इंडियनऑयल
IndianOil

SPRINT ahead towards MISSION EXCELLENCE

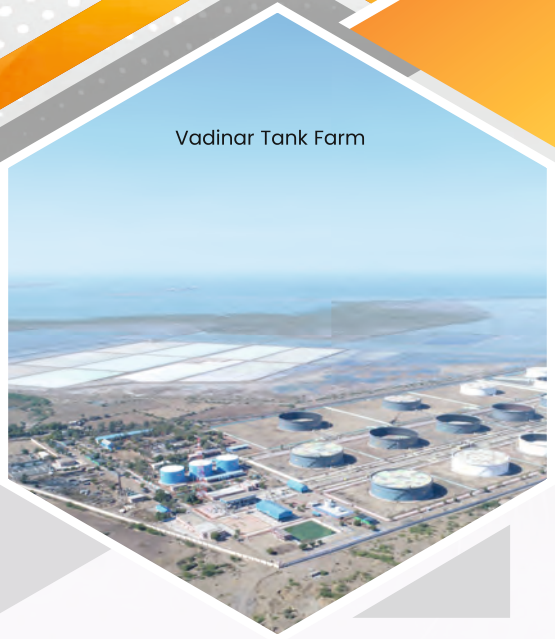
Indian Oil Corporation Limited
EPCM SERVICES

ENGINEERING | PROCUREMENT | CONSTRUCTION | COMMISSIONING



Trusted Partner in Growth

Fast-Track Delivery of Energy Infrastructure-
from Concept to Commissioning.


Vadinar Tank Farm

A Legacy of Growth, A Future in Motion

Since its inception, IndianOil has stood shoulder-to-shoulder with the nation, matching its pace, responding to its energy needs, and helping shape its future. Ranked **130th** on the Fortune Global **500,** IndianOil is India's top-ranked energy PSU and a name that inspires trust across global energy corridors.

IndianOil's story is one of the most responsible cross country energy providers. The Corporation over the years has been Energising the Nation in myriad ways. From being the largest refiner in the country to delivering energy products 24x7, IndianOil is 'Hamesha Open'.

LPG connections to aviation fuel, powering every journey with a variety of fuel options and now green energy offerings, IndianOil serves the nation with energy that empowers. With over **42,000** fuel stations and over **65,000** customer touchpoints, IndianOil is present across the length and breadth of the country.

But what sets IndianOil apart is not just scale. It's SPIRIT and our core values of Nation-First, Care, Innovation, Passion and Trust.

IndianOil – In Every Part, In Every Heart

As the country's flagship energy major, IndianOil is present in every part of the nation and in the hearts of millions it serves each day.

- With over **65,000** customer touch-points, IndianOil ensures that precious petroleum fuels and clean energy solutions reach every corner of the country.
- IndianOil owns and operates 10 group refineries with a capacity of **80.75** MMTPA.
- Operates over **20,000** km cross-country pipeline network, the largest in India. This vast energy backbone moves over **100** million metric tonnes of products annually, securing the nation's energy supply.
- With over **42,000** fuel stations fuelling over **3** crore customers daily, IndianOil connects highways, cities, and the remotest villages.
- Indane, IndianOil's LPG super brand, continues to be trusted by over **15** crore kitchens, ensuring safety, convenience, and reach unmatched in the industry.
- One of the largest petrochemicals players in India, IndianOil has **3,315** KTA of production capacity, delivering value-added products to industries across the globe.
- Second Largest player in natural gas segment, IndianOil serves **49** geographical areas across 115 districts, bringing clean energy to homes, transport, and industry.


Compressor Station, Ramanathapuram

- Backed by strong in-house project management capabilities, the organization executes oil & gas projects end-to-end—from concept to commissioning—while also extending **"Engineering, Procurement & Construction Management (EPCM) Services"** to external stakeholders.
- Our pool of experienced professionals have successfully delivered projects across diverse terrains—from arid deserts to dense forests—establishing us as a benchmark in the industry.



Core EPCM Capabilities

• Engineering • Procurement • Construction • Commissioning



Pipeline Lowering



Mainline Crew – Toolbox Talk & Safety Briefing



Field Joint Coating

DESIGN, DETAILED ENGINEERING & PROCUREMENT

Comprehensive feasibility studies, FEED, supported by multi-disciplinary engineering covering mechanical piping, civil, structural, E&I systems, along with advanced 3D modeling, HAZOP/ HAZID reviews, and precision-driven AFC deliverables.

CONSTRUCTION & EXECUTION

Seamless project execution from site mobilization, civil, mechanical, and E&I works, supported by stringent QA/QC, advanced inspection practices, robust HSE management, real-time project monitoring, and seamless stakeholder coordination—ensuring on-schedule delivery.

TESTING & COMMISSIONING

End-to-end commissioning services from pre-commissioning, cold and hot commissioning, system integration checks, including safety interlock verification, operating procedure development, personnel training, and final handover with complete documentation.

Gas & Energy Infrastructure

End-to-end solutions across the energy value chain

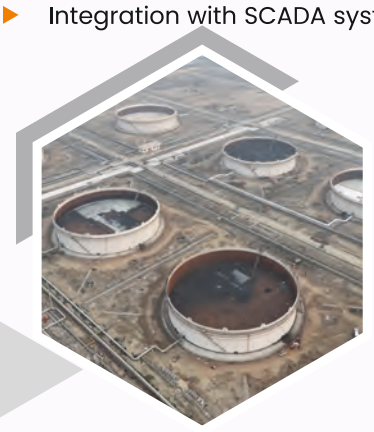
Cross-Country Pipelines

6"-48" Diameter | 30+ Projects Executed

- Route surveys, alignment optimization, and geotechnical assessments.
- Complete engineering, design, and stress analysis for cross-country pipelines.
- Pipeline laying, welding, coating, and lowering with advanced techniques.
- HDD and trenchless crossings for rivers, roads, and railways.
- Cathodic protection systems for long-term corrosion control.
- Comprehensive hydrotesting, pigging, and commissioning.
- Integration with SCADA systems for monitoring and control.



Panipat Pump Station



Mundra Tank Farm

Tank Farms & Storage Systems

- Above ground and mounded storage tanks (LPG, LNG, petroleum products).
- Tank foundations, dyke walls, and spill containment systems.
- Piping manifolds, transfer and loading/unloading facilities.
- Fire protection systems (hydrants, foam pourers, sprinklers).
- Tank gauging, level monitoring, and automation systems.
- TFMS – Installation and commissioning.



Transmix
Separator Plant, Mohanpura

Key Service Offerings

Specialized capabilities for diverse energy infrastructure needs

Process Engineering for Hydrocarbon projects

Technical Proposal & BDEP
- Process description
- BFD / PFD
- List of major equipment
- Conceptual plot plan
- ±30% P&M cost estimate

Advanced Process & Reactor Design
- Reactor design: fixed bed, fluidized bed, slurry phase
- Thermal management & quench system design
- Internals: distributors, collectors, trays, support grids

Pressure Vessels & Critical Equipment
- Compliance with ASME / API & Indian standards
- Mechanical design basis: pressure, temperature, corrosion allowance
- Thickness calculations & material selection

Stress Analysis & Mechanical Integrity
- Static stress analysis of equipment & piping
- Thermal expansion & flexibility analysis
- Nozzle load evaluation and support design
- FEA for critical components

FEED & Detailed Engineering Support
- Process residual engineering support
- Review FEED & detailed engineering deliverables
- Validate-process and mechanical design-calculations
- Integration support for brownfield projects

Pre-Commissioning & Commissioning
- Supervision of reactor internals and catalyst loading
- Pre-commissioning checks and readiness
- Start-up assistance and process stabilization

Revamp & Capacity Enhancement
- Debottlenecking for capacity expansion
- Unit revamps for improved severity and conversion
- Upgrades for new fuel specifications & petrochemical integration

Studies & Training
- Feasibility, configuration & adequacy studies
- Energy optimization and efficiency schemes
- Operator training (classroom and site-based)
- Best practices in safety, reliability & process control
- Technical documentation and operating manuals

LNG Hubs & Regasification, CBG plants

Engineering and construction of cryogenic LNG storage tanks and satellite stations. LNG unloading, storage, transfer systems, BOG handling, regasification units, and integration with pipeline/CGD networks. CBG plants on BOT basis.

Successful project delivery across LNG hubs at Salem, Vizag and Guntur.



LNG Hub, Guntur GA



Smart Terminals

End-to-end EPCM of smart terminals including tank farms, pumping systems, truck/rail loading gantries, TMS, and custody transfer metering. Full compliance with OISD, PESO standards. Optional O&M based on client requirements.

Backed by a strong track record of successful execution across key oil depots in Trichy, Madurai, Chittorgarh, Ratlam, Korba, and Khunti Terminals.



Amlekhganj Terminal, Nepal



City Gate Station, Deoghar GA

City Gas Distribution (CGD)

Network planning for steel and MDPE pipeline systems. HP/MP/LP distribution networks, CNG stations, City Gate Stations, DRS, and MRS. PNGRB-compliant execution with SCADA and GIS-based monitoring.

Successfully executed across 26 Geographical Areas, covering 78 districts, demonstrating strong capability in large-scale CGD infrastructure development.



City Gate Station, Naubatpur, Arwal GA

Solar Power Integration

Feasibility assessment and design for rooftop and ground-mounted solar plants. Engineering and installation of PV modules, inverters, BoS, and grid integration. Energy monitoring, net metering, and O&M support.



Jamnagar Switchyard – SMPL Project

Electrical Substations

Design and construction of HT/LT substations, switchyards, and control rooms. Installation of transformers, switchgear, protection systems, earthing, and SCADA integration. Testing, commissioning, and grid synchronization.

Also offering

- Procurement & contract management
- Pipeline integrity management
- Corrosion monitoring & control



SPM, Paradip

Achievements & EPCM Track Record

Jobs executed for external companies- Pipeline Projects

IndianOil has successfully expanded its EPCM service portfolio across leading organizations such as CPCL, GIGL, IHB, KSPPL, HMEL, and other prominent entities, delivering end-to-end solutions for diverse hydrocarbon pipeline projects. Our expertise include execution of cross-border pipeline projects, notably in Nepal, along with comprehensive feasibility studies for large-diameter trunk pipeline systems.

Completed Pipeline Projects

SN	Name of Project	Length (km)	Dia (inch)
1	Chennai Port Trust to Manali Refinery of CPCL	12.5	42
2	Bhatinda–Jammu Pipeline Project of GSPL	495	—
3	Interconnection of BORL and IndianOil Crude Oil Terminal at Vadinar	—	48
4	Petronet Vadinar–Kandla Pipeline (PVKPL)	100	24
5	Motihari–Amlekhgunj Pipeline for NOC (Nepal)	69	10
6	EPCM for Palanpur–Pali Pipeline (GIGL)	159	30
7	EPCM for Jalandhar–Amritsar Pipeline (GIGL)	101	18/16/12
8	Feasibility Study – North East Gas Grid (IGGL)	1,656	24/18/12/8
9	Replacement of LSHF HSD Pipeline – Karwar Naval Base (Indian Navy)	8.2	16

Process Engineering Projects at IndianOil Refineries

SN	Name of Project	Year	Status
1	CDU-I Heavy Naphtha Cut & RCO additional exchanger at BGR	2018	Implemented
2	AVU pinch analysis and pre-heat improvement at DR	2018	Implemented
3	Heat Recovery for VAM unit in DHDT unit at BR	2018	Implemented
4	CCRU finned tube design and installation at PR	2018	Implemented
5	Feasibility of increased condensate processing in AVU at DR	2018	Implemented
6	DCU Preheat Improvement at DR	2019	Implemented
7	170 KTA INDEcoP2F at DR	2020	Implemented
8	Revamp of existing Octamax at MR to 55 KTA	2023	Under Implementation
9	Capacity revamp and preheat maximization study for PDR AVU from 15.0 to 16.2 MMTPA	2025	Under approval

Project Gallery

Snapshots of our EPCM execution excellence



Compressor Station, Ramanathapuram



Pump Station, Paradip



CNG Station, Morena GA



Ongoing EPCM Projects

SN	Name of Project	Length (km)	Dia (inch)
1	Kandla–Gorakhpur LPG Pipeline (IHB)	2,805	18
2	Palakkad–Salem Section, Kochi–Salem LPG Pipeline (KSPPL)	256	8/12
3	Amlekhgunj–Chitwan Pipeline for NOC (Nepal)	61	10
4	Siliguri–Jhapa Pipeline for NOC (Nepal)	50	8
5	2 × 60,000 kL Naphtha Storage Tanks for HMEL, Bathinda	-	-
6	Fuel Pipeline – IOC Willingdon Island to Naval Base Kochi (Indian Navy)	3.0	10
7	Indradhanush Gas Grid Ltd. Phase III	254	-
8.	SV-13 DBPL to M/S JSW Vijayanagra (GAIL)	115	16
9.	LPG Pipeline from CPCL Manali to Ammullavoyal (CPCL)	3	10
10.	30 KTA De-aromatised speciality products at Haldia Refinery	-	-

Why choose IndianOil for EPCM

Proven In-house Expertise

Over six decades of expertise in pipeline engineering & construction, backed by a dedicated team of engineers, project managers, and site supervisors. The team has successfully executed complex projects across diverse & challenging terrains— including deserts, forests, mountainous regions, and major river crossings.

Safety-First Culture

Robust HSE management systems are integrated across every stage of project execution. Continuous safety audits, regular toolbox talks, and proactive risk mitigation measures ensure a strong safety culture and promote safe working practices across all project sites.

Cross-Border Capabilities

Successfully delivered international pipeline projects in Nepal, along with feasibility studies across South Asia—demonstrating strong capabilities in managing cross-border logistics, navigating regulatory frameworks, and coordinating seamlessly across multiple jurisdictions.

Technology & Innovation

Leveraging advanced technologies such as 3D modelling, SCADA–GIS integration, smart pigging, HDD techniques, and digital pipeline integrity systems— ensuring world-class standards across design, construction, and operations.

Dedicated O&M Expertise: In addition, IndianOil also brings extensive operational experience to deliver reliable and efficient Operations & Maintenance (O&M) services across the energy sector.



Pump Station, Barauni



Amlekhgunj Terminal, Nepal



Ennore LNG station

India's Most Trusted Partner in Hydrocarbon Infrastructure Construction and Operations

Serving the nation's energy security needs since 1964



IndianOil

Indian Oil Corporation Limited

EPCM Services

A Maharatna Company | Government of India Undertaking

Registered Office
IndianOil Bhawan
G-9, Ali Yavar Jung Marg
Bandra (East), Mumbai – 400 051
Tel: +91-22-2644 7616

Pipelines Division Head Office
IndianOil Bhawan
A1, Udyog Marg
Sector 1 Noida-201301
Uttar Pradesh

Web & Connect
www.iocl.com
Pipelines Division Portal
Email: commercialepcm@indianoil.in
Contact no. : 0120-244 8623/8620

*This brochure is for informational purposes only.

*All images depict actual IndianOil pipeline projects.