Deloitte.

India at the centre of global investments
Seize the India moment

Energy, resources and industrials

April 2025

Executive summary

As one of the fastest-growing economies, India offers a compelling narrative of robust economic indicators, a favourable business environment and a strategic position in the global market. This report, "India at the centre of global investments: Seize the India moment," provides a comprehensive guide for investors looking to capitalise on India's growth trajectory.

What makes India a standout destination for investors

India's economic opportunity is nothing short of remarkable, with robust growth positioning it as the fastest-growing economy through FY2026. The country's strong domestic demand and burgeoning digital economy provide a buffer against global uncertainties. However, effectively managing the rapid pace of technological advancements is crucial to sustaining this growth and mitigating potential disruptions.

Strong economic indicators

India's GDP is projected to grow between 6.3 percent and 8 percent over the next two years, underscoring the nation's resilience and economic potential. This steady growth trajectory is a testament to India's robust economic framework, making it an attractive destination for global investments.

The country's competitive edge is further bolstered by four key pillars: favourable demographics, improving logistics, rapid technological innovation and the rise of sunrise sectors. A young and dynamic workforce enhances productivity, while advancements in infrastructure and technology drive efficiency and global integration. The contribution of emerging sectors ensures long-term growth and competitiveness.

Continuous reforms and supportive initiatives

Continuous reforms and supportive initiatives Since 2016, India has implemented many reforms to strengthen its economic foundations. Key initiatives, such as the insolvency and bankruptcy code and the Goods and Services Tax (GST), have streamlined financial and tax frameworks, fostering a more dynamic business environment. Addressing infrastructure gaps, enhancing regulatory clarity and ensuring consistent policy implementation are essential to sustaining growth.

Favourable business environment

India has made significant strides in creating a business-friendly environment, reflected in its improved performance in key areas. Government initiatives, such as the insolvency and bankruptcy code, national infrastructure pipeline, Production-Linked Incentive (PLI) scheme, PM Gati Shakti National Master Plan, recapitalisation of public-sector banks, national monetisation pipeline, and national logistics policy have been instrumental in enhancing the ease of doing business and attracting foreign investment.

Achieving the "Developed Nation (Viksit Bharat)" Vision

Sustained 8.5 percent growth could position India as a developed nation, with its economy reaching about US$30 trillion by 2047. India is on track to transition into a high-income nation in the next few decades by focusing on increasing its manufacturing share and expanding its customer base through exports.

A preview of developed India

Technology

	2024	2047
Rank on the Government AI Readiness Index	40	Top 5
Space Technology and Exploration	**Top 5** spacefaring nations	**Top 3** global space powers
Quantum Computing and Emerging Tech the global quantum ecosystem	Early stage	**Major player** ranking within the top 5
Digital Infrastructure & Connectivity	5G rollout	**6G or 7G** world's most digitally connected nation
Ranking in global innovation index	40th (2022)	Top 5

Infrastructure

	2024	2047
National highways network	1,45,240 km	+ 50,00 km high-speed highway
Railway route length	68,043 km	+1,00,000 km
Number of operation airports	157	350
Cargo handling capacity at ports	2,600 MT	10,000 MT
Urbanisation	35.4%	78-93%

Sunrise sector

	2024	2047
Reduction in Carbon Emission intensity from 2005 levels	~33%	>55%
Renewable energy, installed capacity (GW)	191	1500
Semiconductor Manufacturing	Dependent on semiconductor imports	A semiconductor manufacturing hub
Electric vehicle penetration	18% (2023)	87%
Domestic production of semiconductors	~10%	50%

Economy & demography

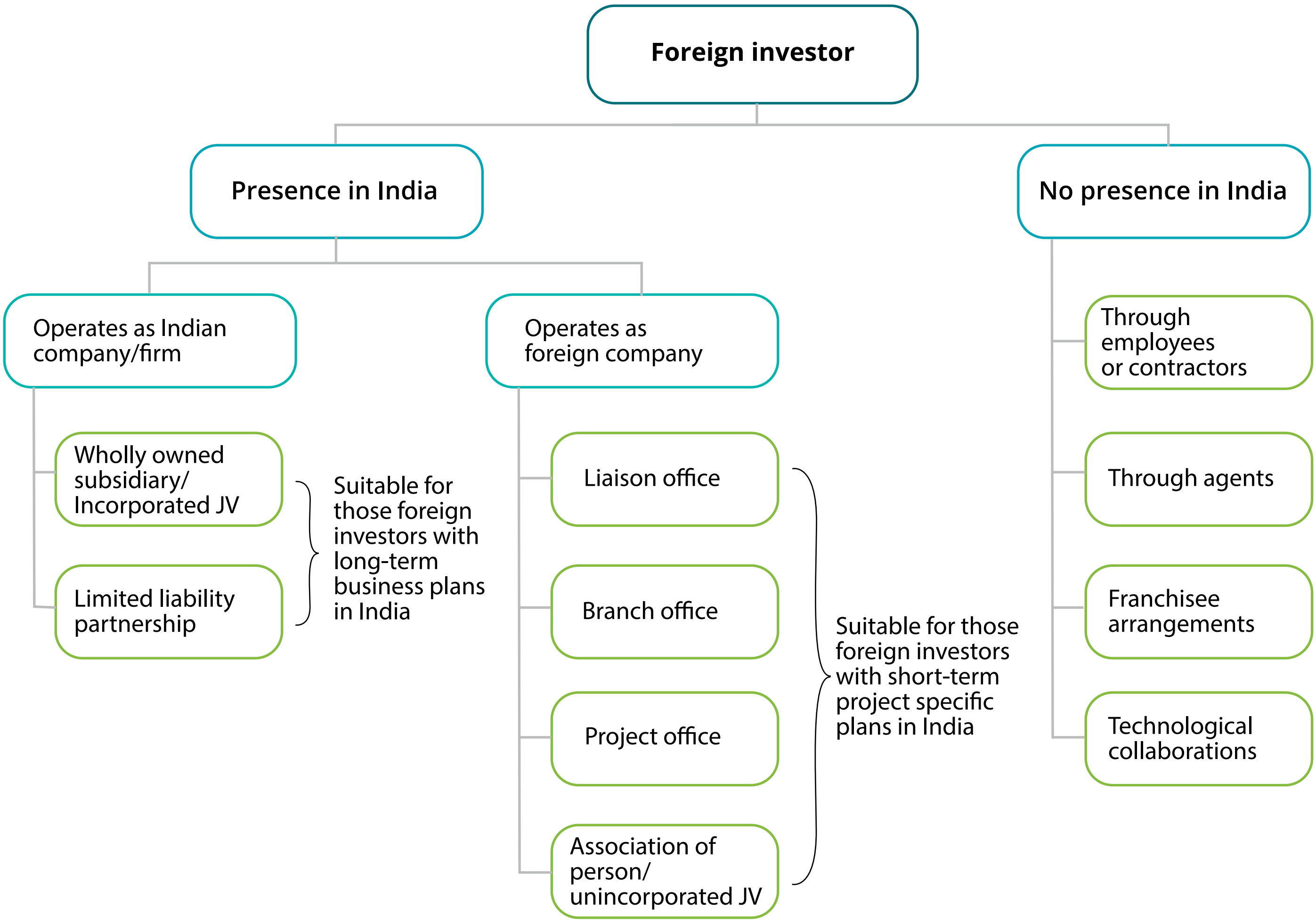
	2024	2047
Employment in highly skilled jobs	32%	100%
Rank in gender equality index	122th	Top 10
Literacy rate	77%	100%
Human Development Index (Value)	0.64	0.9
Women labour force participation (%)	35.4%	74-82%

Sources: Niti Aayog approach paper, PHDCCI, PIB, Economic Times, CXOtoday

How to start your investment journey in India

Choosing the right business entity structure

Choosing the right business entity structure is essential for success in India. Each type of entity has its own advantages, legal requirements and tax implications. Multinational Corporations (MNCs) can operate through various forms, even without establishing a physical presence in India.



MNCs can choose from several business forms in India:

Liaison office

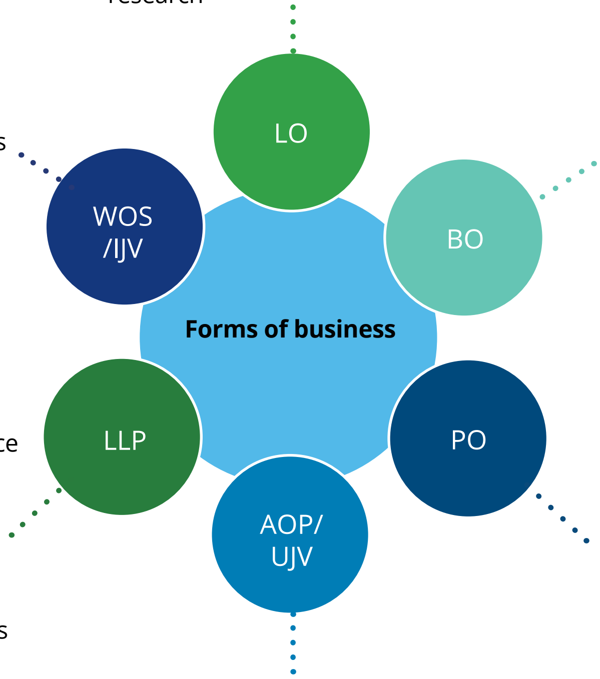
- Acts as communication channel/information collection
- Generally permitted under automatic route for set up and closure
- No commercial activities/income-earning activity
- Not considered a taxable entity
- Incase activities go beyond what is permitted, taxable presence exposure exists
- Suitable for business development/market research

Wholly owned subsidiary/ incorporated joint venture

- Any activity subject to the FDI regulations requires compliance with valuation, sectoral caps, reporting compliances, etc.
- Income taxable @ 15/22/25/30 percent* depending on prescribed criteria
- Income from buyback of shares taxable in the hands of shareholders as dividend.
- Suitable for long-term business operation

Branch office

- Automatic route for eight prescribed set of activities
- Income taxable @35 percent*
- No tax on profit repatriation
- Easy to set up and wind up



Limited liability partnership

- Any activity subject to the FDI regulations requires compliance with valuation, sectoral caps, reporting, etc.
- Income taxable @30 percent*
- No tax on profit repatriation
- Suitable for long-term business operations

Project office

- Project/contract based
- Automatic route for set up and closure subject to specified conditions
- Income taxable @35 percent*
- No tax on profit repatriation
- Suitable for entities undertaking EPC project(s) in India

Association of persons/unincorporated joint venture

- Opening of bank account–Automatic route–for execution of contract in India
- Income taxable @35 percent,* if there is a foreign partner/venture
- Suitable for short-term business operations in consortium

Moreover, foreign investors can fund Indian entities through equity funding (no direct obligation to repay funds) and debt funding (direct repayment of funds upon maturity in India).

*plus applicable surcharge and cess

Spotting the ideal business location

One vast nation with 28 states and 8 union territories – where should you place your bet?

Choosing the right business location and entity structure involves considering the nature of activities, investment period, business model, and tax implications to ensure alignment with business objectives and goals.

A few central and state government policies that can affect investment decisions

State government

- State industrial policies (benefits depend on chosen district, investment proposed, employment generation possibilities, etc.)
- Sector-specific policies, viz. aerospace and defence, MRO, biotechnology, electronic systems, IT and IT-enabled services; tourism, renewable energy, automotive, electric vehicles, logistics, textile, MSME, start-ups, telecom, etc.
- Customised package of incentives possible for large investment projects

Central government

- PLI schemes for specific sectors, incentives for some sectors are under review
- Capital subsidies for SPECS (electronic components and semiconductors)
- Export-linked incentives, such as rebates, exemptions and credit scrips of duties and taxes
- Location specific (Northeast, special zones)
- Special customs programmes for duty concessions and deferrals (in bond manufacturing and project import scheme.)

What you need to know before taking the plunge

The answer is simple: you must be well-versed with the country's tax landscape, regulatory scenario and returns on investments/repatriation of funds.

Navigate the tax landscape in India

Understanding the tax landscape is like having a reliable GPS for investors, guiding them through complex terrain, helping them avoid costly detours and ensuring a smooth journey to success. This knowledge will help provide an overview of taxation laws and ensure compliance with local regulations, ultimately safeguarding returns and minimising risks.
A new simplified Income tax Bill was introduced in February 2025 to increase tax certainty, reduce litigation and achieve overall good governance. The new income tax law is expected to be effective from 1 April 2026.

Income tax:
The tax year runs from 1 April to 31 March. Each person is required to file a separate income tax return, and no consolidation is possible. Residents are taxed on worldwide income; non-residents are taxed on India-sourced income/deemed accrual in India or receipts in India. An individual's residential status is determined by the number of days they stay in India. A company is a resident in India if it is incorporated in India or its place of effective management (PoEM) is in India. A partnership firm/LLP/other non-individual entity is resident in India if any part of the control and management of its affairs is in India.

Unpacking India's tax landscape

As an investor, you need to be on top of the following elements in the country's extensive tax landscape:

Type of company/income	≤ INR 10 million		≤ INR 100 million		> INR 100 million	
	Normal	MAT	Normal	MAT	Normal	MAT
Domestic company: Normal rates	31.2	15.6	33.4	16.7	34.9	17.5
Domestic company: Turnover ≤ INR 4 billion in the FY two years prior	26	15.6	27.8	16.7	29.1	17.5
Domestic company: Foregoing specified incentives/deductions	25.2	Not applicable	25.2	Not applicable	25.2	Not applicable
Domestic manufacturing company set-up after 29 February 2016; foregoing specified incentives/deductions	26	15.6	27.8	16.7	29.1	17.5
Foreign company	36.4	15.6	37.1	15.9	38.2	16.4

Transfer pricing:
Indian transfer pricing regulations specify that two or more enterprises become Associated Enterprises (AEs) when one of them participates, directly or indirectly, or through one or more intermediaries, in the management, control or capital of the other enterprise(s). These regulations also cover certain circumstances under which two enterprises shall be deemed to be AEs.

India has rolled out safe harbour regulations and introduced the APA (Advance Pricing Agreement) as a key dispute prevention tool. This has become a popular choice among taxpayers because it tends to yield better outcomes.

Taxpayers also have the option to use the MAP (Mutual Agreement Procedure) under relevant tax treaties or go through domestic litigation at appellate levels. Moreover, the Budget 2025 has brought in block transfer pricing assessments, which streamline audits by assessing taxpayers over a block of three years. This change aims to reduce the frequency and administrative burden of audits, ensuring more consistency and predictability in tax assessments.

Employee taxation
In India, employment income earned for services rendered within the country is subject to taxation, regardless of the individual's residential status, the location of the employment contract, or where the income is paid. The Budget 2025 has reduced the tax burden on individuals to encourage consumption.

For non-Indian citizens present in India for a short duration, employment income can be exempt from income tax if short stay conditions are met, according to the Act or DTAA. To claim DTAA benefits, a Tax Residency Certificate (TRC) is required.

Employers must withhold tax on salaries earned by employees in India and provide a tax withholding certificate. They need to obtain tax registrations and file withholding tax returns. Employees must file an annual income tax return if their income exceeds a certain threshold.

Foreign or resident Indian citizens employed by foreign companies and deputed to Indian group companies can maintain foreign currency bank accounts outside India to receive salaries for services rendered in India.

Employee services to employers are not considered a supply of goods or services, hence not subject to GST.

Social security:
Employers and employees must comply with social security regulations, including contributions to provident funds and other statutory benefits.

Immigration:
Foreigners, except OCI cardholders, need an employment visa to work in India. This visa can be extended in India for up to 10 years. Dependent visas are available for accompanying family members.

Here're recent trends and updates.

- Labour code: The government has introduced four new labour codes, subsuming 29 existing laws, to simplify labour regulations. The effective date is yet to be notified.
- Global work-from-anywhere policies: Hybrid and remote working models are now common. Tax implications for foreign employers and employees working from India need careful consideration.
- Gig economy: The gig economy is growing rapidly, with an expected increase in gig workers from 7.7 million in 2021 to 23 million by 2029-30. The government plans to introduce welfare measures for gig workers.

Understanding these aspects is crucial for effective tax compliance for both employers and employees in India.

Business restructuring

Business restructuring requires careful navigation of key factors, such as deal taxation, related tax implications, and due diligence challenges. For investors and businesses venturing into India, grasping these elements is essential for efficiently structuring transactions and mitigating potential risks. With India's dynamic tax landscape and ongoing regulatory reforms, strategic planning in restructuring can unlock substantial value.

Income tax compliance and dispute resolution

The Indian tax authorities have set forth several income tax compliance requirements under the income tax regulations. These requirements mainly include:

Maintenance of books:
Taxpayers are required to maintain accurate and detailed records of their financial transactions. This ensures transparency and helps in the accurate calculation of taxable income.

Audits:
Certain taxpayers must undergo audits conducted by certified professionals. These audits verify the correctness of the financial statements and ensure compliance with tax laws.

Dispute resolution:
Mechanisms are in place to resolve disputes between taxpayers and tax authorities. This includes processes for appeals and settlements to address any disagreements regarding tax assessments or penalties.

Indirect taxes

Despite the implementation of GST, some indirect taxes remain in effect. Customs duty continues to apply to international trade, while central excise duty is levied on specific petroleum products (such as petrol and diesel) and certain tobacco products. State excise duty applies to alcoholic beverages and narcotics, and states impose VAT on alcohol sales.

Customs duties:
Customs duties are levied on goods imported into or exported from India, with rates specified in the Customs Tariff Act, 1975. Duties can be specific, ad-valorem or a combination of both. The CBIC has implemented measures to streamline customs clearance and reduce transaction costs, promoting the ease of doing business. Various schemes, such as bonded manufacturing facilities and export promotion schemes, support exports.

Foreign Trade Policy (FTP):
The FTP, established by the DGFT, provides guidelines for imports and exports. The FTP 2023 aims to position India as a competitive player in global trade by embracing technological advancements and fostering collaboration. It is built on principles of trust and partnership with exporters.

Free Trade Agreements (FTAs):
FTAs are agreements among countries to reduce or eliminate tariffs and non-tariff barriers on substantial trade. India has FTAs with about 54 countries, covering trade in goods, services and other areas, such as IPRs and investments. Rules of Origin (ROO) determine the country of origin for products, affecting duties and trade policies.

Indirect tax compliances: Compliance obligations under key indirect tax laws include maintaining books, undergoing audits and resolving disputes.

Production-Linked Incentive (PLI) schemes:
Introduced in March 2020, the PLI scheme promotes domestic manufacturing under the Atmanirbhar Bharat initiative. It offers incentives such as tax rebates and reduced import/export duties to boost production, create jobs and ensure social welfare.

Regulatory landscape and returns on investment/ repatriation of funds
Navigating the regulatory landscape in India is essential for foreign investors. It provides a clear framework for external commercial borrowings and foreign direct investments. Grasping the nuances of ROI and fund repatriation is key, as it directly affects profitability and ensures compliance.

What futuristic trends should you keep an eye on

Here are some key trends shaping the future business landscape in India:

ESG integration:
Much in line with global trends, Indian businesses now give greater importance to ESG considerations. They are integrating environmental consciousness, ethical practices and labour protection into their strategies. Government initiatives, such as renewable energy goals and the National Green Hydrogen Mission are supporting this shift towards sustainability.

Technological advancements:
Advanced technologies, such as AI, blockchain and Generative AI, are transforming tax reporting and administration, enhancing efficiency and accuracy. Technology also plays a key role in tax compliance, with many processes now managed through digital solutions.

Booming start-up culture:
India's start-up culture is booming, driven by a young, tech-savvy population, government initiatives, and a growing entrepreneurial spirit, with sectors such as fintech, edtech and e-commerce leading the charge. Start-ups in India can claim a 100 percent tax holiday on profits for any 3 consecutive years within 10 years of incorporation if they meet prescribed conditions and are incorporated before 1 April 2030.

Evolution of GCCs:
Global In-House Centres (GICs or GCCs) in India have gone through the value chain in India and are evolving from back-office processes to becoming centres of operational excellence, product development and innovation hubs.

In conclusion, India presents a dynamic and promising landscape for investment, driven by robust economic growth, a favourable regulatory environment and a wealth of opportunities across various sectors. By understanding the strategic advantages and navigating the regulatory framework, investors can unlock significant potential and contribute to India's ongoing development.

Now is the time to seize the opportunity and invest in India's bright future.

Click here to read the complete report

Energy, resources and industrials

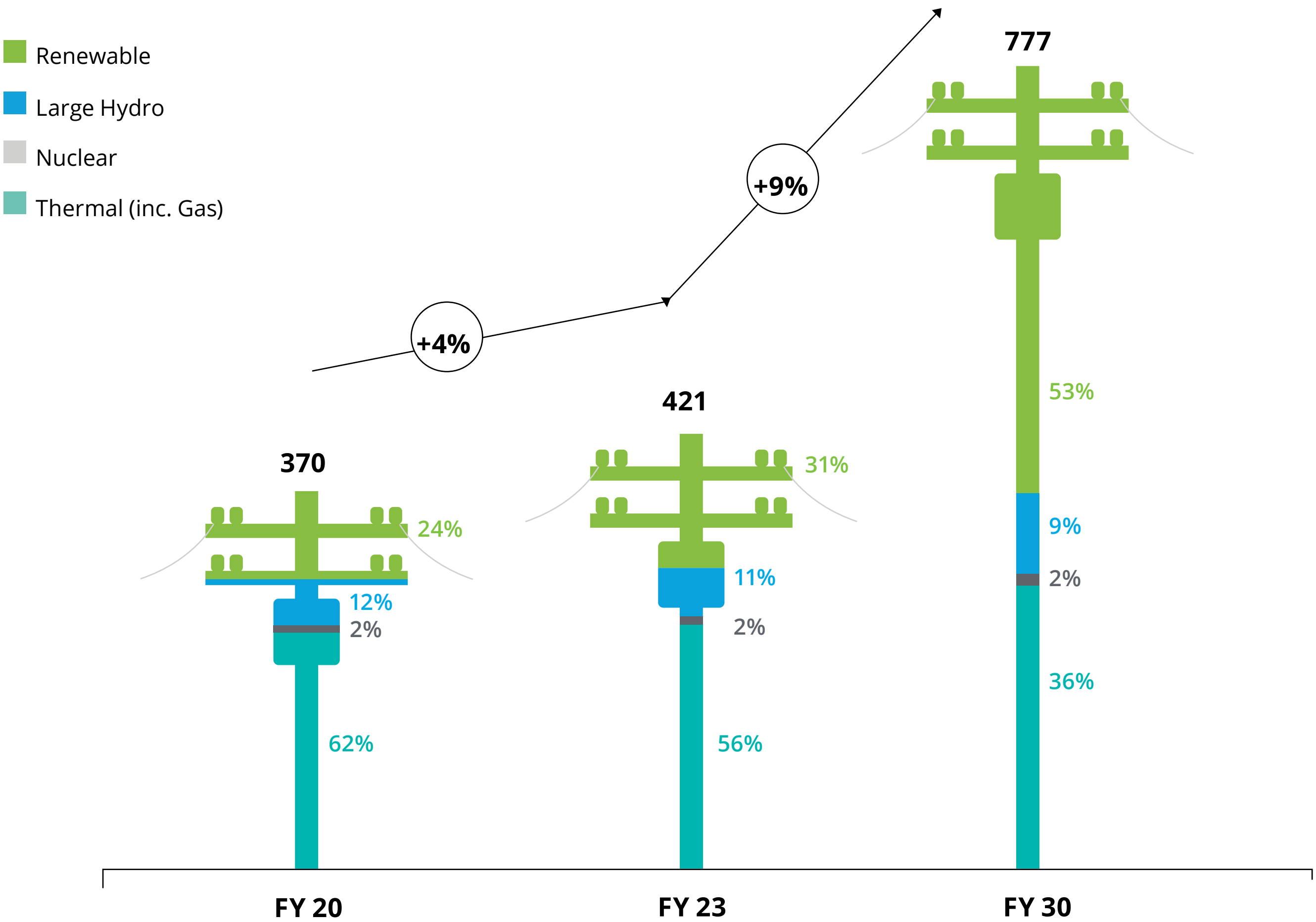
India has transitioned from being a power-deficit nation to a country that meets its demand with large capacity additions in renewables.

Renewables

The government of India has targeted to reach 500 GW in RE by 2030 (450 GW from solar and wind, 70-100 GW from large hydro). Renewable sources of energy are expected to lead the green transition, with a 53 percent share of installed capacity and a 32 percent share of gross generation in India by 2030. India stands committed to reducing emissions with the long-term goal of reaching net-zero by 2070 with major contributions from renewables.[1]

Factors boosting RE capacity addition include favourable policies, technological advancements, foreign investments and incentives for the domestic production of solar modules and battery storage. Transitioning to clean energy is a huge economic opportunity for India.

Installed Electricity Capacity (GW) Growth



[1] Source: https://pib.gov.in/PressReleasePage.aspx?PRID=1847813

Sub-technology sectors

- **Solar:** India has 5,000 trillion kWh of solar energy incidents per year in the land area. This huge potential, coupled with a favourable regulatory landscape, has driven solar to achieve the highest growth rate in installed capacity. A similar growth trend is expected to continue in the future as well. The Union Government is steadily progressing on its path of expansion of RE. With flagship schemes, such as PM Surya Ghar Muft Bijli Yojana, being currently implemented on a wide scale, solar installed capacity, particularly through rooftops, is set to witness unprecedented growth.

  To boost domestic manufacturing; the Customs duty on solar panels and cells was reduced, recognizing the importance of the value chain and boosting domestic manufacturing. The Union Budget 2025 reduced import duties on solar panels by cutting Basic Customs Duty (BCD) from 40 percent to 20 percent and exempting the 10 percent Social Welfare Surcharge (SWS). However, with a 20 percent Agriculture Infrastructure and Development Cess (AIDC), the overall duty dropped by only 4 percent. For solar cells, the BCD was reduced from 25 percent to 20 percent, and the 10 percent SWS was exempted. However, with a 7.5 percent AIDC, the overall duty remained unchanged.

  To boost local manufacturing, developing an indigenous supply chain, including capital goods, will be crucial.

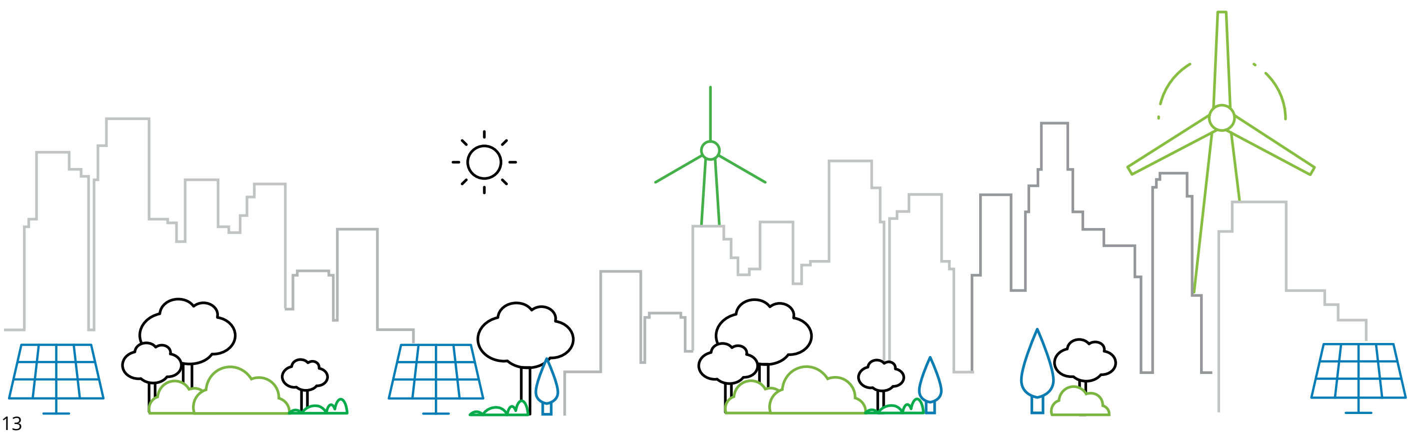
- **Wind:** Solar-installed capacity overshadowed wind-installed capacity in the past. With technologies such as Round-the-Clock (RTC) and offshore wind development, wind is expected to contribute significantly to the total energy mix.

- **Energy storage systems:** To address the intermittent nature of renewable energy technologies, ESS is looked at as the next major technology in the power sector over the next decade. With the increasing demand for RTC power, ESS as a service is expected to be used across many project designs in the future.

Key enablers to support large-scale renewable integration

The transition to clean energy is a huge economic opportunity for India. To promote holistic development, the GOI has introduced a series of regulatory initiatives focussing on improving price parity, bulk production, domestic manufacturing and grid parity.

- Expediting deployment of offshore wind
- Proposing solar cities and parks
- Creating a domestic supply chain
- Green Hydrogen Mission



- Need of affordable financing
- Making renewables dispatchable
- Grid integration through Energy Storage System (ESS) deployment

Source: Deloitte Analysis

Driven by their ESG agenda, Commercial and Industrial (C&I) consumers have a significant role to play in realising India's clean energy targets.

The C&I segment dominates the electricity consumption mix, contributing ~50 percent to India's overall consumption mix. In the past two decades, their consumption has grown at ~7 percent (CAGR) (Source CEA). Globally, C&I consumers are proactively, voluntarily and consciously attempting to increase their share of RE consumption. C&I is expected to majorly contribute to reaching the national clean energy target of 450 GW by 2030.

Key drivers for C&I consumers transitioning to clean energy

Factors motivating decision makers to shift to renewable sources of energy from IPPs include the following:

Cost saving

Affordability
RE is a cheaper variant compared with its brown energy counterparts, leading to savings and an improved bottom line.

Changing regulatory landscape
The government is offering several incentives and subsidies to promote RE adoption.

Feasibility
Procuring green energy from the grid is a time-consuming process, a reason why C&I players are procuring from IPPs.

Sustainability

Changing IPP landscape
Most of the IPPs had captive generation, which tends to be in thermal. But since thermal energy is becoming obsolete, this is not picking up pace. Hence, they are moving towards RE.

Energy security
RE sources are often domestically available. Relying on RE sources can enhance energy security by reducing dependency on imported fossil fuels and volatile energy markets.

Long-term stability and sustainability
Investing in RE lets organisations lock in fixed/predictable prices for a long period, allowing stability. They can also achieve their sustainability targets through this.

Source: Deloitte Analysis

Government initiatives towards promoting green power sale to C&I consumers via open access

The growth of RE in the Indian market is highly dependent on the policy and regulatory environment. The Indian government has taken several measures to accelerate RE adoption by C&I consumers. RE power is available to consumers at a much more affordable price vis-à-vis grid tariff. The government has taken appropriate measures to enable RE power achieve grid parity.

Government thrust towards green transition of C&I customers

Bilateral trade of REC

Bilateral trade of RECs has opened avenues for VPPA contracts for Indian electricity market.

Green OA

Green OA is formulated to promote RE via Green OA with OA allowed for 100 kw load and restricted increase in OA charges.

ISTS waive off

ISTS charge waive off for RE transactions is extended to C&I consumers.

Transmission planning and GNA

GNA Regulations brought in feasibility for bulk consumers to get connected to ISTS grid.

A key bottleneck to decarbonising MSMEs is financing and their access to finance. To address this bottleneck, the government had introduced a credit guarantee scheme and to prevent MSMEs from becoming non-performing assets, a government-promoted fund supports a guarantee of credit availability. Union Budget 2025 has enhanced access to credit under the credit guarantee cover. The budget has highlighted the "National Manufacturing Mission," focusing on MSMEs engaged in manufacturing.

The government emphasised the transition of MSMEs, as well as other large corporations, from the current "Perform, Achieve and Trade" mode to the "Indian Carbon Market". MSMEs will also get financial support for deploying clean energy and energy efficiency measures.

Battery Energy Storage System (BESS)

The BESS has a distinctive ability to stabilise intermittent renewable energy generation and plays a crucial role in India's clean energy ambitions. The utilities' increased inclination towards procuring RTC and peak power solutions has implications for bundling BESS with renewable supply. The uptake of BESS is largely dependent on the projected price reduction and establishment of a global supply chain.

The country anticipates a cumulative BESS demand of 47 GW/236 GWh[2] by FY2032, enabling the integration of approximately 596 GW of renewable capacity.

[2] pib.gov.in/PressReleaseIframePage.aspx?PRID=1928750

Three key trends propelling growth in Indian BESS industry

Continuous policy and regulatory support to foster domestic BESS industry

- Approval of Viability Gap Funding (VGF) for development of Battery Energy Storage Systems (BESS) (September 2023)
- National Framework for promoting Energy Storage Systems (August 2023)
- Notification of Energy Storage Obligation Trajectory until 2029–30 (July 2022)
- Issuance of standard bidding guidelines for BESS (March 2022)
- Notification of Ancillary Services Regulations, 2022 (January 2022)

New investment announcements in battery manufacturing

- The Government of India approved PLI scheme for manufacturing of Advanced Chemistry Cells (ACCs) of capacity 50 GWh with overall outlay of INR 181 billion in May 2021
- Of the total 50 GWh PLI capacity, 30 GWh is currently under construction and 20 GWh is in process of allocation
- In addition to the PLI scheme capacity, around 100 GWh capacity deployment is announced by industry players

Increase in demand for BESS in the domestic market

- Distribution utilities are increasingly looking to procure dispatchable power to match their demand patterns (in FY23 out of 9,900 MW bids announced or in process, 5200 MW (52 percent) is dispatchable in nature)
- The Government of India successfully concluded a tender for deployment of GWh scale standalone BESS (in 2022, SECI successfully concluded tendering of 500 MW/ 1,000 MWh standalone BESS capacity)
- 47 GW/236 GWh is the overall BESS demand projected by 2031–32 (per the National Electricity Plan for the period of 2022–32)

Source: Ministry of Power notifications and press releases, National Electricity Plan (2022-32), Ministry of Heavy Industries (MHI), Deloitte analysis

- Union Budget 2025 has also given a boost to the BESS industry. To boost the manufacturing of lithium-ion batteries in the country, 35 additional capital goods for EV battery manufacturing and 28 additional capital goods for mobile phone battery manufacturing were added to the list of exempted capital goods.
- The budget also reduced BCD from 20 percent to 10 percent on carrier-grade ethernet switches to make them comparable to non-carrier-grade ethernet switches.

Tax considerations

Wind, solar and hybrid (including round-the-clock project)

Thin capitalisation rules
Interest (paid to non-resident associate enterprise) up to 30 percent of EBITDA is deductible. Third-party interest payments are also covered (if guaranteed by parent).

Stamp duty value of land considered for share transfer
Agricultural lands are converted into non-agricultural lands for industrial use. Though market value could be lower, however considering stamp duty rates for industrial land, there could be a potential exposure of deemed income in the hands of buyer as well as seller.

Concessional tax rate
15 percent concessional tax rate available for power generating companies set up on or after 1 October 2019 and which commenced generating electricity by 31 March 2024.

- **NIL BCD** under ASEAN FTA, subject to value-add addition, for modules and lithium-ion battery imports
- Policy announced for **viability gap funding for BESS**
- Import duties **deferment/exemption benefits** under various schemes, such as MOOWR, EPCG, EOU and advance authorisation for BESS manufacturers
- GST rate on:
  - Supply of solar and wind energy power projects comes to about 13.8 percent
  - Supply of BESS is 18 percent
- **State incentives, such as** GST reimbursement, exemption from stamp duty, land tax and electricity duty

Green hydrogen in India

Green hydrogen is expected to play an important role in this energy transition, particularly in decarbonising the "hard-to-abate" sectors that cannot be electrified easily. I**t can be applied in fertilisers, refineries, steel production, and transport.**

Indian Hydrogen market is poised for investment

$2.2b

Budgetary allocation towards hydrogen supply & electrolyser manufacturing

~$185m

Allocation towards green hydrogen pilot projects

~$100m

Allocation towards R&D and other components

5 MT

Green hydrogen production target for domestic consumption

50–60 GW

Electrolyzer deployment target by 2030

~6 MT

Domestic grey H2 production and consumption

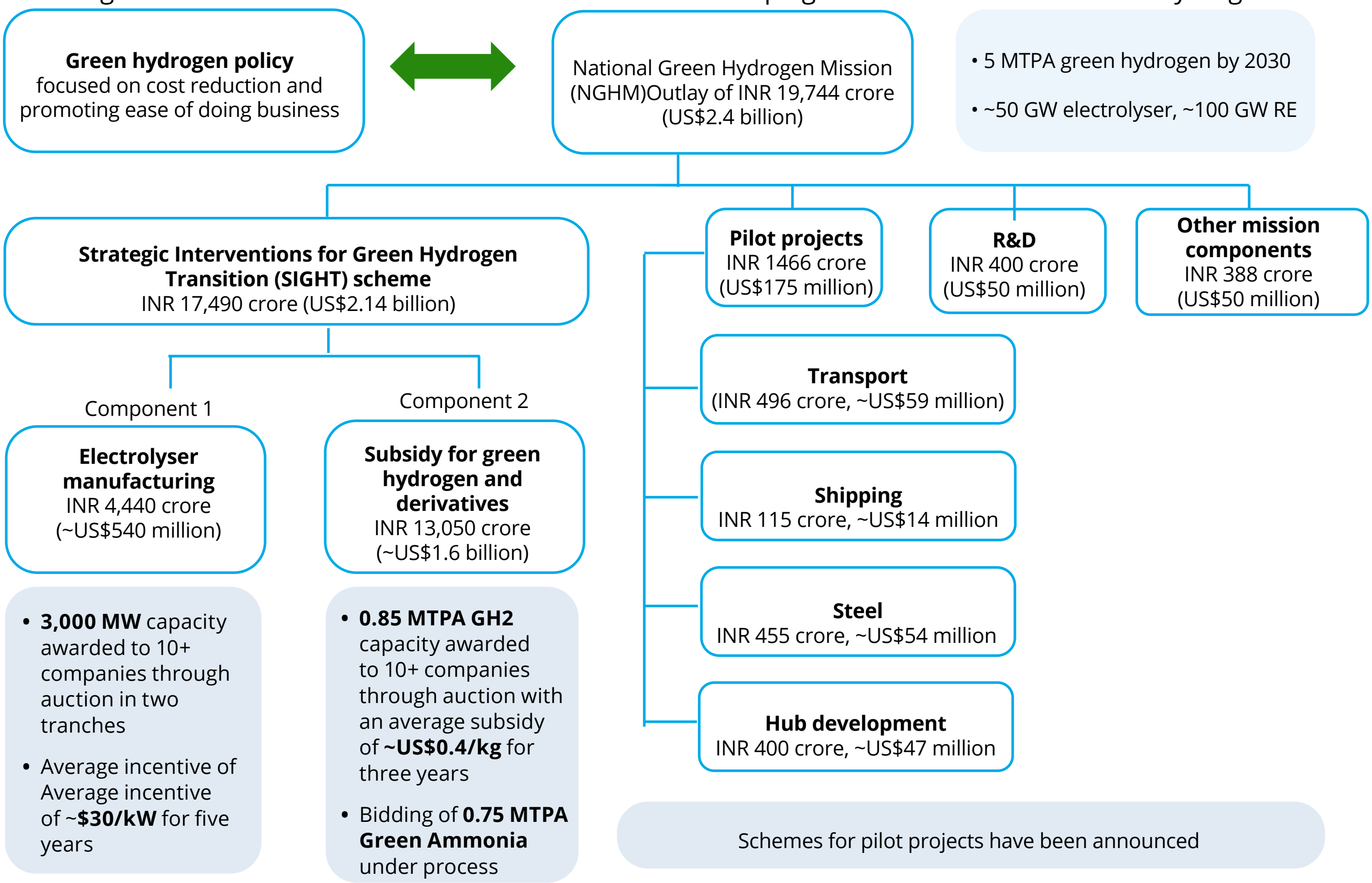
Key drivers for the hydrogen economy in India

- Ambitious emission reduction target and commitment to achieve **net-zero by 2070**
- **Favorable RE policy,** including faster grant of open access, transmission charge waiver and provision of banking of electricity; **dedicated hydrogen policy being implemented by States**
- Availability of **low-cost RE** and ongoing one of the largest RE addition program in the world
- Sizeable **substitutable domestic demand** and availability of **export ready infrastructure**

In 2021, the government of India launched the National Green Hydrogen Mission (NGHM), laying its vision, intent and direction for harnessing hydrogen energy. It was followed by the introduction of the National Green Hydrogen Policy. This policy intends to facilitate green hydrogen adoption by bringing down the costs of green hydrogen and easing the setting up of green hydrogen projects. The government's hydrogen vision was further cemented in January 2023 when the Union Cabinet approved the provisions of NGHM by sanctioning INR 197.44 billion outlay to make India a global hub for green hydrogen. The mission aims to reach an annual green hydrogen production of a minimum 5 MMTPA by 2030 and sets an aspirational target to capture 10 percent of the global demand.[3] The announcement of incentives along with the aspirational production target, positions India as one of the attractive destinations for green hydrogen production globally.

Initiatives by the Government of India to drive a hydrogen economy

Various government initiatives have been instrumental in developing a foundation for low carbon hydrogen



GH2 standard limits the emission from hydrogen production

Multiple pilot-scale projects are in various stages of development; a few large green ammonia projects are also in advanced stages, which are largely export-focused. Recently, under the NGHM, the government has initiated auctions for green hydrogen, green ammonia (for the fertiliser industry) and Production-Linked Incentive (PLI) for electrolyser manufacturing. A few refinery players have invited bids for setting up green hydrogen plants for captive consumption. These initiatives are expected to kick-start the hydrogen economy in the country.

[3] Source: India National Hydrogen Mission document

The announcement of the "National Manufacturing Mission" presents an opportunity to establish a robust ecosystem for components such as electrolysers. While the industry believes in the green hydrogen-led long-term transition, the current economics is not yet favourable. A cost difference (calculated based on cost curves applicable in the Indian market) of about ~US$2.0–2.5/kg of hydrogen compared with fossil fuel-based hydrogen (or other energy alternatives) is considered a major deterrent for Indian industries to adopt green hydrogen.

To bridge the cost gap between green hydrogen and other alternatives, such as grey hydrogen, natural gas, and coal, it is critical to focus on policy initiatives, ecosystem development, and innovative financing. While several export hubs are emerging across the globe, India has the unique opportunity to become a world leader in green hydrogen production and emerge as a major exporter with the distinct advantage of low-cost renewable.

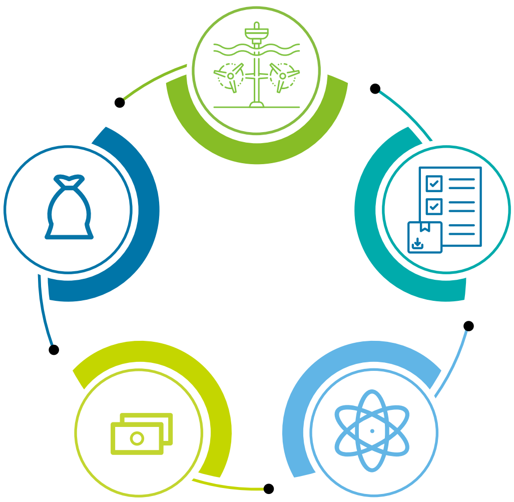
Tax considerations

National Green Hydrogen Mission – Setting a target of **5 MMT of GH2** per year by 2030 for India

The incentive scheme **"SIGHT"**, with an outlay of INR 175 billion, was provided to incentivise the manufacturing of **GH** and **electrolysers.**

State-specific incentives are also available in the form of duty and tax exemptions

- Employment generation subsidy
- Customised package scheme



Import duties on electrolyser and other products can be saved under various schemes, such as EOU, SEZ.

Eligibility of green hydrogen and other derivatives (such as ammonia) for 15 percent concessional tax rate if company is set-up on or after 1 October 2019 and production commences by 31 March 2024

Investment structures to be evaluated (for single vs. multiple entity, FVCI investments, etc.)

- Inorganic chemicals used in GH production typically subject to **18 percent GST rate.**
- Supply of GH is subject to 18 percent GST rate.

Oil and gas sector

India is the third-largest global consumer of crude oil. Over the past decade, its demand has grown from 203.7 MT (FY2012) to 261.5 MT (FY24) at a CAGR of ~2.1 percent.[4] In FY24, the crude imports were ~88 percent of the total crude oil requirement. The government has taken steps to enhance production and substitute demand for crude oil products. These included the introduction of the Discovered Small Field Policy, the operationalisation of the National Data Repository, the launch of the Open Acreage Licensing Programme, the launch of the Special CBM Bid Round, pricing guidelines for natural gas and a single licence for conventional and unconventional hydrocarbons. The government has set a vision of reducing crude imports by 10 percent. Natural gas constituted 7 percent of the primary energy mix for India in FY2024.[5] The overall gas consumption in FY2024 was about 67,512 MMSCM. To strengthen energy security, In the Union Budget 2025, the Government of India significantly increased its allocation for the Strategic Oil Reserve, earmarking INR 58.76 billion for fiscal year 2025-26. This marks a rise from the INR 1.3 billion allocated in the Revised Estimates (RE) of the previous year.

Upstream

Upstream companies are investing in E&P assets to secure energy supplies: For example, ONGC is investing in deep water exploration activities to increase oil and gas production in India to increase energy security.

Energy transition and net zero initiatives are driving future strategy for upstream companies. For example, ONGC is expected to spend ~ INR1 trillion to achieve 10–15 GW of renewable energy capacity.[6]

Increase in collaboration between technology companies/start-ups and upstream companies: For example, ONGC is expected to enter into a joint venture with Greenko ZeroC to make green hydrogen.[6]

Digitalisation and reskilling expected to be areas for companies to remain competitive: For example, Shell has been using digital twins and AI-assisted seismic interpretation for well location optimisation while Exxon has multiple reskilling initiatives in emerging areas and technology.

Midstream

Investments in strategic petroleum reserves for energy security: There has been investment in building strategic petroleum reserves to absorb supply shocks. For example, ISPRL in India is planning to increase SPR capacities by 6.5 MT.

Increase in LNG infrastructure investments: The increasing demand for natural gas has led to multiple producers reviving liquefaction trains and customers ordering new LNG vessels to secure suppliers.

Investments in pipeline and other midstream infrastructure: : Increasing investments in pipelines, storage facilities (strategic reserves), etc. India leads amongst countries with an upcoming length of 29,881 km from 2023–2027.[7]

Innovation in delivery of LNG to customers – virtual pipelines (CNG/LNG): To increase penetration of natural gas, companies are developing new delivery systems, such as CNG cascade and ssLNG to reach areas without pipelines.

[4] PPAC;
[5] Press Information Bureau, MoPNG
[6] News reports
[7] PNGRB reports

Downstream

Investment in petrochemicals: Companies are developing and implementing technologies to extract more petrochemicals from crude oil. For example, OMCs such as IOCL, BPCL and HPCL are now building integrated refinery and petrochemical infrastructure.

Biofuels as a substitute of crude oil/natural gas products: Indian companies are adding biofuels, such as bioethanol, biodiesel, SAF and CBG in their portfolio to reduce import bill as well as support energy transition goals.

Transformation from oil to energy companies: Oil and gas companies are evolving into energy companies by adding energy from renewables, biofuels and other sources.

Non-fuel and multifuel retail: Retailers are offering multi-fuel alternative fuels (CNG, hydrogen, CBG and EV), convenient shopping, and experiential offerings in developed nations.

Tax considerations

1

Investment-linked incentives for companies engaged in laying and operating cross-country natural gas pipeline networks for distribution, including storage facilities, are subject to certain conditions.

Excise and VAT on petroleum crude, diesel, and natural gas with different VAT rates across states lead to price differentiation.

2

GST @ 18 percent on petroleum oils and oils obtained from bituminous minerals, specified petroleum gases, petroleum jelly, petroleum coke, petroleum bitumen.

3

Presumptive taxation for non-resident service providers who are engaged in the business of providing services or facilities or supplying plant and machinery on hire in connection with prospecting/extraction/production of mineral oils.

Make-specific provision for allowance of expenditure in the business of prospecting, etc., of mineral oils.

Restrictions on availing GST credit on purchases by Oil and Gas companies – petroleum products may be brought under GST (expected GST rate of 28 percent along with cess).

4

Concessional duty rate is available on import from specific countries under bilateral/multilateral treaties and Free Trade Agreements.

Also, **subsidies** are **available for manufacturing** segment under states' industrial policies.

5

Customs duty and GST levied on import of machinery for setting-up refineries, duty deferment/ exemption under schemes, such as EPCG and MOOWR.

Typically, MNCs operating in these segments would require an offshore presence in India for execution of the contracts with the government to provide the on-ground support. The offshore arm could be in the form of project office/liaison office/branch/legal entity. Such offshore arm of the MNC will be treated as a separate taxable entity. Typically, such offshore arm enters into various transactions with HO/group companies to such business operations.

Engineering, procurement and construction sector

- EPC contract involves the supply of goods as well as the provision of services at the offshore and onshore levels. The supply of goods and provision of services both are critical to the successful completion of the project.
- EPC contract(s) may be either a single composite contract or separate contracts. The tax implications vary based on the nature of the EPC contract(s) and the facts of each case.

Project owner

Contractual structure

Single composite contract

- Single contract is awarded for various scopes of work.
- One needs to evaluate if offshore supply and services would be subject to tax in India.
- There is potentially higher effective GST rate on account of deemed valuation for setting up solar and wind power projects.

Separate contract

- Distinct contracts are executed for various scopes of work.
- Each scope of work is expected to be taxed differently.
- Arm's length attribution between onsite and offshore contracts is based on value contribution by each party.

Consortium contract

- Contract is awarded to the consortium.
- One needs to evaluate if consortium constitutes an AOP.

**Plus applicable surcharge and cess*

Taxability – Revenue streams

Offshore supply

- Typically, not taxed in India subject to fulfilment of certain conditions (based on tax treaty and judicial precedents).
- Taxable @ 35 percent * on a net basis, if PE exists and supply is connected to PE.
- Attribution of profits to PE is required to be carried out by applying the arm's length principle.

Offshore services

- It is expected to be taxed as "royalty" or "fees for technical services" @ 20 percent* on a gross basis, subject to tax treaty benefits.
- Taxable @ 35 percent * on a net basis, if PE exists and services are connected to PE.
- Taxability would vary if drawings and designs form an integral part of supplies.
- Technical/engineering services with cost plus mark-up arrangement often challenged by tax authorities on comparable companies selected.

Offshore supply and services

- By foreign company – Taxable @ 35 percent * on a net basis, if PE exists and supply/services are connected to PE.
- By Indian company – Profits of Indian entity are taxable as business income at applicable corporate tax rates (15/22/25/30).* plus tax on repatriation of profits as dividends, etc.

EPC contract

- Taxability of EPC contracts (especially, offshore supply and services) has been a subject of litigation. It is imperative to examine the nature and terms of contract/agreement, facts of each case and conduct of the parties is crucial.
- It is important to analyse duty deferment for high sea sales by EPC contractors and the valuation of works contract services, especially when selling goods to MOOWR licence holders. This is because EPC contractors face restrictions on duty deferment.

Metals and mining

TCS

Mining and quarrying (other than for mineral oil) is subject to tax collection at source at 2 percent.

RoDTEP

Export of certain minerals/metals is eligible for benefit under the RoDTEP scheme, in the form of electronic scrip, which can be utilised for payment of import duty.

SAFTA Benefit

Benefits are available on import of mining and metal products from certain countries under the SAFTA, resulting in lower customs duties.

Industrial products/manufacturing

The government has been working to transform India from a service economy to becoming a manufacturing powerhouse and diligently position itself as an attractive destination for manufacturing.

Accelerated depreciation

Accelerated depreciation at the rate of 20 percent is available for new plant and machinery used in manufacturing.

Corporate tax regime

Eligibility for 15 percent concessional tax rate if a company is set up on or after 1 October 2019 and production commences by 31 March 2024.

Incentive for employment generation

To generate employment in the economy, additional deduction of 30 percent of the incremental employee cost for each of three years is provided, subject to certain conditions.

Royalty payment on licencing of intangible

This is one of the most litigative issues from a TP perspective. The tax authorities scrutinise the payment of royalty from two perspectives – need or commercial benefit perspective on the part of the licensor. Taxpayers need to have robust documentation in place to demonstrate the commercial benefit and the need for such licence from an arm's length perspective.

Tax-free exports

Input GST used in exported goods/services is available as refund. Under **duty drawback**, exporters can claim refund on customs duties paid on imported inputs used in manufacturing.

Concessional Customs duty

On import of capital goods and other specified goods under the project import scheme.

Government grants and incentives

Dependent on the policy prevailing in centre/state and location and/or the sector. The central government offers incentives to certain manufacturing sectors, such as electronics, semi-conductors and textiles. These incentives include PLIs, capital subsidies and certain focussed programmes. State governments may provide incentives for certain sectors, such as food processing, aerospace and defence, renewable and medical devices through state industrial policies and sector-specific policies.

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