



PETROLEUM TRAINING INSTITUTE

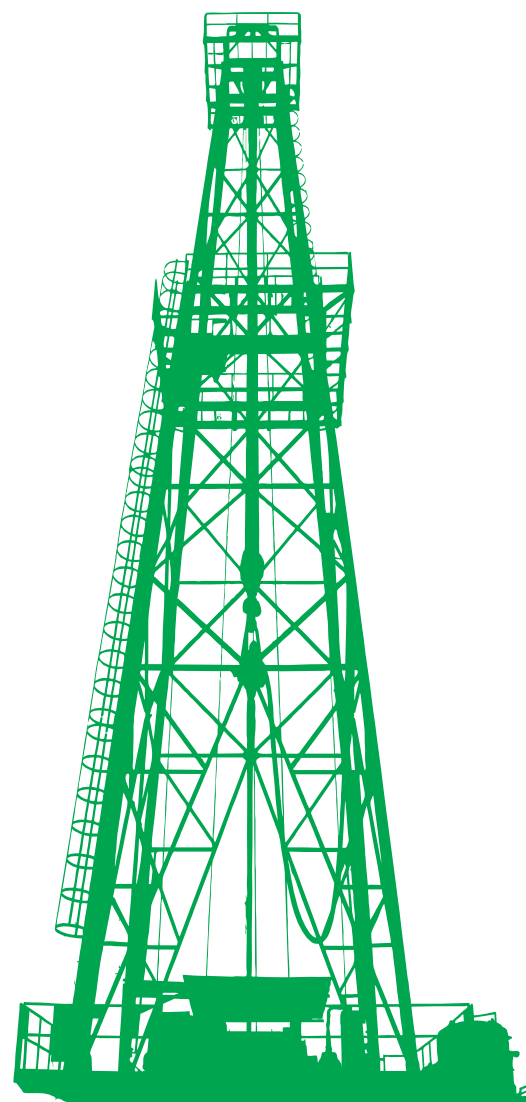
NIGERIA

P.M.B. 20, EFFURUN, DELTA STATE



PUBLIC PRIVATE PARTNERSHIP

SYNOPSIS OF POTENTIAL PUBLIC PRIVATE
PARTNERSHIP (PPP) PROSPECTS



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Mini LNG Plant



Objective:

This project is deeply motivated by the National strategic drive to leverage the nation's abundant gas resources as the transition fuel of choice in addressing the multifaceted global warming challenges faced by Nigeria while meeting her national obligations towards the global energy utilization/emissions reduction targets aimed at the rising global warming crises.

Fundamental to which requires a National strategy to develop both the energy transition technologies and competent know-hows needed to sustain efficient utilization of energy and hence the role of the PTI in providing the leading platform for up-to-date hands-on manpower experience necessary to grow both in quantum and quality technicians and technologists with certified depth of on-the-job experience for the execution of such a lofty national aspiration.

This facility therefore is to provide the Institute Graduates with on-the-job (OJT) training environment requisite for the deepening of suitable manpower capabilities for the attainment of these global targets in energy utilization, reduction of global warming and predictable environmental controls.

Action Plan: In order to provide an end-to-end fitting solution to meet the above stated aspiration, the Institute intends to acquire the full installation of a 200 metric Tons/day LNG Production plant through its PPP initiative dedicated to stemming the attendant monetary losses to the waste of associated/flared gas in most fields and stranded gas fields which the project intends to monetize by liquifying same to finished LNG and distributed within the existing local LNG market potentials by also collaborating through the PPP arrangement with potential off-takers in the downstream sector.



<https://www.rtgastreat.com/lng-liquefaction-plant-product/>

Prospects:

The prospect of this initiative will immediately accrue considerable savings to the potential primary asset holding company partners to the project through the elimination or significant reduction of flaring operational cost and outright elimination of flare penalties paid before the intervention of the proposed initiative. Additionally, it brings to a halt the total waste of the flared gas resource and replaces same with monetization of the flared gas value in a commercial term that ultimately will provide financial dividends to both the Institute and the primary gas asset partners, on one hand and the potential downstream off-taker partners on the other.

The strategic game-changer in all of this is the fact that the Institute's Graduates will have an unrivaled study environment to propel their grit and hold on the right skill set needed for a sustainable development of the Oil and Gas industry.

The PTI International Convention and Exposition Centre.

Objective: In order to fill the void of a suitable convention and exhibition infrastructure in the entire breath of the oil industry operation area and the growing desire of the oil and gas industry to positively remain in touch with global best industrial practices by advancing and expanding the potentials of the Nigerian oil and gas industry through myriads of oil and gas conventions and expositions, it is imperative for the industry to enjoy a befitting best-in-kind infrastructure of such magnitude to attract vibrant, needed international oil and gas players and other participants.

Action Plan: A befitting and deliberately intended facility of such nature hosted by the PTI will provide the needed ability to fill the void above and etch the institute in the core of the industry's operations and processes in a much more defining manner of sustainability.

The proposed infrastructure in order to meet the target of a best –in –kind facility must aim at the highest international standards while uniquely inter -web with the local, socio-cultural dynamics of both the industry and the host community and serve the greatest utility of national interest.

The complex, which shall be a smart complex should boast of the following; a magnificent convention and exposition pavilion ground floor, a shopping complex/ business floor, multi-level basement parking,

hospitality support, utility towers to serve for syndicate rooms and office space for the institute, multi-level rental spaces for oil and gas operators as offices and potential space for tertiary health care /diagnosis centre with ancillary utilities support (electrical, mechanical, etc.)

The convention centre is proposed to be largest multipurpose conference centre in Nigeria with a maximum floor space of 15000sqm. The facility will provide a 5000-dinner and conference event capacity, 500 exhibition booths and concert with audiences of up to 10,000 people. The hall will be a large single open facility, capable of flexible movable partitions into, up to 10 halls, and will have 10 built-in smaller conference rooms, 50 staff offices tower building and 3000sqm let-able spaces to accommodate banks, supermarkets and shops in the pavilion. The prestigious convention centre will have a three-tower rising above the convention pavilion to house all service functions described above and a 5-star luxury hotel with 400 rooms, 6 international restaurants, gymnasium, outdoor garden, swimming pool, salon and spa, business centre and a 1200-car parking space.

Prospects: An infrastructure of this nature when delivered shall provide the institute an unparalleled visibility and acceptance which will undoubtedly promote business with the institute and earn tremendous amounts of revenue for the institute and potential investors. Potential enhancement of this project significance lies in the on-going and upcoming massive infrastructural developments, particularly in transportation and energy envisaged in the Niger Delta region such as the Warri deep sea port, the nodal network of rail in the Warri corridor (Lagos-Calabar rail line, Warri-Abuja rail line), the existing airport facility around which the Institute enjoys availability of large expanse of land and the potential massive surge of stable energy seeking industrial spin-offs, at the behest of the anticipated phenomenal infrastructure growth within the Niger Delta Region are strong promoting indicators for viability of the project.

Proposed Flagship Event:

Focus on: Africa Energy Agenda

Promoters: This can be co-promoted by a combination of OPEC, APO, AfDB and AfCTA, NNPC, NIPC, MPR and themes focused around;

- * Evolving Africa Energy Ecosystem and Driving Development of the New Global Business and Growth Frontier
- * The Africa Energy Business Solution in the Global Marketplace
- * Setting the African Energy Agenda for Economic Growth and Sustainable Development



Flagship Event



Global Energy Technology and Investment Expo for Africa

Themes

1

Evolving Africa Energy Ecosystem and Driving Development of the New Global Business and Growth Frontier

2

The Africa Energy Business Solution in the Global Marketplace

3

Setting the African Energy Agenda for Economic Growth and Sustainable Development



Focus on: Africa Energy Agenda



PUBLIC PRIVATE PARTNERSHIP

- Mini LNG Plant
- PTI International Convention and Exposition Centre
- Modular Refinery (OJT Facility)
- Dive Centre of Excellence
- Operational/Field Laboratory Services for the Industry
- Service Hostel Accommodation
- PTI Drilling Rig
- Pressure Volume Temperature (PVT) Lab.
- Development of On- the- Job Training (OJT) facilities

Detailed business plans are available for all the above prospects for all interested investors. Please contact the **PTI Public Private Partnership Management Committee (PPPMC)** on ptipppmc@pti.edu.ng and 08066259774

Modular Refinery

[Condensate][OJT Facility]

Objective: Nigeria is one of the largest crude oil producers in Africa with recorded crude oil production of 1,776,000 barrels/day as at January 2020. However, almost all the fuel products consumed in the country are imported due to inadequate refining facilities. In 2018, Nigeria imported 4.37 billion litres of PMS, 872.72million litres of AGO (diesel oil), and 312.71million litres of household kerosene according to National Bureau of Statistics. This is indeed a very disturbing situation for a country with a population of about 200 million people and already battling with high rate of unemployment.

The ministry of petroleum resources in an effort to address this problem with the 7BIG WINS agenda, under which short and long terms plans were developed to increase the local refining capacity and gradually attain self-sufficiency in terms of petroleum fuel products supply, aimed at ensuring amongst others; to review, optimize and promote the development of modular refineries in Nigeria.

This led to the Petroleum Training Institute being in the fore front in the area of training and technological development spear heading this work of developing an indigenous technology for modular refinery in Nigeria to serve as both an OJT facility and revenue generation initiative.



<https://images.app.goo.gl/xcvNJPgypnH8kKN69>

Action Plan:

Nigeria produces about 2 million barrels of crude oil per day, exports all and import refined products, hence the urgency of the need to evolve practical home grown solutions such as the development and deployment of home grown designed modular refineries by the PTI as a panacea to the energy security crisis. The scope of action is scheduled for a 24 month design, procurement process, fabrication/erection/ construction and commissioning of a prototype design and a 500 barrel scale up modular refinery.

Prospects: As conceived, the modular refinery when completed will present the industry with an outstanding world-class training facility in the West African sub-region, with the compelling attraction for expertise training and know-how in refining and petrochemical operations and therefore promoting PTI as a hub of OJT and also attracting business interests from operators, contractors, consultancy requisite for oil and gas production outfits.

Dive Centre of Excellence



Petroleum Training Institute - Divers

Objective: Being a critical asset to the institute, the diving centre as conceived is a priority PPP project in order to guarantee its long term sustainability, increase revenue generation and value addition.

Action Plan: The action for achieving the objective in this regard is to conceive and conceptualize a PPP business model appropriate to the size and significance of the investment such as a Joint Venture (JV) arrangement for its management and control.

Prospects: As conceived, the diving centre when completed will present the industry with a most outstanding world-class training facility in the West African sub –region ,with the compelling attraction for expertise training and know-how in deep offshore operations and therefore promoting a hub of commercial and business interests from operators, contractors, consultancy requisite for oil and gas production.

Current Status Advanced stage discussion on investment plan on-going between PTI/SNEPCO/JFD/JFN



Petroleum Training Institute - Divers

Operational/Field Laboratory Services

Objective: To revive and revitalize the institute's leadership in the provision of oil and gas analytical services throughout the industry, operational and field laboratory services and products can be arranged in modules of mobile and easily deployable platforms with complete range of analytical laboratory fixtures, personnel and up-to-date laboratory protocols and procedures to be readily deployed either within clusters of downstream operations with sprawling depots and jetties, or clusters of marginal field operators in order to provide fit-for-purpose and on-time outsourced laboratory services to these operators.



Petroleum Training Institute Laboratory

Future expansion program shall also include but not limited to deployment and installation of regional laboratory services across the country with the aim of providing analytical services for on- the-market quality control and assurance for downstream operators and regulatory agencies. These facilities shall in a complimentary manner all together provide the backbone laboratory infrastructure for critical research support services to the oil and gas industry.

Action Plan: Deployment of such laboratory infrastructure in tandem with the above outlined objectives either independently by the institute's sole proprietorship where feasible or by collaboration with its development partners such as the PTDF, NCDMB, NDDC, NNPC, etc. and also deliberate

PPP investment with potential investment partners such as industry operators and similar service providers.

Prospects: This investment should guarantee a viable stream of income at all times while reinforcing the visibility and signature of the institute within and beyond the oil and gas operational spheres and further consolidate the institute's leadership in the provision of analytical and research services. Ultimately, this should also afford our partners and clients a positive impact on their bottom line and high quality customer satisfaction experience.





Service Hostel Accommodation

Objectives: In consonance with the Institute's transformation agenda and the need for a holistic reorientation for all trainees to best suit the OJT training environment, an enhanced and functional living environment becomes a priority. Therefore, in a bid to provide sound minds in sound bodies for the rigor of the OJT training models, the development of suitable serviced hostel accommodation is a necessary component for the attainment of the transformation objective.

Action Plan: To solicit for prospective investors interested in promoting educational development through capital venture support in development of suitable serviced hostel apartment for medium to large occupancy in a mixed development of single and double fully furnished service rooms.

Prospects: Should provide the institute alternative source of investment in attaining the growing need for hostel accommodation on campus, also providing trainees best-in-kind and conducive residence while

offering investors and the institute an opportunity to be decently rewarded for their investments.

Potential Investment Partners: Potential investment partners will include PTI Alumni, real estate developers, hospitality providers/managers, infrastructural developers/managers, capital venture investors, NCDMB, NDDC, PTDF and industry operators.



PTI Drilling Rig



Petroleum Training Institute Drilling Rig

Objectives: To fill the competency gap for certified professionals and the ever growing demand for up skilling suitable personnel for oil and gas drilling operations.

The PTI drilling rig provides an excellent hands-on experience of on-the-job (OJT) training facilities and resource depth that is consistently suitable for training for certification of personnel in oil well drilling rig operations, such as well control training and other personnel like, Roustabout, Floor-man, Mud Man, Pump Man, Assistant Driller / Derrick Man, Driller and Tool-pusher.

This facility shall offer the most rewarding experiences and access to drilling contractors, independent training

contractors and operating companies to, train and retrain their personnel at an affordable rate, but to the very highest standards required for such training internationally, while also affording trainees a robust training experience, as they earn the requisite certifications.

Action Plan: Retooling and repurposing the PTI rig to a complete drilling rig, fit for purpose, comprising a cased well-bore to the depth of 1,000ft (from the current 60ft), will allow training for breaking and making up pipes suitable for drilling crew and also provide for logging operations to some reasonable depth, is the essential goal. Attainment of which requires soliciting for budgetary appropriation

funding, BPE Funding and private investors willing to collaborate with PTI to achieve a 1,000ft depth for the PTI rig, with the intent to stage the facility for training and generation of income for the mutual benefit of partners.

Prospects: Cost-effective alternative to training abroad, thereby reducing pressure on forex and build capacity of the Industry operators. Companies that specialize in coil tubing, wireline, logging, casing and cementing will also find it as a convenient alternative to train their staff, which will make PTI become the beehive of oil and gas activities hence promoting the image of PTI and generating the much-needed revenue for the institute.

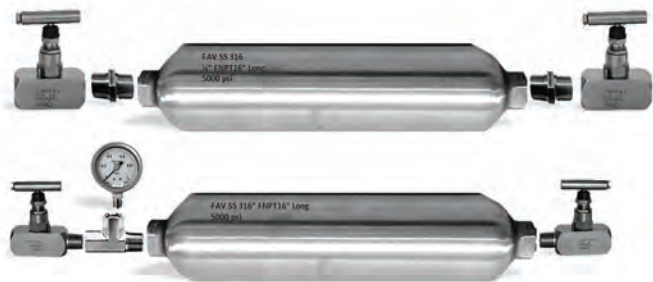
Pressure Volume Temperature (PVT) Lab.



Petroleum Training Institute PVT Lab

Objective: Being a critical asset in primary well evaluation and quality assessment of oil and gas production, the Lab provides a complementary tool in well management and production evaluation for exploration and production companies. This essential role of the lab offers the Institute and potential partners an opportunity for training, direct sampling and evaluation, measurement for operations, and business opportunities for outsourced PVT measurements by oil and gas clientele.

Action Plan: The present state of the PVT lab requires additional investments to fully bring the lab to operational status. The requirements needed is to provide replacement for the power pack, the support Gas Chromatographic analytical instrument (GC), a standby power generating set (150KVA) and operational costs.

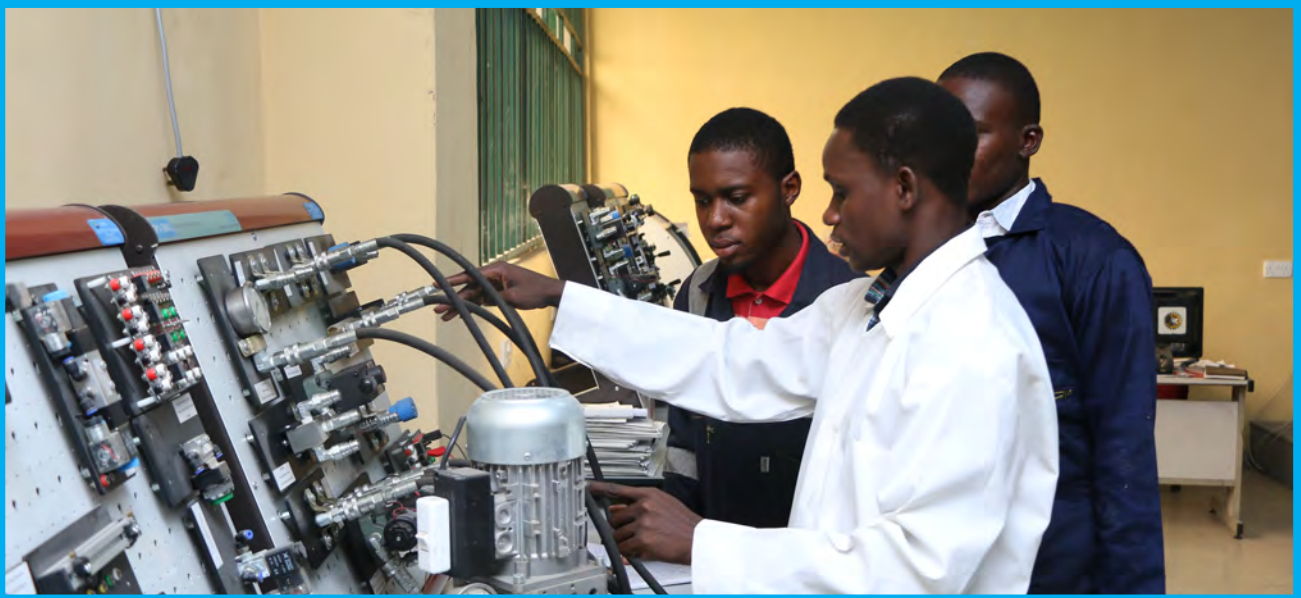


Petroleum Training Institute PVT

Prospects: The PVT lab shall offer reservoir managers, E & P operators and training outfits extensive support services such as oil analysis for solids detection, capillary pressure, viscosity and density, formation volume factor, reservoir evaluation, primary recovery, quality of crude etc.

Potential Investment Partners: Potential investment partners include but not limited to E & P companies, oil service companies, testing and analytical service providers and training outfits.

Development of On-the-Job Training (OJT) facilities:



Petroleum Training Institute OJT Facility

Objectives: In order to fully align with the objectives of the repositioning plan of the institute and become a trainer of excellence in requisite skills of highly competent certified professionals suitable for oil and gas operations. The deployment of requisite OJT facilities throughout the institute's hardware infrastructure for the attainment of hands-on experience on life plants and processes must be achieved. In view of this, all institute processes must be examined for critical need and deployment for such OJT infrastructure as listed below;

- * The Foundry, Computerized Numerical Control (CNC) Machining / 3-D printing.
- * A Self Propelled Working Barge, etc.

Action Plan: Through the instrumentality of the PTI repositioning policy, investment must be procured through budgetary appropriations, BPE funding and our development partners with a view to establish all identified critical OJT assets in a planned budget cycle as may be expedient within the policy guide and the budget limit of the development partners.

Physical planning layout to accommodate future development and growth of these OJT infrastructure shall be pre-laid down to ensure smooth integration with the Institute's processes.

Prospects: These training assets would afford the Institute

the capacity and depth of resource to deliver on requirements of all certification in the Oil and gas and allied operations and the production of hands-on, fit-for-purpose, best-in-class professionally certified manpower for the benefit of our development partners and the broader Oil and gas industry. This shall make the Institute a destination of choice in training. This should also guarantee the backbone for the mobilization of the entire industry in adopting **National Skills Qualification (NSQ)** and **Technical and Vocational Education and Training (TVET)** policy in the industry and consequently the **establishment of an industry skill development council.**

MORE...

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