

Modi's five-nation tour to focus on energy security, strategic ties

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Against the backdrop of escalating tensions in West Asia, fragile global supply chains and an intensifying race for technological dominance, Prime Minister Narendra Modi will embark on a high-stakes five-nation tour on Friday aimed at securing India's energy future, expanding strategic partnerships and deepening access to advanced technologies across Europe.

The May 15-20 visit — covering the UAE, the Netherlands, Sweden, Norway and Italy — comes at a time when New Delhi is recalibrating its foreign policy priorities amid shifting geopolitical alignments and growing economic uncertainty. The first stop in Abu Dhabi is expected to focus heavily on energy security, with India and the UAE likely to sign agree-

May 15-20 visit covers UAE, Netherlands, Sweden, Norway & Italy

ments related to strategic oil reserves and LPG cooperation.

PM Modi will hold talks with UAE President Sheikh Mohamed bin Zayed Al Nahyan as both countries seek to consolidate their rapidly expanding comprehensive strategic partnership spanning trade, investment, energy, technology and connectivity.

Officials said the visit assumes added significance amid growing concerns over maritime security in the Strait of Hormuz and the wider Gulf region, through which a substantial portion of India's crude imports transit. "Discussions will also focus on strengthening our energy security," Secretary (West) Sibi

George had said during a special media briefing, describing the UAE as a critical pillar of India's energy architecture.

The UAE currently supplies nearly 11 per cent of India's crude oil requirements and has emerged as a key long-term LNG partner. Indian public sector companies, including IOC, GAIL and HPCL, have signed cumulative LNG supply agreements of 4.5 million metric tonnes per annum with ADNOC Gas. Following the Gulf leg, Modi will travel to Europe where trade, artificial intelligence, defence manufacturing and green technologies are expected to dominate engagements.

The European outreach comes shortly after the conclusion of India-EU Free Trade Agreement negotiations and the signing of the India-EU Security and Defence Partnership framework earlier this year.



Coal gasification emerges as a priority

Picture a lump of coal. For decades, coal in India had a singular role — to be burned for power. Today, that same lump can be transformed into fertiliser, steel inputs, transport fuels, and hydrogen, redefining it from a combustion fuel into a strategic industrial feedstock. This transformation, enabled by coal gasification, is no longer experimental. It is fast becoming a national priority.

At its core, gasification is a chemical, not thermal, process. Coal is heated at 700-1,500°C in a low-oxygen environment, producing synthesis gas (syngas), a mixture of hydrogen and carbon monoxide. This intermediate unlocks an entire value chain — ammonia, urea, methanol, synthetic natural gas, and petrochemical feedstocks. In a resource-constrained economy, this is not merely technological diversification, it is value maximisation.

India's recent moves signal a shift from hesitation to intent. Underground Coal Gasification (UCG), where coal is converted in situ without mining, is being piloted in Jharkhand. Bharat Heavy Electricals Ltd (BHEL) has developed indigenous gasification technology suited to India's high-ash coal, to produce high-value methanol. Simultaneously, the private sector is emerging as a serious participant.

The transition is underpinned by India's unique resource position. India produced over 1,047 million tonnes of coal in FY25, crossing the one-billion-tonne mark alongside China. It holds nearly 199 billion tonnes of proven reserves and 401 billion tonnes total geological reserves, one of the largest coal endowments globally. Yet nearly 80 per cent of the mined coal is still burnt for power. This is serious underutilisation of an advantageous natural endowment.

The urgency is amplified by import dependence. India imports 88 per cent of crude oil, over 90 per cent of methanol, and 13-15 per cent of ammonia, with ammonia imports alone costing \$982 million (2024). Each geopolitical disruption, from the Strait of Hormuz to tariff regimes, translates directly into inflation. Coal gasification offers a strategic domestic hedge.

Estimates suggest a scaled gasification programme could reduce imports by \$15 billion annually and generate savings of ₹60,000 crore-90,000 crore through domestic fertiliser and chemical production. This is not just energy transition but a macroeconomic stabilisation lever.

Policy and investment momentum reflect this shift. The ₹8,500 crore viability gap funding scheme (2024) targets 100 mt of gasification capacity by 2030: ₹4,050 crore for public sector units and ₹4,450 crore for private players. The Cabinet on Wednesday approved a ₹37,500 crore unified incentive scheme, with a maximum support of ₹3,000 crore per project (up from ₹1,000 crore for private projects and ₹1,350 crore for public projects), targeting self-reliance in liquefied natural gas (LNG), urea, ammonia, methanol, and direct reduced iron. Complementing this framework is a proposed ₹50,000 crore plan to revive 20,000 Mw of idle gas-based capacity. Seven major gasification projects worth ₹64,000 crore across Maharashtra, Odisha, and West Bengal are already underway. Experts estimate 15-20 large complexes will be needed between 2026 and 2030 to meet the 100 mt target.

The project pipeline reflects an ecosystem that looks credible: Policy, technology, capital, and execution are converging. Key developments include the Coal India Ltd-BHEL joint venture at Lakhanpur, Odisha (₹11,782 crore); Coal India-Gas Authority of India Ltd (GAIL) joint venture at Sonepur Bazari, West Bengal (₹13,052 crore); and CIL-Steel Authority of India Ltd joint venture at Durgapur Steel Plant commissioning by FY29. The ₹13,000 crore Talcher Fertilizer Plant in Odisha, India's first coal gasification-based urea project producing 1.27 million tonnes annually, has been developed as a joint venture between GAIL, Coal India, Rashtriya Chemicals & Fertilizers Ltd and Fertilizer Corporation of India Ltd, was inaugurated by the Prime Minister in September 2018.

Private sector initiatives are equally significant: Jindal Steel's Angul facility, among the world's largest syngas-based steel plants, is operational, with new

projects in Raigarh in Maharashtra. New Era Cleantech's \$2.5 billion coal-to-ethanol investment and NLC India's lignite-to-methanol project further expand the ecosystem. Recent developments indicate deepening engineering and execution capability: L&T Energy Hydrocarbon Onshore has secured a large order from Bharat Coal Gasification and Chemicals Ltd in Odisha. The total pipeline now exceeds ₹85,000 crore. More large Indian companies are preparing to enter.

What distinguishes the current moment is the alignment of five enabling conditions: Abundant domestic coal supply, India-adapted technology, strong policy backing, rising private participation, and a geopolitical environment penalising import dependence.

The economic logic is compelling. Syngas from domestic coal can substitute for imported LNG, supply farmers with home-grown urea, reduce coking coal imports in steel, and bridge the hydrogen economy transition. But this is also where caution is warranted. Gasification projects are capital-intensive, technologically complex, and highly sensitive to global price cycles. India has faced this before. When oil prices declined in the past, interest in gasification waned. China, by contrast, persisted. Both countries began exploring gasification simultaneously, but China treated it as a strategic priority, deploying patient capital across price cycles. Today, China gasifies over 80 mmtpa annually and dominates global methanol and ammonia production through coal-derived syngas. India's output is a mere 3-5 per cent of that scale.

India now stands at an inflection point. The debate on coal is often framed as one between continuation and transition. Gasification reframes it entirely: From combustion to conversion, from fuel to feedstock, from constraint to opportunity, from black to green. If executed strategically, it can redefine energy security, industrial policy, and economic and environmental resilience.

One wonders why this transformation was delayed for decades!

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