

Altex Engineering Services

Company Profile



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COMPANY OVERVIEW

About US

Altex Engineering Services Limited (AESL) is a versatile company that provides world-class services in Construction, Project/Facility Management and General Services. Informed by the need to provide vast, knowledgeable, and practical solutions to identified challenges in our chosen industries. Our services are tailored to meet the specific needs of clients.

Our team of experienced, qualified, and committed experts drawn from key sectors of the engineering industry positions us to provide comprehensive services in core processes such as construction/drilling and project design, construction, implementation and maintenance.



OUR VISION

To be the leading engineering, construction and energy solution company, providing unparalleled services to satisfy our partners and clients locally and internationally.



OUR CORE VALUES

Our operations at AESL are driven by 5Cs

- Commitment Our team of experts engage due diligence in the discharge of assigned tasks to exceed customer expectations on all projects.
- Collaboration We constantly engage in strategic partnerships with specialists in the engineering industry for excellent service delivery
- Cutting-Edge Technology We use modern technological packages to offer cutting-edge engineering services to our clients.
- Competitive Advantage We strive towards positioning our clients to enjoy a sustainable competitive advantage
- Client Satisfaction Our services are tailored to pointedly meet the needs and demands of our clients



OUR MISSION

To consistently provide our clients with cost effective solutions in project implementation and service delivery by utilizing advanced technology, and international best practices.



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Our In-Depth Understanding of the Industry



The engineering industry is faced with several challenges that impact the sustained operations of companies in the industry. The core challenge facing the industry relates to the climate change debacle. Particulate matter emerging from large engineering firms are leading contributor to environmental pollution. This has informed the need for eco-conscious engineers and practices who are able to reduce the environmental imprints of engineering practices. This calls for the adoption of renewable energy and best environmentally friendly approach to engineering operations.

The oil and gas sector are faced with key issues which require engineering inputs for strategic solutions. The global demand for oil and gas has continued to surge and to meet this need, there is a need to venture into challenging and cost intensive areas such as ultra-deep reservoirs, ultra-deep waters, remote deserts, and mountain ranges to discover new sources of oil and gas. Achieving this requires the expertise of petroleum engineers and experts in extracting oil from oil sands, hydraulic fracturing and directional drilling. The engineering industry is cost, personnel, quality, and time intensive. The effective maximization of these aspects leads to reduced production cost and increased company profits. This informs the need for effective project management to enable organizations effectively combine the technical and non-technical aspects of operations and management to result in excellent service delivery. This has increased the need for professional operations, project management, and procurement management in the engineering industry.

The gap between the demand and supply of quality water is projected to be 40% with demand surging above supply. If this trend prevails, the world may be faced with water supply challenges. Water pollution by solid and liquid wastes, poor treatment of wastewater, climate change, and water waste are key issues that promote impending water crises. These challenges inform the need for expert solutions for the provision of sustainable water solution management. There is an uneven distribution of the supply of electric power between rural and urban areas. The large concentration of industries in urban locations, the increase migration from rural to urban towns, and the less economic activities in rural areas are traceable to absence of electricity in these rural settings. Indeed, while low population densities in rural area result in low consumption of electricity and low revenue for electricity companies, the electrification of rural areas offers a promising prospect for investors. This creates the need for specialized provision of electricity for rural areas which highlights the need for expert intervention.

Globally, organizational activities are becoming digitalized. Creating strategic engineering solutions in view of the rapidly changing technological environment is key to client attraction and retention. In addition, civil and structural engineering are faced with the challenge of integrating company and project management software with design systems. This heightens the need for engineering organizations to offer quality and world class services without becoming technologically obsolete.

The increased competition in the engineering industry elevates the need for companies to leverage on innovation, detailed design, evidence-based recommendations, and professional expertise which are offered by engineering consultancy and advisory services. This positions consultancy and advisory services in engineering as a pivotal practice in the engineering industry.

At AESL, providing strategic and sustainable solutions to the potential challenges of the industry is the cornerstone of our existence as a company.



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OUR SERVICES



The identified industry challenges positions us to offer varied and expert solution services

CIVIL AND BUILDING ENGINEERING

We offer civil and structural construction services to clients in the private and public institutions. Our services cover the design and construction of small, medium and large-scale projects ranging from office and business complexes, residential estates, and parks.

Our team of experienced civil and building engineers are adept at designs, engineering, procurement, and commissioning projects across public and private sectors. We offer the following services:

- Initial project survey and design
- Road Construction
- Hydraulic Structures
- General sanitation
- Road maintenance and development
- Drainage construction
- Bridges
- Landscaping
- Construction and Facility Management
- General Infrastructure

ALTERNATIVE ENERGY SOLUTIONS

We leverage on years of experience to provide innovative energy solutions to clients in line with national and international standards on the use of renewable energy. We provide engineering services that are ecofriendly, cost intensive, and characterized by zero emissions and zero radiation. These innovative alternative energies also have low maintenance costs. The services below are targeted towards providing alternative energy solution:

- Hydro Power (Gas to Power)
- Smart Grids and meters
- Eco-friendly Power Unit
- Energy and Industrial Process Management
- Business Case Assessment and Evaluation Consultancy
- Lithium Power Storage Systems
- Solar Systems
- Energy Monitoring Consultancy



OIL AND GAS SERVICES

We offer expert services that enhance the supply chain of oil and gas. Our services cover the exploration and production of oil for customers while maintaining profit generation. Our range of services are:

- Drilling
- Well Design
- Tubing Design and AFB Analysis
- Procurement and Tendering
- Wellborne Schematics
- QA/QC Inspection
- Nodal Analysis
- Rig Site Support
- Project Management
- Post-site Analysis

Under our Oil and Gas services, we also offer operations and maintenance services where we ensure the proper functioning of organizations through our management, maintenance, budgeting, training and general business process services. Our services support plant safety, productivity, and efficiency while reducing production costs. These services include:

- Inspection and functional testing
- Production support and optimization
- On-site and remote O&M services

- Training operators, technicians, and mechanics
- Critical engineering risk management
- Production start-up and handover
- Facilities maintenance
- Information and system management

SUSTAINABLE WATER SOLUTION

With our team of world class experts, we profer a wide range of integrated water treatment solutions that efficiently treat raw process and waste water to ensure the sustainable supply of safe drinking water for numerous communities. Our water solution process is powered through renewable solar energy as its primary source. We offer:

- Filtration and well borne cleanup
- Production testing
- Sourcing
- Wastewater treatment and recycling
- Pipeline solutions
- Design and construction for smaller and above the ground storage tanks
- Controlled water supply services
- Field and laboratory water testing



We have developed easily executable strategic frameworks for each of our service offerings:

Engineering Advisory and Consultancy Services

We offer a range of innovative consulting and advisory services in engineering that enhance the value of our valued clients in areas such as quality management, sourcing solutions, operations management and maintenance, business development, product design and development. Our services include:

- ② Feasibility, Concept, and preliminary design studies
- ② Industry analysis and reports presentation
- ② Concept and design developments
- ⑦ Management and integration of detailed engineering services
- ⁽²⁾ Bid preparation and documentation
- ⁽²⁾ Construction contract administration

Rural Electrification

We provide integrated electricity to rural and remote areas of grid to support economic activities and social development. Our targeted services reduce the adverse effects of rural-urban migration and enhance the standard of living inbeneficiary rural settings. We also offer non-infrastructure projects such as distribution of stand-alone systems (Solar home systems and solar lanterns). We services include:

- Electricity transformers installation
- Project management
- Sourcing and supply of quality cables
- Maintenance management
- Renewable energy adoption
- Solar Energy Installation

Procurement Management

We have referenced experience in providing supply chain value through offering cost-efficient materials and services to our valued clients. Our range of services include:

- Sourcing of materials
- Market analysis
- Supplier Identification engagement
- Real time data collection and analysis

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OUR APPROACH



CIVIL AND STRUCTURAL ENGINEERING

- Identify the design and construction needs of clients
- Conceptualize designs that align with client needs
- Conduct an in-depth survey of construction sites
- Adopt cutting edge technology for design development
- Adopt safety practices on construction sites
- Assess available funds vis-a-vis project expenses
- Carry out timely review of projects
- Work towards in-time delivery of quality structures and projects

OIL AND GAS SERVICES

- Strategically identify the depth of well to determine the nature of drillingactivities required
- Adopt a system-wide analysis approach in the design of well
- Locate vendors that deliver quality materials
- Support operations and facility development
- Combine data information obtained during survey of fields with client-supplied drawings for quality project delivery
- Assess the conventional and unconventional gas market development (supply and demand assessments)
- Utilize resources on based on need
- Align budget with organizational goal and objectives

ALTERNATIVE ENERGY SOLUTIONS

- Decide on the best energy solution for each organization
- Establish the need for renewable energy
- Identify possible risks associated with the use of each alternative energysources
- Determine the best energy storage medium
- Enhance access to renewable energy components and raw materials
- Carry out maintenance of installed sources of alternative energy
- Prepare a schedule for the maintenance of assets and facilities
- Monitor and evaluate projects at defined intervals
- Initiate models for targeted product and services to clients' customers
- Research and development to understand international best practices in O&M
- Support the reduction of operations cost through efficient allocation andUtilization of Resources
- Facilities Management
- Critical Engineering Risk Management

SUSTAINABLE WATER SOLUTION

- Extract water from underground and surface sources and purify fresh, brackish and salt water.
- Supply water that is 99.9% free from bacteria, virus, sediments, colour, particles and odour.
- Treat waste water to increase the volume of water supply
- Remove the need for large array of PV panels using DC poweredreciprocating piston pumps
- Eliminate the vexing and costly routine of fishing submersible pumps insidewells
- Boost the supply of potable and clean water to communities using sustainable channels
- Reduce operating costs by re-using product streams and recycling water sources
- Adopt modern technology for fast and efficient water management solution

ENGINEERING ADVISORY AND CONSULTANCY SERVICES

- Advise organization on the reduction of operations cost through efficient allocation and utilization of resources
- Offer professional recommendations on strategies for effective organizational activities
- Identify engineering industry and organizational challenges
- Provide objective and evidence-based solutions to identified challenges in the industry
- Train employee to maximize their potentials
- Initiate sustainable organizational change in engineering practices



RURAL ELECTRIFICATION

- Identify rural and remote off grid areas with electricity needs
- Assess the availability of support systems for the delivery of electricity
- Collaborate with relevant stakeholder for smooth undertaking of the project
- Prepare a strategic budget to cover each project

PROCUREMENT MANAGEMENT

- Specify the needs of clients
- Identify and select tested suppliers
- Negotiate and sign supply contracts with suppliers
- Real time placement of order
- Track the process of order delivery
- Engage in frequent maintenance of assets and facilities

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QHSE STATEMENT

At AESL, we uphold nationally and internationally recognized quality, health, safety, and environment polices. This has enhanced our sustainable development, client satisfaction, and employee safety while ensuring the protection of the environment. In line with this:





- We provide a safe work environment by initiating a strategy that allows us to identify, evaluate, and control potential risks and hazards related to our workplace. This reduces the risks of occupational injury and illness.
- We ensure a workplace that respects cultural, ethnic, social, and religious difference thereby creating an enabling environment for employee innovation and excellent task completion
- We ensure the effective use of natural resources to reduce the environmental impacts of our production.
- We provide safe handling methods to ensure that contaminants do not reach the environment. This positions us as environmentally friendly.

- We assess and optimize our resources (human, capital, and technological) to create organizational value and competitive advantage in our chosen markets.
- We also implement international best practices to strengthen our research and development to enhance our service delivery.

The above QHSE policies are hinged on the ratification of national and international standards such as the ISO 9001 (Quality Management Systems), ISO 140001 (Environmental Management Systems); and OHSAS 18001 (Occupational, Health, and Safety Management Systems).

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RESPONSIBILITIES OF OUR PROFESSIONAL TEAM

HEADS OF THE AESL SERVICES

- Receive tasks and terms of reference from the Managing Director
- Assign tasks to team members based on specialization and needs
- Receive reports from team members
- Review reports, highlight outliers and forward brief and detailed reports to the Managing Director

CIVIL AND STRUCTURAL ENGINEERING



Civil Engineer

- Manage, develop, and maintain construction projects
- Conduct thorough on-site investigation and analysis of data
- Assess potential project risks, materials and costs
- Monitor and supervise progress of projects and compile reports
- Ensure that all aspects of a project comply with national and international standards, guidelines and regulations

Construction Project Manager

- Ensure that all projects meet the required standards
- Oversees the whole process of a project from the design, construction stageto the completion stages
- Review assigned funds for a project
- Communicates with clients and contractors on changes as the projectprogresses
- Keep effective record of construction project files, correspondences,material samples, and designs

Land Surveyor

- Prepare and maintain sketches, maps, and reports
- Engage in accurate calculation of site measurement
- Research on survey records, legal documents and land titles to authenticate information on land ownership
- Prepare clearly written description of boundaries of properties

Verify data and calculations on land

Structural Engineer

- Select appropriate and quality materials to suit structural specifications
- Develop structural prototypes
- Prepare and allocate construction budget
- Adhere to construction safety guidelines
- Collaborate with project management teams to monitor the progress of projects

3D Design Specialist

- Conceptualize creative ideas to effectively portray construction projects
- Adopt 3D modelling applications, texture, and mapping to create graphics, designs, and effects for construction projects
- Responsible for the use of modern applications in producing cutting edge engineering designs

ALTERNATIVE ENERGY SOLUTIONS - CLEAN ENERGY

Specialist

- Assess policies and studies on emerging technologies
- Keep record of reports and previous assessments on alternative energy for reference
- Collaborate with other management members for the development of energy solutions
- Ensure that organizations effectively maximize alternative energy resources
- Identify avenues through which an organization's energy consumption rate can be reduced
- Calculate the energy needs of organizations

Lead Researcher in Biofuel Adoption

- Conduct targeted research on emerging technologies in alternative energy and energy conservation
- Advise clients and organization on the adoption of energy usage efficiencymeasures and best international energy conservation strategies
- Consult with relevant government institution on energy related issues such as pollution and climate change
- Prepare budgets and strategic plans on energy projects using relevant computer software
- Engage in data analysis to discover trends and opportunities in renewable energy

Solid Waste and Natural Gas Expert

- Maintain statistical analysis on solid waste and natural gas
- Oversee and coordinate the disposal of waste, refuse collection, andrecycling acts in environmentally harmless ways
- Outline measures for the conversion of solid waste into usable heat, fuel and electricity
- Design and maintain systems that extract, process, store, and distribute natural gas
- Detect natural gas leaks on-site
- Develop novel channels of extracting natural gas from varied sources suchas coal seams and methane hydrate deposits

Solar Energy Specialist

- Carry out PSI solar Installation for organizations
- Review, inspect and test solar installations
- Conduct frequent maintenance of solar installation
- Engage in on-site troubleshooting for optimal performance of solar gadgets

OIL AND GAS SERVICES

Strategic Site Analyst

- Continuously identify needs of construction project sites
- Determine the strategic direction needed to fulfil identified needs
- Evaluate expenditures of project in line with the project's timeframe to determine cost effectiveness
- Produce analytical reports on projects

Drilling Engineer

- Plan and manage oil-rig drilling operations
- Adopt international best strategy and technology for drilling operations
- Schedule drilling programs to have effective record of production flowrates
- Collaborate with suppliers for the supply of drilling materials
- Monitor the daily progress levels of oil wells
- Coordinate and supervise the activities of drilling team

Inventory Manager

- Devise measures to ensure optimal inventory control
- Constantly inspect supplies to guard against shortage
- Ensure that supplied materials meets demand at all times
- Promptly place`s orders for supplies
- Keep accurate and easily accessible stock records for reference

Reservoir Simulation Expert

- Search for information and techniques on the most reduced use of resources to achieve management objectives
- Carry out search for oil and gas reservoir
- Integrate geological data into calculations in reservoir engineering

Operations Manager

- Coordinate all operational activities of projects
- Initiate strategies that would improve organizational operational activities
- Ensure that all operations are compliant to regulations
- Monitor and assess key performance indicators (KPI)
- Ensure that operations are within organizational budget
- Supervise the constant maintenance of assets and facilities

Lead Researcher in Operations and Management

- Conduct in-depth studies on the theoretical and practical assumptions of operations and management
- Identify international best models for operations and management
- Prepare reports containing strategic recommendations on operations and management

SUSTAINABLE WATER SOLUTION

Climate Forecast Analyst

- Responsible for the analysis of historical weather and climate conditions
- Make forecasts that allows the company to make policies related to thenatural environment including water management
- Highlight the impact of changing nature of the climate on the quality ofwater and make recommendations on water management

Operations Manager

- Design systems that ensures that waste water is properly treated to remove all harmful particles for its safe return to the ecosystem.
- Recommend on the most effective waste water treatment method
- Identify strategic stakeholders for the construction of water treatment projects
- Review and assess community drainage system to ensure environmentalsafety
- Conduct feasibility studies for the setting up of water treatment facilities incommunities

Water Resource Manager

- Perform hydraulic, hydrologic and water quality modelling
- Analyze water systems to discovers prospects and areas of water improvement
- Carry out investigations on stored water, pollutants, sewage disposals, possible pollutants and issues on regulatory compliance to ensure the optimal water output for clients.
- Enter negotiations with communities and water service provides to ensure that supply demands for quality water is met

Soil and Water Scientist

- Provide technical support on the conservation of water, soil, and natural resources in the earth crust
- Study the soil to gauge water table levels and the quality of water
- Adopt scientific measures to ensure that all water meet the requiredstandard and legislation on the quality of water

ENGINEERING ADVISORY AND CONSULTANCY SERVICES

Industry and Market Analyst

- Study market conditions to effectively position an organization
- Advise organizations on integrated solutions required to gain a competitive advantage in the market
- Advise on the appropriate charges and fees in line with current industry and market standards

Proposals and Bids Manager

- Identify opportunities for the submission of bids and proposals
- Prepare highly persuasive and detailed bids and proposals for organizations built on facts and excellent language usage
- Monitor the progress of submitted bids and proposals

Quality Assurance Expert

- Advise on the adoption and adherence to quality assurance procedures and policies
- Support the identification and resolving of production and workflow challenges
- Make constant recommendations for improvement on project quality
- Create training and operating manuals

RURAL ELECTRIFICATION

Cable Installation Specialist

- Identify, prepare and install electrical cables
- Carry frequent maintenance of cables
- Engage in repairs of damaged cables and replacement of faulty cables

Rural Engagement Officer

- Engage with relevant stakeholders in rural communities earmarked for electrification
- Monitor and evaluate dialogue with the host community during electrification process
- Enlighten communities on the dangers of electric equipment vandalism
- Emphasize the need for care for electric equipment as public property
- Provide clients and organization with authentic social and cultural information about rural communities on needs for electrification

Procurement Management Sourcing/Procurement Officer

- Explore and identify qualitative sources of materials
- Obtain product and service quotes from suppliers
- Assess supplier quotes and offer a detailed analysis of the cost of thequotes
- Engage in informed negotiation with sellers to obtain quality goods, materials, and service at the best prices
- Engage in consistent research on the commodity and services industry

Electrical Engineer

- Design and development electrical equipment such as communications systems, generators
- Collaborate with engineers and technicians to map out new models for delivery of electrical services
- Ensure that installations align and exceed client expectations
- Oversee inspection and maintenance of installations

Contract Administrator

- Collaborate with legal counsel to ensure that all contract on product and service procurement adhere to legal stipulations
- Develop, evaluate, and negotiate contracts between organizations and her clients.
- Ensure that all parties are in agreement to the terms of the contract

Strategic Data Analyst

- Provide insights into company operations through reliance on data.
- Gather, review, and interpret data to provide measures to tackle organizational challenges.
- Adopt the use of supporting technology for real time collection and analysis of data.
- Identify trends and forecast industry performance based on outcome of data analysis

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Our Professional Capacity Experience

S/N	Project Title	Client	Date
1	Rehabilitation of 1.No. Burnt Police Station at Hadejia, Jigawa State.	Force Hqtrs., The Nigerian Police	November, 2010
2	Construction of Amenity Ward at Federal Medical Centre, Jalingo	Federal Medical Centre, Jalingo	October, 2011
3	Tashan Tsamiya and Feleke Erosion controlKaduna State	Federal Ministry of Environment	December, 2011
4	Provision of Borehole Water and WaterReticulation at PTDF ICT Centres across Educational Institutes in Nigeria	Petroleum Technology Development Fund	May, 2012
5	Rural Electrification Projects NOS. 1-5 In Okobo L.G.A, NOS 7-14IN Oruk Anam L.G.Aand NOS 8-10 In Obot Akara L.G.A	Finance and General-Purpose Committee	May, 2012
6	Supply of 600 Units of SHP Irrigation Pumpswith full Accessories	Federal Ministry of Agriculture and Rural Development	December, 2012
7	Tilling of External Walls of AdministrativeBlock	Maritime Academy of Nigeria	December, 2012
8	Construction of Olympic Standard Size Stadium at the Nigerian Maritime University, Delta State.	Nigerian Maritime Administration and SafetyAgency	September, 2013
9	Supply of 99,000 litres of Ago Macglobus Oil 1004827	Nigeria National Petroleum Corporation – PPMCApapa Depot	February, 2017
10	Supply of one unit of Trunz Water System 300, 1200Litres/Hr	Niger State Ministry of Water Resources and DAMs Development	March, 2017
11	Supply of units COMP HC 8000 On/OFFMicroGrid System Lithium Battery 3KWContinuous/Rate Power4KW Output3.16KVA	N-Petroleum Equalization Fund (Management) Board	October, 2017

12	Provision of COMP Innovative Lithium BatteryEnergy Storage System for the Rural Communities Across Akwa Ibom North-East	Border Communities Development Agency	December, 2017
13	PEF/P/016/S.16/VI Zonal Office-Enugu (4 No)	Petroleum Equalization Fund (Management) Board	September, 2018
14	Supply and Installation of 2 Units of HC 12000 Battery Energy Storage System atchief of Defence Intelligence Guest House	Defence Intelligence Agency	September, 2018
15	Supply of 6Nos of HC 8000 On/Off MicrogridSystem Lithium Battery, 3KVA Continues	Petroleum Equalisation Fund	January, 2019
16	Flood and Erosion Control Works in Uyo LGA of Akwa Ibom North-East Senatorial District,Akwa Ibom State	Border communities development Agency	May, 2019
17	Purchase of tricycles for empowerment at North East Senatorial District, Akwa Ibom State	Border Communities Development Agency	January, 2020
18	Development/ Passage of Nuclear Safety, Security and Safeguard Bill (NSSS Bill) andregulations for design and construction of Nuclear Power Plant (NPP)	Nigerian Nuclear Regulatory Authority	August, 2022
19	Construction of mini-park estate and hostel complex in NOGAPs site, Odukpani Cross River State	Nigerian Content Development and Monitoring Board (NCDMB)	July 2020
20	Construction of localized septic tanks/soak away pits at the NOGAPS site in Odukpani, Cross RiverState.	Nigerian Content Development and Monitoring Board (NCDMB)	May, 2022
21	Construction of Engineering department complex, Akwa Ibom State Polytechnic	Petroleum Technology Development Fund (PTDF)	November 2022

Business Value Propositions

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