## **Background and Objective**

The U.S. Trade and Development Agency (USTDA) has selected 3E Consulting LLC, working in cooperation with Emerging Markets Infrastructure LLC (3E-EMI), to perform advisory services to accelerate clean energy project development and financing in sub-Saharan Africa by supporting USTDA and the Development Bank of Southern Africa Limited (DBSA).

## **Advisory Services**

The 3E-EMI Advisory Team's role is to:

- Identify clean energy projects in sub-Saharan Africa that are appropriate for DBSA financing,
- Identify clean energy project planning needs and develop recommendations for USTDA feasibility studies or technical assistance funding,
- Provide advisory services to facilitate DBSA review of clean energy projects,
- Provide capacity building and presentations of findings to DBSA staff related to clean energy project evaluation,
- Travel within sub-Saharan Africa to conduct site visits and meetings with relevant project sponsors,
- Engage potential project stakeholders to accelerate project development.

## **Target Projects**

The team is looking for clean energy projects that would reduce future greenhouse gas emissions and energy consumption by enabling the transition to renewable energy sources and/or improving energy efficiency.

## **About the U.S. Trade and Development Agency:**

The U.S. Trade and Development Agency (USTDA) is an independent U.S. Government Agency that provides grant funding to overseas project sponsors for the planning of projects that support the development of modern infrastructure and an open trading system. The hallmark of USTDA development assistance has always involved building partnerships between U.S. companies and overseas project sponsors to bring proven private sector solutions to developmental challenges. (www.ustda.gov)

## **About the Development Bank of Southern Africa**

The Development Bank of Southern Africa (DBSA) is a state owned entity with the purpose of accelerating sustainable socio-economic development and improve the quality of life of the people of the Southern African Development Community (SADC) by driving financial and non-financial investments in the social and economic infrastructure sectors. (www.dbsa.org)

## The Methodology

The team will work with U.S. and sub-Saharan public and private sector stakeholders in the clean energy sector to identify priority projects that could benefit from USTDA project development funding and/or DBSA financing. Here is the methodology for working with the team to secure USTDA and/or DBSA support:

#### **USTDA: Funding for Project Development**

- Once relevant projects are identified, the team will work with the project stakeholders to prepare project background information and develop a scope of work for USTDA technical assistance or a feasibility study to advance those projects.
- The project sponsor or the proposed U.S. firm supporting the project should be prepared to present a detailed project background as well as assist in the development of a detailed project justification and scope of work. To gain a better understanding of USTDA proposal guidelines, visit USTDA Proposal Guidelines.
- If approved by both the project sponsor and USTDA, a grant agreement will be entered into with the host country project sponsor who will then contract with a U.S. company to perform the feasibility study or the technical assistance for the proposed project.
- Project sponsors may be sub-Saharan public sector (government) organizations or private sector companies.

#### **DBSA: Financing for Project Implementation**

- The team will work with sub-Saharan energy sector stakeholders to identify potential projects that could benefit from DBSA funding.
- Once relevant projects are identified, the team will review, evaluate and recommend selected projects for formal DBSA consideration.
- The team will provide advisory services and recommendations to facilitate DBSA review and selection of proposed projects.
- The team will provide capacity building to DBSA staff to expedite the evaluation process.
- DBSA considers financing projects that:
  - Fall within the DBSA sector and strategic mandate and are anticipated to have a significant development impact,
  - o Are of a national or regional priority,

Tel: +1.202.213.8964

- Have a large enough investment value to justify preparation activities, investment requirements and expected returns
- Have an experienced project team capable of implementing the project.

## 3E - EMI Advisory Team

The 3E-EMI Team has assembled a multi-disciplinary team of experts with extensive international project development experience, strong working relationships with key U.S. and sub-Saharan African public and private sector organizations, and extensive clean energy sector, business development, engineering and financing expertise in sub-Saharan Africa and more than 50 countries. Members of the team will travel to the sub-Saharan region to identify, evaluate, and recommend projects for USTDA-funded technical assistance and feasibility studies, DBSA project preparation, and/or DBSA financing.

#### For more information or to discuss project suggestions, please contact:

• John Rezaiyan, Project Director, Technical Expert

Tel: +1.443.546.5781

Doug Shuster, Technical Expert
 Pamela Peseux, Project Coordinator
 Tel: +1.703.870.7164
 Tel: +1.301.776.6509

• Jasmin Silva Navarro, Project Outreach Specialist

Or, by email: DBSAAdvisor@3EConsultingllc.com



3E Consulting, LLC
Turning Knowledge into Value
Phone: 1-443-546-5781
Skype: John.Rezaiyan1
11305 Buckleberry Path
Columbia, MD 21044
Rezaiyan@3EConsultingLLC.com







# Assessing the Feasibility of a Pre-Arranged Structured Finance Facility for the Gas-to-Power Programme in South Africa

#### **Background**

DBSA is exploring opportunities to participate in the establishment of a pre-arranged structured finance facility for the power generation side of South Africa's Gas-to-Power (GTP) Programme. Their objective is to develop financing resources for qualified IPPs and their black economic empowerment partners under the upcoming solicitation for GTP projects. Under USTDA funding, 3E recently completed a desktop study that evaluates potential financing partners, funding structures, and financial products and instruments.

#### **Gas-to-Power Programme**

South Africa's Gas-to-Power Independent Power Producer Procurement Programme (GTP IPPPP) is expected to develop approximately 3,126 MW of baseload and/or mid-merit gas-generated power to distribute into the country's grid. The estimated cost of the power plants and related pipeline infrastructure associated with the GTP IPPPP is estimated to be ZAR 50 billion. GTP IPPPP is expected to be supported by the multilateral development banks, development finance institutions and export credit agencies as well as domestic and foreign commercial banks, asset managers and insurance companies through a variety of financing instruments across multiple stages of project development.

#### **Purpose of Meetings**

The 3E study highlighted the financing for several large scale gas-to-power projects such as the Octopus LNG (Chile) and Sankofa Gas (Ghana) projects, and is now focused on a pre-feasibility study for DBSA. The pre-feasibility study requires a better understanding of two key issues:

- Determining host country and international financial institutions' appetite for GTP projects, including their available funding capacity (sector/country), underwriting requirements and if any, past experiences in large scale GTP projects; and
- Ensuring proper alignment with the anticipated RFQ and RFP processes from the Department of Energy.

#### For More Information, Contact:

Jonathan First, Structure Finance Solutions, DBSA (<a href="mailto:jonathanf@dbsa.org">jonathanf@dbsa.org</a>)
Jacob Flewelling, Africa Business Development Manager, USTDA (<a href="mailto:jflewelling@ustda.gov">jflewelling@ustda.gov</a>)
John Rezaiyan, Project Director, 3E Consulting (<a href="mailto:dbsaadvisor@3Econsultingllc.com">dbsaadvisor@3Econsultingllc.com</a> or <a href="mailto:Rezaiyan@tuataragroup.com">Rezaiyan@tuataragroup.com</a>)

# About the Development Bank of Southern Africa:

The Development Bank of Southern Africa (DBSA) is a state- owned entity with the purpose of accelerating sustainable socioeconomic development and improve the quality of life of the people of the Southern African Development Community (SADC) by driving financial and non-financial investments in the social and economic infrastructure sectors. (<a href="https://www.dbsa.org">www.dbsa.org</a>)

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#### **About 3E Consulting LLC:**

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# Structuring Project Bonds for Gas-to-Power Projects as Part of South Africa's LNG-to-Power IPPPP

#### **Background**

South Africa's Liquefied Natural Gas-to-Power Independent Power Producers Procurement Programme (LNG-to-Power IPPPP) is expected to develop approximately 3,126 MW of baseload and/or mid-merit gas-generated power to distribute into the country's grid. The estimated cost of the power plants and their related pipeline infrastructure alone is estimated to be ZAR 50 billion. These power projects are expected to be supported by multilateral development banks, development finance institutions and export credit agencies, as well as domestic and foreign commercial banks, asset managers and insurance companies through a variety of financing instruments across multiple stages of project development.

DBSA is exploring opportunities to participate in the establishment of a prearranged structured finance facility for the power generation side of South Africa's LNG-to-Power IPPPP. Their objective is to develop financing resources and options for qualified IPPs and their black economic empowerment partners under the upcoming solicitation for LNG-to-Power IPPPP projects. Under USTDA funding, 3E recently completed fact finding missions in South Africa and Europe to identify funding resources for the Gas-to-Power (GTP) projects. Based on these fact finding missions, it was determined that significant funding for the GTP related infrastructure assets of the LNG-to-Power IPPPP could potentially be raised through the issuance of project bonds on the Johannesburg Stock Exchange and/or London Stock Exchange. The findings revealed that there is appetite for two unique project bond products: 1) a project construction bond to address funding throughout the construction phase (Project Construction Bond); and 2) a post-commercial operation date project bond which would provide a mechanism to refinance all or a portion of the construction debt (Project Refinancing Bond). The bonds would have to be structured by the offering parties to address the needs and/or requirements of the domestic and international commercial banks and institutional investors. The focus would be to explore debt and/or equity products to facilitate these bonds.

### **Purpose of Meetings**

3E is conducting a series of meetings to address: (a) the regulatory environment in South Africa regarding issuance of project bonds; (b) rating and listing criteria for project bonds – Project Construction Bond and Project Refinancing Bond; (c) proposed structure(s) of the Project Construction Bond and Project Refinancing Bond; (d) investor appetite, both general and specific, for these types of project bonds; (e) underwriting and bridge funding availability and requirements in relation to the "take-out" at COD; and/or, (f) salient commercial terms of the project bond including tenor, pricing, and conditions precedent.

#### For More Information, Contact:

Jonathan First, Structure Finance Solutions, DBSA (<u>jonathanf@dbsa.org</u>)
Jacob Flewelling, Africa Business Development Manager, USTDA (<u>jflewelling@ustda.gov</u>)
John Rezaiyan, Project Director, 3E Consulting (<u>dbsaadvisor@3Econsultingllc.com</u> or <u>Rezaiyan@tuataragroup.com</u>)

## About the Development Bank of Southern Africa:

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(www.tuataragroup.com)



# Sponsored by USTDA

# Assessing BEE Equity Financing for the Gas-to-Power Programme in South Africa

#### **Background**

DBSA is exploring opportunities to participate in the establishment of a prearranged structured finance facility to provide equity financing to Black Economic Empowerment (BEE) partners for qualified Gas-to-Power (GTP) projects as part of South Africa's Liquefied Natural Gas-to-Power Independent Power Producer Procurement Programme (LNG-to-Power IPPPP). DBSA's objective is to develop financing resources and options for qualified IPPs and their black economic empowerment partners under the upcoming solicitation for GTP projects. Under USTDA funding, 3E recently completed a desktop study that evaluates potential financing partners, funding structures, and financial products and instruments.

#### **Gas-to-Power Programme**

South Africa's LNG-to-Power IPPPP is expected to develop approximately 3,126 MW of baseload and/or mid-merit gas-generated power to distribute into the country's grid. The estimated cost of the power plants and related pipeline infrastructure associated with the LNG-to-Power IPPPP is estimated to be ZAR 50 billion. The GTP assets under the LNG-to-Power IPPPP could potentially require more than ZAR 6 billion of BEE equity financing. In the past, individual BEE investors have received support from South African financial institutions to support energy projects in both the renewable and coal IPPs. However in a GTP scenario, it is unlikely that institutions such as the DBSA can continue to provide BEE equity financing without a more collective approach. This will require the establishment of different funding structures and options that utilize new and innovative funding instruments. Realizing the importance of funding the BEE component, the IPP Office has requested DBSA's Structured Products Unit explore the availability of potential financing resources and options for BEE equity financing.

#### **Purpose of Meetings**

3E will hold meetings with a wide range of financing institutions in South Africa to identify sources of funding and structures that could support BEE equity funding. The objective of these meetings will be to establish an understanding of traditional and non-traditional funding resources currently available and identify additional funding mechanisms to fund the BEE equity.

#### For More Information, Contact:

Jonathan First, Structure Finance Solutions, DBSA (<a href="mailto:jonathanf@dbsa.org">jonathanf@dbsa.org</a>)
Jacob Flewelling, Africa Business Development Manager, USTDA (<a href="mailto:jflewelling@ustda.gov">jflewelling@ustda.gov</a>)
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#### December 17, 2015

#### To Whom It May Concern:

The U.S. Trade and Development Agency (USTDA) is an independent U.S. Government foreign assistance agency that provides grant funding to overseas project sponsors for project planning activities that support the development of modern infrastructure and economic growth in emerging economies. USTDA has selected 3E Consulting, LLC, working in cooperation with Emerging Markets Infrastructure LLC (3E-EMI), to perform advisory services to accelerate clean energy project development and financing in sub-Saharan Africa by supporting USTDA and the Development Bank of Southern Africa Limited (DBSA). DBSA is a development finance institution wholly-owned by the South African government. Its mission is to advance development impacts in the region by expanding access to development finance and effectively integrating and implementing sustainable development solutions. DBSA has a strong record of supporting the development of clean energy infrastructure in sub-Saharan Africa, including renewable energy, natural gas, electricity transmission and distribution, and energy efficiency.

The objective of the **Development Bank of Southern Africa Clean Energy Advisor Services** contract is to accelerate clean energy project development and financing in sub-Saharan Africa by supporting the capacity of USTDA and the Development Bank of Southern Africa Limited (DBSA) to evaluate clean energy projects. The contractor's responsibilities include: (1) identifying clean energy projects in sub-Saharan Africa that are appropriate for DBSA financing; (2) identifying clean energy project planning needs and developing recommendations for USTDA funding; (3) providing advisory services to facilitate DBSA review of clean energy projects; (4) providing capacity building and presentations of findings to DBSA staff related to clean energy project evaluation; (5) traveling within sub-Saharan Africa to conduct site visits and meetings with relevant project officials; and (6) engaging with and facilitating communication between key project stakeholders to accelerate project development and financing.

I hope you and/or your relevant colleagues will make yourselves available to the 3E-EMI team and provide them with any project information or data that may increase the effectiveness and accuracy of their work. I want to thank you in advance for supporting this important initiative. If you have any questions or concerns, please do not hesitate to contact Africa Business Development Manager Jacob Flewelling (jflewelling@ustda.gov) or Country Manager Michael DeRenzo (mderenzo@ustda.gov).

Sincerely,

Lida Fitts

Acting Regional Director for Sub-Saharan Africa