



RystadEnergy

Mid-size NOC/INOC Benchmarking

NNPC vs peers

Condensed report

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Table of contents

03 Introduction

04 Portfolio investments

06 Oil and gas

10 Diversification

NOCs are evolving rather than transforming

The mid-size national oil company (NOC) landscape is undergoing a period of structural adjustment, shaped by geopolitical tension, supply chain disruption and increasing pressure to decarbonize. Ongoing instability in the Middle East, combined with broader market volatility, has reinforced the importance of energy security and the continued reliance on hydrocarbons to meet global energy demand. In this context, NOCs remain central to the energy system, balancing supply stability, national revenue generation in their home countries and long-term sustainability. Across the peer group, upstream oil and gas continues to lead capital allocation, reflecting its critical role in cash flow generation and economic resilience.

In response to these dynamics, NOCs are actively reshaping their portfolios, although at varying speeds and levels of ambition. Companies such as CNOOC and Sinopec are pursuing relatively balanced strategies, combining strong upstream positions with targeted investments in low-carbon technologies such as carbon capture, utilization and storage (CCUS) and green infrastructure. Others, including Pemex, remain heavily concentrated in conventional oil and gas with limited diversification. Meanwhile, Pertamina stands out for its downstream-heavy portfolio, leveraging refining and marketing as a platform to support transition efforts.

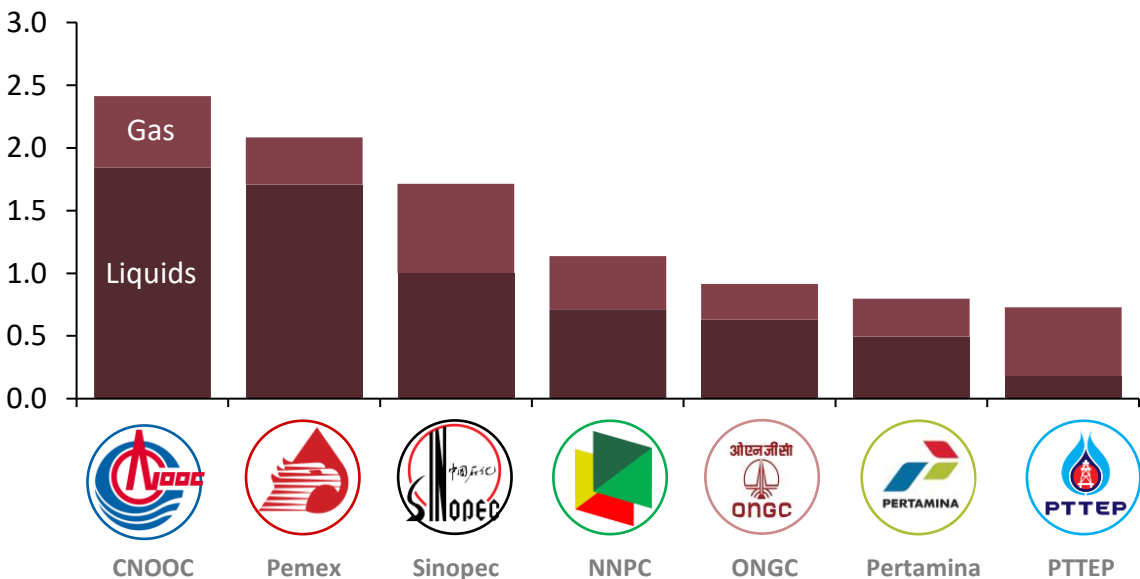
At the same time, financial performance across the group has shown increased volatility. In 2024, the peer group recorded a sharp decline in net income, largely driven by Pemex's losses linked to currency depreciation, highlighting exposure to macroeconomic and fiscal pressures. Despite this, operational cash flow remains relatively resilient across most companies in the group, supported by the strength and scale of upstream portfolios.

Looking ahead, NOCs face a fundamental strategic dilemma: balancing the need to sustain production from mature assets with the imperative to develop new resources and invest in future energy systems. This challenge is compounded by aging asset bases, high breakeven costs, and increasing capital discipline. While diversification into renewables, hydrogen and carbon capture is gaining momentum, many initiatives remain early-stage and face commercialization and execution risks.

This evolving landscape underscores the complexity of the NOC transition: companies must navigate a dual mandate, ensuring short-term energy security amid geopolitical uncertainty while progressively building credible low-carbon portfolios. The ability to manage this balance will be critical in determining long-term competitiveness and resilience across the peer group.

Peer group of NOC/INOC oil and gas companies by production in 2025

Million barrels of oil equivalent per day



Source: Rystad Energy UCube

NOCs continue to prioritize upstream growth

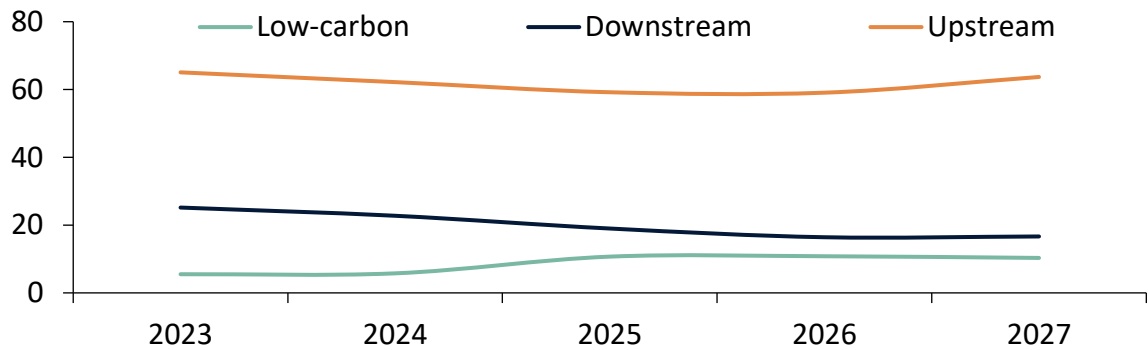
Amid increasingly dynamic energy market conditions, NOCs are actively restructuring their portfolios to enhance resilience and diversify value creation beyond core oil and gas activities. The chart below illustrates investment projections across four segments for this peer group, while the following table summarizes portfolio targets and status beyond 2025. Upstream remains the dominant capital allocation across the NOC peer group through 2027, staying far above downstream and low-carbon spending despite a moderate decline from 2023 to 2026. This indicates that hydrocarbon development continues to be the core investment priority, with capital still anchored in production growth,

reserve replacement and gas monetization.

Pemex has one of the least diversified portfolios among the peer group, with its next five-year plan still heavily concentrated in conventional oil and gas, targeting \$83 billion for upstream and \$12 billion for downstream, reinforcing that its capital remains overwhelmingly focused on the core hydrocarbon value chain. Sinopec leverages its downstream platform as a bridge into lower-carbon businesses, primarily through its ‘petro, gas, hydrogen, power, and service’ integrated energy station network, with related investments accounting for approximately 10% to 15% of total capital expenditure (capex) annually.

NOC group portfolio investment projections*

USD billion



Portfolio investment status and targets beyond 2025 (reported by companies)

CNOOC	2025 capex budget of \$17.6 billion to \$19 billion, with roughly 16% for exploration, 61% for development, and 20% for production
Pemex	2025–2030 plan commits \$83 billion to crude oil projects, \$12 billion to gas, and \$11 billion to exploration. Downstream investments include around \$5.5 billion to overhaul six refineries and \$2.7 billion to upgrade residue processing capacity
Sinopec	Scale new-energy investment to a mid-to-high single-digit share of total capex by mid-decade
NNPC	Targets raising \$30 billion by 2030 to unlock undeveloped oil fields. Prioritizing gas infrastructure development by completion of \$2.8 billion Ajaokuta-Kaduna-Kano pipeline in 2026
ONGC	Aiming to double its hydrocarbon reserves by 2032 and achieve 10 gigawatt (GW) of renewable energy capacity by 2030 with an investment of INR 1 trillion
Pertamina	Downstream buildout centered around Balikpapan RDMP project with \$7.4 billion investment
PTTEP	Five-year (2026-2030) investment plan of \$33.3 billion, including \$118 million in decarbonization initiatives in 2026

*Low-carbon investment include renewable energy, hydrogen and CCUS
Source: Rystad Energy research and analysis; company reporting

Divergence between strategic portfolio for NOCs

Although most NOCs in our peer group have disclosed their overall planned expenditures and low-carbon initiatives, detailed investment evolution and annual projections remain limited. To bridge this gap, we have developed estimates of portfolio allocations and future investment directions based on publicly announced commitments.

Upstream remains the core capital priority across the peer group, with most NOCs continuing to allocate the majority of spending to oil and gas over between 2023 and 2027. This indicates that, despite growing transition ambitions, most companies still view hydrocarbons as the main engine for cash flow, energy security and national revenue generation.

Sinopec has a relatively limited domestic upstream resource base compared with peer CNOOC and has pursued a more disciplined strategy of expanding its international upstream portfolio.

Across the peer group, downstream generally plays a more secondary and less consistent role, partly reflecting the fact that refining and marketing economics are more exposed to market

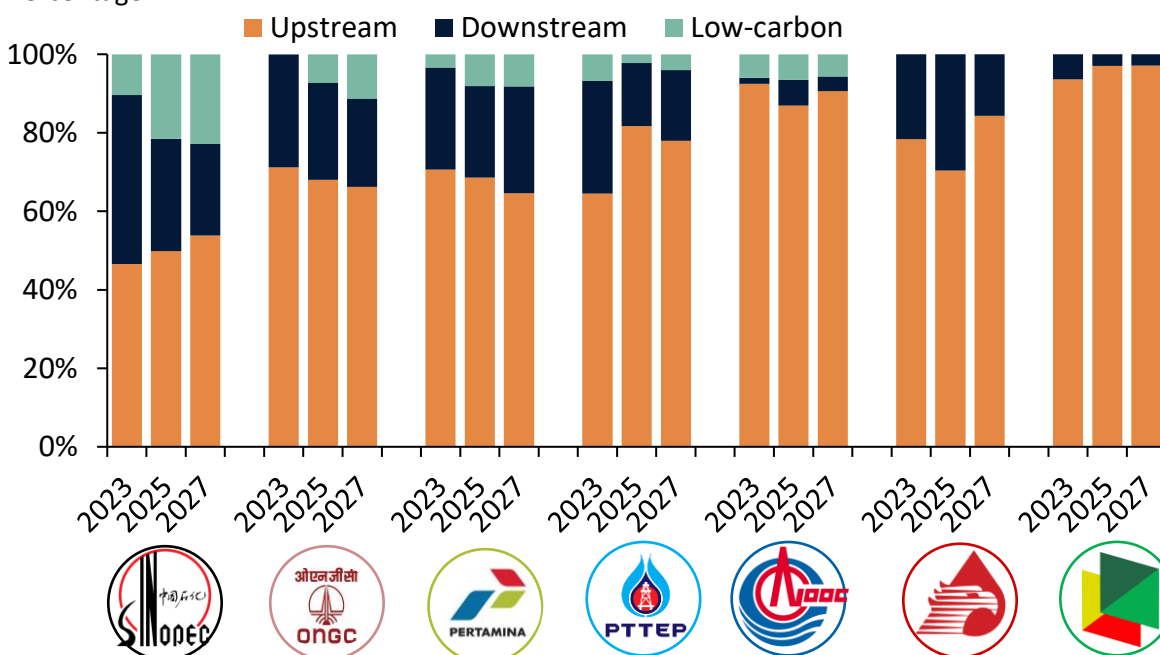
conditions. Pertamina is a notable exception, standing out as one of the few NOCs where downstream represents a consistent share of the portfolio. This reflects the strategic importance of downstream in Indonesia and also serve as an important platform for the country's lower-carbon transition.

By contrast, CNOOC and Sinopec exhibit a more balanced and consistent portfolio structure, with upstream as the core business, downstream as a supporting pillar, and a smaller but relatively stable allocation to low-carbon transition initiatives. This positioning is broadly aligned with China's dual-carbon goals for 2060, with both companies focusing primarily on CCS/CCUS and green infrastructure as practical levers to reduce operational emissions while preserving the central role of hydrocarbons in the portfolio.

Pemex and NNPC are the least diversified among the peer group, with minimal allocation to low-carbon investments. NNPC has yet to establish formal carbon emission targets, while Pemex, despite committing to net zero by 2050, has outlined ambitions without disclosing concrete implementation actions.

NOC portfolio investment evolution*

Percentage



*Low-carbon segments include renewable energy, hydrogen and CCUS; Includes inorganic investments. Portfolio investments numbers on the chart represent PTT. Source: Rystad Energy research and analysis; company reports

NOCs' 30% capex growth by 2030 may lead to global portfolio reassessment

Looking at past decade, total spending from the seven NOCs has ranged between \$30 billion and \$40 billion annually. This figure is expected to rise to around \$51 billion by 2030, pointing to healthy pipeline of final investment decision (FID) activity, but also signals a heavier capital commitment for these companies – to a level that have not been seen in the past two decades – which may eventually prompt portfolio rebalancing through M&A divestment.

Historically, investment has surged over the past five years, largely driven by NOCs reclaiming key producing assets as the PSC expire. The trend was most visible in Southeast Asian NOCs, such as Pertamina taking over Rokan Block and PTTEP assuming operatorship of G1/61 and G2/61 blocks. Chinese players such as CNOOC and Sinopec have also increased their stakes in several domestic projects as they moved into development phase.

Despite rising capital commitments, most NOCs are likely not exiting from these greenfield developments and likely pursue partnership

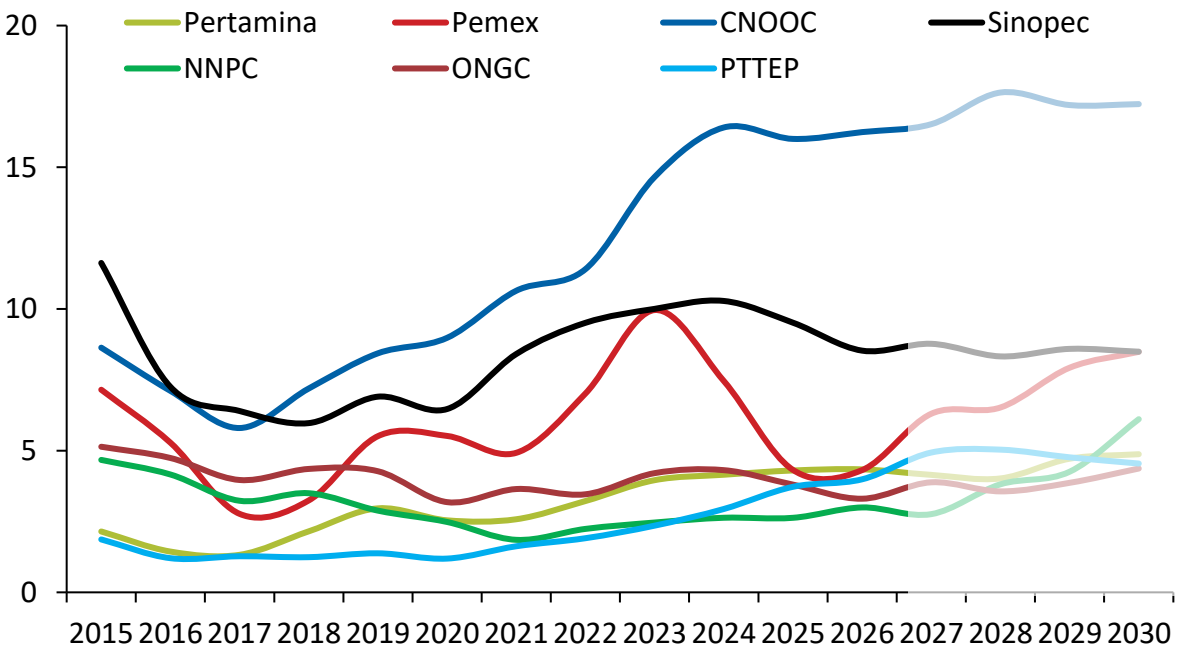
approach instead. In PTTEP's portfolio, nearly 45% of planned FIDs over the next five years are driven by Lang Lebah gas project in Malaysia. Despite technical and financial risk of the project, Lang Lebah is likely to account for 35% of gas production from its Malaysian portfolio. Meanwhile, Pertamina's production growth will hinge on enhanced oil recovery (EOR) project execution and near-field exploration upside, an approach that has successfully delivered results in Sumatra and Sulawesi basins.

For ONGC, greenfield investments on Andaman discoveries are likely in the longer term, as the basin remains largely frontier. Near-term capital will remain concentrated on sustaining output from mature basins such as Mumbai Offshore and Krishna-Godavari.

In Africa, investment growth from NNPC will be driven by recent FIDs on the Ubeta gas project operated by TotalEnergies, likely supplying to the Nigeria LNG export facility.

NOCs/INOCs' capital expenditure, 2015-2030

USD billion



Source: Rystad Energy UCube

Forecast

Oil and gas are balanced drivers of sanctioning activity for peer group

The resource distribution among these NOCs reflects differing strategic priorities.

CNOOC's project sanctioning portfolio remains oil-weighted, with nearly 5 billion barrels from oil fields compared with around 3 billion barrels of oil equivalent (boe) from gas. While oil currently drives the main production and revenue, the company is actively expanding natural gas projects, positioning gas as a strategic growth vehicle, aligned with China's energy security and transition goals.

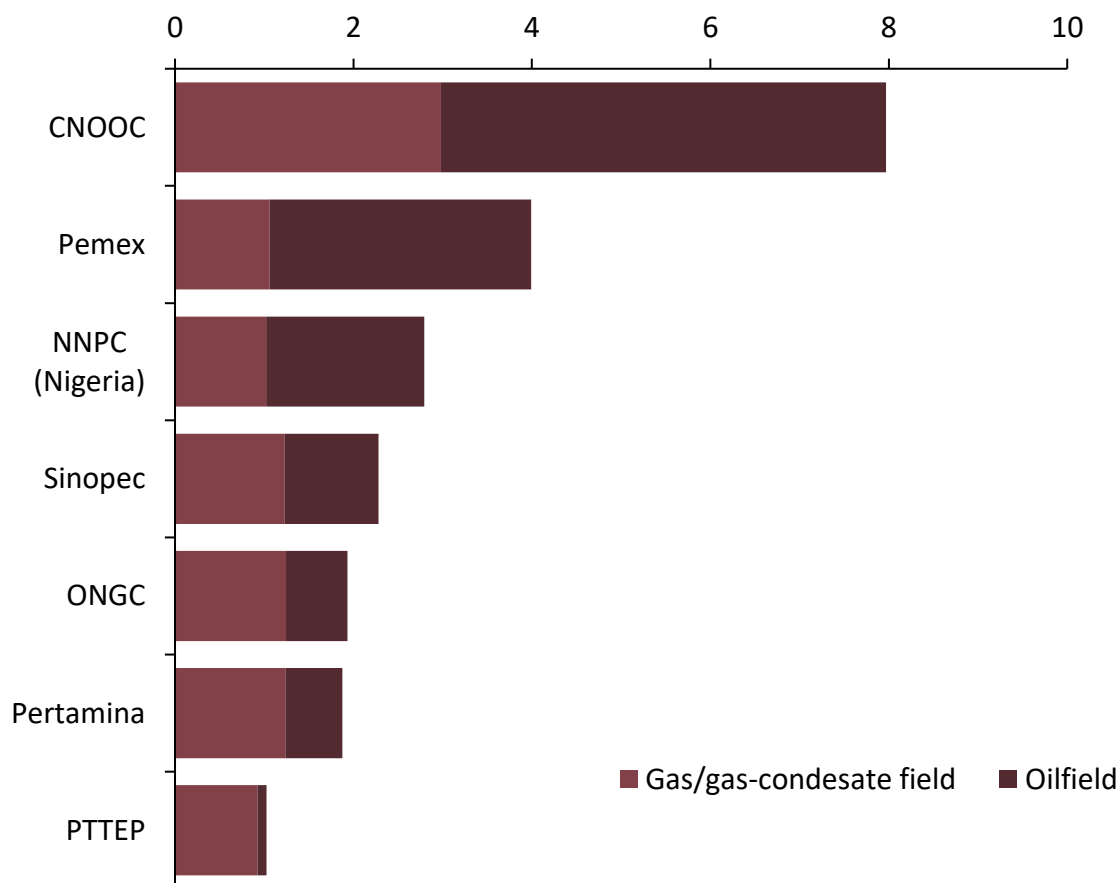
PTTEP, Sinopec, ONGC, and Pertamina are all aligning new investments to increase gas production, driven by a combination of domestic demand growth, LNG market opportunities and energy transition. This shift reflects both resource realities where mature oilfields limit further

expansion and strategic choices to position gas as a lower-carbon and profitable resource. The move towards gas allows these companies to balance near-term revenue with long-term resilience, capture growing LNG markets and reduce exposure to oil price volatility.

Pemex and NNPC are oil-dominant. Pemex's portfolio remains roughly 75% oil versus 25% gas, driven by debt repayment needs, domestic refinery feedstock requirements and the strategic priority of energy security. NNPC balances a similar resource mix, but its fiscal reliance on oil revenues, constraints in gas infrastructure and commercialization capacity make oil the rational primary focus. In both cases, gas plays a rising role, but fiscal, operational and infrastructural realities limit its dominance.

Total resources for projects with FID in next 10 years (2026-2035)

Billion barrels of oil equivalent



Source: Rystad Energy UCube

Oil price surge could lift NOCs' upstream valuations by up to 200%

Rising oil prices from \$50 to \$80 per barrel would substantially increase project value across the peer group. Net present value (NPV) gains are estimated to range from roughly 109% for CNOOC to over 200% for Pemex, reflecting the sensitivity of each company to crude price changes.

Oil-weighted companies such as Pemex and NNPC benefit most from higher prices, as their revenues and project economics are heavily tied to oil, but this also underscores their exposure to price volatility in the short term. Geopolitical tension in the Middle East and continued OPEC+ supply management have heightened market uncertainty, amplifying both upside and downside risks for these portfolios.

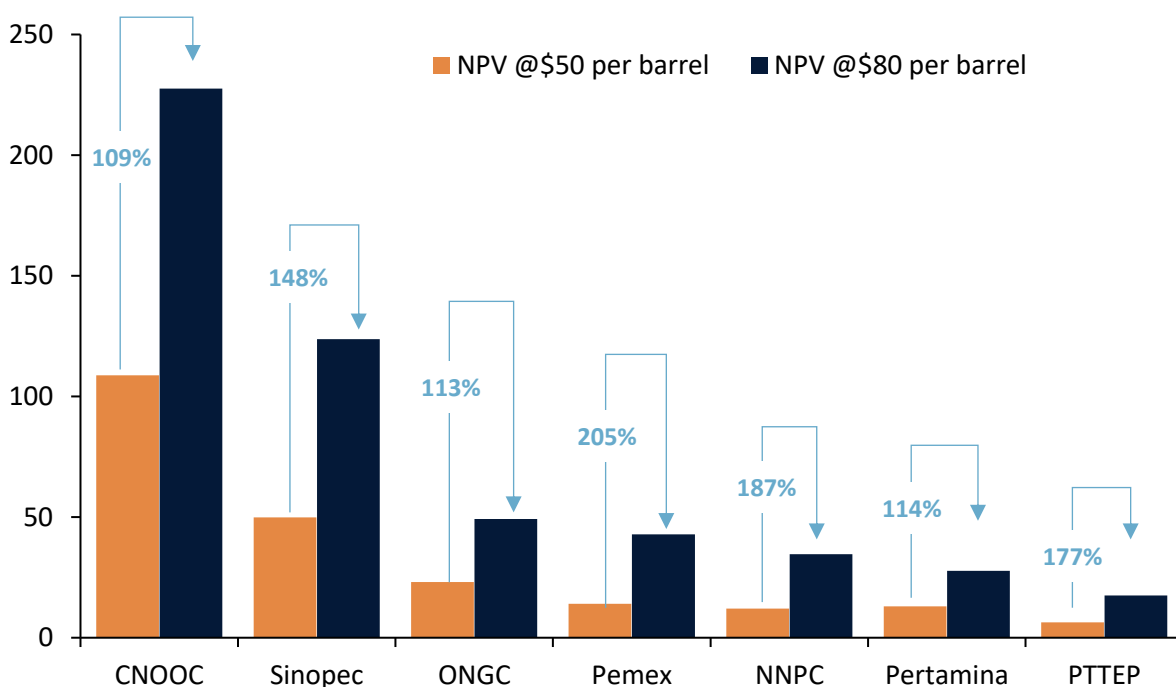
Companies such as CNOOC, ONGC and Pertamina see more moderate NPV growth, although driven by different factors. CNOOC benefits from a cost-

competitive portfolio with limited high-cost projects, ONGC shows limited increase because it has a few high-cost developments, while Pertamina's higher gas weighting moderates its oil prices sensitivity. PTTEP and Sinopec illustrate that even gas-weighted portfolios are materially linked to oil through pricing and capital intensity, so higher oil prices enhance value but do not eliminate exposure to commodity swings.

Portfolio resilience and value capture depend less on resource mix alone and more on cost structure, project cycle and pricing mechanisms. Lower-cost, fast-payback projects or gas contracts with stable demand capture value efficiently under rising prices, while long-cycle offshore or oil-indexed gas developments remain sensitive, highlighting the importance of structural flexibility alongside market conditions.

NOCs' NPV of their upstream portfolio

USD billion



Source: Rystad Energy UCube

Peer group lags larger NOCs in partnerships with majors

NOCs have been using joint ventures with majors and large IOCs to secure technology, capital and energy security at home, while advancing international growth. A few key examples include partnerships between QatarEnergy and TotalEnergies, ADNOC and BP, and Petronas and Eni. According to Rystad Energy analysis, the QatarEnergy-TotalEnergies partnership is estimated to account for almost all of QatarEnergy’s international production from 2026 through 2030 and beyond, while TotalEnergies is expected to save around \$4.5 billion in exploration and capex between 2026 and 2030, highlighting how these exclusive partnerships emerge as win-win scenario for both parties.









Interestingly, most NOCs in this peer group lack a similar exclusive partnership with majors. NNPC is an outlier in this peer group, having used partnerships with majors to support its national gas monetization strategy. It has strengthened its longstanding collaboration with TotalEnergies, recently negotiating attractive fiscal terms for gas and reaching FID on the Ubeta gas field. Through this joint venture, NNPC gains access to TotalEnergies’ technical expertise. A similar partnership previously existed between ExxonMobil and NNPC before ExxonMobil divested its onshore and shallow-water assets in Nigeria to Seplat Energy in a transaction

that took nearly three years to complete. After the transaction, NNPC held 60% and Seplat 40%, with Seplat remaining operator as it brought the technical expertise needed to revive idle wells and maximize value from mature fields.

Elsewhere, while this peer group generally lacks active partnerships with majors, CNOOC signed a cooperation agreement with KazMunaiGas in late 2023 covering upstream assets in the Caspian Sea. In April 2025, the companies agreed on a 50:50 partnership for the Zhyloi project, paving the way for CNOOC’s potential expansion into a country it has sought to enter since 2003. ONGC has also been seeking partners – mainly majors – for frontier offshore basins in India. ExxonMobil and Shell have been approached as deepwater exploration partners, but commitments have been difficult to secure. Results from the AND-P-1 ultra-deepwater stratigraphic well, now being drilled in the Andaman Basin, could provide the proof of concept needed to turn those discussions into committed joint ventures.

We believe that while some regional NOCs remain more insular, active and exclusive partnerships could become critical to maintaining energy security and diversifying supply sources.

Summary of peer group’s joint ventures

			
Partner			Seeking partners
Geography			
Theme	Gas monetization	Diversification; offshore	Frontier; deepwater; expertise
Rationale	<ul style="list-style-type: none"> TotalEnergies brings a wealth of experience in gas development NNPC’s political and regulatory backing aids in making TotalEnergies’ operations in Nigeria more widely accepted 	<ul style="list-style-type: none"> Partnership facilitates CNOOC’s entry into Kazakhstan, originally envisaged in 2023 Mutually beneficial as CNOOC comes with deepwater technical expertise and the partnership is aimed at assets in the Caspian Sea 	<ul style="list-style-type: none"> Significant upside potential for partners if exploration is successful ONGC would benefit from cost sharing and the majors’ expertise in deepwater developments

Source: Rystad Energy E&P M&A dashboard; Rystad Energy UCube; Rystad Energy research and analysis

Most players in peer groups are expanding into renewables

Sinopec is dedicated to building a diverse green energy supply system encompassing hydrogen, wind, solar, geothermal, and bioenergy. The company aims to establish zero-carbon operations through green power generation and green power trading. Its strategy involves leveraging its existing resources – including oil and gas fields, refining and petrochemical facilities, and gas stations – to deploy and construct wind and solar projects, thereby increasing green power consumption ratios.

CNOOC has established several regional-focused renewable subsidiaries, focusing on developing offshore wind and utility-scale solar PV projects that can potentially integrate with its existing operations. The company leverages its rich offshore engineering and operation experiences for offshore wind developments and owns 250 megawatts (MW) of operating offshore wind capacity and another 1.5 gigawatts (GW) in the pipeline to commission before 2030.

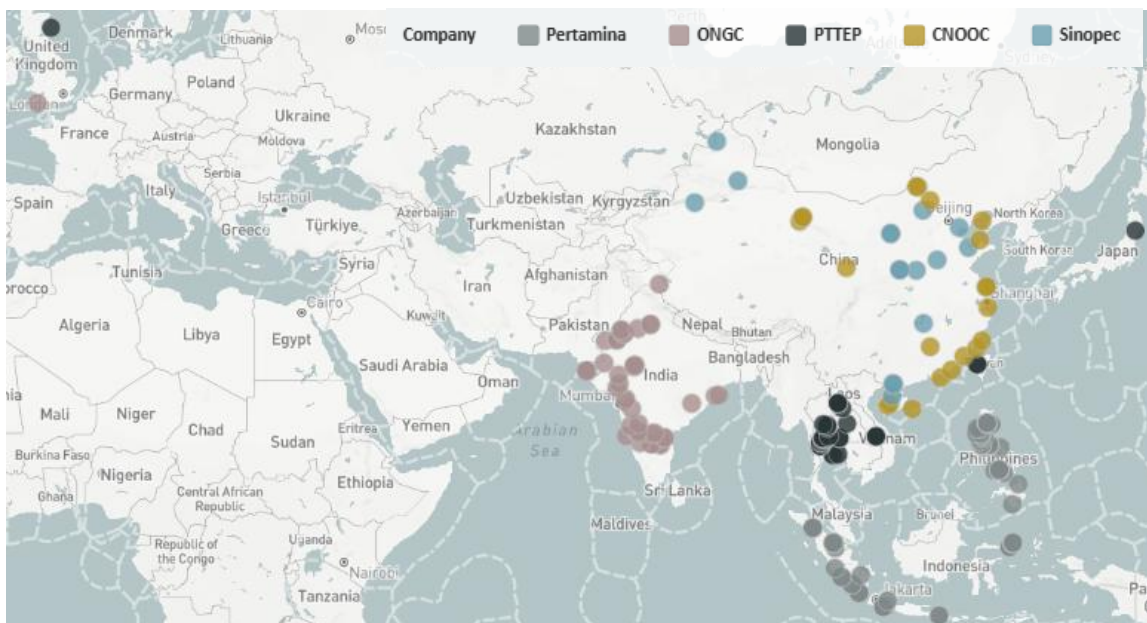
ONGC is working towards its green energy goals via its offshoot ONGC Green, which will spearhead efforts in solar, wind, storage, and green hydrogen project development towards its goal of 10 GW of installed renewable energy capacity by 2030. ONGC Green received an investment of INR 33 billion (\$350 million) in 2025, and put these funds to good use by acquiring Ayana Renewable Power in

partnership with NTPC and operational wind projects from PTC Energy. Pertamina is accelerating its renewables portfolio through its sub-holding, Pertamina New & Renewable Energy (NRE), focusing on geothermal, solar, bioenergy, and emerging technologies. It maintained its position as second-largest geothermal developer in Indonesia, with 727 MW of operational capacity in 2025. The company is integrating solar projects across its operations while expanding its footprint regionally via a 20% stake in Philippines’ Citicore Renewable Energy, acquired in June 2025. It is also entering waste-to-energy through a partnership with China’s GCL, targeting Indonesia’s growing waste-to-energy tender pipeline.

PTT is pursuing net zero by 2050 target via its C3 strategy including climate-resilience business, carbon-conscious asset and coalition, co-creation, and collective efforts for all.

NNPC New Energy Limited drives this agenda across Nigeria and West Africa through renewable energy projects spanning solar, biofuels, green hydrogen, and small hydro, alongside emission reduction services including leak detection, GHG inventory and energy efficiency initiatives. Together, these efforts support Nigeria’s broader goal of achieving net zero by 2060.

Renewable projects with NOCs from peer group involved



Source: Rystad Energy PowerCube

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Rystad Energy's Corporate Strategy Solution delivers in-depth analysis of E&P companies' strategies, diversification plans and decarbonization efforts.

To learn more about this report or to discuss how NNPC benchmarks against its peers, please contact:



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