

The Republic of South Africa

Department of Energy

**REQUEST FOR INFORMATION
IN RESPECT OF THE DESIGN OF A
GAS TO POWER PROGRAMME**



energy

**Department:
Energy**

REPUBLIC OF SOUTH AFRICA

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1. Disclaimer

While all reasonable care has been taken in preparing this Document, the information has been prepared by the Department of Energy of the Government of the Republic of South Africa ("**the Department**") in good faith, based on information obtained from various sources. However, neither the Department nor any of its advisors accept any liability or responsibility for the adequacy, accuracy or completeness of any of the information or opinions stated herein.

Save where expressly stipulated otherwise, no representation or warranty (whether express or implied) is or will be given by the Department or any of its officers, employees, servants, agents, advisors or any other person with respect to the information or opinions contained in this Document, or in relation to this Document and or the design of a Gas to Power Programme.

The Department reserves the right to amend, modify or withdraw this Document or any part of it, or to terminate or amend any of the procedures, processes or requirements detailed in this Document at any time, without prior notice and without liability to compensate or reimburse any person pursuant to such amendment, modification, withdrawal or termination.

The Department reserves the right to terminate or amend the design of a Gas to Power Programme, at any time, without prior notice and without liability to compensate or reimburse any person pursuant to such termination or amendment.

The terms and conditions set out in this Document are stipulated for the express benefit of the Department and, save as expressly stated to the contrary, may be waived at the Department's sole discretion at any time. The Department reserves the right to adopt any proposal made by any person responding to this Document at any time and to include such proposal in any documents which may or may not be made available at any stage in the design of a Gas to Power Programme to any other persons responding to this Document, without the obligation or liability to pay any compensation or reimbursement of any nature to any person pursuant to such adoption.

This Document is provided solely for the purpose set out herein and is not intended to form any part or basis of any investment decisions by the Respondent, its shareholders, members or its lenders. Each person that accesses this Document must make its own independent assessment of the Project in respect of which it intends submitting a Bid

Response, taking such advice (whether professional or otherwise) as it deems necessary.

The Department has engaged consultants in respect of the design of a Gas to Power Programme and this Document, who are acting solely as advisors to the Department to assist the Department in the Gas to Power Programme and, accordingly, will not be responsible or owe a duty of care to any person other than the Department in respect of this Document or the Gas to Power Programme. The Transaction Advisors shall not nor shall any legal advisor, or advisor to the Department in relation to the design of the Gas to Power Programme or this Document, provide any opinion to or for the benefit of any Respondent, shareholder, member, contractors, suppliers or any lender, in their capacity as advisor to the Department. The Department intends to use the information provided by Respondents in response to this Document solely for the purpose of preparing procurement documentation in relation to the Gas to Power Programme.

No Respondent, its shareholders, members, contractors, suppliers or lenders shall have any claim against the Department, its officers, employees, servants, agents or Transaction Advisors, under any circumstances whatsoever, arising out of any matter relating to the design of a Gas to Power Programme or this Document of any nature whatsoever, including where such claim is based on any act or omission by the Department, or any of its officers, employees, servants, agents or Transaction Advisors of any nature whatsoever, or where such claim is based on the content of, or any omission from, this Document of any nature whatsoever.

2. Definitions and Interpretation

In this Document, except as otherwise defined herein, the following terms shall have the following meanings:

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| 2.1 | "Baseload Energy" | - | Energy Output produced or capable of being produced at a constant or near constant rate by power stations that have high Load Factors; |
| 2.2 | "Bidder" | - | any entity or consortium that submits a Bid Response, which must be either a Project Company or a consortium of legal entities, all of whom shall become shareholders (either themselves or through an intermediary entity) in a Project Company; |
| 2.3 | "Bid Response" | - | any bid submitted by a Bidder in response to the invitation contained in the RFP; |
| 2.4 | "Broad-Based Black Economic Empowerment Act" or "B-BBEE Act" | - | Broad-Based Black Economic Empowerment Act No. 53 of 2003; |
| 2.5 | "Bundled Project" | - | a Project for all of the Elements; |
| 2.6 | "Capacity" | - | the capacity at any time and from time to time, expressed in megawatts ("MW") to generate and provide Energy Output; |
| 2.7 | "Commercial Close" | - | the date on which the Implementation Agreement is duly executed by the Power Seller and the Department; |
| 2.8 | "Commercial Operation Date" | - | the date after which all testing and commissioning of the Power Generation Facility has been completed; |

- 2.9 **“Compressed Natural Gas”**
or **“CNG”** - Gas compressed to less than 1% (one percent) of the volume it occupies at standard atmospheric pressure;
- 2.10 **“Distribution System”** - a distribution network of a Network Owner which operates at a nominal voltage of 132 kV or less, as described in any code in respect of electricity distribution published by NERSA from time to time;
- 2.11 **“Document”** - this explanation and request for information document for the Gas to Power Programme;
- 2.12 **“Early Power Generation Facility”** - a power generation facility intended to provide Capacity and Energy Output at the earliest possible date and located at the Project Site and comprising all plant, machinery and equipment, all associated buildings, structures, roads on the Project Site that are not national, provincial or municipal roads, and other appurtenances, and the necessary infrastructure to connect to the System;
- 2.13 **“Electricity Regulation Act”** - the Electricity Regulation Act No. 4 of 2006;
- 2.14 **“Elements”** - the following elements of a Project: (a) the Early Power Generation Facility, (b) the Gas Supply, (c) a Regasification Facility/ Gas Receiving Facility (if applicable) and (d) the Power Generation Facility, and “Element” means any one of them;

- 2.15 **"Energy Output"** - the electrical energy generated and expressed in megawatt-hours ("MWh"), delivered to the Power Delivery Point;
- 2.16 **"Gas"** - Any of: (i) natural gas which occurs naturally underground (either from a conventional gas field or an unconventional gas field including shale gas and coal bed methane ("CBM")) or (ii) synthesis gas ("syngas") including underground coal gasification ("UCG"), or conventional coal gasification as part of integrated gasification and combined cycle ("IGCC") gas technology or (iii) Liquefied Natural Gas ("LNG") or Compressed Natural Gas ("CNG") or (iv) liquefied petroleum gas ("LPG");
- 2.17 **"Gas Buyer"** - an entity purchasing Gas from a Gas Supplier or a Power Seller;
- 2.18 **"Gas Receiving Facility"** - a marine terminal at which a vessel unloads gas into a high pressure gas pipeline network;
- 2.19 **"Gas to Power Programme"** - the programme to be designed by the Department to procure the target of 3 126 (three thousand one hundred and twenty six) MW of Capacity, and Energy Output;
- 2.20 **"Gas Sales Agreement" or "GSA"** - an agreement for the sale of Gas entered into between a Gas Supplier and a Gas Buyer, or between a Power Seller and a Gas Buyer;
- 2.21 **"Gas Supplier"** - a supplier of Gas to a Power Seller under a GSA;

- 2.22 **"Gas Supply"**
- the supply and delivery of Gas by any means, including: a) ship of LNG or CNG or LPG to the inlet flange of the Regasification Facility/ Gas Receiving Facility; b) pipeline from a natural gas field to the inlet flange of the Power Generation Facility (or Early Power Generation Facility, as appropriate); or c) pipeline from a syngas source (either UCG or IGCC) to the inlet flange of the Power Generation Facility (or Early Power Generation Facility, as appropriate);
- 2.23 **"GUMP"**
- the Gas Utilisation Master Plan, a road map for the development of South Africa's gas industry;
- 2.24 **"Implementation Agreement"**
- the implementation agreement to be entered into between the Power Seller and the Department;
- 2.25 **"IRP 2010"**
- the Integrated Resource Plan 2010-2030 issued by the Minister under Notice No. 400 dated 6 May 2011 in Government Gazette 34263, pursuant to the Electricity Regulation Act;
- 2.26 **"Liquefied Natural Gas" or "LNG"**
- natural Gas cooled to a temperature of approximately -162°C to become a liquid at close to atmospheric pressure;
- 2.27 **"Load Factor"**
- is the ratio of the Energy Output in any given hour to the potential Energy Output that was available for dispatch;

- 2.28 **"Mid-Merit Energy"** - the Energy Output produced by generating units that load follow and provide most or all of their Energy Output at times when energy demand increases and which either turn off or cycle to a low minimum run level at other times so they can match the diurnal demand patterns;
- 2.29 **"Minister"** - the Minister of Energy, from time to time;
- 2.30 **"NERSA"** - the National Energy Regulator of South Africa, established pursuant to Section 3 of the National Energy Regulator Act No. 40 of 2004;
- 2.31 **"Network Owner"** - any legal entity responsible for distributing electricity through a Distribution System or the Transmission System;
- 2.32 **"Power Buyer"** - the legal entity designated by the Minister in the determinations to purchase Power Capacity and Energy Output from a Power Seller pursuant to a PPA entered into pursuant to the Gas to Power Programme;
- 2.33 **"Power Capacity"** - the power generation capacity at any time and from time to time, expressed in MW, to generate and provide Energy Output;

- 2.34 **"Power Delivery Point"** - the physical point, situated on the high voltage side of the generator transformer of the Power Generation Facility (or the Early Power Generation Facility, if applicable), as applicable, where the Power Generation Facility (or Early Power Generation Facility, if applicable) connects to the System (whether or not such point is situated on or off the Project Site), and where the Energy Output is to be delivered to the Power Buyer and the Power Capacity is to be made available to the Power Buyer;
- 2.35 **"Power Generation Facility"** - the primarily gas fired power generation facility located at the Project Site and comprising all plant, machinery and equipment, all associated buildings, structures, roads on the Project Site that are not national, provincial or municipal roads, and other appurtenances, and the necessary infrastructure to connect to the System;
- 2.36 **"Power Seller"** - any Project Company that enters into a PPA to sell electricity generated by it or on its behalf, to the Power Buyer in terms of a PPA entered into pursuant to the Gas to Power Programme;
- 2.37 **"PPA"** - the power purchase agreement entered into between the Power Buyer and the Power Seller on or before Commercial Close;

- 2.38 **“Preferred Bidder”**
- any Bidder that is selected by the Department pursuant to the Gas to Power Programme following qualification and evaluation of the Bid Response submitted by the Bidder;
- 2.39 **“Project”**
- the development, design, engineering, financing, ownership, leasing/ chartering, construction, commissioning, operation and maintenance, as relevant, of one or more Elements;
- 2.40 **“Project Company”**
- the special purpose company that a Bidder proposes using as the vehicle to undertake the Bidder’s Project, that is the subject matter of a Bid Response;
- 2.41 **“Project Officer”**
- the person appointed by the Department as the project officer in respect of the Gas to Power Programme;
- 2.42 **“Project Site”**
- the site(s) upon which the Early Power Generation Facility, if applicable, the Regasification Facility/ Gas Receiving Facility, and the Power Generation Facility are to be constructed and operated;

- 2.43 **“Regasification Facility”**
- a floating storage and regasification unit (“FSRU”) or land-based LNG storage and regasification terminal located at the Project Site and comprising all marine infrastructure, plant, machinery and equipment, all associated buildings, structures, roads on the Project Site that are not national, provincial or municipal roads, and other appurtenances, and the necessary pipeline infrastructure to connect to the inlet flange of the Power Generation Facility and to the delivery point specified the Gas Supply Agreement/(s);
- 2.44 **“Respondent”**
- any entity or consortium that submits a RFI Response in response to this Document;
- 2.45 **“Response Form”**
- the web form template of Form 1 which is to be accessed on the website: www.ipp-gas.co.za, completed and submitted in hard and soft copy;
- 2.46 **“RFI Response”**
- the completed Response Form, together with all necessary supporting documentation and the letter referred to in paragraph 5.6 (*Signing of the RFI Response*);
- 2.47 **“RFP”**
- the request for qualification and proposals to be issued in respect of the Gas to Power Programme in due course;
- 2.48 **“System”**
- the Transmission System or the Distribution System, as applicable;

- 2.49 **“Transaction Advisors”** - the firms advising the Department in respect of the RFP and the Gas to Power Programme;
- 2.50 **“Transmission System”** - the national transmission system consisting of all lines and substation equipment which operate at a nominal voltage of above 132 (one hundred and thirty two) kV; and
- 2.51 **“Unbundled Project”** - a Project for some, but not, all Elements.

3. Background

- 3.1 In 2012, the Minister stipulated in two determinations made under the Electricity Regulation Act that new generation capacity should be procured from hydro, coal and gas sources to support South Africa's base load energy mix and generation from gas and cogeneration as part of the medium-term risk mitigation project programme¹.
- 3.2 It is anticipated that the two determinations will be amended and then consolidated into a new determination for the procurement of 3126 MW of generation capacity from any gas type or source generated using any appropriate technology.
- 3.3 As the basis of supporting the objectives of the Integrated Energy Plan² the Department is, at present, finalising a GUMP for South Africa. The GUMP is a roadmap for the development of a gas economy. It analyses the potential and opportunity for the development of South Africa's gas economy and sets out a plan of how this could be achieved. One of the key objectives of the GUMP is to enable the development of indigenous gas resources and to create the opportunity to stimulate the introduction of a portfolio of gas supply options.
- 3.4 A challenge in developing the gas sector is to bring gas demand and supply on stream at the same time and spread geographically to stimulate broader localised demand through South Africa. Without such localised gas demand it is difficult to develop distributed gas supply and without such distributed gas supply it is difficult to develop localised gas demand. One way of breaking this impasse is to create significant "anchor" gas demand through the development of a Gas to Power Programme. The demand from the Gas to

¹ "IPP Procurement Programme 2012" published in Government Notice 1074 in *Government Gazette* No. 36005 on 19 December 2012; "Baseload IPP Procurement Programme 2012" published in Government Notice 1075 in *Government Gazette* No. 36005 on 19 December 2012; "Medium Term Risk Mitigation Project IPP Procurement Programme 2012" published in Government Notice 1076 in *Government Gazette* No. 36005 on 19 December 2012.

² Department of Energy, Integrated Energy Plan of the Republic of South Africa, 2003

Power Programme will provide a market for a potential supply of gas. It will also provide long term gas demand sinks for future indigenous gas supplies.

- 3.5 The initial period of the development of South Africa’s gas industry could be anchored on the demand provided by the Gas to Power Programme. The potential to link the Gas to Power Programme to supply a limited amount of gas, marketed in the form of a Gas Supply Agreement (GSA), for use of industrial and other users is therefore also being explored.
- 3.6 In the absence of available natural Gas within South Africa and to ensure new capacity is delivered in timescales commensurate with the objectives of the medium term risk mitigation project it is recognised that it will be necessary to import Gas, *inter alia*, in the form of LNG or CNG. As a consequence, the Gas to Power Programme could be designed as a potential means to catalyse the importation of such Gas.
- 3.7 The Gas to Power Programme sits alongside other initiatives by the Department to give effect to the IRP 2010 and the development of the gas sector in South Africa, generally.
- 3.8 It is anticipated that Eskom Holdings SOC Limited, in its capacity as the single buyer of electrical energy will be the sole Power Buyer of Power Capacity and Energy Output, under the Gas to Power Programme.
- 3.9 In respect of the Power Generation Facility, where a Respondent anticipates providing a power generation solution (a) supplied by LNG or (b) with an installed capacity in excess of 500MW, then, based on analysis of a number of least-cost dispatch scenarios for the South African power system for the years 2020, 2025 and 2030, it is anticipated that such solution will provide Mid-Merit Energy and the following annual average load factors may be expected:

Year	Installed Capacity	Load Factors
2020	3 000 MW or 1 000 MW	35% or 50%
2025	3 000 MW	35%
2030	3 000 MW	35%

Only small seasonal deviations from the annual average Load Factors (stated above) are expected. It is anticipated that monthly average Load Factors in the winter months will be slightly lower when compared to summer months. Intra-day flexibility is required, with lower Load Factors during night and higher Load Factors during the day and evening peak hours.

- 3.10 In respect of the Power Generation Facility, where a Respondent anticipates providing a power generation solution (a) supplied from a gas source other than LNG or (b) with an installed capacity of less than 500MW, the Respondent is expected to state its anticipated power generation regime (i.e. whether this is Baseload Energy or Mid-Merit Energy) and its preferred mode of operations (i.e. whether the plant is dispatchable or self-dispatched).
- 3.11 In South Africa's presently constrained power supply environment the Department would like to investigate early gas power generation opportunities. As such, the Department encourages Respondents to provide potential solutions to deliver gas fired power generation as expeditiously as possible. The generation of such early power may come from reducing the timeframes to build out and develop the gas to power value chain or it may come from an interim Early Power Generation Facility as part of the development of the longer term gas to power value chain.
- 3.12 The Department intends to use the information provided in response to this RFI in designing an appropriate procurement framework and finalising any regulatory amendments that may be appropriate. Accordingly, the Department urges every Respondent who anticipates submitting a Bid Response in the Gas to Power Programme to provide the Department with a RFI Response for each and every proposed Project that it shall submit for participation in the Gas to Power Programme. All information submitted will assist in the planning of the location(s), infrastructure, the Distribution System and/or Transmission System and other relevant infrastructure necessary to support the Gas to Power Programme and associated GSAs. The Department, in its sole discretion, anticipates engaging with some Respondents who have submitted a RFI Response to discuss their Project with a view to seeking clarity in relation to information contained in the RFI Response.

4. Information to be provided by the Respondent in its RFI Response

4.1 The Department requests any and all entities or organisations that may wish to submit a Bid Response under the Gas to Power Programme to submit a RFI Response to the Department in terms of this Document. Submission of a RFI Response is, however, not compulsory to participate in a Gas to Power Programme.

4.2 The RFI Response submitted should include the information set out below for each proposed Project and any supporting documentation in respect thereof. Form 1 has been provided to assist Respondents in preparing a RFI Response, and a web-based Response Form has been created of Form 1. Respondents should complete the Response Form online and return the Response Form in the manner detailed in paragraph 5.1 (*Submission of RFI Responses*) below. The hard and soft copy of the RFI Response referred to in paragraph 5.2 (*Copies of the RFI Response*) should include all necessary supporting documents. The information required set out below.

4.3 Description of the Project

4.3.1 It is possible to propose a Project, subject to paragraph 4.4 (*Information about the Project*) below, as an integrated Bundled Project, or as an Unbundled Project.

4.3.2 A Project Company may be made up of one or more related or unrelated legal entities in a consortium.

4.4 Information about the Project

4.4.1.1 Where the Respondent anticipates providing a power generation solution (a) supplied by LNG or (b) with an installed capacity in excess of 500MW, it is required to state in which capacity it intends to participate in the Gas to Power Programme and which of the options (set out in Table 1 below) that it intends to respond to (it is possible to respond to more than one option and/ or a separate Project, in each case a separate RFI Response should be submitted for each proposed Project).

- 4.4.1.2 Where the Respondent anticipates providing a power generation solution (a) supplied from gas sources other than either LNG or (b) with an installed capacity of less than 500MW, it is required to respond to **option 1 only** (set out in Table 1 below). Where a Respondent wishes to submit more than one Project, it may do so, however a separate RFI Response should be submitted for each proposed Project).

Table 1 – Options for Respondents

Bundled Project	Option 1	Single Project Company, made up of one or more related or unrelated entities as a consortium, responding to provide a Bundled Project
	Option 2	Not yet a member of a consortium but wishes to form/join a consortium to provide a Bundled Project
Unbundled Project	Option 3	Responding to provide one or more Elements

- 4.4.1.3 Name of the Respondent;
- 4.4.1.4 Name of the Project (a separate RFI Response should be submitted for each proposed location, each would be regarded to be a separate Project);
- 4.4.1.5 The name and contact details of the person appointed to undertake all contact with the Project Officer regarding the Project.

4.5 **Overview of the Project**

- 4.5.1 If the Respondent has stated it intends to participate in the Project as a “Single Project Company, made up of one or more related or unrelated entities as a consortium, responding to provide a Bundled Project” (Option 1 in Table 1 above) the Respondent is required to respond to paragraph 4.5.2 below. If the Respondent has stated it intends to participate in the Project as “Not yet a member of a consortium but wishes to form/join a consortium to provide a Bundled Project” (Option 2

in Table 1 above) or as “Responding to provide one or more Elements” (Option 3 in Table 1 above) the Respondent is required to respond to paragraph 4.5.3.

4.5.2 Option 1:

4.5.2.1 The Respondent is required to state the members of the consortium and identify the lead consortium member. The Respondent is also requested to provide information on the status of discussions and any agreements in place between consortium members;

4.5.2.2 The Respondent is required to provide an indication of the percent of equity holding in the Project Company of each consortium member, paying particular attention to the ownership requirements of the B-BBEE Act;

4.5.2.3 The Respondent is required to state its proposed approach to implementing all of the Elements, and the role of each of the consortium members. The Respondent is, where applicable:

4.5.2.3.1 in respect of the Early Power Generation Facility required to:

4.5.2.3.1.1 provide details of its Early Power Generation Facility;

4.5.2.3.1.2 provide details of the fuel type;

4.5.2.3.1.3 provide details of the overall capacity of the Early Power Generation Facility, number of generation units, design capacity of each unit, timing of Commercial Operation Date for each unit from Commercial Close, anticipated guaranteed availability, the estimated number of starts and stops of each unit over a year and over the economic life of the Project; and

4.5.2.3.1.4 provide details of the status of discussions/ agreement with any potential suppliers of such power generation equipment;

- 4.5.2.3.2 in respect of the Gas Supply required to:
- 4.5.2.3.2.1 identify its potential source/s of Gas supply to be used for the Project, including, but not limited to, any of: conventional gas (indigenous, or imports via pipeline, LNG, CNG or LPG), unconventional gas (shale gas and CBM) or syngas (UCG or gasification of a hydrocarbon feedstock);
- 4.5.2.3.2.2 in the event that the Respondent intends to import its Gas from LNG or CNG or LPG sources, it is required to address the following questions:
- 4.5.2.3.2.2.1 in the case of LNG, does the Respondent have access to equity LNG;
- 4.5.2.3.2.2.2 if so, from which LNG project(s), or
- 4.5.2.3.2.2.3 will it need to purchase LNG (other than from equity LNG) or CNG or LPG supply, and if so, where from?
- The Department wishes to understand the Respondent's source of LNG or CNG or LPG supply, that is, whether such Gas will be purchased from a specific liquefaction or compression project/s or will supply be purchased from a third-party LNG or CNG or LPG seller?
- 4.5.2.3.2.2.4 proposed contract duration, annual Gas volume over the life of the contract, pricing structure, and shipping arrangements;
- 4.5.2.3.2.2.5 provide details of the status of discussions/agreements with the potential Gas suppliers.
- 4.5.2.3.2.3 in the event that the Respondent intends to supply its Gas from an indigenous gas source, it is required to address the following questions:

- 4.5.2.3.2.3.1 provide details on the estimated size of the Gas resource and an indication of the confidence level of such Gas resource;
- 4.5.2.3.2.3.2 is the Gas resource presently in production? For example, is the field sufficiently developed to produce gas in quantities adequate to supply the needs of the Project and other commitments the field may already have;
- 4.5.2.3.2.3.3 if no:
- 4.5.2.3.2.3.3.1. has the feasibility study for the production of the resource been completed?
- 4.5.2.3.2.3.3.2. are all authorisations required for gas to flow in place, including production/mining authorisation and any environmental authorisations in place?
- 4.5.2.3.2.3.3.3. what gas production facilities are required to produce the gas required for the Project? How much of this plant has been constructed and what is the timeline to complete the gas production facilities?
- 4.5.2.3.2.3.4 provide details of the status of discussions/agreements with the potential Gas suppliers;
- 4.5.2.3.3 in respect of the Regasification Facility/ Gas Receiving Facility required to:
- 4.5.2.3.3.1 provide details of its proposed Regasification Facility/ Gas Receiving Facility (land-based or floating solution or hybrid):
- 4.5.2.3.3.2 provide details of port infrastructure requirements, volume of Gas storage, design capacity of each tank/ FSRU vessel, anticipated guaranteed availability, send-

- out capacity of the Regasification/ Gas Receiving Facility; and
- 4.5.2.3.3 provide details of the status of discussions/ agreement with any potential infrastructure providers;
- 4.5.2.3.4 in respect of the Power Generation Facility required to:
- 4.5.2.3.4.1 provide details of its Power Generation Facility;
- 4.5.2.3.4.2 provide details of the overall capacity of the Power Generation Facility, number of generation units, design capacity of each unit, timing of Commercial Operation Date for each unit from Commercial Close, anticipated guaranteed availability, the estimated number of starts and stops of each unit over a year and over the economic life of the Project; and
- 4.5.2.3.4.3 provide details of the status of discussions/ agreement with any potential suppliers of such power generation equipment;
- 4.5.2.4 where Gas is to be sold to third parties, the Respondent is required to state its proposed approach to marketing of the Gas to be supplied under a GSA to such third parties;
- 4.5.2.5 the Respondent is required to describe how it intends to achieve compliance with the provisions of the B-BBEE Act;
- 4.5.2.6 the Respondent is required to provide any additional or alternative characteristics of the Project; and
- 4.5.2.7 please complete paragraph 4.6 (*Information relevant to the timing of the Project*).
- 4.5.3 Options 2 and 3:
- 4.5.3.1 The Respondent is required to state which Element/s of the Project it is proposing to implement, and its proposed approach to

implementing those Element/s (Respondent to provide details as set out in 4.5.2.3.1 to 4.5.2.3.4. as appropriate);

4.5.3.2 if Respondent is “Not yet a member of a consortium but wishes to form/join a consortium to implement a Bundled Project” (Option 2 in Table 1) the Respondent is required to state who its potential consortium members (if any) may be and provide information on the status of discussions and any agreements in place with potential consortium members;

4.5.3.3 where Gas is to be sold to third parties, the Respondent is required to state its proposed approach to marketing of the Gas to be supplied under a GSA to such third parties;

4.5.3.4 the Respondent is required to describe how it intends to achieve compliance with the provisions of the B-BBEE Act;

4.5.3.5 the Respondent to provide any additional characteristics of the Project; and

4.5.3.6 Please complete paragraph 4.6 (*Information relevant to the timing of the Project*).

4.6 **Information relevant to timing of the Project**

4.6.1 Following release of the RFP, the Respondent is required to state:

4.6.1.1 the anticipated time (in months) that the Bidder requires to be able to submit a Bid Response in the Gas to Power Programme;

4.6.1.2 the anticipated time (in months) until the Project will be ready for Commercial Close following appointment as a Preferred Bidder;

4.6.1.3 the anticipated time (in months) to achieve commercial operation for the Early Power Generation Facility following Commercial Close of the Project;

4.6.1.4 the anticipated time (in months) to achieve Commercial Operation Date for the Project following Commercial Close of the Project;

4.6.1.5 whether any Element of the Project has been issued with an

environmental authorisation in terms of the National Environmental Management Act, No. 107 of 1998 and, if not, the progress made in obtaining this authorisation;

- 4.6.1.6 whether any Element of the Project requires, but has not been issued with, or has been issued with any prospecting, exploration, mining or production rights in terms of the Mineral and Petroleum Resources Development Act, 2002, together with a description of the authorisations which it is anticipated that the Project will need in respect of its mining or gas production activities;
- 4.6.1.7 any key issues relevant to timing of the submission of a Bid Response for this Project that the Respondent would like to bring to the attention of the Department; and
- 4.6.1.8 its anticipated critical path between Commercial Close and Commercial Operation Date for the Project.

4.7 **Information relevant to technical aspects of the Project**

- 4.7.1 For each Element/s of the Project, the Respondent is proposing to implement, the Respondent is required to provide the following information, as appropriate:
 - 4.7.1.1 description of location;
 - 4.7.1.2 anticipated design capacity and availability;
 - 4.7.1.3 proposals for ensuring security of supply and minimizing risks of interruption to the Project (for example built-in redundancy, diversity of supply sources etc.);
 - 4.7.1.4 the anticipated quality of the Gas to be supplied from the Regasification Facility/ Gas Receiving Facility;
 - 4.7.1.5 state the identified electricity mode of operation (Dispatchable / Self-dispatched);
 - 4.7.1.6 state the anticipated power generation regime (Baseload Energy/ Mid-Merit Energy);

- 4.7.1.7 anticipated level of emissions to be released by the Project, and description of proposed abatement technology to meet the relevant emissions standards;
 - 4.7.1.8 estimated capital expenditure and annual operating expenditure, and the major categories of each Element of the Project; and
 - 4.7.1.9 any anticipated use of existing infrastructure.
- 4.7.2 Information on the water use and supply for the Project, during the construction and operating phases of the Project, will assist the Department and other relevant government stakeholders in planning for the Gas to Power Programme. It will ultimately be a Bidder's responsibility to ensure that the Project that participates in the Gas to Power Programme will be located in an area where water will be available for the purposes of the proposed Project and that such water will be available for the duration of the proposed term of the PPA and GSA. The Respondent is required to provide details of:
- 4.7.2.1 anticipated water consumption during the construction and operating phases of the Project and the main operational drivers of water consumption for the Project;
 - 4.7.2.2 the anticipated source of water for the Project and the method of transporting this water to the Project (e.g. new or existing pipeline);
 - 4.7.2.3 the anticipated quality and properties of the waste water effluent (if applicable), either directly or indirectly, of the gas production or the supply or preparation process supplying fuel to the Project; and
 - 4.7.2.4 opportunities in some or greater part to provide for some self-sufficiency using sea water and suitable technologies for the Project to provide its own water supplies.
- 4.7.3 In the event that the Respondent intends to supply its Gas from an indigenous gas source the Respondent is required to provide details of the planned gas source / gas reserves to be used for the Project, including:

- 4.7.3.1 the Gas source and reserve type;
- 4.7.3.2 the location of the gas field and the location of gas production facility;
- 4.7.3.3 detailed geological information on the gas resource and technical information on the production approach and technology (as available); and
- 4.7.3.4 the estimated production volumes per annum (PJ/a).
- 4.7.4 In the event that the Respondent is responding under Option 1 (in Table 1 above), or Options 2 or 3 (in Table 1 above), if such member of the Respondent intends to implement either the Early Power Generation Facility or the Power Generation Facility, then the Respondent is required to provide the following information in respect of its anticipated grid connection details of the Project including:
 - 4.7.4.1 the location of the substation or substations where the Respondent intends to connect both the Early Power Generation Facility and/or the Power Generation Facility;
 - 4.7.4.2 the proposed connection voltage or voltages (kV) for both the Early Power Generation Facility and/or the Power Generation Facility;
 - 4.7.4.3 whether the Respondent intends to connect both the Early Power Generation Facility and/or the Power Generation Facility to the Transmission System, Distribution System to which it anticipates connecting; and
 - 4.7.4.4 details of any interactions with the relevant Network Owner regarding the connection options for the Project.
- 4.8 **Information relevant to financing aspects of the Project**
 - 4.8.1 The Respondent is required to describe the business model proposed for the Project.
 - 4.8.2 The Respondent is required to provide a general background on how the Respondent intends to finance the overall Project (or the portion of the

Project to which you are responding), including as much detail as possible at this stage as to your planning with respect to:

- 4.8.2.1 how the Respondent proposes to address the financing of each Element of the Project;
- 4.8.2.2 proposed debt/ equity mix for each Element of the Project;
- 4.8.2.3 anticipated identity of debt lenders to the Project (including commercial banks, export credit agencies, development finance institutions, South African lenders, offshore lenders, etc.);
- 4.8.2.4 identity of any debt financing support that the Respondent can assist with introducing to the Project (any export credit agency support tied to your participation in the project, etc.); and
- 4.8.2.5 what government support the Respondent anticipates being required to optimise the financing for the Project and what minimum government support the Respondent anticipates being required to support the financing of the Project (and/or each Element of the Project).

4.9 **Additional Information**

- 4.9.1 The Project may have a number of single points of failure. The Department perceives that security of supply of the Project is desirable and the Respondent is required to indicate how the Respondent may reduce the risk of single points of failure in the Project.
- 4.9.2 The Respondent is required to provide an indication of the anticipated local content spend in respect of each Element/s of the Project both during the construction period, as a percentage of the total project cost during the construction period (as measured in accordance with SANS 1286:2011) and during the operation period, as a percentage of the total operating costs, and taking into account any published deeming of manufacturing inputs as local content. The Respondent is requested to

provide an indication of what will make up the anticipated local content spend.

- 4.9.3 The Respondent is required to provide details of its anticipated transport dependencies for the Project (port, rail and road) taking cognisance of the need to protect existing national, provincial and municipal transport infrastructure from adverse impacts.
- 4.9.4 The Respondent is required to provide capability statements demonstrating the Respondent's previous experience in implementing the relevant Element/s of the Project. Such capability statements shall identify the Project name, location, dates the work was performed, key milestone dates, partners in the project, approximate capital expenditure of the work performed and operational expenditure of the Project.
- 4.9.5 A separate RFI Response should be submitted for each proposed Project.
- 4.9.6 The Respondent will not be held to the information submitted in its RFI Response in respect of the items set out in paragraph 4.2 above. As a general rule, the Respondent will be able to change any of the details submitted. The Department will, however, expect the registration information submitted in response to paragraph 4.4 (*Information about the Project*) to remain the same, namely the Project name, the name of the Respondent or respondent and the general description of where the Project is located, including the municipality and province in which it is and or will be located.
- 4.9.7 The Respondent will not have to pay any monies in order to submit a RFI Response in accordance with this Document.
- 4.9.8 The Respondent is encouraged to submit any additional information that it is of the view that would assist the Department in the design of the Gas to Power Programme.

5. Format and Submission of RFI Responses

5.1 Submission of RFI Responses

- 5.1.1 To facilitate the preparation of the RFI Response, the Department has created a website (www.ipp-gas.co.za) where the Respondent may download the Document and Form 1 to the Document. The Response Form is available on the website under the “RFI” section of the tab “Dashboard”.
- 5.1.2 In order to access the Response Form instructions are provided on the website under the “Documentation” section of the tab “Dashboard”.
- 5.1.3 The Respondent should complete all the sections of the Response Form on the website. The Response Form can be saved and edited prior to the time and date for the submission of RFI Responses set out in paragraph 5.1.5 below. Once the Response Form has been completed and “submitted” on the website the Respondent is able to download a Portable Document Format (“PDF”) version of the Response Form which must be incorporated into the Respondent’s hard and soft copy submission of its RFI Response. There is no facility to upload attachments into the website, accordingly all necessary supporting documentation must be included in the hard and soft copy RFI Response submitted to the Department in terms of paragraph 5.2.1 below.
- 5.1.4 The Respondent should submit its Response Form on the website only when such form has been completed and is ready for submission to the Department. Once the document has been “submitted” on the website it cannot be amended. Once submitted on the website, the completed Response Form must be printed out by clicking on the “Download PDF” button to generate a PDF version of the Response Form. This “submitted” version of the Response Form must be provided to the Department in terms of paragraph 5.2.1 below as a PDF file in the soft copy version of the RFI Response and as a printed document in the hard copy version of the RFI Response.
- 5.1.5 The Response Form must be submitted on the website prior to delivery of the hard and soft copy of the RFI Response to the Department at the

address set out below. The RFI Response, must be submitted to the Department during office hours and by not later than the time and date of 17h00 on 20 July 2015, at the following address:

**The IPP Office
RFI Response Gas to Power Programme
Block C, Eco 1 Office Park
339 Witch-Hazel Avenue
Centurion
South Africa**

- 5.1.6 RFI Responses reaching the Department later than the cut-off time and date specified above may, in the Department's sole discretion, be rejected without further consideration.
- 5.1.7 RFI Responses may be submitted prior to the cut-off time and date specified above, however only complete RFI Responses will receive attention from the Department.
- 5.1.8 All costs incurred by a Respondent in connection with this Document and the preparation of its RFI Responses shall be borne by the Respondent.
- 5.2 Copies of the RFI Response**
- 5.2.1 Each RFI Response is required to be delivered to the Department by way of:
- 5.2.1.1 2 (two) hard copies of the entire RFI Response; and
- 5.2.1.2 1 (one) soft copy of the entire RFI Response, and the documents contained therein must be:
- 5.2.1.2.1 in Microsoft Word format, version 2007 or later, save where the document cannot be accessed by Microsoft Word, in which event the document must be provided in a PDF format, or in Microsoft Excel format, version 2007 or later; and
- 5.2.1.2.2 properly indexed, readable and capable of being opened.

5.3 **Format of RFI Responses**

- 5.3.1 The Respondent is requested to complete the RFI Response and provide all the information required in this Document and address each and every item in paragraph 4 (*Information to be provided by Respondents in their RFI Responses*) of this Document.
- 5.3.2 All pages should be numbered consecutively from beginning to end and there should be a detailed index to the entire RFI Response.

5.4 **Language of the RFI Response**

- 5.4.1 The RFI Response and all documents forming part of it shall be in English.
- 5.4.2 Any printed literature submitted with a RFI Response may be in another language so long as it is accompanied by an English translation (made by an accredited translator) of the entire document.
- 5.4.3 For the purpose of interpretation of the RFI Response, the English translation provided shall govern.
- 5.4.4 All correspondence and any other documentation and oral communication exchanged between the Respondent and the Department shall be in English.

5.5 **Identification and Sealing of the RFI Response**

- 5.5.1 The Respondent shall state as a reference on the top right hand corner of the cover page of the RFI Response "RFI Response Gas to Power Programme", as well as state its name, address, and the proposed name of its Project.
- 5.5.2 The Respondent shall wrap or file each RFI Response (comprising 2 (two) hard copies and 1 (one) soft copy) separately but should provide all copies in one envelope or wrapping.

5.6 **Signing of the RFI Response**

The Respondent shall be required to provide a signed letter confirming the accuracy and completeness of its RFI Response.

5.7 Further Information

- 5.7.1 The Department reserves the right to seek additional information from the Respondent regarding its RFI Response, as it may, in its sole discretion, determine, whether such information has been requested under this Document or otherwise, and may require the Respondent to make oral presentations for clarification purposes or to present supplementary information, in respect of its RFI Response if so required by the Department.
- 5.7.2 The Respondent may, following the submission of a RFI Response for their Project, be requested to engage with the Department and / or other relevant government stakeholders, including the port and marine infrastructure providers, the Network Owners and the Department of Environmental Affairs to discuss matters relevant to planning for the Project. Any meetings are likely to take place at the IPP Office, which is at the following address:

**The IPP Office
Block D, Eco 1 Office Park
339 Witch-Hazel Avenue
Centurion
South Africa**

6. Contact with the Project Officer

All queries and requests for clarification in respect of this Document must be addressed to the Project Officer and emailed to query@ipp-gas.co.za.

The Respondent must give the name and contact details of the person whom it appoints to undertake all contact with the Project Officer in its RFI Response, as provided for in paragraph 4 (*Information to be provided by Respondents in their RFI Responses*) above.

After the submission of its RFI Response, the Respondent may only communicate with the Department through such person and the Department shall be entitled, at its sole discretion, to disregard any communication from the Respondent, that does not come from such contact person, and that does not go directly to the Project Officer. Once the Respondent has been issued with a unique project identification number for the Project this is to be used in all communications with the Department.

7. Requests and clarifications

The Respondent may request clarification on any item contained in this Document by not later than 7 (seven) days before the cut-off date for the submission of RFI Responses specified in paragraph 5.1.5 above.

All queries and requests for clarification in respect of this Document must be addressed to the Project Officer and emailed to query@ipp-gas.co.za. E-mailed or oral requests and queries addressed to persons other than the Project Officer, at the aforementioned address, will not be entertained and will not receive a response.

The Department and its Transaction Advisors will endeavour in good faith to respond to all reasonable written queries and requests for clarification raised by the Respondent.

Form 1: Summary of the information to be provided in terms of paragraph 4 (Information to be provided by the Respondent in its RFI Response)

The Respondent should complete and return Form 1 with its RFI Response, for each of its Projects, inserting additional pages as is necessary.

Form 1 should be returned together with all necessary supporting documents.

1.	Description of the prospective Project	
1.1	Registration information for the Project	
1.1.1	Capacity in which it intends to participate in the Project <ul style="list-style-type: none"> - Option 1 – Single Project Company responding to provide a Bundled implementation of an Bundled Project - Option 2 – Not yet a member of a consortium but wishes to form/join a consortium to provide a Bundled implementation of a Project - Option 3 – Responding to provide one or more Elements of an Unbundled implementation of a Project 	
1.1.2	Name of the Respondent	
1.1.3	Name of the Project	
1.1.4	Name and contact details of the person appointed to undertake all contact with the Project Office regarding the Project	First name: Surname: Telephone number: E-mail address

<p>1.2</p>	<p>Overview of the Project <u>to be completed by the Respondent to Option 1 only</u></p>	
<p>1.2.1</p>	<p>Members of the consortium and identify the lead consortium member. Information on the status of discussions and any agreements in place between consortium members.</p>	
<p>1.2.2</p>	<p>Indication of the percent of equity holding in the Project Company of each consortium member, paying particular attention to ownership requirements of the B-BBEE Act.</p>	
<p>1.2.3</p>	<p>Description of the proposed approach to implement all of the Elements of the Project, and the role of each of the consortium members.</p>	
<p>1.2.4</p>	<p>Provide details of Early Power Generation Facility, fuel type, overall capacity of the Early Power Generation Facility, number of generation units, design capacity of each unit, timing of COD for each unit from Commercial Close, anticipated guaranteed availability, the estimated number of starts and stops of each unit over a year and over the economic life of the Project, and the status of discussions/ agreement with any potential suppliers of such power generation equipment</p>	
<p>1.2.5</p>	<p>What are the Projects potential source/s of Gas supply to be used for the Project, including, but not limited to, any of: shale gas, CBM, UCG, piped field gas, CNG, or gasification of a hydrocarbon feedstock.</p> <p>In the event that the Respondent intends to supply its Gas from LNG or CNG or LPG sources, it is required to address the following</p>	

	<p>matters: if it has access to equity LNG, what is the source of equity LNG, if it does not have access to equity LNG, what is the source of LNG/ CNG/ LPG supply, contract duration, Gas volume annually over the life of the contract, pricing structure, and shipping arrangements. Provide details of the status of discussions/ agreements with potential Gas suppliers.</p> <p>In the event that the Respondent intends to supply its Gas from a piped gas source, CBM and/or gasification of coal, it is required to address the following matters: provide details of the estimated size of the Gas resource and its associated confidence level, whether the fuel resource is presently in production, if not, has a feasibility study for the exploitation been concluded, have all the production/mining authorisations and any environmental authorisations in place and has all the necessary plant for been constructed to exploit the fuel at the rate of production required for the Project. Provide details of the status of discussions/ agreements with potential Gas suppliers.</p>	
<p>1.2.6</p>	<p>Provide details of proposed Regasification Facility/ Gas Receiving Facility (land-based or FSRU or hybrid), port infrastructure requirements, volume of Gas storage, design capacity of each tank/ FSRU vessel, anticipated guaranteed availability, send-out capacity of the Regasification Facility/ Gas Receiving Facility, and the status of</p>	

	discussions/ agreement with any potential infrastructure providers.	
1.2.7	Provide details of Power Generation Facility, overall capacity of the facility, number of generation units, design capacity of each unit, timing of COD for each unit from Commercial Close, anticipated guaranteed availability, the estimated number of starts and stops of each unit over a year and over the economic life of the Project, and the status of discussions/ agreement with any potential suppliers of such power generation equipment	
1.2.8	Where Gas is to be sold to third parties, the Respondent is required to state its proposed approach to marketing of the Gas to be supplied under the GSA	
1.2.9	The Respondent is required to describe how it intends to achieve compliance with the provisions of the B-BBEE Act	
1.2.10	The Respondent to provide any additional or alternative characteristics of the Project	
1.3	<u>Overview of the Project to be completed by the Respondent to Option 2 and 3 only</u>	
1.3.1	State which Element/s of the Project Respondent is proposing to implement, and its proposed approach to implementing those Element/s	
1.3.2	If proposing to implement the Early Power Generation Facility: Provide details of Early Power Generation Facility, fuel type, overall capacity of the Early	

	<p>Power Generation Facility, number of generation units, design capacity of each unit, timing of COD for each unit from Commercial Close, anticipated guaranteed availability, the estimated number of starts and stops of each unit over a year and over the economic life of the Project, and the status of discussions/ agreement with any potential suppliers of such power generation equipment</p>	
<p>1.3.3</p>	<p>If proposing to implement the Gas Supply:</p> <p>In the event that the Respondent intends to supply its Gas from LNG or CNG or LPG sources, it is required to address the following matters: if it has access to equity LNG, what is the source of equity LNG, if it does not have access to equity LNG, what is the source of LNG/ CNG/ LPG supply, contract duration, Gas volume annually over the life of the contract, pricing structure, and shipping arrangements. Provide details of the status of discussions/ agreements with potential Gas suppliers.</p> <p>In the event that the Respondent intends to supply its Gas from a piped gas source, CBM and/or gasification of coal, it is required to address the following matters: provide details of the estimated size of the Gas resource and its associated confidence level, whether the fuel resource is presently in production, if not, has a feasibility study for the exploitation been concluded, have all the production/mining authorisations and any environmental authorisations in place and has all the necessary plant for been constructed to</p>	

	<p>exploit the fuel at the rate of production required for the Project. Provide details of the status of discussions/ agreements with potential Gas suppliers.</p>	
<p>1.3.4</p>	<p>If proposing to implement the Regasification Facility/ Gas Receiving Facility:</p> <p>Provide details of proposed Regasification Facility/ Gas Receiving Facility (land-based or FSRU or hybrid), port infrastructure requirements, volume of Gas storage, design capacity of each tank/ FSRU vessel, send-out capacity of the Regasification Facility/ Gas Receiving Facility, and the status of discussions/ agreement with any potential infrastructure providers.</p>	
<p>1.3.5</p>	<p>If proposing to implement the Power Generation Facility:</p> <p>Provide details of Power Generation Facility, overall capacity of the facility, number of generation units, design capacity of each unit, timing of COD for each unit from Commercial Close, anticipated guaranteed availability, the estimated number of starts and stops of each unit over a year and over the economic life of the Project, and the status of discussions/agreement with any potential suppliers of such power generation equipment</p>	
<p>1.3.6</p>	<p>If Respondent is “Not yet a member of a consortium but wishes to form/join a consortium to implement a Bundled Project” (Option 2) state who potential consortium members (if any) may be and provide</p>	

	information on the status of discussions and any agreements in place between potential consortium members	
1.3.7	Where Gas is to be sold to third parties, the Respondent is required to state its proposed approach to marketing of the Gas to be supplied under the GSA	
1.3.8	The Respondent is required to describe how it intends to achieve compliance with the provisions of the B-BBEE Act	
1.3.9	The Respondent is required to provide any additional characteristics of the Project	
1.4	Information relevant to timing of the Project	
1.4.1	Following release of the RFP, the anticipated time (in months) that the Bidder requires to be able to submit a Bid Response in the Gas to Power Programme	
1.4.2	The anticipated elapsed time (in months) until the Project will be ready for Commercial Close following appointment as a Preferred Bidder	
1.4.3	The anticipated time (in months) to achieve commercial operation for the Early Power Generation following Commercial Close of the Project	
1.4.4	The anticipated elapsed time (in months) to achieve Commercial Operation Date for the Project following Commercial Close of the Project	

1.4.5	Whether any Element of the Project has been issued with an environmental authorisation in terms of the National Environmental Management Act, No. 107 of 1998 and, if not, the progress made in obtaining this authorisation;	
1.4.6	Whether any Element of the Project requires, but has not been issued with, or has been issued with any prospecting, exploration, mining or production rights in terms of the Mineral and Petroleum Resources Development Act, 2002, together with a description of the authorisations which it is anticipated that the Project will need in respect of its mining or gas production activities;	
1.4.7	Any key issues relevant to timing of the submission of a Bid Response for this Project that the Respondent would like to bring to the attention of the Department	
1.4.8	Anticipated critical path between Commercial Close and Commercial Operation Date for the Project	
1.5	Anticipated technical details of the Project	
1.5.1	For each Element/s of the Project the Respondent is proposing to implement, provide the following information, as relevant:	
1.5.1.1	Description of location	
1.5.1.2	Anticipated design capacity and availability	
1.5.1.3	Proposals for ensuring security of supply and minimizing risks of interruption to the Project	

	(for example built-in redundancy, diversity of supply sources etc.)	
1.5.1.4	The anticipated quality of the gas to be supplied from the Regasification Facility/ Gas Receiving Facility to the Power Generation Facility and under the GSA	
1.5.1.5	State the identified electricity mode of operation (Dispatchable / Self-dispatched)	
1.5.1.6	State the anticipated power generation regime (Baseload Energy/ Mid-Merit Energy)	
1.5.1.7	Anticipated level of emissions to be released by the Project, and description of proposed abatement technology to meet the relevant emissions standards	
1.5.1.8	For each Element of the Project, provide the estimated capital expenditure and annual operating expenditure	
1.5.1.9	For each Element of the Project, provide the details of any anticipated use of existing infrastructure	
1.5.2	For each Element of the Project, provide information regarding the water use and supply to be used for the Project, including:	
1.5.2.1	Anticipated water consumption during the construction and operating phases of the Project and the main operational drivers of water consumption for the Project	

1.5.2.2	The anticipated source of water for the Project and the method of transporting this water to the Project	
1.5.2.3	The anticipated quality and properties of the waste water effluent (if applicable), either directly or indirectly, of the gas production or the supply or preparation process supplying fuel to the Project	
1.5.2.4	Opportunities in some or greater part to provide for some self-sufficiency using sea water and suitable technologies for the Project to provide its own water supplies	
1.5.3	In the event that the Respondent intends to supply its Gas from an indigenous gas source, information regarding the planned gas source / gas reserves to be used for the Project, including:	
1.5.3.1	Gas source and reserve type	
1.5.3.2	Location of the gas field and the location of gas production facility	
1.5.3.3	Detailed geological information on the gas resource and technical information on the production approach and technology (as available))	
1.5.3.4	Estimated production volumes per annum (PJ/a)	
1.5.4	<u>To be completed by Respondents to Options 1, or Options 2 or 3 if proposing to implement either the Early Power Generation Facility or the Power Generation Facility</u>	

	Anticipated grid connection details of the Project including:	
1.5.4.1	location of the substation or substations where the Respondent intends to connect both Early Power Generation Facility and the Power Generation Facility	
1.5.4.2	the proposed connection voltage or voltages (kV) for both Early Power Generation Facility and the Power Generation Facility	
1.5.4.3	whether the Respondent intends to connect both Early Power Generation Facility or the Power Generation Facility to the Transmission System, the Distribution System, or the Municipal Distribution System	
1.5.4.4	details of any interactions with the relevant Network Owner regarding the connection options for the Project	
1.6	Information relevant to financing aspects of the Project	
1.6.1	Describe the business model proposed for the Project	
1.6.2	Provide a general background on how the Respondent intends to finance the overall Project (or the portion of the Project to which you are responding):	
1.6.2.1	How the Respondent proposes to address the financing of each Element of the Project	
1.6.2.2	Proposed debt/ equity mix for each Element of the Project	

1.6.2.3	Anticipated identity of debt lenders to the Project (including commercial banks, export credit agencies, development finance institutions, South African lenders, offshore lenders, etc.)	
1.6.2.4	Identity of any debt financing support that the Respondent can assist with introducing to the Project (any export credit agency support tied to your participation in the project, etc.)	
1.6.2.5	What government support the Respondent anticipates being required to optimise the financing for the Project and what minimum government support the Respondent anticipates being required to support the financing of the Project (and/or each Element of the Project)	
1.7	Additional Information	
1.7.1	Indication as to how the Respondent plans to reduce the risk of single points of failure in the Project	
1.7.2	Indication of the anticipated local content spend in respect of each Element/s of the Project during both the construction and operating periods, as a percentage of the total project cost during the construction period (as measured in accordance with SANS 1286:2011) and during the operation period, as a percentage of the total operating costs,, and taking into account any published deeming of manufacturing inputs as local content. Indication of what will make up the anticipated local content spend	

1.7.3	Anticipated transport dependencies for the Project (port, rail and road) taking cognisance of the need to protect existing national, provincial and municipal transport infrastructure from adverse impacts	
1.7.4	Provide capability statements demonstrating previous experience in implementing the relevant Element/s of the Project. Such capability statements shall identify the project name, location, dates the work was performed, key milestone dates, partners in the project, approximate capital expenditure of the work performed and operating expenditure of the project.	
1.7.5	Provide any other information which could be relevant to the design of the Gas to Power Programme.	