



**Embassy of Turkmenistan
in Switzerland**

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The Embassy of Turkmenistan to the Swiss Confederation presents its compliments to the Joint Chamber of Commerce Switzerland-CIS/Georgia (JCC) and has the honour to forward herewith an information on the “Service Centre Project Turkmenistan”, service company in Turkmenistan, targeted at providing facilities, equipment and expertise in the field of petroleum inspections and maintenance services for potential clients in the area.

The Embassy of Turkmenistan would appreciate the JCC Secretariat, if it could transmit the attached information document to respective Swiss companies cooperating with the JCC.

The Embassy of Turkmenistan to the Swiss Confederation avails itself of this opportunity to renew to the Joint Chamber of Commerce Switzerland-CIS/Georgia (JCC) the assurances of its highest consideration. *df*



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Joint Chamber of Commerce Switzerland-CIS/Georgia (JCC)
Zurich



SERVICE CENTER TURKMENISTAN



SERVICE CENTER PROJECT TURKMENISTAN

INTRODUCTION:



The target of this project is to establish the reputable Service Company in Turkmenistan territory, which will have all required facilities, equipment and expertise to provide and execute specified type of Petroleum inspections and maintenance services for the potential clients in the area. The facilities (workshops), manpower and equipment of this Company need to be arranged in way that so it can cover various

type of services and enable to furnish its clients with one spot solution in terms of petroleum services. This arrangement will provide advantage compared to already existing local and international companies doing business in this area of expertise that mostly provide only limited scope of services. Similar company models such as Schlumberger already exist in Turkmenistan region, which mainly provide upstream petroleum services; however, there is none present for downstream.

The scope of Services will include, but not limited to the list below:

Primary Services:



Non-Destructive Testing (NDT) Services

NDT services include:

- Guided wave (LRUT)
- Acoustic emission
- Alternative current field measurement
- Computed tomography (CT)
- Digital radiography
- Eddy current testing
- Full matrix capture (FMC)
- Laser shearography
- Manual ultrasonic testing
- Micro-focus X-ray
- Phased array ultrasonic testing
- Radiography testing
- Robotic/Automated inspection
- Thermography
- 3D X-Ray Microscopy
- Time of flight diffraction
- Modelling of ultrasound



Rotating Equipment inspection and Maintenance.

- Inspection, maintenance and repairmen of all types of rotating equipment's including compressor, pumps.
- Coupling alignment
- On site troubleshooting
- Installation and commissioning of compressor and pump upgrades



Flow Control Equipment Inspection and Maintenance (Flow and Safety valve refurbishment, Actuation system maintenance and calibration and etc.).



Pipeline services.

- Crude, petroleum, fuels, petroleum refined products, petrochemicals testing, sampling and inspection services
- Pipeline Contamination Testing
- Pipeline Corrosion Consulting and Testing Services
- Pipe and Pipeline Inspection Services
- Pipeline cleaning (pigging) services

ADDITIONAL SERVICES:

- **Mechanical rotating and static equipment retrofitting and overhaul.**
- **Mechanical seals refurbishment.**
- **Underwater Inspection and maintenance services.**
- **Electrical and instrumentation services.**
- **Preventive maintenance services (CBM)**
- **Reservoir Cleaning Services**

MARKET & CLIENTS INFORMATION:

Government Sector

1. State Concern "TurkmenGas"



The State concern "Turkmengas", being one of the largest energy enterprises, carries out exploration, production, preparation, transportation and processing of natural gas.

Turkmenistan ranks fourth in the world in terms of natural gas reserves. With enormous energy potential, our country is consistently building a multi-vector infrastructure for the export of clean fuel to world markets. Projects implemented in this area play large role in ensuring regional and global energy security.

2. State Concern "TurkmenNebit"



The State Concern "Turkmennebit" being a large company of energy industry is engaged in the search and development of oil deposits, the extraction and transportation of oil to the complex of oil refineries in the country. Besides it provides comprehensive implementation of programs for the development of the oil industry of Turkmenistan.

The State Concern "Turkmennebit" is developing a number of oil and gas fields at different levels of utilizations. Currently, at the balance of the Concern more than 600 developed oil and gas deposits that located at about 30 fields.

The Turkmen sector of the Caspian Sea is divided into 32 license blocks, the initial total resources of which are estimated by experts at 12.1 billion tons of oil and gas condensate and 6.1 trillion cubic meters of gas.

3. Akhal GTG



Gas to Gasoline Plant (GTG) Plant developed by Rönesans in Akhal, a region in fifty kilometers distance to the Turkmen capital Ashgabat, is the largest of its kind in the world.

The plant has a daily gasoline production capacity of 1800 tons, followed by an annual average of 600.000 tons of gasoline and 100.000 tons of LNG (liquefied natural gas).

4. Kiyarly Petrochemical Plant



Kiyarly polymer plant produced about 68 thousand tons of various types of polyethylene and more than 12.67 thousand tons of polypropylene since the beginning of the year, the website of the oil and gas complex reports.

The products of the gas chemical complex, located in the village of Kiyarly of the Balkan velayat, are in high demand in international markets. Russia, the Republic of Korea,

Kazakhstan, Switzerland, the Marshall Islands, Uzbekistan and Afghanistan are the main buyers of polymer products from the complex.

The plant annually processes 5 billion cubic meters of natural gas to produce polyethylene and polypropylene. The residual volume of natural gas from the production of raw materials, which is 4.5 billion cubic meters, is sent to the gas pipeline system in order to be used as fuel. The annual production capacity of the gas-chemical complex is 386 thousand tons of polyethylene and 81 thousand tons of polypropylene.

5. Petronas Charigali Turkmenistan Sdn. Bhd.

PC(T)SB is producing oil and associated gas from five oil producing wells; two wells in West Diyarbekir and three wells in Central Diyarbekir Field. WD-4 and WD-5 are producing via WDDP-A Platform. CD-3, CD-4 and CD-5 are producing from CDDP-A Platform.

PC(T)SB is also producing natural gas and condensate from six wells of Magtymguly Field. The gas and liquid production from Magtymguly Drilling Platform (MDP-A) is delivered via offshore pipelines to Gas Terminal Plant and Onshore Gas Terminal (GTPOGT). All natural gas and condensate produced are export-ed via Turkmenistan Onshore Gas Pipeline (TOGP) and Single Point Mooring (SPM).

Additional capacities were built to enable future increase in production of up to 500 MMscf/d of gas and 50 kbd of condensate.

The Kiyarly operations are designed to be a self-contained operations, which are all support and operations will be based in Kiyarly.

Other international Operating and Service Companies:

1. Dragon Oil Turkmenistan LTD. (ENOC)
2. ENI Turkmenistan (previously Burren Energy Plc)
3. CNPC
4. Mitro International Limited (Hazar Consortium)
5. Schlumberger Turkmenistan
6. BKE Shelf
7. Serba Dynamic Sdn. Bhd.
8. Chalik Enerjy Turkmenistan

SERVICE COMPANY MINIMUM REQUIREMENTS:

1. More than 5 years' experience in petroleum services
2. Positive HSE track record
3. Need to comply with international standards for HSE and QA/QC
4. Good financial standing
5. Flexible and open for technology transfer / localization.

PROJECT MILESTONES



1. Company Registration:

The process to open legal entity in Turkmenistan is as follows:

Step #1: To compile all required documents, some documents will require legalization in Ministry of Foreign Affairs

Step#2: Once all the documents will be ready and compiled, application will go to Committee, which consists of 9 Deputy Ministers of different government organizations

Step #3: After successful registration of company branch need to establish head office of that branch in capital Ashgabat.

2. Establishment of Company Base and Workshops

- Location of Company Base will be in Balkan state, where most of the potential clients and their facilities are located.
- Experts should provide the design of base and workshop.
- General tools and equipment, which can be furnished locally, will be listed.
- All specific tools and equipment required to perform services from the list will be outsourced.
- After establishment of workshops with equipment and manpower, all relevant permits and licenses will be obtained from government authorities in order to perform services in Turkmenistan.

3. Vendor Registration

Upon completion of all stages above, compulsory vendor registration will be completed. Each international or local company has the vendor registration procedure based on their company requirement. All required documents will be compiled and submitted accordingly. Furthermore technical presentations will be prepared by qualified personnel, and will be presented in clients locations in order to introduce in person new company capabilities and services.

Workshop Setup - Equipment Tools Proposal.

No.	Equipment	Brand/Model	Estimation Cost (USD)
1	Milling machine	Acer	
2	Lathe machine	Amada	
3	Band saw machine	KNUTH	
4	Horizontal Boring Machine	Esskay	
5	Redial Drilling machine	Tailift	
6	Hydraulic Press machine (50 ton)	KNUTH	
7	Wet Blasting Machine	SLF	
8	Balancing Machine	Schenck	
9	Welding Machines (both TIG & SMAW)	Miller	
10	Air Cmpressor	Ingersoll Rand	
11	Overhead Crane 15-25 Ton	P&H / YALE	
12	Oxygen and Acetelyn Cutting Torch		
13	Portable Hydraulic Jack 50-100 Ton	-	
14	Manual and Auto Lapping Machine / Table	WOLTERS	
15	Bearing Heater	SKF	
16	Forklift 3 Ton	Toyota	
17	Hydrotest Equipment	-	
18	Pallet Truck	-	
19	Pneumatic / power tools	BOSCH	
20	Air gun/nozzle	BOSCH	
21	Fan Blowers	BOSCH	
22	Various size Drill Bits (16mm especially)	BAIER	
23	Tappered reamer (7mm to 8mm)	BOSCH	
24	High Pressure Hydraulic Tools (for coupling hub removal/reinstatement)	-	
25	Torque wrench for all size of bolt and nut	-	
26	Chain block, sling and accessories with valid test load	-	
27	Oxy Cutter	-	
28	Common hand tools	-	
29	Mobile Tank cleaning equipment	KMT int.	
30	Test benches for valves	Revalve	

Condition Based Monitoring Equipment / Tool Proposal

No.	Equipment	Brand/Model	Estimation Cost (USD)
1	CSI 2140 Vibration Analyser (Including Health Machinery Software).	EMERSON	
2	Boroscope	OLYMPUS	
3	Thermography / Infrared Camera	OLYMPUS	
4	Shaker Table (vibration probe calibrator)	9100D	

Tank Cleaning/ Blasting & Painting Tools and Equipment Proposal.

No.	Equipment	Estimation Cost (USD)
1	Spray Paint Equipment (Siphon Type)	
2	Spray Paint Equipment (Pressure Feed Type)	
3	Airless Spray Paint Equipment (ratio 45:1)	
4	Sandblasting Equipment (150 lb capacity)	
5	Sandblasting Equipment (300 lb capacity)	
6	Sandblasting Equipment (600 lb capacity)	
7	Aftercooler for blasting (1500 cfm capacity / cooling water - 15m ³ /hr)	
8	Pneumatic Descaling Gun	
9	Heavy Duty Pneumatic Sander / Brusher	
10	Heavy Duty Pneumatic Needle Scaler	
11	High Pressure Water Jet Cleaner, Cold Water	
12	Internal Pipe Coating Equipment c/w accessories, 4" to 6" Pipe ID	
13	Internal Pipe Coating Equipment c/w accessories, 7" to 36" ID	
14	Internal Blast Cleaner c/w accessories, 3/4" to 2" Pipe ID	
15	Internal Blast Cleaner c/w accessories, 2" to 5" Pipe ID	
16	Internal Blast Cleaner c/w accessories, 5" to 12" Pipe ID	
17	Internal Blast Cleaner c/w accessories, 12" to 36" Pipe ID	
18	Paint storage Locker	
19	Abrasive Storage Hopper	
20	Heavy Duty Vacuum Cleaner	
21	Pneumatic Paint Agitator	
22	Dehumidifier Capacity 4500cfm	
23	Sponge Jet Blasting Complete Set	

EXPENCES PROJECTION & TIMELINE:

No	Description of Task	Estimated cost (USD)	Time required to complete	Remarks
1	Establishment of Service Center Company	300.000	12-14 weeks	Consultant firm will be hired to prepare and submit all required documents to legal authorities.
2	Construction of workshop facilities	1.500.000	20-24 weeks	Local construction company will be contracted to design and construct workshop facilities.
3	Procurement of the equipment and tools for services	7.000.000	16-20 weeks	Outsourced equipment will be listed separate. Tools and equipment that can be sourced locally will be purchased first.
4	Obtaining local permit & licenses	100.000	4-6 weeks	
5	Obtaining international certification (API, ISO and etc.)	TBA	TBA	The costs will be incorporated in additional expenses
6	Additional expenses	400.000	N/A	This cost will cover all expences such as logistics, custom clearance, certification and etc.
TOTAL:		9.300.000	24-30 weeks	Some of the tasks can be performed simultaneously, hence estimated time to complete establishment may vary between 6-8 months

ANNUAL PROFIT & INVESTMENT RETURN PLAN:**Targeted Projects and annual profit in period 2022-2025:**

No	Project Description	Budget (USD)	Estimated Net Profit (USD)	Type of award
Private Sector (international operating companies in Turkmenistan)				
1	NDT Inspection contracts with 1+1 year duration	12.000.000	3.600.000	Tendering
2	Top side maintenance 3 year duration	26.000.000	6.500.000	Tendering
3	Mechanical seal refurbishment contract. (1 year)	1.800.000	800.000	Direct award
4	Valve maintenance and repairmen contracts (1 year)	6.000.000	1.200.000	Direct award
5	Underwater pipeline maintenance contracts	18.000.000	2.700.000	Tendering
6	Rotating equipment overhaul and repairmen contracts	4.000.000	1 400 000	Direct award

ANNUAL PROFIT & INVESTMENT RETURN PLAN:

Targeted Projects and annual profit in period 2022-2025:

No	Project Description	Budget (USD)	Estimated Net Profit (USD)	Type of award
Government Sector				
1.	Petroleum Services	-	3.000.000	Direct

*****Note:** Detailed information related to the targeted projects such as budget, duration, client name, scope of work and the way to secure them can be shared upon signing of Nondisclosure (confidentiality) Agreement between involved parties. Projects that will be announced before 4th quarter of this year was excluded from the list. Direct award contracts can be secured upon complete establishment of workshop and presence of required equipment and manpower.

INVESTMENT RETURN PLAN:

YEAR 2023 (10% interest rate)	YEAR 2024 (10% interest rate)	YEAR 2025 (10% interest rate)
3.100.000 USD + 1.240.000 USD	3.100.000 USD + 930.000 USD	3.100.000 USD + 620.000 USD

*** **Note:** Investment structure as well as payment scheme and timeline will be shared within separate document upon mutual agreement of involved parties to execute proposed project.

END OF PROPOSAL