SHEBERGHAN GAS FIELD DEVELOPMENT PROJECT (SGFDP)

STAKEHOLDER CONSULTATION REPORT

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Sheberghan Gas Field Development Project (SGFDP)
USAID Contractor

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ABBREVIATIONS

ADB	Asian Development Bank
AEAI	Advanced Engineering Associates International, Inc.
AERA	Afghanistan Energy Regulatory Authority
ANDS	Afghan National Development Strategy
BOO	Build, Own, and Operate
BOT	Build, Own, and Transfer
BTO	Build, Transfer, and Operate
DABS	Da Afghanistan Breshna Sherkat
GoIRA	Government of the Islamic Republic of Afghanistan
IFI	International Financial Institution
IPP	Independent Power Producer
kV	Kilovolt
MIGA	Multi-lateral Investment Guarantee Agency
MW	Megawatts
NFPP	Northern Fertilizer and Power Plant
ONDD	Office National Du Ducroire Nationale Delcrederedienst
OPIC	Overseas Private Investment Corporation
PPP	Public Private Partnership
PRI	Political Risk Insurance
SCR	Stakeholder Consultation Report
SGFDP	Sheberghan Gas Field Development Project
USAID	United States Agency for International Development

I. EXECUTIVE SUMMARY

The Stakeholder Consultation Report (SCR) contains important records of discussions and meetings between the Sheberghan Gas Field Development Project (SGFDP) team and local, regional, national and international stakeholders. The original intent of the SGFDP was to attract private investors who would: 1) develop the Gerquduq, Khowja Gogerdak and Yatimtaq gas fields located around the City of Sheberghan in Jowzjan Province to provide fuel for a 100-150 megawatt gas-fired thermal power plant; and 2) finance the construction of the gas-fired thermal power plant on an Independent Power Producer (IPP) model.

Based on continuing discussions with officials of the Government of the Islamic Republic of Afghanistan (GoIRA), officials from the Ministry of Mines and USAID, the project focus has since shifted dramatically. Under the revised plan for the SGFDP, USAID is no longer looking for a private investor to develop the gas fields around Sheberghan. That function will be carried out by Afghan Gas Enterprise (Afghan Gas), the state-owned gas utility. Further, the size of the power plant has increased to 200MW, effectively doubling the amount of natural gas that will be needed for the project. This shift is important in the context of a report on stakeholder consultations because AEAI has essentially conducted stakeholder consultations on two different projects. Therefore, there are places in this report that include topics and records of conversations that may seem unrelated to the current scope of the project. AEAI has included these consultations because they continue to provide valuable information for the current efforts, as well as context and reasoning for the shift in project objectives.

Overall, the SCR breaks the stakeholders in the SGFDP into four main groups: 1) the Central Government; 2) Donors, International Financial Institutions and Other Lenders; 3) Potential Investors; and 4) Local Governments, Community Leaders, Influential Parties, and Customers/Citizenry. Each of these sections contains information related to discussions between the SGFDP team and the various stakeholders, including their concerns and potential issues with the project. The concerns and issues raised by various stakeholders have informed the SGFDP team and allowed the development of mitigation strategies, including a renewed focus on capacity building and more active lines of communication. Further, the SCR also contains information on the current role of various stakeholders, as well as their potential role in the project in the future. This is included to provide context for the discussions between the SGFDP team and the specific stakeholder groups.

In consultations with the SGFDP team, the Government of Afghanistan has expressed concern about whether a private investor would be interested in developing gas and electric infrastructure projects in Afghanistan, and also whether the GoIRA should allow private investment in critical infrastructure projects. The GoIRA has also expressed concern that the cost of electricity would not be competitive with current sources of electricity, and about how the relationship between the GoIRA, DABS and the private investor would be structured. Local governments, community leaders, influential parties, and customers/citizenry have expressed their desire to see the creation of gas markets to support energy intensive industries that will create jobs for the region. The local stakeholders also share many of the concerns of the central government, including the price of energy from the proposed power plant and whether the government should allow private control of critical infrastructure and natural resources. The local stakeholders will be looking for local and regional benefits provided by the development of the gas fields and construction of the power plant and a demonstration of commitment to local communities will be critical for the investor to maintain local support for the projects.

Potential investors in the power plant have expressed concerns about the long-term stability and authority of the central government in Afghanistan. Investors are also concerned about the lack of rule of law and the ability to recover their investment, particularly given the financial condition of the power purchasing entity. The private investors in the power plant will be particularly concerned with the structure of the “take-or-pay” provision in the power purchase agreement. Donors and IFIs are also concerned about Afghanistan’s consistently low ranking on corruption indexes. However, as the project has been modified to support OPIC in their efforts to recruit private investors for the power plant, their concerns have taken a primary role in the development of the project. Specifically, USAID will be funding additional exploration efforts to demonstrate sufficient gas reserves for the project; OPIC and MIGA, possibly along with ADB, will be developing credit support mechanisms for the power purchasing entity; and the SGFDP team will continue to seek funding for the required gas processing plant, as well as conducting a review of relevant Afghan laws that affect the transaction.

The consultations and information reflected in the SCR have led to substantial modification of the SGFDP from its originally intended goals. The continuing consultations with stakeholders have been incorporated into the Critical Path document that is providing a clearer picture of the projects that will be utilizing the Sheberghan gas reserves and their respective timelines. The SGFDP team will continue to utilize the processes developed under the Sheberghan Project Management Unit (PMU) to coordinate activities and provide information to stakeholders, as well as for inclusion in the remaining reports due under the modified contract for the SFGDP.

Finally, the SCR includes a section on recommendations and next steps for the project. These next steps are a direct result of the consultation activities undertaken by the SGFDP team in preparation of this report. As the project moves forward, the need for effective stakeholder consultation efforts will only increase. Therefore, stakeholder consultation is, and will continue to be, a continuing process. The SCR will provide a critical link between the next rounds of consultations and discussions and the various issues that have come up and been addressed by the SGFDP team to date, as well as informing the newly-established PMU of the major issues still outstanding between and among stakeholders.

II. INTRODUCTION

The Stakeholder Consultation Report (SCR) is Deliverable 15 for the "Sheberghan Gas Field Development Project" (SGFDP) under the revised workplan. The original goal of this USAID-funded project was to attract private investors for both the development of the Sheberghan gas fields and a power plant to be fueled by natural gas from the fields. The goal has since shifted and the primary focus now is to develop sufficient certainty in the quality and quantity of the gas reserves in the Sheberghan area and to support the Overseas Private Investment Corporation (OPIC) and private investors in their efforts to construct and operate a 200 megawatt (MW) gas-fired power plant (as an independent power producer or IPP) in the vicinity of the city of Sheberghan, Jowzjan Province, Islamic Republic of Afghanistan. The power plant is anticipated to meet domestic demand and reduce dependence on imported electricity.

The SCR describes the various stakeholders and potential stakeholders and categorizes them into groups; outlines findings from meetings, interactions, and consultations with these groups; and makes recommendations as to how to best proceed toward achieving the SGFDP goals. It builds on two previous SGFDP Deliverables, the Preliminary Roadmap Report and Risk Analysis Report. The SCR addresses some of the concepts, concerns, and critical issues presented in these Deliverables through its findings.

From 1959 until the 1980s, a total of 144 gas wells were drilled in the three Sheberghan gas fields (57 wells in the Gerquduq field, 33 wells in the Yatimtaq field, and 54 wells in the Khoja Gogerdak field) with only 70 wells completed as "exploitation" or production wells. For this period, until the Soviets left Afghanistan, the Sheberghan gas fields were the main energy source for Sheberghan and Mazar-e-Sharif and surrounding villages of Jowzjan and Balkh provinces. There was a gas transmission pipeline from the gas fields to Sheberghan and Mazar-e-Sharif that connected to distribution systems in each city. A second gas transmission pipeline connected the Sheberghan gas fields to the Kude Barq fertilizer factory and a 48 MW gas-fired electric power generator at the factory, which is located in a village to the southwest of Mazar-e-Sharif. Since much of the gas from the Jurassic formations from which the wells produced was sour, gas processing treatment facilities were also functioning during this period. Currently, 30 wells are in "limited" production. Nearly 64 billion cubic meters of gas have been produced from these three fields. At a P50 distribution, the three fields have been estimated to hold an additional 34 billion cubic meters of gas in the produced reservoirs.

In the 2006 USAID-funded "Technical and Economical Feasibility of Development of a Gas-Fired Thermal Power Facility in Sheberghan, Afghanistan" (Feasibility Study), it was determined that approximately 6.8 billion cubic meters of gas would be needed to supply a 100 MW gas-fired electric power plant for 20 years – approximately 20% of remaining gas reserves would be needed to supply this anchor customer. With the increase in the expected nameplate capacity of the power plant to 200 MW, approximately 13.1 billion cubic meters would be required for an anticipated 30 year operating life of a combined cycle gas fired power plant.

The Sheberghan Gas Field Development Project (SGFDP) recently established a Project Management Unit (PMU) in the Afghan Geological Survey at the request of the Ministry of

Mines (MoM) and USAID. The PMU has taken an active role in attempting to coordinate development projects related to the Sheberghan gas fields and proposed power plant. The PMU has reconstituted the Sheberghan Working Group (SWG) and meetings are being held on a weekly basis. The SWG has even established a technical working group to deal with the various problems in the gas field and propose solutions to move the projects forward. The PMU is also working with the Afghan Energy Information Center (AEIC) to enhance its information gathering and data collection and dissemination capabilities. The goal of both USAID and the MoM is for the PMU to provide stakeholders with a central place to obtain information and assist them in the coordination of their efforts. The PMU will also assist OPIC in preparing the necessary documents and performing other activities to facilitate the transaction. The PMU's role as a facilitator for collaboration and an information gathering entity is well-suited to promote this objective.

The Sheberghan Gas Field Development Project is extremely complicated, involving multiple donor agencies, international financial institutions, Afghan government officials and ministries and private investors. The PMU in close collaboration with MoM, has taken a central role in coordinating stakeholders from USAID, the Asian Development Bank (ADB), the Task Force for Business and Stability Operations (TFBSO), as well as the Ministry of Energy and Water (MEW), Da Afghanistan Breshna Sherkat (DABS), and Ministry of Finance (MoF). As the project moves forward, the PMU will assist donor agencies and government entities in harmonizing their efforts to develop the Sheberghan gas fields as well as related infrastructure necessary for the construction of the gas-fired power plant.

III. STAKEHOLDER INTEREST GROUPS

The stakeholder interest groups that the SGFDP has identified can be broadly categorized as:

1. Central Government

This group includes: the executive, judicial, and legislative branches of the Government of the Islamic Republic of Afghanistan (GoIRA) or "central" government.

2. Donors, International Financial Institutions, and Other Lenders

This group has the capability to: (i) fund technical assistance and capacity building reform projects, and provide grants to central and local governments that will complement targeted investments; (ii) function as the backstop to provide long-term low interest loans to the central government and investors for the development and rehabilitation of infrastructure; and (iii) offer incentives and other types of financial instruments to investors that serve to lessen risk for investments.

3. Potential Investors

This group represents the various types of investors themselves, ranging from fully or partially government-owned institutions and enterprises, to non-governmental organizations, to privately held concerns. Some investors are in the business to develop and operate investments, such as international oil and gas companies and independent power producers (IPPs). Other investors, however, may or may not have direct oil and gas or electric power industry expertise, but have raised funds for large international investments. This latter group of investment and financial organizations may subcontract out to industry specialty firms to manage and conduct all technical operations. Generally, investment and financial organizations, as a business, prepare these investments for sale to industry companies with expertise in sector operations.

4. Local Governments, Community Leaders, Influential Parties, and Customers/Citizenry:

This is the most important group which includes the provincial and municipal local governments in the Sheberghan region; those organizations and individuals that wield influence over the nature of investments, security services, business development, and social and economic growth in the Sheberghan region; and the customers (industrial, commercial, and residential) --the group that demands these resources and, thus, are ultimately responsible for making the payments for gas development, and electric power generation services (as well as transmission and distribution) and supplies. Energy in the form of gas and electric power is required for economic growth and is needed by all to improve their lives and livelihoods. Affordability and sustainability are key, and assurances must be made to ensure reasonable cost of services and reliable supplies, as needed; while permitting a reasonable return on investment in order to provide maintenance and expansion of supplies.

All four stakeholder interest groups can benefit from the development of the existing gas fields and construction and operation of a gas-fired electric power plant in Sheberghan. The central government, local government, and influential parties need to demonstrate their ability to establish an environment that is attractive to long-term private international investment, provide for training and capacity building with newly established industries, and create sustainable employment opportunities for Afghan citizens. This will grow confidence within the Sheberghan region in the ability of the central and local governments to coordinate investment and complete infrastructure projects. Donors, IFIs, and other lenders will provide technical and financial assistance in the form of grants, loans, and financial instruments to central and local governments for projects that will lay a better foundation and present a better environment for current and potential investors to make significant further investments in a variety of industries and customer-related businesses. Thus, credibility would be gained by the central and local governments, and more importantly, with the public in the Sheberghan region. Potential investors have opportunities to be 'first-in' for the gas-fired power plant, which based upon need and market potential, has the prospect of significant future growth. With central and local government leadership setting a favorable environment for investment, demand for gas and electric power should experience considerable growth with time, due to the creation of new markets that depend upon reliable and low cost energy supplies. Shareholders of current and potential investors should also benefit with returns based upon investment risk and overall market expansion. If managed properly and closely coordinated, all should benefit with economic growth and employment.

1. CENTRAL GOVERNMENT

The central government stakeholder interest group, which includes the Ministries that oversee the Energy Sector in Afghanistan, plays an important and key role in moving this project forward. In consultations with the SGFDP team, the key concerns of the GoIRA are summarized as follows:

- Representatives of the GoIRA have expressed concern about whether private investors would be interested in developing these specific projects in Afghanistan, and whether the government should allow private investment in critical natural resource and infrastructure projects;
- The cost of electricity from the proposed power plant would have to be competitive with the current prices of imported electricity from neighboring countries; and
- Several of the contractual provisions contained in the power purchase agreement, particularly the "take or pay" provision, raised concerns about how to structure the proper relationship among the GoIRA, DABS, and a private investor.

Many of these concerns can be addressed by continued capacity building and consultations with government officials, particularly those with a vested interest in the project. The PMU team will continue discussions with the various government institutions, including DABS, which will play a role in the project, particularly those that will be involved in the negotiation of the power purchase agreement with the proposed independent power producer. Some issues, such as the cost of electricity from the proposed power plant, will have to be resolved through negotiations between the GoIRA, DABS, and the private investors once a financial model for the power plant is established.

It should be recognized that the central government shares some of the same goals and strategic objectives as other stakeholder interest groups. Some shared goals and strategic objectives include:

- Rehabilitation / construction of new infrastructure to meet customer demand
- Provision of opportunities for employment of citizens and start-up industry support companies
- Rejuvenation of the economy through infrastructure investment
- Construction of cultural and social centers for community-based functions
- Establishment of a healthy and competitive market environment
- Reliable gas and electric power supplies to customers

Despite these common goals and objectives, in Afghanistan there can be conflicting goals and strategic objectives between the central government, local governments, and influential parties, such as:

- A division of political influence and authority in the province
- The split between tax benefits and revenues gained from investments
- Responsibilities for security and other revenue-generating services provisions
- Revenue disputes, based on corruption

It is especially important for this stakeholder interest group to reach agreement with the local governments, community leaders, influential parties, and customers/citizenry stakeholder interest group on conflicting goals and objectives and agree to provide and support baseline incentives that will attract and sustain investments in the Sheberghan region. When structured properly, the following incentives can better serve to attract and sustain investors:

- Tax relief, based on investment
- Guarantee on cost recovery / investment
- Stability and openness of environment, communications, governance, security
- Customs relief on imports and exports

- Contracts that will not be negatively affected by future legislation, rules and regulations, policies and procedures….all terms and conditions are grandfathered

- Enforcement of rule of law and international legal and regulatory standards and practices

With respect to central government decision-makers on Sheberghan gas field development, they include the following representative positions, which make-up the Inter-ministerial Commission under the Hydrocarbons Law: Minister of Mines, Minister of Finance, Minister of Economy, Minister of Foreign Affairs, and Minister of Commerce, and the President of the Environmental Protection Agency. Said Inter-ministerial Commission is authorized to monitor, supervise, endorse, and reject oil and gas contracts and other related issues.

On the energy issues, many ministers and advisors participate in the monthly Inter-ministerial Committee on Energy (ICE) meetings, however, the Minister of Energy and Water and the chief executive officer of DABS have the most direct authority.

Ministry of Mines

The Sheberghan Gas Field Development Project works primarily through MoM. Until December of 2010, regular meetings and consultations took place between the SGFDP team and representatives from the Ministry, particularly in the Hydrocarbon Unit. In December of 2010, the SGFDP established the Sheberghan PMU, at the request of the MoM and USAID, which is now housed at the Afghan Geological Survey – a department of MoM. There are several key stakeholders that fall under the MoM organizational structure, including the Afghan Geological Survey and the Afghan Gas Enterprise (Afghan Gas). The physical relocation of the SGFDP team to the PMU offices has allowed for much closer consultation and collaboration with these key stakeholders. MoM is a key stakeholder in moving these projects forward, and, under the new proposal by USAID, its role will be expanded to include activities previously funded and overseen by donors and contractors.

In the original concept of the SGFD project, MoM would have been responsible for the bidding, tender and award process for a private investor, such as an international oil and gas company, to develop the Sheberghan gas fields. MoM would have negotiated and arranged the necessary contracts and activities with the private investor and overseen the work and participation of the Afghan Government in any development project. During the initial SGFDP consultations and planning phases, MoM was supportive of private investment in the gas fields. However, as the project progressed, the Ministry voiced more and more skepticism at the potential for international private investment in the gas field development aspect of the project. The recent failure of the Kashkari oil tender to attract qualified investors and the Ministry’s desire to avoid a repeat of those problems led both the Ministry and the SGFDP team to consider alternatives to private investment in the gas fields.

The search for alternatives led the Ministry to suggest using the state-owned domestic gas company, Afghan Gas, as the project partner that would supply gas to the proposed power plant. This idea was consistent with the desire at the Ministry to build domestic Afghan capacity and encourage growth among domestic industries. When the SGFDP team made a site visit to

Sheberghan in late fall of 2010, they had the opportunity to discuss options for corporatization and expansion of capabilities with Afghan Gas directly. These consultations supported the MoM's view that, with an aggressive program of capacity building and modernization, Afghan Gas could be a legitimate partner for gas field development.

Under AEAI's revised workplan, USAID has proposed funding the drilling of one (or two, if there is enough funding) additional gas well in the Sheberghan area. The additional well is anticipated to support the development of the power plant and the gas processing plant by both proving the gas supplies in the Sheberghan area are sufficient to sustain the power plant for its operational life and, along with a program of well testing and further development, provide details on gas composition that will allow preliminary engineering work on the gas processing plant. The funding for this well will be done through host-country contracting mechanism—USAID's on-budget process. It is anticipated that the drilling work will be tendered to a private drilling contractor; however the tender documents will contain a requirement that Afghan Gas be directly involved in the drilling program to build domestic capacity.

MoM has repeatedly expressed its desire to provide local capacity building and encourage the development of domestic industries under the SGFDP. USAID is working with the SGFDP team to integrate capacity building efforts into the new Sheberghan PMU structure, but it should be noted that capacity building will be an increasingly important part of the project moving forward. These capacity building efforts should include all entities that fall under the MoM, including the Hydrocarbon Unit (both in Kabul and Sheberghan), Afghan Gas, and any other divisions that will have involvement in the gas sector development.

Hydrocarbon Unit – Kabul

The Hydrocarbon Unit is a subdivision of the Afghan Geological Survey and is housed in the Afghan Geological Survey offices. The Hydrocarbon Unit is responsible for the development of hydrocarbon resources in Afghanistan, including preparation of bidding and tender documents, evaluation of bids and information gathering and dissemination related to all hydrocarbon activities in Afghanistan. The SGFDP team has held regular meetings and consultations with individuals in the Hydrocarbon Unit to discuss various aspects of the gas field development project, including well locations, reserve estimates and gas composition. The Hydrocarbon Unit will be a key stakeholder in any effort to develop the Sheberghan gas fields, so maintaining open communication and cooperation will be essential.

The SGFDP team conducted a capacity building workshop in September of 2010 for members of the Hydrocarbon Unit in Kabul. The workshop had a dual purpose of introducing and exploring concepts in natural gas development and processing, as well as allowing the SGFDP team to gauge the existing capacity of the Hydrocarbon Unit through direct interactions. This training workshop was an important aspect of our consultations, particularly because it allowed the SGFDP team the opportunity to discuss the Sheberghan gas fields directly with the individuals in the Afghan government who are tasked with knowing the facts and statistics on the various wells. The Hydrocarbon Unit will need additional training and needs support on practical hydrocarbon development issues, modern technologies in gas field development, and management and operations.

Afghan Gas Enterprise – Sheberghan

Afghan Gas is a state-owned gas company responsible for gas well development, gas processing, gas distribution and transmission, sales and revenue collection. Until recently, Afghan Gas was not considered to be a major stakeholder in the Sheberghan Gas Field Development Project. Initially, it was thought that Afghan Gas could provide transmission services between the private developer and the power plant operator. At the time, these conclusions were based on the limited experience and technical capacity of Afghan Gas. Further, because the initial plan was to involve a private company for gas field development, Afghan Gas would have had a very limited role in the transaction. However, beginning in late fall of 2010, MoM and USAID began considering the possibility of making Afghan Gas the primary supplier of gas to the proposed power plant.

Pursuant to this change in strategy, the SGFDP team met with officials from Afghan Gas during their site visit in November – December of 2010. The team was able to collect detailed information on Afghan Gas, financial statements, employment records and other data related to their operations. Afghan Gas officials were supportive of the idea of corporatization and encouraged the solicitation of a regional oil and gas company to assist with the process, perhaps in the form of a management contract. The SGFDP team also took the opportunity to hold a training session covering various aspects of both the upstream and downstream sides of the natural gas business. This training session provided the SGFDP team with the opportunity to interact directly with the staff of Afghan Gas and gain a better understanding of their concerns and further capacity building needs. A more detailed assessment of Afghan Gas will be outlined in the final roadmap report.

At this stage, MoM and USAID are looking to Afghan Gas to supply the fuel to the proposed gas-fired power plant. Afghan Gas, in discussions with the SGFDP team, is ready and willing to assist, but will need investments in human resources and equipment in order to be a successful partner. USAID has committed to drilling one or two new gas wells in the Sheberghan area by the end of 2011. The drilling of new gas wells will provide an excellent capacity building opportunity for Afghan Gas, and should help to alleviate some concerns regarding their technical capacity. Further, both MoM and Afghan Gas have expressed a desire to begin the corporatization process. These discussions are ongoing, and a plan for corporatization could be implemented at any time.

Hydrocarbon Unit (Northern Directorate) – Sheberghan

The Northern Directorate of the Hydrocarbon Unit is responsible for data gathering and exploration and drilling work with respect to hydrocarbon reserves in northern Afghanistan. Similar to Afghan Gas, in the initial stages of the SGFDP there was not anticipated to be a large role for domestic oil and gas entities. The goal of the project was to bring in a private company to develop the gas fields and provide gas to the proposed power plant. However, the shift in project focus from an international oil and gas company to a domestic entity as the primary gas supplier has led to a potential role for the Northern Directorate of the Hydrocarbon Unit as well.

While the possible role for Afghan Gas in the project is clear, the role for the Northern Directorate of the Hydrocarbon Unit is more difficult to define. The Northern Directorate maintains the well records for the gas wells in the Sheberghan area, including the well log and testing data, so their role is essential from an information gathering perspective. Based on discussions between the SGFDP team and the Northern Directorate during the site visit to Sheberghan, the role of the Northern Directorate is to conduct surveys and to handle drilling and completion of gas wells before they are turned over to Afghan Gas for commercial production. However, the Northern Directorate is suffering from the same problems as Afghan Gas, such as obsolete and unusable equipment and engineers with little to no practical experience in modern survey and drilling operations. The SGFDP team was able to conduct a capacity building workshop during the site visit, and acquired information from working professionals similar to that of Afghan Gas. Discussions regarding the potential role for the Northern Directorate are ongoing between the PMU and MoM, and no firm decision has been made so far.

Northern Fertilizer & Power Plant (NFPP) – Mazar-e-Sharif

The Northern Fertilizer & Power Plant (NFPP or Kude Barq) in Mazar-e-Sharif is related to the development of the Sheberghan gas fields under the SGFDP by its status as an anchor customer for the gas. The Task Force for Business and Stability Operations (TFBSO), run by the U.S. Department of Defense, is the primary actor on this project. The NFPP was first brought to the attention of the SGFDP team in the fall of 2010 by MoM. The TFBSO has proposed an aggressive schedule for the rehabilitation of the NFPP facility, including replacement of the 90 kilometer gas transmission pipeline between Sheberghan and Mazar-e-Sharif. The gas wells to be used for the operation of the NFPP facility have already been dedicated by MoM, but since the supply of sweet gas will not be enough, sour gas from the dedicated wells will need to be processed and then transported to Mazar. However, as the existing gas processing plant in Gerquduq has been out of commission for the last 20 years and has been determined unusable, a new gas processing plant has to be built. ADB has commissioned the feasibility study of the new processing plant to be completed by mid 2011. While the rehabilitation of the NFPP facility is not directly related to the IPP, the projects contribute a great deal to the Sheberghan gas field development and expand the gas market in the region. For that reason, the TFBSO has been a major stakeholder in the Sheberghan Working Group in order to facilitate better coordination and cooperation between the projects.

Ministry of Energy and Water

MEW will not have a role in the development of the gas fields in Sheberghan. However, MEW will have a prime role in the development of the power plant, though determining the precise activities or responsibilities of MEW is difficult at the moment since Afghanistan is still working on an electricity law. Despite the lack of clarity in the role of MEW, the SGFDP team has continued to consult with officials regarding the status of the project and their role in facilitating the transaction, at least from the power plant and electrical perspectives.

Pursuant to this effort, the SGFDP team conducted a capacity building workshop in October of 2010 to introduce staff of the Policy and Planning Department to the challenges posed by the Independent Power Producer (IPP) model and some of the major components of Power Purchase Agreements (PPAs). During these sessions, it was possible to ascertain some of the concerns of MEW officials regarding the proposed power plant. Particularly concerning for many was the idea of a “take-or-pay” provision, which states that once the power plant begins generating power, the purchaser is obligated to pay for it, regardless of whether or not the power is actually consumed or even taken by the purchasing entity. Further, given the ambiguous legal environment, there remain questions regarding control and authority between MEW and DABS. Consultations with MEW regarding the status of the project are ongoing and will become more frequent as development of the power plant and electrical infrastructure progress.

Da Afghanistan Breshna Sherkat

DABS is the successor entity to Da Afghanistan Breshna Moassessa (DABM), which was part of the MEW. DABS is the national utility responsible for electrical transmission, distribution and revenue collection in Afghanistan. DABS has undergone a process of “corporatization,” though the main shareholders are the MoF and MEW, with other Ministries owning smaller shares. DABS has an integral role in the process because they are the entity that will be signing the PPA with the owner of the power plant. Close coordination between DABS and the owner of the power plant will be essential to prevent problems and ensure the smooth delivery of electricity to the citizens of Afghanistan.

There are a number of concerns regarding the IPP either expressed by or involving DABS. Most importantly, DABS has stated repeatedly in conversations with SGFDP team members that the power produced from the proposed gas-fired thermal power plant must be cost competitive with imports coming from surrounding countries. While a thermal power plant cannot be expected to compete on a cost basis with cheap, though seasonal and interruptible, hydroelectric power coming from Tajikistan and Turkmenistan (averaging $0.02 – $0.03 per kwh), the current imports of electricity from thermal power stations in Uzbekistan are averaging $0.06 per kwh. Therefore, from a purely business perspective, a gas-fired thermal power plant beginning operations in Afghanistan would have to generate power at roughly $0.06 per kwh to be competitive with imported power. Consultations regarding the price of power are continuing, and will likely determine whether the power plant is ultimately built. Since ultimately the price of electricity has to be negotiated between the IPP and DABS, the IPP has to come up with a financial model for the cost of energy (COE).

In addition to the pricing issue, DABS will likely require some form of credit support in order to be a reliable power purchaser for the power plant. DABS is currently running at a deficit and, depending on the severity of the “take-or-pay” provision and other aspects of the PPA, will require a sovereign guarantee and IFI support to ensure timely payment for power purchases. This is currently under discussion between representatives from the Afghan government, the OPIC, USAID, ADB, and the Multilateral Investment Guarantee Agency (MIGA).

Finally, there are existing transmission infrastructure needs that must be solved before the power plant can commence operation. USAID is currently working on a feasibility study regarding a proposed transmission line between Pul-e-Khumri and Kabul to deliver the power produced from the power plant near Sheberghan. There are also numerous electrical infrastructure project needs in Northern Afghanistan to support the increased capacity provided by the power plant. While donors will be responsible for most of these infrastructure improvements, DABS role as the electrical transmission and distribution entity in Afghanistan means they will be integrally involved in their successful completion and operation.

Ministry of Finance

MoF is a key stakeholder in the IPP process. Even though the SGFDP team has not had many discussions with the officials there, they will play a crucial role in the PPA and other agreements that are made between the donors, IFIs, investors, and the Afghan government or government owned institutions. The lack of involvement so far has been due to the primary focus of the project on developing the necessary gas supplies and resolving preliminary issues and infrastructure concerns to lay the proper foundation for development of the power plant. As the project moves forward and these preliminary issues are resolved, the role for the MoF will become increasingly important to the success of the ultimate project.

The SGFDP team had several discussions with MoF on the Extractive Industries Transparency Initiative (EITI). EITI requires that all material oil, gas and mining payments by private companies to host governments, as well as material revenues received by host governments by private companies, be regularly published and made available to a wide audience. In addition to publication, the payments are subject to regular audits and reconciliation by a credible, independent administrator who will identify any discrepancies between reported payments by private companies and reported payments received by the host government. Essentially, the primary goals of the EITI are transparency and accountability in natural resource contracts. The SGFDP has discussed the requirements of the EITI with the MoF and will work to ensure that tendering and contracting associated with the development of the Sheberghan gas fields meets these requirements.

2. DONORS, INTERNATIONAL FINANCIAL INSTITUTIONS, & OTHER LENDERS

For most investors, reluctance to invest in Afghanistan is due to the perception of the many risks associated with a government battling an insurgency, but the absence of political risk insurance (PRI) cannot be counted as one of them. In fact, nearly every developed country has an export assistance agency offering political risk insurance for companies located within their borders, even when the direct investment results in a minority shareholding position. Much of multilateral underwriting of political risk is syndicated amongst a group of private insurers or even amongst the multilateral organizations themselves.

Despite Afghanistan receiving the lowest country risk rating conveyed by the Office National Du Ducroire Nationale Delcrederedienst (ONDD), the Belgian Export Credit Agency, investors interested in Afghanistan still have access to political risk insurance. The Berne Union or the International Union of Credit & Investment Insurers is the leading multi-national organization for the export credit and investment insurance industry. It currently consists of 50 public and private members who support exports and investments into highly developed, as well as developing and emerging market economies by providing insurance or guarantees to protect exporting companies, investors, and banks against political and commercial risks.

The findings below are based on meetings and communications conducted by SGFDP team members to determine the level of interest that donors, IFIs, and lenders would have in providing loans, grants, guarantees, and the conditions under which such requests would be considered.

The concerns of donors, international financial institutions and other lenders closely mirror those of private investors with respect to the proposed power plant. As these agencies, especially MIGA and OPIC, are involved in promoting private investment in countries like Afghanistan, they necessarily share the concerns of their private investor clients regarding country stability and long-term viability of these projects.

Multilateral Investment Guarantee Agency

MIGA is part of The World Bank Group and offers political risk insurance with indicative premiums that render the internal rates of return (at least 20%) associated with such risks as feasible.

- MIGA does not offer insurance for commercial risk
- MIGA insures against creeping expropriation (minority shareholders move to control position), breach of contract, damage to assets due to war and civil disturbance, business interruption, transfer of money risk, and a number of other risks as mutually determined
- MIGA's insurance can be written for ten years and is not cancellable
- Insurance is written against a percentage of the investment made
- Annual premiums average around three percent
- MIGA can participate out risk exposure with other multi-lateral and bi-lateral agencies.

MIGA's real value added lies in the deterrence its insurance represents. This is because disputes usually end up in arbitration; if disputes are not resolved, losses are paid and MIGA can move on to other countries or close the country to World Bank funding - giving MIGA major leverage in its negotiations with counterparties.

In response to SGFDP meetings and requests, MIGA submitted indicative pricing for consideration:

Non – Binding Indication – Islamic Republic of Afghanistan	
Risk	**Rate**
Expropriation (on standalone basis)	1.70%
Breach of Contract (on standalone basis)	1.70%
Transfer Restriction (on standalone basis)	1.25%
War and Civil Disturbance (on standalone basis)	1.55%
TWO risks (combined) coverage	2.65% - 3.00%
THREE risks (combined) coverage	3.25% - 3.60%
FOUR risks (combined) coverage	3.75% - 3.95%

Note that the above rates represent a non-binding indication and the final rates will be determined following an internal MIGA due diligence investigation involving a project and country risk evaluation. Under the contracts, all amounts disbursed are automatically charged at 100% (i.e., current rate) of the cover rate charged, while amounts committed but not disbursed will be charged at 30% (i.e., standby rate) of the full cover rate charge until such time as they are disbursed.

Overseas Private Investment Corporation

OPIC has been in discussions with USAID and GoIRA since 2006 about offering insurance to U.S. companies interested in developing the Sheberghan gas fields and construction of a gas-fired power plant in the form of an IPP. In January of 2011, members of the PMU met with OPIC and interested private investors regarding the status of the gas field development and potential activities required to develop an independent power producer project by mid-2013. OPIC is looking at a 75/25 debt to equity financing structure for private investors. OPIC is also working on a “contingent liquidity facility” with MIGA, which may provide some credit support to the power purchaser (assumed to be DABS). In recent discussion with ADB, there might be some support from ADB on providing off-take guarantees to the investors.

In response to SGFDP inquiries and meetings with representatives early on in the process, OPIC's commitment to funding was contingent on:

- A new reserve study that categorically estimates the amount of gas reserves in the Sheberghan gas fields that does not rely on outdated Soviet data. Even though the Gustavson Report funded by the World Bank completed in 2005 estimated reserves for five years with high confidence, without a new reserve study, OPIC will be reluctant to proceed;

- A form of credit enhancement (guarantee) from a credible third party or third parties that ensures performance by the electric power off-taker. Such guarantee could be provided through a blend of commercial and political risk insurance syndicated by established public and private entities;

- Construction of a gas processing plant (sweetening and conditioning) of sufficient capacity to provide fuel to the power plant; and

- A review of the relevant Afghan law that governs aspects of the transaction.

At this stage in the process, almost all of OPIC’s concerns have been addressed or are under consideration. Here are the activities that are ongoing:

- USAID is going to fund the drilling of one or two new wells to prove gas reserves;

- OPIC is working on a “contingent liquidity facility” with MIGA, to provide credit support to DABS;

- There are ongoing conversations to find funding for the sweetening plant. There is a possibility that the investors may fold the capital cost of the processing plant into the cost of the power plant; and

- SGFDP is conducting a review of relevant Afghan laws that govern aspects of the transaction.

It is essential to determine the level at which the Hydrocarbon Law comports with international standards of practice and safeguards investor interests. Identifying such deficiencies will drive the reform agenda while assisting OPIC and others to quantify specific risks that guarantees must address.

Islamic Development Bank

The Islamic Development Bank (IDB) offers guarantees for private sector investment in gas extraction and power. The GoIRA, represented by the MoF, is a governing member of the IDB Board and any request to the IDB for loans, guarantees etc. should be submitted by the MoF. In effect, the MoF is the portal to the IDB.

The IDB in cooperation with the MoF recently prepared a draft three year work plan that is in the process of being approved. The MoF did not include any energy related projects due to its perception that other donor agencies were already addressing these issues. MoF representatives noted that the plan was a draft and could be amended to reflect any change or new projects.

General parameters:

- Grant size is limited to $2 million U.S.

- The IDB is funding six projects totaling US $70 million that are structured with fees

- An investment company should be from an IDB member country or have some percentage of shareholders from a member country in order for the IDB to consider loans/guarantees

SGFDP advisors discussed the general parameters of the SGFDP with representatives of the IDB in the context that such implementation would begin Afghanistan's transition to domestic sufficiency in electric power. In particular, the project was looking to source private investors who could exploit the Sheberghan Gas fields to produce predictable and sufficient amounts of gas to fuel gas fired generators located within the vicinity of the gas fields. Consequently, the discussion involved how to mitigate extant political and economic risks in order for the project to succeed. Several proposals were discussed:

Proposal 1: The IDB co-invests with a private investor, which IDB share will not exceed 40% of the total investment.

Proposal 2: The GoIRA agrees to a Production Sharing Agreement (PSA). The IDB issues a guarantee that insures performance in accordance with the terms and conditions of the PSA.

Proposal 3: The GoIRA agrees to a PSA. The private investor issues bonds for sale to international investors based on the PSA to fund project expenses. The IDB issues a guarantee for repayment of principal (possibly partial) as credit enhancement for the bonds.

The discussions with IDB took place during the initial stages of the project when private investment was being considered for both the gas field development and the power plant. The project has since shifted away from private investment in the gas field development activities; therefore a PSA will no longer be necessary. As previously noted, MoM, in recent discussions with the SGFDP team, has expressed a desire to utilize Afghan Gas to provide gas to the power plant.

International Finance Corporation

The International Finance Corporation (IFC) that is part of the World Bank Group can co-invest when the investment is at least 51% private. SGFDP met with representatives of the IFC in Washington who described their organizational structure as regional with energy infrastructure teams located in Dubai and oil and gas teams located in Istanbul. The representatives offered to help SGFDP source interested investors with whom the IFC has worked in previous transactions to achieve the 51% threshold of private investment the IFC requires before it can participate.

Importantly, the IFC representatives disclosed their very strong desire (an internal mandate) to have the IFC engaged in Afghanistan.

Kreditanstalt für Wiederaufbau

The Kreditanstalt für Wiederaufbau (KfW) or Reconstruction Credit Institute is a German government-owned development bank, based in Frankfurt, and is part of the KfW banking group. Early on in the process, SGFDP advisors met with representatives who expressed great interest in the project but expressed surprise to learn that USAID through the SGFDP was looking for investment/financing since there was a general assumption that USAID was financing this project or had the capacity to do so. Once the level of financing was understood, KfW representatives asked the SGFDP to have the MoF prepare a letter that requested KfW's assistance. Such a formal request would allow the bank to consider such a financing. KfW representatives further reiterated their interest in working with SGFDP but noted it was contingent on the receipt of a formal request from the GoIRA. KfW has since expressed interest in reviewing financing options for the rehabilitation of the 48MW power plant that is connected to the NFPP. The final decision to fund (or not to fund) the rehabilitation of the 48MW power plant will likely be made before March 1, 2011.

PRI Center

The PRI Center is an information portal providing free access to online political risk management and insurance resources. It was established in 2006 by MIGA to promote foreign direct investment to developing countries. Through the Center, SGFDP advisors contacted members of the Catlin Syndicate of Lloyd's of London regarding their underwriting of (private) political risk insurance.

In particular, Catlin offers political risk insurance for:

- Expropriation
- Currency inconvertibility and non-transfer
- Political violence
- Non-repossession of aircraft and mobile equipment
- Pre-shipment risks
- Non-payment of sovereign and sub-sovereign debt obligation

Representatives of Catlin expressed great interest in the SGFDP and noted their ability to secure highly competitive underwriting fees through reinsurance and participation with other syndicates, emphasizing their flexibility and familiarity with regions experiencing political uncertainty. They encouraged SGFDP to bring them a transaction and noted their ongoing cooperation with multi-national organizations that provide financial guarantees.

Afghanistan Investment Guarantee Facility

The Afghanistan Investment Guarantee Facility (AIGF) is sponsored by the Islamic Republic of Afghanistan through a credit from the International Development Association (IDA) and a concessional loan through ADB, with each investment worth the equivalent of $5 million. The Government of the United Kingdom has also contributed £1 million. MIGA and ADB will also provide $10 million in coinsurance. The total guarantee capacity available through the facility is anticipated to be $60 million. The facility is designed as a political risk insurer to mitigate key risks for foreign investors by providing political risk guarantees for their investments.

The Facility provides the traditional political risk guarantees of: 1) transfer restriction (inability to convert local currency); 2) expropriation (governmental action leading to loss of the investment); 3) war and civil disturbance (loss or damage to investment caused by revolution, insurrection, terrorism, etc.); and 4) breach of contract (loss of investment caused by host government's breach or repudiation of a contract with the investor). The Facility is designed to facilitate small and medium sized investments. MIGA, operating through the Facility is required to obtain approval of the GoIRA prior to issuing a contract of guarantee.

Asian Development Bank

ADB was established in 1966 with a mission to help member countries reduce poverty and improve quality of life. There are currently 67 members, 48 regional and 19 from other parts of the world. ADB is funded by contributions from its members and works with governments, the private sector, nongovernment organizations, development agencies, community based organizations and foundations. ADB uses loans, technical assistance, grants, advice and knowledge to accomplish its mission. ADB has been a key institution in Afghanistan's reconstruction projects.

ADB has been integrally involved in the Sheberghan Gas Field Development Project from its beginning in 2009. ADB is currently conducting a feasibility study for a gas processing plant to refine the sour gas reserves in Sheberghan to pipeline quality for use in the NFPP and various other projects in the area. ADB has also been working on a program to rehabilitate several of the wells in the Sheberghan gas fields and solve problems associated with casing, cementation, perforation and other issues. ADB is a member of the SWG and consultations have been active and ongoing throughout the project.

As the SGFDP moves forward, ADB will continue to play a major role in assisting with infrastructure development and funding required for the feasibility studies and other projects.

3. POTENTIAL INVESTORS

Construction of a gas-fired Sheberghan electric power plant after the development of the three existing gas fields was recommended in the 2004 Afghanistan Power Master Plan, which was funded by the World Bank. The development of the Sheberghan gas fields has been underway in fits and starts since 2005, primarily by ADB through a $12.0 million loan to rehabilitate a few gas wells and a $12.0 million loan to partially rehabilitate the gas transmission pipeline to the fertilizer plant. Through an agreement with the GoIRA in 2006, USAID made commitments and had funds in its budget to construct a gas-fired electric power plant. These funds were ultimately diverted to other priority projects and no further work was done in the Sheberghan area.

Potential investors can take many forms, from Afghan citizens to large, multinational corporations. Initially, the SGFDP team sought a private investor, or combination of private investors, for both the gas fields and the power plant. Currently, the USAID and the SGFDP team are continuing to look for a private investor for the power plant, but the Afghan government has expressed its desire to utilize Afghan Gas to supply fuel to the proposed power plant. Despite the project shift to utilize Afghan Gas as the supplier of the gas, there is still potential for private investment in the gas sector of Afghanistan. Rather than bring in a foreign company to develop the gas fields directly, the private investor or foreign company would work in conjunction with Afghan Gas, perhaps as a joint venture.

Types of Potential Investors

In general, investors that have expressed different levels of interest in the development of the Sheberghan gas fields may be classified as the following:

Specialized investment / financial groups with oil and gas consultant/advisory teams: In the past five years, several small investment / financial companies have visited Kabul and the existing Sheberghan gas fields to discuss opportunities for investment with the central government, local government, influential parties, donors and IFI officials. Most of the time, these are small companies that have access to investment funds for international projects and they are only interested in directly negotiated non-bid contracts. Generally, they cannot qualify for a tender offer procedure for a PSA, since they cannot demonstrate firsthand experience or investment funds availability until they have a signed contract in hand.

Independent small to medium regional oil and gas companies: These are companies that have formed consortiums with oilfield service and supply companies for the purpose of bidding on and winning a contract to develop the gas fields. They are looking to be first-in operating companies and they would likely come from India, Kazakhstan, United Arab Emirates, Turkey, Eastern Europe, and Russia. These companies have regional experience and are willing to take risks to expand and grow their operations. They would probably stay for the long-term and schedule investment according to revenues received and profitability.

State-owned oil and gas companies: These include majority owned state oil and gas companies, which range from the national company to joint stock companies with oil and gas expertise. Some of these companies have gained quite a bit of exposure and international experience, due to relationships with international oil and gas company operations in their home country (i.e., China National Petroleum Company, Kazmunaigaz, Petronaz). Other Eastern European, former Soviet, Chinese, and South Pacific companies would fall into this category.

State-owned oil and gas companies or regional oil and gas companies may be candidates for a possible management contract to train Afghan Gas and assist in the development of the existing Sheberghan gas fields. However, their experience, technologies employed, financial condition, and other relevant factors would need to be vetted and subjected to due diligence if his approach is considered.

Investors that have expressed different levels of interest in the subsequent construction and operation of a gas-fired power plant may be classified as the following:

Specialized investment / financial groups with IPP experience: These investment / financial groups are generally linked with experienced IPP companies and have access to investment funds for international projects. They can be large or small businesses with interest in contracts to Build / Own / Operate (BOO), Build / Own / Operate / Transfer (BOOT), or Build / Lease / Operate / Transfer (BLOT)power plants. Other variations may exist, but generally an IPP or experienced electric power consultants are highly involved in the specialization of Build (design and construction) and Operate (oversight and management of the generation plant).

However, groups that are interested in the investment and operation of both the gas fields and the power plant can be classified as joint-stock holding company conglomerates with multi-national status and energy industry interests. An example of this type of company is the large-scale private / public companies that are making investments in high risk emerging and developing countries. In preliminary discussions with these types of holding company representatives, there is investment interest in Afghanistan, both in oil and gas development and electric power generation. These companies have government and private investors in international infrastructure projects in the region and the world after gaining experience in this same form of investment in their home country.

Gas Development Financing: Initially, the Sheberghan Gas Field Development Project anticipated finding a private entity to develop the Sheberghan gas fields of Gerquduq, Yatimtaq and Khoja Gogerdak to provide fuel for the power plant and to support domestic industries' gas needs. This private entity would have entered into a form of a production sharing agreement, either an exploration and production sharing agreement or service and production sharing agreement under Afghanistan's Hydrocarbon Law. In exchange for developing the gas reserves in a field, the private company would have received a share of production from the field to recover its costs and earn a reasonable rate of return on its investment. The SGFDP team worked to develop this approach until the fall of 2010, when it was decided by MoM and USAID that there would be little interest by the private sector in developing the Sheberghan gas reserves at this time and an alternative approach should be studied.

Beginning in the fall of 2010, the SGFDP team and USAID, at the request of MoM, began to examine the possibility of using Afghan Gas to develop the Sheberghan gas fields. In late November 2010, the SGFDP team made a site visit to Sheberghan to meet with representatives from Afghan Gas as well as the Northern Directorate of the Hydrocarbon Unit of MoM. These site visits allowed the SGFDP team to discuss the present capabilities of Afghan Gas and review financial statements, employment and employee data and examine the equipment and methods in use by Afghan Gas. The data gathered on the site visit allowed the SGFDP team to make realistic assessments of the capacity of both Afghan Gas and the Northern Directorate of the Hydrocarbon Unit to support the goal of the SGFDP, developing gas reserves for a 200 MW power plant in Sheberghan.

Based on the data gathered and discussions with and MoM, the SGFDP team and USAID have determined that it will be necessary to drill at least one new gas well in one of the Sheberghan fields in order to satisfy investors that sufficient gas reserves exist to support the continued development of the power plant. The SGFDP team has developed a list of candidate wells for "twinning." USAID has committed to providing funds for MoM to conduct this activity through an on-budget grant.

Despite the enthusiasm displayed by Afghan Gas and the Northern Directorate of the Hydrocarbon Unit for developing the gas fields using their resources, stakeholders should be aware of the significant challenges faced by both entities. Afghan Gas in particular will need significant capacity building efforts, combined with an infusion of modern equipment and technology, in order to be a viable partner for the SGFDP efforts. There has been some discussion of corporatization of Afghan Gas between the SGFDP team and MoM, which would help in addressing some of these challenges. There have also been preliminary discussions regarding partnering Afghan Gas with another Central Asian oil and gas company, such as Uzbekneftegaz, to build domestic capacity. While it is important not to underestimate the challenges of corporatizing and building Afghan Gas into a legitimate partner in the project, the overall goal of developing domestic capacity and the enthusiasm and desire of Afghan Gas in particular to become a viable entity could outweigh those challenges. The SGFDP team will, therefore, continue to work with Afghan Gas and the Northern Directorate of the Hydrocarbon Unit to develop capacity and capabilities necessary to create an effective domestic gas company to provide gas to the power plant.

IPP Financing: Classic IPPs are usually financed on a project basis, with a special purpose vehicle established to own and manage the IPP. The company draws equity from a number of foreign and domestic investors and secures debt from a syndicate of banks on the basis of expected revenues. Most projects are highly leveraged, with debt accounting for as large a share of project finance as the bank syndicate will tolerate; with debt levels often approaching 70-80%. Although reliance on heavy doses of debt reflects a range of motivations, including the possibility of maximizing equity returns, investors also hope that the involvement of financial institutions (particularly large international banks and multilateral development banks) will deter host governments from squeezing the IPPs opportunistically. These plants sell electricity under a long-term contract. In these cases, the key off-taker for the power is a state-owned (or state-regulated) electric utility, although in some cases, additional revenue is earned with sales to private distributors or large private users.

Developers and lenders entering these IPP arrangements know that their ventures will be risky. To the extent possible, they seek to shift risk to the host government by relying on long term PPAs and a host of other arrangements that they believe will insulate projects from the vagaries of government decision-making and unexpected changes in circumstance. They run economic models that show that the power plant will be profitable so long as these minimum terms are met.

The architects of these deals usually demand minimum off-take and tariff setting provisions. Where the off-taker is a state owned utility, a sovereign guarantee is often required to support their (usually poor) credit rating. Project documentation also usually shifts legal and regulatory risk to the government, typically through change-in-law provisions that indemnify investors for losses stemming from adverse legal or regulatory changes.

Because the electricity business generates revenues in local currency, while many of the cost components for IPPs such as capital, equipment and fuel, are set in hard currency, the IPP investor is particularly sensitive to the allocation of currency risks. Arrangements addressing this mismatch have been a point of contention. In a typical deal, PPA payments are denominated in (or indexed to) a hard currency, but there are many types of currency arrangement and much of the variation in outcomes in the wake of large macroeconomic shocks depends on how this risk is managed.

Finally, the standard PPA also usually invokes international arbitration to settle disputes in order to avoid domestic courts that investors view as biased and capricious. These tools purport to focus responsibility for political risk in the hands of the party most able to tame political troubles—namely, the host government—though typically, this risk is borne by the party least able to avoid having it thrust upon them. Risk is rampant, and builders and operators of classic IPPs lean heavily on contracts as the way to manage that risk.

Risk Concerns & Questions from Potential Investors

In one-on-one meetings, discussions at conferences and exhibitions, presentations at roundtables and seminars, etc., investors express the same issues with risk that was cited in the SGFDP Risk Analysis Report. Their concerns on many of these issues can be highlighted with many questions that need to be asked and fully answered. Examples of questions that investors asked under certain risk concerns include:

- **Stability of the central and local governments –** Is the central government relatively stable and can it survive the Taliban, al Qaeda, and other forms of counter-terrorism for the long-term? Are the local governments stable? What influence do the warlords have on investment? Will ISAF continue to support the GoIRA and the local governments?

- **Transparency in the award process of a contract –** What is the process and schedule for awarding a contract? Is the contract process going to be published on the MoM's website and how much transparency will be assured for serious bidders? How can investors trust the central and local governments with sensitive non-disclosure data and information? Will there be a defined method for 'best practices' negotiation of the best and final offer?

- **International standards and practices of a contract –** Is the contract balanced, fair, objective, and reasonable for all parties? Does the contract guarantee the rights of each party, define general obligations and responsibilities, provide for checks and balances, allow for annual work plans and budgets, define all terms and conditions, and allow for an equitable split of income?

- **Corruption, bribery, and integrity of the central and local governments –** Knowing that there is corruption in Afghanistan, how can an investor minimize or avoid participating in corruption?

- **Ability to recover all investment and operating costs –** Can the investor trust central government cost recovery and investment guarantees? What happens if end-use customers do not pay for resource commodities and full recovery of costs does not occur? How does that translate back to the investor, especially when there are downstream value-added service providers that need to recover their costs?

- **Ensure a competitive return on investment –** How can the investor receive a return on investment that is equitable to the high level of risk assumed in Afghanistan (at least 25% or greater)? Instead of cash, can the investor receive commodity resources for any difference in the expected recovery of cash? Can customers really afford to pay for gas and electricity? What are tariff rates and are they being enforced? Who subsidizes the central and local government budget and expenditures – the USA and other countries?

- **Security and safety of employees, resources, and infrastructure –** How reliable is the central government, local government, ISAF, and international and local private security services in protecting investor infrastructure operations? How can they protect large scale infrastructure assets, like pipelines and field equipment? Where can foreign workers stay and live safely in the Sheberghan area? Are there evacuation procedures in place for foreigners?

- **Government guarantee of land and water use rights, customs waivers on importing equipment and materials, foreign employee visas and work permits, and other contract terms and conditions, such as sustainability of contract (grandfather clauses in case of changes in laws and regulations) –** How can investors have confidence in the rule of law and the sanctity of all of the contract provisions? What happens when there are changes in central and local government leadership positions over time?

- **Pricing contracts for the sale of gas and electricity –** How costs and prices for these commodities are determined and what level of profitability is acceptable? Are prices for gas and electricity going to be based on internationally acceptable measurement indicators?

4. LOCAL GOVERNMENTS, COMMUNITY LEADERS, INFLUENTIAL PARTIES, AND CUSTOMERS/CITIZENRY

The Local Governments, Community Leaders, Influential Parties, and Customers/Citizenry stakeholder interest group, for the most part, represent the direct beneficiaries of investments in the Sheberghan gas fields and the gas-fired power plant. Investors may be looking at an investment of US $300 million for a gas-fired power plant within a relatively short timeframe of 3-5 years. Just the development of the existing gas fields alone will bring about many new opportunities for employment and creation of new industry-support companies and markets. Equipment, materials, supplies, and resources are needed to perform exploration, well work-overs, drilling new wells, environmental protection and restoration, and construction of gathering lines, roads, gas processing facilities, fluid storage tanks and underground injection control units. Although to a lesser extent, the construction and operation of a gas fired power plant will likewise bring economic growth prospects. It is estimated that another US $400 million will be needed in investment for gas transmission and distribution systems in and around Sheberghan and Mazar-e-Sharif to allow for access by customers. On the electric power side, another US $200 million is needed for transmission and distribution.

In addition to the businesses that directly support the development of the gas fields, construction of the power plant, and expansion of associated infrastructure, the availability of natural gas and electric power may well serve as a catalyst to attract a variety of industries and commercial enterprises, with accompanying employment opportunities.

This stakeholder interest group consists of governors of Jowzjan and Balk provinces, community leaders such as the head of the local Shuras, Parliamentarians from Jowzjan and Balkh provinces, local influential figures, and gas and electric consumers and local residents.

At the local government level, the Jowzjan and Balkh provincial governors, as well as, the mayors of Sheberghan and Mazar-e-Sharif are appointed by the President and have authorities and responsibilities in their appointed territories.

Additionally, elected Parliamentarians from Jowzjan and Balkh provinces have decision-making authority and influence over parliamentary actions, such as final approval of laws and contracts. It should be recognized that various advisors on energy, natural resources and the environment have influence on decisions, as well.

Besides the local government leadership, there are parties that are recognized in the region to have significant influence. The central and local governments cooperate with these influential parties for the most part, based on the support of such parties by local citizens and businesses and their ability to stabilize the insurgent situation in many instances. Investors must be cognizant of and consider the de facto authority of such parties and their local support in planning their investments and implementing operations.

The customers/citizenry make-up the demand side of the equation for reliable, low-cost Sheberghan gas and electric power. They are responsible for making all the payments for these commodities at prices that will allow the supply-side investors full cost recovery and profitability.

In discussions with politicians, community leaders, business owners, and citizens in Sheberghan and Mazar-e-Sharif, SGFDP representatives learned that this region was quite wealthy (in relative Afghan standards) before the Soviet invasion and to a lesser extent during Soviet occupation. Unemployment was low, wages were high, markets were thriving, gas was distributed to businesses and residences, and electricity was reliable. Since the Soviets left in 1989, however, this region's economic power has waned and the region has been plagued by high unemployment, low workers' wages and menial jobs, lack of investment to businesses and markets, and an unreliable supply of gas and electricity.

In conversations with the leaders of the provincial chambers of commerce, small business owners and potential local investors, they enthusiastically explained that they could raise the investment capital to rapidly create gas markets and create employment. Suggestions included a glass factory, a fruit and vegetable canning factory, and a compressed natural gas (CNG) facility, to name a few ideas. In any event, gas development will not reach its potential unless a viable gas pipeline system can be constructed and operated at a competitive price in order to reach its customers.

In the same way that donors, international financial institutions and other lenders share similar concerns to the private investors, local governments, community leaders, influential parties, customers and citizens share many of the same concerns as the Government of Afghanistan. Customers and citizens are concerned about the cost of energy provided by the power station and share the same concerns as the government about private control of critical infrastructure and natural resources. Some of these concerns can be alleviated by a gradual public education campaign and a showing of progress on key infrastructure projects by MoM and donors. Other concerns will require the involvement of the project company and a demonstration of their commitment to the region. Outreach and capacity building, particularly in the local communities, will be critical to the success of the project. Finally, residents of the region where the gas is being developed and where the power plant is sited must see some local benefit from the power plant. If all of the power produced from the IPP is sent down the transmission line to Kabul, while lights still flicker in Jowzjan and Balkh provinces, local support for the project will quickly evaporate, placing the whole project at risk.

IV. PRELIMINARY FINDINGS & RECOMMENDED NEXT STEPS

There are a number of concerns regarding the SGFDP on the power side, either expressed by or involving DABS. Most importantly, DABS has stated repeatedly in conversations with SGFDP team members that electric power produced from the proposed gas-fired electric power plant must be competitive with imports coming from surrounding countries at the wholesale price level. It should be noted that a new gas-fired power plant would not be expected to compete with less expensive (and unreliable) hydroelectric power coming from Tajikistan, and power imported from Uzbekistan and Turkmenistan with wholesale prices that currently range between \$0.02 – \$0.06 / kilowatt-hour (kwh). It should also be recognized that a gas-fired power plant must be built, so that Afghanistan has some negotiation leverage for imports of wholesale electric power to protect pricing and reliability, as well as to ensure security of electric power supplies.

In addition to the pricing issue, DABS will likely require some form of credit support in order to be a reliable power purchaser for the power plant. DABS is currently running at a deficit and, depending on the severity of the "take-or-pay" provision and other aspects of the PPA, will require a sovereign guarantee and international financial institution support to ensure timely payment for power purchases. This is currently under discussion between representatives from the Afghan government, USAID, ADB, OPIC, and MIGA.

Finally, there are existing transmission infrastructure needs that must be resolved before the gas-fired power plant can commence operations. USAID is currently working on a feasibility study regarding a proposed transmission line between Pul-e-Khumri and Kabul that would deliver the power produced from the IPP. There are also numerous electric power infrastructure project needs in northern Afghanistan to support the increased capacity provided by the IPP and imports and meet customer demand. While donors will be responsible for most of these infrastructure improvements, DABS' role as the electrical transmission and distribution entity in Afghanistan means they will be integrally involved in their successful completion and operation.

On the gas side, the successful completion of the gas field development was intended to depend on the success of a bidding round to be held by MoM. The change in strategy by MoM to focus on building the capacity of Afghan Gas has completely changed the way the Ministry, USAID and the SGFDP team is approaching the gas field development component of the project. Under the revised workplan for the project, the SGFDP team is working with MoM on three main projects involving Afghan Gas. These three "next steps" for Afghan Gas will be important in the overall approach to the development of the Sheberghan gas fields.

The first is a Gas Measurement, Quality and Safety Workshop to be held in the spring of 2011. During the SGFDP site visit in the late fall of 2010, the team observed a lack of modern measurement, quality and safety equipment in use by Afghan Gas employees. As part of the capacity building efforts, USAID has agreed to purchase several items listed by the SGFDP team's gas expert as critical for the successful operation of Afghan Gas. Included in this list is a modern gas chromatograph, to measure composition of the gas being produced currently from the Sheberghan gas fields, as well as equipment necessary to conduct pressure tests and well evaluation. The SGFDP team will train several Afghan Gas employees on the equipment, which will provide the project and other interested parties with clear data on the present condition and status of the wells in the Sheberghan gas fields.

The second major project involves an allocation of funds through an on-budget funding mechanism for the drilling of one or two new exploitation wells in the Sheberghan area. This activity will be critical to proving the gas supplies in the area are sufficient to support the power plant for its expected 30 year operating life. Further, the successful completion of one to two new wells by an experienced firm working with Afghan Gas will be a vital training opportunity and will prove the capability of Afghan Gas to take the position of primary supplier of gas for the power plant.

The third project is a longer term view of the important role MoM is anticipating for Afghan Gas. Since MoM is counting on Afghan Gas as the primary gas company for Afghanistan, the long-term goal should be to corporatize Afghan gas, though retain state ownership to protect Afghanistan's interest in its natural resources. The SGFDP team has brought this issue up with both MoM and USAID, and both entities were, at least initially, supportive. Beginning the corporatization process will be critical to taking further steps with Afghan Gas, such as reorganization and negotiating a possible management contract.

The Sheberghan PMU should also work with the stakeholders to encourage the development of domestic residential and industrial markets that utilize the gas produced from the Sheberghan gas fields. Setting up energy-intensive industrial facilities in the region will be one of the main drivers of economic growth and new job opportunities.

Of course, the next steps for the project cannot be taken in isolation. The Sheberghan PMU must continue consultations with the GoIRA, leaders in Jowzjan and Balkh provinces, international donors and financing institutions and other major stakeholders in the project if the ultimate goals of successful development of the gas fields and the construction of a power plant are to be realized.