way and may not be finished till the end of March, since approximately 12-15 trench works are to be done, as well as pipe lowering and trench backfilling.
- Part of the road that was traversed by the pipeline (villages: Chaladidi,

- Patara Poti, etc.) needs to be reconditioned.
- The issue regarding the transportation and installation of GRS (Gas Regulation Station) remains unclear.
- Pipeline testing is not conducted yet.

On March 10, the PGIP team received an expert assessment (the National Forensics Bureau) of Senaki-Poti Main Gas Pipeline aerial crossing fastness and durability. The team engineers made comments on the document.

“After analyzing the materials provided by GOGC, Rioni Aerial Crossing Piles N4 and N7 are done with violation of the corrected project. However, the test calculations that were conducted with consideration of realistic geologic (parameters) conditions show that pile durability and fastness are provided. Experts of LTD, Transport and the Expert of National Forensics Bureau take the responsibility for the above-mentioned and make the following assessment:

Calculation of foundation piles of Rioni Aerial Crossing is carried out through the methods that are accepted in the engineering, and received depth of pile deepening (lowering) is admissible. Therefore, safe functioning of Main Pipeline Aerial Crossing will be provided.

On March 21, the PGIP Gas Engineers made a site visit and reported the following:

- Pipeline trench works and pile lowering works are carried out at a slow pace, and probably will not be completed till the end of March.
- The issue related to GRS (Gas Regulation Station) and GRP (Gas Regulation Point) is not solved.
- Pipeline testing on durability and air-tightness is postponed indefinitely.

On March 28, the PGIP Gas Engineers made a site visit and reported that the situation on the construction site remains in the same shape, as it was during the visit on March 21.

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

In support of the Georgia Power and Gas Infrastructure Project, a subcontractor was required to perform a ground survey and geotechnical investigation for the Senaki 220 kV transmission line, the Menji and Tskaltubo substations and the proposed Mukhuri substation.

On January 26 and 27, 2011, pre-bid meetings were held at PGIP Office to discuss the features of the project and to respond to the technical questions. These meetings were attended by the representatives of the following companies:

- LTD Basiani 93
- LTD Energoqselpoekti
- LTD Electricity and Lighting Company
- LTD Sakenergoqselpoekti

PGIP provided additional clarifications on technical and commercial issues to the prospective bidders.

On February 7, 2011, the PGIP published a bid invitation in two national daily Georgian newspapers, 24 Hours and Georgia Republic with a bid closing on February 27, 2011.

The following price proposals (in USD) were received by Tended Evaluation Committee (TEC) on February 27, 2011.

- LTD Basiani 93 - [REDACTED]
- LTD Energoqselproekti - [REDACTED]
- LTD Electricity and Lighting Company - [REDACTED]
- LTD Sakenergoproekti - [REDACTED]

[REDACTED]

[REDACTED] LTD Basiani 93 met requirements, and proposed to use GPS, which was considered a definite advantage when compiling data, assuring accuracy and the ability to meet schedule requirements. Additionally, LTD Bas [REDACTED]

Taking into consideration that the LTD Basiani 93 had excellent related experience, qualified personnel and planned to use GPS technology, TT had included the documentation for the selection process and proposed LTD Basiani 93 for an award [REDACTED]

USAID provided the Contest to subcontract with LTD Basiani on March 10, 2011. The Firm-Fixed-Price Contract was signed on March 14, 2011 and LTD Basiani 93 launched the ground and geotechnical survey work.

Upon the request of USAID, the revised GANNT with included chart design and construction for Power and a Smart Grid had been submitted by POWER in **February, 2011**.

On **March 22, 2011**, Tetra Tech requested USAID the approval of staff from Power Engineering for the PGIP project with the purpose of the technical support to rapid appraisal, substation, relay and controls, and transmission areas. The final decision is anticipated to be made in April of 2011.

5.0 Capacity Building

The SOW for the PGIP lacks any substantial input related to building capacities at GSE and GOGC in terms of policies, strategies, O&M protocols and etc.

Project team has and will provide on-the-job and informal mentoring to both GSE and GOGC personnel, however long term sustainability of PGIP will also depend on a more aggressive capacity building in energy sector.

6.0 Public Relations and Branding

The PGIP team continued activities for increasing a public awareness and transparency in the quarter one. Revised version of PGIP project's official website was submitted to USAID for their review and final approval. USAID requested PGIP to make several changes that were taken into account by Design Company. The final version of PGIP website is anticipated in Q2.

7.0 Environmental Assessment

One of the major tasks in the Q1 was the requirement of the subcontractor to perform environmental consultancy services for construction of the new power substations Tskaltubo, Menji and Senaki transmission lines.

In December 2010, Tetra Tech published an invitation for requesting expressions of interest and statement of qualifications for the project in two national daily Georgian newspapers, 24 Hours, and the Georgia Republic.

Shortlisted candidates were selected and an official request for proposal (RFP) was sent to these firms with a bid closing of March 31, 2011.

On March 31, 2011, the tender evaluation committee (TEC) received proposals from the following five companies:

- LTD WEG
- LTD Gergili
- LTD Geographic
- LTD GAMMA
- Asia Caucasus Environmental Consultants LLC – Georgia in association with Asian Consulting Engineers PTV Ltd. India (ACEC)

The results of the bids are anticipated to be assessed in early April, 2011.

Additionally, the construction of the Senaki- Poti Pipeline was in the phase of completion in the first quarter when it was suspended due to the poor weather conditions. GOGC plans to renew the construction works from the end of March. Therefore, in the beginning of April, the PGIP team is intending to continue monitoring of the construction activities and ensure that it is in compliance with the environmental requirements.

8.0 Procurement Plan (CAPE Software)

In March 2011, several meetings with GSE and a meeting with the Ministry of Energy have been held. The principal subject was the CAPE Software procurement process and other related issues. During these reviews, it was ascertained that the GSE has to submit procurement document to the Ministry of Justice. This is a mandatory process for state owned enterprises when signing agreements with companies from overseas.

On March 28, 2011 the revised draft License Agreement was submitted to the Ministry of Justice, for their review and blessing.

The final decision is anticipated to be made in Q2.

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