

## **OPPORTUNITIES OF SETTING PRODUCTION LINES AND INDUSTRIES IN TANZANIA FOR MANUFACTURING MATERIALS AND EQUIPMENT REQUIRED FOR GAS DISTRIBUTION PROJECTS**

Tanzania Petroleum Development Corporation is implementing natural gas distribution projects countrywide to supply natural gas for power generation, energy source to industries, fuel for motor vehicles, and energy for cooking in households and institutions.

To start with, connection projects are ongoing in the Dar es Salaam City, and also Pwani, Lindi and Mtwara Regions, which are closer to the transportation gas infrastructure. However, the objective is to cover the entire country.

On 29<sup>th</sup> January 2021 the Minister for Energy, Hon. Dr. Medard Kalemani (MP) called for a meeting with local investors to discuss on the potential opportunity of setting in Tanzania, production lines and industries for manufacturing materials and equipment required for gas distribution projects.

The aim is to ensure that materials required for connection projects are manufactured locally to speed up projects' implementation, at the same time create employment and wealth to the locals, as well as increasing local content.

Materials required includes: **HDPE pipes**, **HDPE fittings**, **Domestic Gas Meters** and associated fittings, **Commercial Gas Meters** and associated fittings, and **PRMS**. The specifications of the materials are as in the tables below.

For networking, future engagement, and maintaining a database of manufacturers, TPDC would like the interested parties to fill in form number TPDC/MAN/2021/Form No. 01 and return the same to TPDC.

You may call for further clarifications:

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**SPECIFICATIONS OF HDPE PIPES USED FOR CONNECTING FOR CONNECTING NATURAL GAS CUSTOMERS**

<b>HDPE SDR11 Gas pipe should be tested and certified in accordance with acceptable gas industry standards</b>		
<b>S/N</b>	<b>DESCRIPTION</b>	<b>UNIT</b>
1	315mm PE 100	m
2	250mm PE 100	m
3	180mm PE 100	m
4	125mm PE 100	m
5	90mm PE 100	m
6	63mm PE 100	m
7	32mm PE 100	m
8	25mm PE 100	m
<b>Carrier pipe used as "HDPE Sleeve for gas pipe river/road/rail crossing"</b>		
1	180mm PE carrier pipe (sleeve), PN 16	m
2	200mm PE carrier pipe (sleeve), PN 16	m

**SPECIFICATIONS OF HDPE FITTINGS REQUIRED FOR FOR CONNECTING NATURAL GAS CUSTOMERS**

S/N	DESCRIPTION	UNIT
	<b>Supply complete pipe fittings, HDPE 100 SDR 11(ISO S5)-EUROPE STANDARD</b>	
1	T90mm x 63mm x 90mm (electrofusion)	No
2	Taping Tee 90 mm / 63mm complete with coupler	No
3	Taping Tee 63 mm / 32mm complete with coupler	No
4	Equal Tee 125mm	No
5	Equal Tee 90mm	No
6	Equal Tee 63mm	No
7	Equal Tee 32mm	No
8	Equal Tee 25mm	No
9	Ball valve with two(2) purge points 180mm plus operational key	No
10	Ball valve with two(2) purge points 125mm plus operational key	No
11	Ball valve with two(2) purge points 90mm plus operational key	No
12	Ball valve with two(2) purge points 63mm plus operational key	No
13	End cup 180 mm	No
14	End cup 90 mm	No
15	End cup 63 mm	No
16	Reducer 315/180mm	No
17	Reducer 180/125mm	No
18	Reducer 125/90mm	No
19	Reducer 90/63mm	No
20	Reducer 63/32mm	No
21	Reducer 32/25mm	No
22	Coupler 90mm	No
23	Coupler 63mm	No
24	Coupler 32mm	No
25	Elbow 125mm x 90 degrees	No
26	Elbow 90mm x 90 degrees	No
27	Elbow 90mm x 45 degrees	No
28	Elbow 63mm x 90 degrees	No
29	Elbow 63mm x 45 degrees	No
30	Elbow 32mm x 90 degrees	No
31	Elbow 32mm x 45 degrees	No
32	Elbow 25mm x 90 degrees	No
33	Tracer wire and warning tape Printed " <b>TPDC GAS LINE UNDERNEATH- BOMBA LA GESI LA TPDC LIPO CHINI</b> " 200mm wide or more, woven strands of non-conductive polypropylene long lasting barrier solution embedded with copper conductor 2.5mm dia tracer wire insulated,1 roll equivalent to 300m	Roll

**SPECIFICATIONS OF DOMESTIC GAS METERS & ASSOCIATED FITTINGS FOR CONNECTING NATURAL GAS CUSTOMERS**

Complete smart pre-paid domestic Gas meter and utilizing piping to fit connection from PE inlet 25 mm gas pipe, Gas threaded type, all should be assembled and APPROVED

S/N	DESCRIPTION	UNIT
1	38 mm GRP protective sleeve	m
2	38mm PVC genuine Formed Bend (black)	No
3	Inlet transition fittings 25/20mm with all associated fittings	No
4	20 mm steel ball valve-leaver operator / Emergency control valve (ECV), PN 16	No
5	20mm gas meter flexible pipe connector (Anaconda) with end fittings compatible in a gas meter	Unit
6	Wall mounted gas Meter housing box, Mark 2 Type (503mm x 408mm x 224mm)	No
7	Meter regulator: Inlet pressure 60 -85mbar, Nominal outlet pressure 21 mbar, Low pressure	No
8	Complete STS smart pre-paid Gas meter integrated with mobile payment credit system (having local electronics mobile payment system)	Unit
	<b>The meters must have the following minimum specifications:</b>	
	Metering standard EN1359, Intrinsic safety EEX ia IIA T3, Capacity G2.5A including mounting and fittings, Working voltage: DC 6V (1.5V*4) Four AA (local available), Display LCD: 0.01 m3, working Pressure range 0.5Kpa to 50kPas, working temperature -10 to +50, Minimum and Maximum flow rate is 0.04 m3/h and 6m3/h respectively, Maximum Permissible error $\pm 3\%$ for $Q_{min} \leq Q \leq 0.1Q_{max}$ , Maximum Permissible error $\pm 1.5\%$ for $0.1Q_{min} \leq Q \leq Q_{max}$ , Max recording reading 99999.999m3, Multiple fraud detection function	
9	Copper reducer 3/4" to 5/8" threaded adaptor fittings (female fitted in meter & male to copper pipe)	No
10	Utilization Copper pipe size 5/8", @ Roller has 15m, wall thickness 2mm, genuine for Natural gas	Roller
11	Butterfly valve fittings to fit 5/8" copper pipe, PN 7	No
12	3/4" x 5/8" Male nipple brass	No
13	Copper elbow 5/8" fittings	No
14	Flexible horse pipe, 1500m length, 12mm thick with coupling, for gas stoves	No
15	Solid genuine copper earthing rod, high conductivity to BS2874 C101	No
16	4mm yellow/green earth wire (roll =100m)	No
17	Thread tape gas quality PTFE thread tape yellow in colour, thick, full density to satisfy BGC IM/16 B  Note: It's a film tape commonly used in pipes for sealing pipe threads-(Only for Gas)	No

**SPECIFICATIONS OF COMMERCIAL METERS & ASSOCIATED FITTINGS FOR CONNECTING NATURAL GAS CUSTOMERS (Post and pre paid smart gas meters)**

DESCRIPTION	UNIT
<p>Type of the meter :Diaphragm Gas Meter, Size G16 Technical specificatios: Nominal Flowrate 16 m3/h, Qmax 25m3/h, Qmin 0.16m3/h, Cyclone volume 5dm3, Operating pressure range 0.5-50KPa, Index max indication 999999,99 m3; Operating Conditions (Inlet pressure range 45-80mbar, Controlled Outlet pressure range 21mbar-25mbar; Temperature Range -10°C~+55°C. Maximum Permissible error <math>\pm 3\%</math> for <math>Q_{min} \leq Q \leq 0.1Q_{max}</math>, Maximum Permissible error <math>\pm 1.5\%</math> for <math>0.1Q_{min} \leq Q \leq Q_{max}</math>. The Meter should be manufactured with compatible wall mounted meter boxes. The meters should be supplied with pressure regulators, Pressure Gauges, Safety Valves, PTZ electronic volume correctors and its associated connection fittings with the ability to transfer the collected data remotely via GSM/GPRS/SMS modem. The meter should be powered with lithium battery having surge suppressor (for intrinsic safety) or Batery readily available in the market during replacement. Metering standard EN1359.</p>	No
<p>Type of the meter :Diaphragm Gas Meter, Size G25 Technical specificatios: Nominal Flowrate 25 m3/h, Qmax 40m3/h, Qmin 0.25m3/h, Cyclone volume20dm3, Operating pressure range 0.5-50KPa, Index max indication 999999,99 m3 . Operating Conditions (Inlet pressure range 45-80mbar, Controlled Outlet pressure range 21mbar-25mbar; Temperature Range -10°C~+55°C. Maximum Permissible error <math>\pm 3\%</math> for <math>Q_{min} \leq Q \leq 0.1Q_{max}</math>, Maximum Permissible error <math>\pm 1.5\%</math> for <math>0.1Q_{min} \leq Q \leq Q_{max}</math>.The Meter should be manufactured with compatible wall mounted meter boxes. The meters should be supplied with pressure regulators, Pressure Gauges, Safety Valves, PTZ electronic volume correctors and its associated connection fittings with the ability to transfer the collected data remotely via GSM/GPRS/SMS modem. The meter should be powered with lithium battery having surge suppressor (for intrinsic safety) of over life span of 10years or Battery readily available in the market during replacement. Metering standard EN1359</p>	No

**SPECIFICATIONS OF PRS FOR CONNECTING NATURAL GAS CUSTOMERS**

S/N	DESCRIPTION	UNIT
<b>Design,fabricate, supply, install, test and commision Pressure Reducing and Metering skid (PRMS)</b>		
1	PRMS with twin stream, two metering sets: inlet 3.3-7bars, outlet pressure 60-80 mbars, with Rotary Positive Displacement (RPD) meter, Qmax 100 SCM/H,Qmin 1SCM/H of natural gas. (Design should be approved by client)	No
1	Supply trolley powder fire extinguishers (for all classes of fire)	No

Item	Flow Capacity	Parameters	Type of Meter	Configuration
2 <b>Industrial PRSM-type 1.</b> Supply of Dual Stream Metered Regulating Station (MRS) Skid with 3" inlet and 3" outlet; having twin filtration units & PRS stream with dual RPD meters before reduction. The RPD Meter's shall be with Battery operated EVC having integral/external GPRS/GSM/SMS Battery operated Modem, Software's, Cables between EVC & Modem, local communication / configuration cable for EVC to Laptop.	G100, G160, G250, G400	Inlet Pressure; 7 bars  Outlet Pressure; 2-3 bars	RPD Meter (Rotary Positive Displacement Meter) with EVC & Latest Modem	Dual Filter stream, Dual Stream Active, Monitor PCV/SSV

# TANZANIA PETROLEUM DEVELOPMENT CORPORATION



## TPDC/MAN/2021/FORM No.1

### APPLICATION FORM FOR PARTICIPATING IN AVAILABLE OPPORTUNITY FOR NATURAL GAS EQUIPMENTS MANUFACTURING IN TANZANIA

<b>PART 1: DETAILS OF THE APPLICANT</b>	
<b>1.</b>	Name of Applicant (Insert trading name), business address, telephone and fax numbers (a) Name of the Applicant..... (b) Business address: Street.....Plot No..... Block No.....Building No.....  (c) Postal Address: ..... (d) Telephone No: ..... (e) Facsimile: .....Cell phone..... (f) E-Mail.....
<b>2.</b>	Location and complete address of the proposed facility (a) Location:  Street.....Plot No..... Block No..... Building No..... (b) Postal Address: .....
<b>3.</b>	Registration Status: <i>(Fill where appropriate and also attach relevant copies)</i> (a) Certificate of Incorporation No.....  (b) Certificate of Compliance No.....  (c) Business license No.....  (d) TIN No. ....  (e) VAT No.....

	(f) Any other (specify).....
<b>4.</b>	<p>Legal status of the Applicant:</p> <input type="checkbox"/> Sole Proprietorship <input type="checkbox"/> Partnership <input type="checkbox"/> Public Limited Liability Company <input type="checkbox"/> Private Limited Liability Company <input type="checkbox"/> Parastatal Organization <input type="checkbox"/> Government Agency <input type="checkbox"/> Cooperate Society <input type="checkbox"/> Joint Venture <input type="checkbox"/> Other (specify)
<b>5.</b>	<p>Contact Person:</p> <p>(a) Name: .....</p> <p>(b) Title: .....</p> <p>(c) Physical address:  Street..... Plot No.....Block No.....    Building No.....</p> <p>(d) Postal address: .....</p> <p>(e) Telephone Number: .....</p> <p>(f) Facsimile: .....Cell phone: .....</p> <p>(g) E-Mail: .....</p>
<b>6.</b>	<p>Provide on a Separate sheet information related to the Applicant where applicable:</p> <input type="checkbox"/> Shareholding Arrangements <input type="checkbox"/> Directors <input type="checkbox"/> Members of the Board of Directors <input type="checkbox"/> Chief Executive Officer (where applicable)
<b>7.</b>	<p>If the applicant is in a Joint Venture with another entity, provide the following details:</p> <p>(a) Name of another Entity: .....</p> <p>Official Names of Directors:  Official Names of Partners:  Nationality:</p>



Shareholding (%):  
 (a) Physical address:  
 Street..... Plot No ..... Block No .....

Building No .....

(b) Postal address: .....

(c) Telephone No: .....

(d) Facsimile..... Cell phone .....

(e) E- Mail: .....

**PART II-TECHNICAL INFORMATION**

<b>8</b>	Provide a detailed capacity for the intended facility:			
	S/N	Facility	Installed Capacity	Estimated time to start production
	1	HDPE Pipes		
	2	HDPE Fittings		
	3	Domestic meters and associated connection fittings		
	4	Commercial meters and associated connection fittings		
	5	Complete PRMS		

**PART IV-LIST OF ENCLOSURES**

**9.** Indicate below and where appropriate, the certified copies of, or extracts from, the following documents the applicant is providing in this application:

- Certificate of Registration
- Certificate of Incorporation
- Memorandum of Association
- Articles of Association
- JV contract
- Audited financial statement for the past three consecutive years

Other (specify)

**PART V- DECLARATION OF THE APPLICANT**

**10.** I..... (insert name) being.....  
 (insert title/position) hereby declare that I am authorized to make this application on behalf of the applicant and that to the best of my knowledge the information supplied herein is correct and that within a reasonable period of time after notice, I undertake to provide whatever additional information, TPDC may require in order to evaluate this application.

SWORN/AFFIRMED at .....)  
 by the said ..... Who is identified to)  
 me by ...../known to me personally)

.....  
 the latter being known to me personally this) DECLARANT  
 .....DAY OF .....2021

BEFORE ME:

\_\_\_\_\_  
 COMMISSIONER FOR OATHS