



**OFFSHORE MINING**

**Budget Proposal**

The FM announced that the Government will launch the auction of the first tranche of offshore blocks for mining and building on the exploration already carried out.

**ELP's Insights**

The Offshore Areas Mineral (Development & Regulation) Act, 2002 (**OAMDR Act**) provides for the development and regulation of mineral resources in the territorial waters, continental shelf, exclusive economic zone and other maritime zones of India.

The OAMDR Act was amended in August 2023 to enable the auction of mineral blocks in offshore areas to the private sector. To implement the OAMDR Act on June 6, 2024, the Ministry of Mines notified the Offshore Areas (Existence of Mineral Resources) Rules, 2024. Over the past year, the Ministry of Mines has also released 6 (six) draft rules to enable offshore mining.

In March 2024, the Minister of Coal and Mines had stated that a total of 10 (ten) offshore mineral blocks have been short-listed by the Ministry of Mines, and inter-ministerial consultations are underway to seek necessary clearances for auctions at the earliest.

Under India's Deep Ocean Mission, India has already undertaken high resolution sea floor mapping to understand and validate the resource potential at various exploration sites. The exact legal contractual framework under which the offshore mineral auctions has still not been released.

India has a unique maritime position wherein its offshore areas hold significant promise for meeting global resource demands. The auction of such offshore blocks to the private sector will further open up India's mining sector.

**CRITICAL MINERAL MISSION**

**Budget Proposal**

The FM announced the establishment of a 'Critical Mineral Mission' with the following key areas of focus:

- Boosting India's domestic production capacity of critical minerals;
- Recycling of critical minerals;
- Overseas acquisition of critical mineral assets to capitalize on previous exploration efforts; and
- Exempting customs duties on 25 (twenty-five) critical minerals.

The mission's comprehensive mandate includes fostering technological advancements, developing a skilled workforce, implementing extended producer responsibility frameworks, and establishing robust financing mechanisms.

**ELP's Insights**

India's transition towards green energy faces significant challenges due to its dependence on imports for critical minerals such as lithium, cobalt, and nickel, primarily sourced from China. This dependency exposes India to supply disruptions and price volatility in global markets dominated by Chinese processing and refining capacities. Recognizing these vulnerabilities, the Government has intensified efforts to boost domestic production of critical minerals. Recent initiatives include:

- Amending the Mines and Minerals (Development and Regulation) Act, 1957, effective from August 17, 2023, to facilitate the auction mineral blocks for grant of mining lease and composite license for 24 (twenty-four) critical minerals.
- Auctioning 38 (thirty-eight) blocks of critical minerals to enhance self-sufficiency.

Critical minerals are required for renewable energy, electric vehicles and battery storage technologies. The mission is expected to mitigate risks from global supply chain disruptions, stimulate economic growth, and help achieve self-sufficiency in critical minerals and advance India's environmental sustainability goals.

## PUMPED STORAGE POLICY

### Budget Proposal

The FM has indicated that a policy for promoting Pumped Storage Projects (“PSPs”) will be brought out for electricity storage and facilitating smooth integration of the growing share of renewable energy with its variable and intermittent nature in the overall energy mix.

### ELP’s Insights

The FM had in the budget speech of FY 2023 – 2024, indicated that as part of promoting energy storage projects, the Government would introduce a detailed framework for PSPs. The Ministry of Power had subsequently issued guidelines to promote development of PSPs, dated April 10, 2023.

The economic survey 2023-24 dated July 22, 2024 (“**Economic Survey**”) has indicated that India’s energy needs is due to increase by 2 (two) to 2.5 (two point five) times by 2047. Given that India is increasing its production of renewable energy, it is important that measures be taken to store the energy produced to lessen the burden during peak seasons. Such steps taken by the Government will help in diversifying the energy mix and reducing reliance on conventional sources of energy.

## ADVANCED ULTRA SUPER CRITICAL THERMAL POWER PLANTS

### Budget Proposal

The FM indicated that the development of indigenous technology for Advanced Ultra Super Critical (“AUSC”) thermal power plants with much higher efficiency has been completed.

The FM further announced that a joint venture between NTPC and BHEL will set up a full scale 800 (eight hundred) MW commercial plant using AUSC technology with the Government providing the required fiscal support.

### ELP’s Insights

The Economic Survey notes that India’s primary energy mix in 2022-23 was fossil-fuel dominant, with almost 84% (eighty-four per cent) met from coal, oil, and natural gas combined.

In August 2023, the Minister of Power in a written reply to a question in the Rajya Sabha stated that 94 (ninety-four) thermal power plants operating in the country had already adopted super-critical/ultra super-critical technologies.

Given that AUSC thermal power plants generate electricity in a more efficient manner with minimum pollution to the environment, the adoption of AUSC technology will help in meeting India’s net zero commitments.

## GOVERNMENT TO PARTNER WITH PRIVATE SECTOR FOR SMALL NUCLEAR REACTORS INITIATIVE

### Budget Proposal

The FM announced a significant push towards integrating nuclear energy into India’s energy mix. The FM stated that the Government plans to collaborate with the private sector on three key fronts:

- Setting up Bharat Small Reactors;
- Advancing research and development of Bharat Small Modular Reactor (“SMR”); and
- Exploring cutting-edge technologies for nuclear energy.

## ELP's Insights

The International Atomic Energy Agency defines SMRs as advanced reactors that produce electricity of up to 300 (three hundred) MW(e).

In May 2023, the National Institution for Transforming India (NITI Aayog) co-authored the document, 'A Report on the role of small modular reactors in the energy transition,' with India's Department of Atomic Energy (DAE) and integrated engineering consultant Tata Consulting Engineers Limited (TCE). The report noted that SMR industry is currently at an evolution stage as it faces the challenges of technology demonstration, special material availability, special manufacturing techniques, project funding requirements and regulatory harmonization. Focussing on SMRs signals a departure from the conventional large-scale nuclear plants, thereby providing more flexibility and economic power solutions. These initiatives exhibit India's dedication to balancing its increasing energy demands with environmental responsibilities.

The Economic Survey highlights that the synergistic deployment of such factory-manufactured, made-in-India SMRs along with medium-size 700 MWe Pressurized Heavy Water Reactor may be a relevant strategy for rapid scale-up of nuclear power capacity in India.

## ROOFTOP SOLAR

### Budget Proposal

The FM highlighted the success of PM Surya Ghar Muft Bijli Yojana ("**PM SGMBY**") (formerly named as Pradhan Mantri Suryoday Yojna). The PM SGMBY has so far garnered more than 12.8 (twelve point eight) million registrations and 1.4 (one point four) million applications. The FM indicated that the Government would look to further encourage the aforesaid scheme.

## ELP's Insights

The FM had previously, in the interim budget speech of FY 2024 – 2025, announced that the solar installation could result into an annual savings of INR 15,000 (fifteen thousand) to INR 18,000 (eighteen thousand) per household, generated through free solar electricity and the sale of surplus power to distribution companies, charging of electric vehicles, creating entrepreneurship opportunities for a large number of vendors for supply and installation and generating employment opportunities for the youth with technical skills in manufacturing, installation and maintenance. The Government had originally fully subsidised the installation of 1 (one) - 3 (three) KW solar systems under PM SGMBY. Subsequently, the Government altered PM SGMBY to contribute only 60% (sixty percent) of the cost of installation.

The Economic Survey notes that the PM SGMBY, launched in February 2024 with a total outlay of INR 750.21 (seven hundred and fifty point two one) billion, is expected to add 30 (thirty) GW of solar capacity and reduce 720 (seven hundred and twenty) million tonnes of CO<sub>2</sub> equivalent, creating around 1.7 (one point seven) million direct jobs across the solar value chain.

This announcement is aligned with India's sustainability goals and will help promote clean energy usage and reduce the carbon footprint. The widespread adoption of solar technology will also enhance energy security and environmental stewardship and be a step towards achieving energy self-sufficiency.