



ONGC News as on 01 August 2024 (Print & Online)



Publication : Financial Express	Editions : New Delhi
Date :1 August 2024	Page : 1, 7

Q1 growth may take a hit as public capex plunges

PRASANTA SAHU & PRIYANSH VERMA New Delhi, July 31

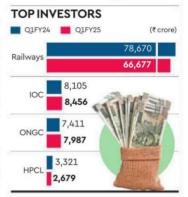
THE CAPITAL EXPENDITURE by the Centre and central public sector enterprises (CPSEs) declined by 35% and 39%, respectively, in the first quarter of the current financial year on an annual basis, indicating challenges ahead to meet their respective targets for FY25. The decline, primarily caused by the general elections, has raised the possibility of the economic growth in Q1 coming in significantly below the Reserve Bank of India's estimate of 7.3%.

Given that the Centre's policy of public capex-led economic growth revival in recent years, the pace of capex would, however, pick up from the second quarter of FY25 as the general elections, new government formation and full Budget presentation have been completed, analysts said.

In the first quarter of FY25, the Centre's

In the first quarter of FY25, the Centre's capex declined to ₹1.81 trillion compared with ₹2.78 trillion in the year-ago period.

with ₹2.78 trillion in the year-ago period. In the month of June, the Centre's capex fell by a massive 66% on year to ₹37,426



crore compared with $\P1.1$ trillion in June 2023.The Centre's capex target is $\P1.11$ trillion for FY25 compared with $\P9.49$ trillion invested in FY24, up 17% on year.

Continued on Page 7



Publication : Financial Express	Editions : New Delhi
Date :1 August 2024	Page : 1, 7

Q1 growth may take a hit as public capex plunges

"To meet the FY25 Budget Estimate, ₹9.3 trillion of capex needs to be incurred in the last three quarters of the year, a growth of 39% relative to the same period of FY24 (₹6.7 trillion), which appears quite challenging," Icra chief economist Aditi Nayar said.

The decline in the Centre's capex is also reflected in the over-all CPSE capex as railways and the National Highways Authority of India (NHAI) investments are largely funded through the Budget. Both entities accounted for 55% of the CPSE's capex target of ₹7.8 trillion for FY25.

As a result, investments by CPSEs fell to ₹1.46 trillion in Q1FY25 compared with ₹2.38 trillion in the year-ago period, reflecting the impact of the slow-down in spending during the general elections (April-May).

The CPSEs having annual capex target of ₹100 crore and above have set a combined target of investing ₹7.8 trillion in FY25.

After railways and NHAI, petroleum sector undertakings in aggregate are the third biggest public sector investors in the CPSEs. Petroleum CPSEs have invested ₹26,523 crore in Q1FY25 as against their annual target, marginally higher than ₹25,644 crore invested in Q1FY24 (annual target ₹1.06 trillion).

"QIFY25 shouldn't be looked as the right benchmark for what can happen for rest of the year as it was a quarter that saw general elections. The capex spending trend of Government of India also shows lower run rate than last financial year. Additionally, due to extreme heat wave, consumption indicators were also uneven," said Garima Kapoor, economist, Elara Securities.

Thanks to a 9% growth in gross fixed capital formation led by public capex including states, India's GDP grew by 8.2% in FY24, exceeding the expectations of both domestic and multilateral institutions.

"There is a possibility that Q1FY25 (GDP) growth may come below RBI's estimates by 20 to 30 bps," Kapoor added. The RBI has projected the first quarter's GDP growth rate at 7.3%, and the entire year's at 7.2%.



Publication : The Hindu Business Line	Editions : New Delhi
Date :1 August 2024	Page: 8

25033	» Ni	fty 50 Fu	itures		
S1	S2	R1	R2	COMMENT	
24970	24900	25080	25200	Wait for dips. Go long at 24980. Keep the stop-loss at 24940	
₹1617	» HD	FC Ban	k		
51	52	R1	R2	COMMENT	
1590	1560	1650	1680	Still stuck in a range. Avoid trading this stock for now	
₹1868	» Inf	fosys			
\$1	S2	R1	R2	COMMENT	
1860	1840	1890	1905	Take long positions now with a tight stop-loss at 1855	
₹495	» ITC				
S1	S2	R1	R2	COMMENT	
491	487	503	507	Go long now and at 492. Stop-loss can be placed at 489	
₹334	» one	GC			
S1	S2	R1	R2	COMMENT	
330	325	340	345	Stuck in a narrow range. Avoid trading this stock for now	
₹3010	» Re	liance I	nd.		
51	S2	R1	R2	COMMENT	
3000	2985	3030	3050	Go short only below 3000. Keep the stop-loss at 3005	
₹873	» SBI				
S1	S2	R1	R2	COMMENT	
868	860	880	890	Wait for a rise. Go short at 889 with a stop-loss at 892	
₹4400	» TC	s			
	50	R1	R2	COMMENT	
S1	52	KT	RZ.	COMPLETE	



Publication : Business Standard	Editions : New Delhi
Date :1 August 2024	Page : 13

TAKING ENERGY AWAY FROM TRANSITION Withdrawing funds for the initiative to be

taken up by oil refiners is a cause for concern



S DINAKAR New Delhi, 31 July

ndia's energy transition is at stake after the government in the final Budget for 2024-28 eliminated a \$15,000 crore grant for oil companies to invest in this, and gave no indications of continuing with a programme to subsidise electric vehicles to subsidise electric venue. (EVs) — transportation leads to a fifth of global

key causes behind many Indian cities topping the global pollution charts for the last few years. So for energy translition for one of energy translition for one of indiustries — oil refining—that has lost it is power to price fuels for the last few years, amid a season of weak refining margins and unpredictable marketing margins on sales of LPG, diesel and petrol, is a cause for concern, industry

officials said.

The fund, carmarked for state oil refiners to transition to cleaner fuels, has a chequered history. Finance Minister Nimale ed 25,000 crove in February 2023 for energy transition, an initiative to jumpstart clean energy initiatives at state oil companies, which were then refelling from billions of dollars in losses from selling transport fuels at below market prices.

The fund was classified as "Capital Spending," for oil companies in the 2023-24 Budget document. In her Budget speech, Sitharaman said the Budget provides \$35,000 crore as priority capital lines stimment stowards energy transition and Net Zero objectives, and energy security for the Ministry of Petroleum and Naturul Gas Petroleum and Naturul Gas Capital Spending but her Budget listed the fundas "Capital Spending" but have the amount and carried to ver to the current financial year. But in the final Budget presented in July, the government changed the nomenciature to "Capital Infusion", made no reference to energy transition, and climinated the companies of the property of the p

completely.

Moreover, the Budget has
made no provision for
continuing with the subsidy
on EVs from August 2024
after at 10,000 crore FAME - 2
scheme expired in March,
and a runcated subsidy
programme ended on July
31. "With no incentives from
August, the total cost of
acquisition of e-twowheelers is expected to
increase 9-11 per cent."
ratings agency CRISII, said
in a note on the Budget.
Compulsions to keep the
fiscal deficit in check along
with enhanced budgets for
Andhra Pradesh and Bihar,
which have lent support to a

Andhra Pradesh and Bihar, which have lent support to a minority BIP government, has left little for energy transition in the transport sector, industry officials said. Oil minister Hardeep Puri announced in July sad. on minister hadeep Purl announced in July plans to create an energy security fund, without offering details, but of provisions were made by the finance ministry for that fund in the Budget. On the contrary, the allocation to build new strategy petroleum reserves (SPRs), a strategic necessity in line

MONEY FLOW



with 88 per cent oll import dependency, was cut by t100 crore to Mole Screen for FY25 — In IPY24, only \$40 crore was utilised of the budgeted \$508 crore. In addition, a \$6,5000 crore allocation to fill existing \$PRs was unused in FY24, and eliminated in FY24, according to Budget documents. The second of the second s

to OMCs.* Kadam added, The government abruptly slashed the allocation by half but disbursed nothing in 19724, according to the interim Budget for 19725 presented in February. "Last year, the government allocated \$35,000 crore for priority investments in energy three thems."

OMCs to support projects for energy transition, energy security, and achieving net generalisation by 2070, a generalisation by 2070, a generalisation by 2070, a generalisation by 2070, a generalisation by 2070, and parshan floodwark. EEO and managing director, AVA Global Logistics.

"At issue are oil prices. We have lost the right to price what we produce," a senior official at a state oil marketing company told this reporter.

What oil companies secured after

was towards affordability of fuels to consumers than free market doctrines. "Is my commitment to ensuring availability and affordability to my consumer, or is it to some doctrine which was

produced in some part of the world? In following that doctrine, I then land up in chaos here, Purtisaid.

Previous governments ensured affordability by subsidising oil companies from the Budget but the present administration has left into QMC streathed lies.

avarsana noncawat, CEO
and managing director, AVA
Global Logistics.

"At issue are oil prices we
have lost the right to price
what we produce," a senior
official at a state oil
marketing company told
this reporter.
What oll companies
what op company told
this reporter.
What oll companies
official at a state oil
marketing company told
this reporter.
What oll companies
official at estate oil
marketing company told
this reporter.
What oll companies
official at estate oil
marketing company told
this reporter.
What oll companies
official with relation to an environment of climate
change and clean energy
coupled with india's reliance
on rossificial release the change and clean energy
coupled with india's reliance
on rossificial release the change and clean energy
coupled with india's reliance
on rossificial release the change and clean energy
coupled with india's reliance
on rossificial release the change and clean energy
coupled with india's reliance
on rossificial release the change and clean energy
coupled with india's reliance
on rossificial release the change and clean energy
coupled with india's reliance
on rossificial release the change and clean energy
coupled with india's reliance
on rossificial release the change and clean energy
coupled with india's reliance
on rossificial release the reporter.

Petroleum and
Petroleum

quarter, Nomura Securities said in a note. Marketing margins declined by a sharp 27 per cent in the quarter, partly due to under-recoveries on LPG and a sharp fall in blended autofuel marketing margin.

Against this backdrop of falling realisations, BPCL has proposed epanding Bina refinery by 4.2 million tonely rat an overall cost of \$49,000 crore and is planning a billion tonely replaced to the second proposed epanding bina refinery by 4.2 million tonely replaced to the second proposed to the se



Publication : Hindustan Times	Editions : New Delhi
Date :1 August 2024	Page : 18

Biodiversity needs a win against oil & gas

he development versus environment debate may not always have a clear winning side, but when it has an endangered species at the centre, the scales must tip in favour of conservation. Vedanta-owned Cairn's proposal to drill in the Hollongapar Gibbon Sanctuary in Assam could have severe consequences for the Hoolock Gibbon, India's only ape species, and a cascading impact on the region's biodiversity. Wildlife scientists have warned that even a small erosion of the forest canopy could destabilise the animal's population, given how it is almost entirely arboreal and moves around using the top branches. Cairn has the blessings of the state government, the Union environment, and the forests and climate change ministry's regional office, albeit with conditions. But the Centre's Forest Advisory Committee must consider expert opinion carefully, given the species is classified as endangered by the International Union for Conservation of Nature.

The gibbons already face a threat to their habitat from the Railways' plans to electrify and expand its network on the sanctuary's land. Ironically enough, two aspects of sustainability are clashing here, with route electrification being key to the Railways' plan to decarbonise. Against this backdrop, hydrocarbon exploration, with all its implications for the country's energy security, may seem a weaker case to risk the likely biodiversity trade-off.

In the Railways' case, the Wildlife Institute of India had recommended setting up artificial canopy bridges for the gibbons as a last resort. Experts will need to weigh in on whether this alternative is even feasible for a drilling project, considering it involves more invasive activity, over a longer period.



Publication : Millennium Post	Editions : Kolkata
Date :1 August 2024	Page: 3

State clear barriers for fastracking GAIL project

OUR CORRESPONDENT

KOLKATA: State's chief secretary B.P. Gopalika on Wednesday held a meeting with Sandeep Kumar Gupta, chairman and managing director, GAIL (India) Ltd at Nabanna for quick clearing of hurdles associated with gas pipeline connection in the state.

associated win gas pipellic connection in the state.

According to Nabanna sources, Gupta informed the chief secretary about certain issues associated with the ongoing work for the project in East Burdwan and Hooghly. The chief secretary issued necessary directions from the meeting for clearing the barriers so that the project can be fast tracked.

The pipeline covering several districts in the state laid

by GAIL has already reached Durgapur. The pipeline is part of the Jagdishpur-Haldia pipeline project coming to West Bengal from Uttar Pradesh via Bihar and Jharkhand. The completion of the pipeline close to Kolkata's landing point would allow for the expansion of CNG gas stations in the state.

Bengal Gas Company Ltd, the JV company between GAIL and the state, that is entrusted to supply green fuel to Kolkata, is preparing a mother station in Kalyani which is expected to increase CNG supply to the city three times.

Now, the green gas is being brought to Kolkata in tankers from the mother station at Panagarh which takes more than six hours.



Publication : The Hindu Business Line	Editions : New Delhi
Date :1 August 2024	Page : 5

Diesel, petrol exports may slow down on weak Europe demand, low margins

Rishi Ranjan Kala

The country's exports of petrol and diesel, which were sluggish during June 2024, are expected to be subdued for the next couple of months largely on account of weak demand from Europe, low margins and upcoming domestic refinery maintenance.

Market players and analysts attribute the development to lower demand for diesel in Europe. Gasoline or petrol exports fell due to more supplies hitting the domestic market on account of refinery maintenance. Jet fuel exports, on the other hand, are expected to maintain momentum, albeit not on the scale witnessed during May 2024.

However, diesel exports to

However, diesel exports to Asia continued to rise in June, with cargoes to Africa declining relative to May but well within the historical range.

Data from Petroleum Planning and Analysis Cell (PPAC) show that diesel exports fell by 9.4 per cent mo-m and 0.5 per cent y-o-y to 1.94 million tonnes. Outbound cargoes of petrol declined 3 per cent m-o-m to 1.24 mt. On an annual basis, motor spirit exports rose marginally by 0.8 per cent. Overall, India's refined

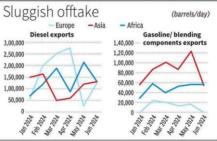
Overall, India's refined petroleum product exports fell by 5 per cent m-o-m and 0.6 per cent y-o-y to around 4.98 million barrels per day (mb/d).

MOMENTUM DECLINES

India's exports to Europe have been subdued largely on account of strong domestic supplies and slow demand, trade sources said.

Vortexa's Head of APAC Analysis, Serena Huang pointed out that India's diesel exports to Europe rebounded in June to 125,000 barrels per day (b/d), rebounding from the multiyear low in May. However,





Source: Vortexa

they are still down by over 50 per cent year-on-year.

"The rebound in exports is likely driven by lower Middle East exports to Europe in June, as well as a compensation of the weak exports in May," she added.

While diesel exports to Asia continued to rise in June (around 132,000 b/d), volumes to Africa (around 131,000 b/d) were down relative to May but well within historical range.

historical range.
India's gasoline exports last month declined to a five-month low of 360,000 b/d, Huang said.

HIGH DEMAND

Trade sources said that high gasoline demand in the Middle East is keeping the barrels in the region, which has impacted exports to East and South Africa during June and July.

As per Vortexa data, India's petrol exports to Africa stood at roughly 56,000 b/d, a marginal decline of 0.5 per cent M-o-M. "Export-oriented refineries could be selling more supplies to the domestic market amidst ongoing and upcoming refinery maintenance in the country. Weak export margins have also dampened incentives for refineries to ramp up exports," she added.

For instance, state-run Bharat Petroleum Corporation's (BPCL) Kochi refinery will undergo maintenance during September-October and Bina refinery during August-September 2024.

and Bina refinery during August-September 2024.

In the coming months, Huang expects the export momentum to remain subdued. "India's diesel exports have remained relatively stable in the first two weeks of July, whilst gasoline exports have fallen further to 260,000 b/d. With a slew of refinery maintenance upcoming, India's refined product exports could see further declines in the months ahead," she projected.



Publication : The New Indian Express	Editions : Bangalore
Date :1 August 2024	Page : 7

PREPARE BETTER INDUSTRIAL POLICIES IN 100 DAYS: NAIDU

EXPRESS NEWS SERVICE

@ Vijayawada

ANDHRA Pradesh Chief Minister N Chandrababu Naidu directed the officials to roll out five new policies – Industrial Policy, MSME Policy, Food Processing Policy, Electronic, IT and Cloud Policy, and Textiles Policy – in the coming 100 days.

Asking the officials to create a favorable atmosphere for attracting investments through better policies, he said that the policies should be prepared in the direction of making the State as the green hydrogen and green energy hub.

and green energy hub.
Similarly, the Chief Minister also instructed officials to prepare the proposals of four industrial clusters at Kuppam in Chittoor district, Moolapeta of Srikakulam district, Lepakshi of Sathya Sai district, Donakonda or Pamuru in Prakasam district and to get the approval of

the Central government.
Reviewing with the officials of the Industries department at the State Secretariat on Wednesday, the Chief Minister suggested them to set up electronics, pharma, food proces-



CM Chandrababu Naidu meets Excise and Mining department officials on Wednesday | EXPRESS



The projects that were already commenced should be expedited and projects worth Rs one lakh crore investment should be completed within a year to generate employment to 1.36 lakh people

Chandrababu Naidu, AP CM

sion and hardware industries in those clusters.

He also took stock of the progress of Krishnapatnam, Nakkapalli, Orvakallu and Kopparthy industrial nodes and also enquired about the bulk drug park to come up at Nakkapalli at an estimated cost of ₹11,542 crore and NTPC Green Hydrogen Hub to come

up at a cost of ₹60,000 and the Bharat Petroleum Corporation Limited (BPCL) refinery.

Recalling that investment agreements to the tune of Rs 16 lakh crore were exchanged during the TDP regime from 2014-19, Naidu said that the investors went back from their proposal because of policies adopted by the previous YSRC government.

government.

Observing that several companies withdrew their investment agreements in the past five years because of the hardships and political harassment, he underscored the need to instill confidence among investors. Directing the officials to hold consultations with the investors, who entered MoUs and reneged from investing in the State because of the policies of the YSRC, Naidu said he will also speak to them if required.

"The projects that were already commenced should be expedited and projects worth Rs one lakh crore investment should be completed within a year to generate employment to 1.36 lakh people," the CM told officials.



Publication : Business Standard	Editions : New Delhi
Date :1 August 2024	Page : 1, 7

ECONOMY & PUBLIC AFFAIRS P7

Core sector growth slows to 4% in June

The growth in production of eight key infrastructure sectors slowed down to a 20-month low of 4 per cent in June this year due to a decline in the output of crude oil and refinery products, according to DPIIT data released on Wednesday. The core sector's production grew by 6.4 per cent in May 2024.



Publication : Business Standard	Editions : New Delhi
Date :1 August 2024	Page : 1, 7

At 4%, core sector growth slowest in 20 mths

Slowdown in June reflects high base and reduced electricity demand, down from 6.4% in May and 8.4% last year

SHREYA NANDI New Delhi, 31 July

The output of India's eight key infrastructure industries expanded by 4 per cent year-on-year in June, the slowest growth in 20 months, accord-ing to data released by the Department for Promotion of Industry and Internal Trade on Wednesday.

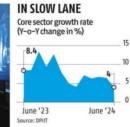
The slowdown in growth can be

ascribed to factors such as a high base and moderating electricity demand due to the monsoon. The output

growth was 6.4 per cent in May 2024
and 8.4 per cent in June 2023.
The eight sectors — coal, steel,
cement, fertiliser, electricity, natural
gas, refinery products, and crude oil
— constitute two-fifths of India's total industrial production. Consequently, they have a big impact on the index. Aditi Nayar, chief economist at

ICRA, noted that core sector expan-





sion fell to a 20-month low of 4 per cent in June 2024. This decline was driven by slower growth or deeper contraction in five of the eight sectors, except coal, fertiliser, and cement,

compared to May.
"With the onset of the monsoon,

digits after two months, although it remained healthy at 7.7 per cent. Given the dip in core sector growth, we expect the Index of Industrial Production to increase by 3.5-5 per cent in June 2024," Nayar said.

Except for crude oil and refinery electricity growth reverted to single products, the remaining six sectors SECTORWISE BREAK-UP

Coal	14.8	
Crude oil		-2.6
Natural gas	3.3	
Refinery products		-1.5
Fertiliser	2.4	
Steel	2.7	
Cement	1.9	
Electricity	7.7	

witnessed positive growth.

Coal production grew by 14.8 per cent in June, driven by higher demand for power. Electricity generation saw a 7.7 per cent increase, which was lower than the 13.7 per cent growth in May but higher than the 4.2 per cent growth in June 2023.

Production of natural gas, steel, fertiliser, and cement grew by 3.3 per cent, 2.7 per cent, 2.4 per cent, and 1.9 per cent, respectively, compared to the same period last year.

According to Bank of Baroda Chief Economist Madan Sabnavis, the growth in steel and cement output was primarily due to a high base of 21.3 per cent and 9.9 per cent, respectively, as well as muted government spending wen as muted government spending on capital expenditures due to elec-tions. "This trend is expected to reverse and pick up in the coming months," Sabnavis said. "Fertiliser growth was lower at 2.4 per cent compared to 3.4 per cent,

which may be due to existing stocks used for the kharif crop. This growth is expected to pick up in July when sowing peaks. Lower crude oil prices have kept domestic production subdued, which is also reflected in the growth of refinery products," he added.



Publication : Financial Express	Editions : New Delhi
Date :1 August 2024	Page : 2

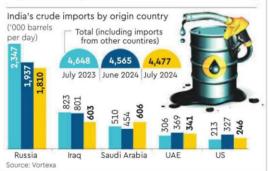
Russia oil imports fall 6.5% on month in July

INDIA'S CRUDE OIL imports from Russia fell 6.5% in July to 1.81 million barrels per day from 1.94 million in June as Russian refineries ramped up runs to meet the country's own summer demand, data from Vortexa showed. "Russia remained as the top crude supplier in July, although import volumes were down month-on-month. Higher supplies from Saudi Arabia and Mexico partially offset declines from Russia, Iraq and Nigeria, leading to a marginal decline in total imports," said Serena Huang, head of APAC Analysis at Vortexa.

Saudi Arabia and Iraq remained the other top suppliers. While exports from Saudi Arabia rose 33.4% to 606,000 barrels per day on month, Iraq's supplies registered a fall of 32.8% at 603,000 barrels per day compared to June.

The country imported a cumulative of 4.48 million barrels per day of crude oil in July, marginally down from 4.56 million barrels per day in June, as per the data. Russia's share in India's total imports in the period fell to 40% from 42% in June. Iraq contributed to 13.5% of total crude oil imports against 17.5% the previous month, while Saudi Arabia accounted for 13.5% of imports, up from 9.9% in June. Compiled by

Arunima Bharadwaj





Publication : The Hindu Business Line	Editions : New Delhi
Date :1 August 2024	Page: 7

thehindu businessline.

TWENTY YEARS AGO TODAY.

August 1, 2004

Standard soon on 'employee share-based payments': ICAI

In keeping with the international practice, the Institute of Chartered Accountants of India (ICAI) intends to come up with an accounting standard (AS) on employee share-based payments. The draft of the accounting standard was finalised by the Accounting Standards Board (ASB) of the Institute recently.

Petrol, diesel prices hiked
Public sector oil marketing companies increased petrol and diesel prices by around ₹1.15 and ₹1.55 a litre, respectively. The increase is in line with the rise in global fuel prices. This is the first price revision that is being exercised by the oil companies in a non-ad hoc manner and without having to seek the government's ratification. The price rise is being carried out under the limited freedom accorded to oil companies to fix prices within a 10 per cent band of the three-month as well as one-year average of global product prices.

WTO members reach new deal

WTO members reach new deal WTO members reach new deal WTO members have agreed to a framework agreement, with India saying that the draft "more than adequately" addressed its concerns. "We have closed the deal... This more than adequately addresses India's concerns. Developed countries cannot, through artificial price mechanisms, gain access to Indian markets," the Union Commerce Minister, Mr Kamal Nath, said.



Publication : The Hindu Business Line	Editions : New Delhi
Date :1 August 2024	Page: 7

Fillip for clean energy

The Budget will help speed up the transition

In mila, a late cutrant to the global renewable energy (RE) spriority to the sector at the national level under Prime Minister Modi from 2014, based on the successful model he developed in Gujarta as Chief and the successful model he developed in Gujarta as Chief and the successful model he developed in Gujarta as Chief and the successful model he developed in Gujarta as Chief and the successful model he developed in Gujarta as Chief and the successful model he developed in Gujarta as Chief and the successful model he developed in Gujarta as Chief and the successful model he developed in Gujarta as Chief and the successful model he developed in Gujarta as Chief and the successful model he developed in Gujarta as Chief and the successful model he developed in Gujarta as Chief and the successful model he developed in Gujarta as Chief and the successful model he developed in Gujarta as Gujarta as Chief and the successful model he developed in Gujarta as Guj





Publication : The Hindu Business Line	Editions : New Delhi
Date :1 August 2024	Page : 10

Crude oil rebounds after killing of Hamas leader



Singapore: Crude oil futures rebounded over \$1 a barrel from 7-week lows on Wednesday after the killing of Hamas leader Ismail Haniyeh in Iran ratcheted up tensions in West Asia, but prices stayed under pressure from concerns about weak China demand.

US West Texas Intermediate crude futures rose \$1.15 to \$75.88 a barrel. REUTERS



Publication : The Hindu Business Line	Editions : New Delhi
Date :1 August 2024	Page : 10

COMMODITY CALL.

Buy natural gas at ₹180; book profit at ₹220

Akhil Nallamuthu

bl. research bureau



Natural gas futures on the Multi Commodity Exchange (MCX) has been on a decline since mid-June. It started to fall after facing a resistance

ati ₹265.

A couple of weeks back it found support at ₹170. This level has been holding well since then.

The price action shows that the downtrend is losing momentum. If the support at **T70 holds well, we can expect natural gas futures to reverse the trend northwards. From the current level of \$\infty\$180, the nearest

barrier is at ₹195.

A breakout of ₹195 can confirm a double bottom chart pattern, which can lead to bullish trend reversal. In such a case, natural gas futures can rally to ₹220, a resistance. At this level, the 50 per cent Fibonacci retrace-ment level coincides at this

barrier.
On the other hand, if the contract slips below ₹170, the downtrend can extend to ₹135.

TRADE STRATEGY Buy natural gas futures now at ₹180 and place stop-loss at ₹160.

When the contract touches ₹195, revise the stop-loss to ₹180. When the contract rallies to ₹210, tighten the stop-loss to ₹190. Book profits at ₹220.



Publication : The Times of India	Editions : New Delhi
Date :1 August 2024	Page : 23

Core sector growth hits 20-month low

TIMES NEWS NETWORK

New Delhi: Growth in the crucial core sector slowed to a 20-month low in June, led by a contraction in two segments and moderation

in three others.

Data released by the ministry of commerce and in-dustry on Thursday showed the core sector spanning eight segments — coal, crude oil, natural gas, refinery products, fertilisers, steel, cement and electricity rose an annual 4% in June, lower than the previous month's 6.4% and below the 8.4% recorded in June last year. For April-June, the growth rate was 5.7%, a shade lower than the 6% in the

same period last year. The sector accounts for nearly 41% of the index of industrial production and the performance of the core sector has an impact on the outcome of the factory production numbers, which will be released later

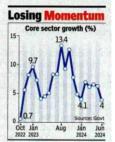
this month.
Crude oil and refinery

products contracted during the month. The crude oil segment declined by 2.6% in June, while refinery products fell by 1.5%.

The steel sector grew by 2.7%, slower than the 6.8% in the previous month, whi-le cement rose 1.9%, higher than the contraction of 0.6% in May.

The coal sector grew a

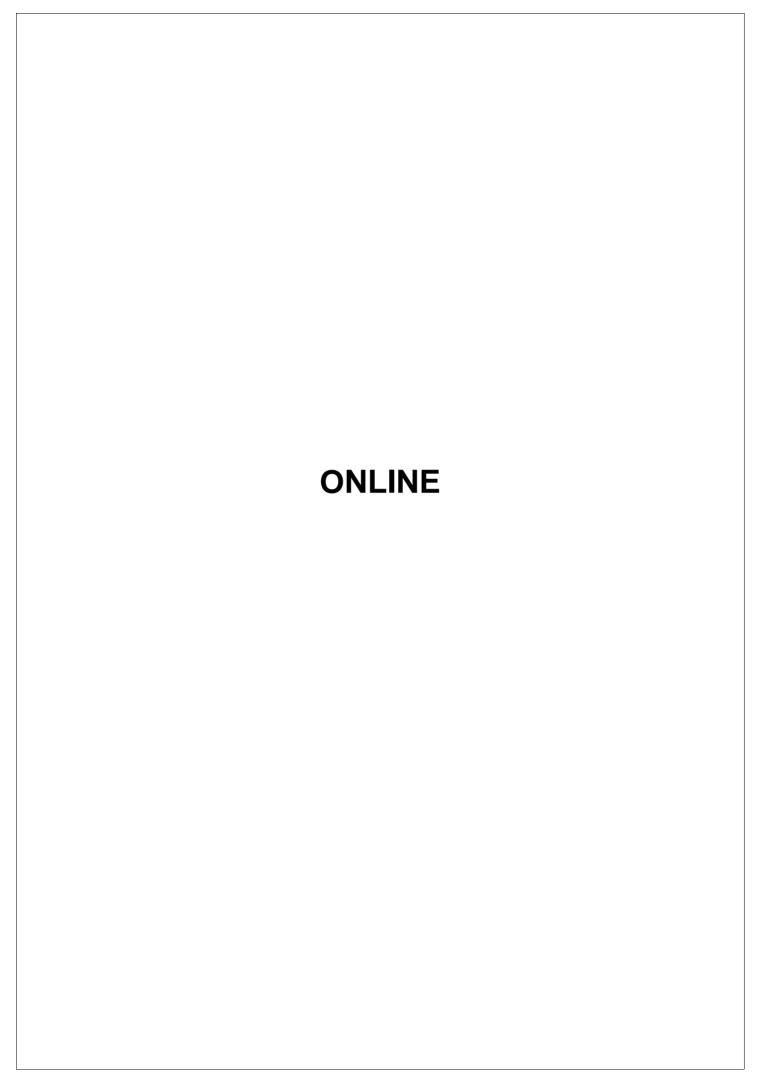
stellar 14.8% in June com-



pared with the 10.2% in the previous month and above the 9.8% in June last year, led by a demand for the commodity due the scor-ching summer heat. The electricity sector grew by 7.7%, slower than the 13.7% in the previous month but above the 4.2% growth in June last year.

"The core sector expan-sion slid to a 20-month low of 4% in June 2024, led by a moderation in growth or deepening contraction in five of the eight constitu-ents, barring coal, fertilisers and cement, compared to May 2024," said Aditi Nayar, chief economist at ra-tings agency ICRA.
"With the onset of the

monsoon, electricity growth reverted to single digits after two months, while remaining healthy at 7.7%. With the dip in the core sector growth, we expect the IIP to post a rise of 3.5-5% in June 2024," said Nayar.



Headline	Ladakh News: भारत की पहली जियो थर्मल बिजली परियोजना की ड्रिलिंग शुरू, लद्दाख सहित अन्य राज्यों को भी मिलेगा लाभ		
Publication	Jagran	Edition	Online Coverage
Published Date	31 Jul 2024		

Ladakh News: भारत की पहली जियो थर्मल बिजली परियोजना की ड्रिलिंग शुरू, लद्दाख सहित अन्य राज्यों को भी मिलेगा लाभ

https://www.jagran.com/jammu-and-kashmir/jammu-drilling-of-india-first-geothermal-power-project-started-other-states-including-ladakh-will-also-benefit-23769496.html

लद्दाख में भारत की पहली जियो थर्मल बिजली परियोजना के लिए ड्रिलिंग का काम शुरू हो गया है। इस परियोजना की उत्पादन क्षमता एक मेगावाट के करीब होगी। इसके साथ

ही लेह से करीब 190 किलोमीटर दूर स्थित यह पुगा घाटी में लगाया जा रहा है। इस प्रोजेक्ट के कामयाब होने के साथ ही लद्दाख सहित अन्य राज्यों को लाभ मिलेगा।

राहुल शर्मा, जम्मू। बर्फीले रेगिस्तान लद्दाख की जियो थर्मल (भूतापीय) समृद्ध पुगा घाटी में भारत की पहली जियोथर्मल बिजली परियोजना की ड्रिलिंग शुरू हो गई है। पायलट परियोजना के तहत शुरू की गई इस परियोजना की उत्पादन क्षमता एक मेगावाट के करीब होगी।

लेह से करीब 190 किलोमीटर दूर स्थित यह पुगा घाटी में लगाया जा रहा यह प्रोजेक्ट तेल और प्राकृतिक गैस निगम (ओएनजीसी), एलएएचडीसी लेह और हिमालयन रिन्यूएबल एनर्जी एंड कंस्ट्रक्शन फर्म (एचआरईसीएफ) की संयुक्त पहल है।

आपको बता दें कि लद्दाख में वर्तमान में लेह और कारगिल जिले के विभिन्न स्थानों पर 13.95 मेगावाट की स्थापित क्षमता वाली करीब नौ पनिबजली परियोजनाएं हैं। इन परियोजनाओं का रखरखाव जम्मू कश्मीर पावर डेवलेपमेंट कारपोरेशन ही कर रहा है। इसके अलावा कारगिल में 44 मेगावाट वाली चुतक और लेह में 45 मेगावाट क्षमता वाली निम्मो बाजवो पनिबजली परियोजनाएं हैं। इनका संचालन और रखरखाव एनएचपीसी द्वारा किया जाता है।

यह भूतापीय शून्य-कार्बन नवीकरणीय बिजली परियोजना लेह में 14 हजार फीट से भी अधिक की ऊंचाई पर बनाई जा रही है। अधिकारिक सूत्रों ने बताया कि पायलट परियोजना का उद्देश्य सर्दियों के दौरान यहां के निवासियों के लिए अंतरिक्ष हीटिंग, जलीय कृषि, कृषि और लैगून स्पा जैसी पर्यटन गतिविधियों को बढ़ावा देना है।

परियोजना को शुरू करने से पहले किए गए सर्वेक्षण से पता चलता है कि पुगा घाटी में 1000 मीटर की गहराई पर 200 डिग्री सेल्सियस का तापमान है। जो एक मेगावाट बिजली यूनिट शुरू करने के लिए पर्याप्त है। इस परियोजना के लिए ड्रिलिंग शुरू कर दी गई है और उम्मीद जताई जा रही है कि सर्दियों की शुरुआत से पहले इसे पूरा कर लिया जाएगा।

ये भी पढें: Amarnath Yatra के लिए 1600 श्रद्धालुओं का 34वां जत्था रवाना, अब तक चार लाख सात हजार लोगों ने किए शिव के दर्शन

यह परियोजना केंद्र शासित प्रदेश लद्दाख, लद्दाख स्वायत्त पहाड़ी विकास परिषद-लेह, ओएनजीसी और लेह स्थित निर्माण कंपनी एचआरइसीएफ के बीच 2021 के त्रिपक्षीय समझौता ज्ञापन (एमओयू) का परिणाम है।

आपको बता दें कि एचआरइसीएफ ज्यादातर नवीकरणीय ऊर्जा क्षेत्रों में काम करती है। ओएनजीसी ने ड्रिलिंग का ठेका सेरोस ड्रिलिंग प्राइवेट लिमिटेड को दिया है। काम को बेहतरी से करने व समय-समय पर बेहतर मार्गदर्शन पाने के लिए लिए कंपनी ने आइसलैंड से सलाहकार और विशेषज्ञ भी नियुक्त किए हैं।

लद्दाख प्रशासन का कहना है कि पायलट प्रोजेक्ट के सफल होने के बाद भूतापीय समृद्ध पुगा घाटी के एक बड़े हिस्से की भूतापीय क्षमता के दोहन के प्रयास तेज किए जाएंगे। प्रारंभिक अनुमान से पता चलता है कि पांच वर्ग किलोमीटर क्षेत्र में 200 मेगावाट स्वच्छ ऊर्जा उत्पन्न करने की क्षमता है।

प्रशासनिक अधिकारियों ने बताया कि जब जम्मू-कश्मीर और लद्दाख एक थे, तब भी इस क्षेत्र में बिजली दोहन के प्रयास किए गए थे। उस समय प्रोजेक्ट को शुरू करने में सबसे बड़ा बाधा इस क्षेत्र से बिजली को बाहर ले जाने की लागत थी जो कि बाजार से खरीदी गई ऊर्जा से काफी अधिक थी। परंतु अब ऐसा अनुमान लगाया जा रहा है कि अगर एक बार यह प्रयास सफल हो जाता है और यहां क्षमता अनुसार बिजली उत्पन्न होती है तो इसका लाभ न सिर्फ लद्दाख बिल्क देश के दूसरे राज्यों को भी होगा।

Headline	ONGC Invites Tender for repair and renovation of vacant flats at nazira and Sivasagar colonies - 2024_ONGC_202788_1		
Publication	The Sentinel	Edition	Online Coverage
Published Date	31 Jul 2024		

ONGC Invites Tender for repair and renovation of vacant flats at nazira and Sivasagar colonies - 2024 ONGC 202788 1

https://www.sentinelassam.com/tender/ongc-invites-tender-for-repair-and-renovation-of-vacant-flats-at-nazira-and-sivasagar-colonies-2024 ongc 202788 1

The Sentinel provides the latest updates on Tender for repair and renovation of vacant flats at nazira and Sivasagar colonies and other online tender notices published by the Oil And Natural Gas Corporation Limited

The Sentinel is the online tender website that provides unlimited lifetime free access to Tender for the repair and renovation of vacant flats at nazira and Sivasagar colonies and other procurement notices types like open tender, public tender, online tenders from the Oil And Natural Gas Corporation Limited.

About ONGC

ONGC (Oil and Natural Gas Corporation) is a public sector undertaking (PSU) of the Government of India that is involved in the exploration, production, and refining of oil and gas. It was founded in 1956 and is headquartered in Dehradun, Uttarakhand, India. The company is one of the largest oil and gas producers in India and is responsible for around 70% of the country's crude oil production and 62% of its natural gas production. ONGC operates in India and abroad, with projects in 17 countries.

ONGC's major subsidiaries include ONGC Videsh Limited (OVL), which is the company's international arm for upstream operations, and Mangalore Refinery and Petrochemicals Limited (MRPL), which is a subsidiary company that is involved in refining and petrochemicals. ONGC is also involved in various social and environmental initiatives, including the promotion of renewable energy, water conservation, and sanitation. The company has received numerous awards and recognitions for its contribution to the oil and gas sector and its sustainable development initiatives.

Headline	Prime Minister of Vietnam, Pham Minh Chinh meeting with the Chairman and Managing Director of ONGC, Arun Kumar Singh, in New Delhi on Wednesday			
Publication	UNI India	Edition	Online Coverage	
Published Date	31 Jul 2024	•	·	

Prime Minister of Vietnam, Pham Minh Chinh meeting with the Chairman and Managing Director of ONGC, Arun Kumar Singh, in New Delhi on Wednesday

https://www.uniindia.com/photoes/568580.html

NEW DELHI, JUL 31	(UNI):- Prime Minister	of Vietnam, Pham	Minh Chinh me	eting with the	Chairman and	Managing
Director of ONGC, Aru	ın Kumar Singh, in Nev	v Delhi on Wednes	day.UNI PHOTO)-103U		

Headline	Study of the Saurashtra Basin dates the minerals found in sediments revealing geological history of Indian subcontinent The Hindu		
Publication	The Hindu	Edition	Online Coverage
Published Date	1 Aug 2024		

Study of the Saurashtra Basin dates the minerals found in sediments revealing geological history of Indian subcontinent The Hindu

https://www.thehindu.com/news/cities/mumbai/study-of-the-saurashtra-basin-dates-the-minerals-found-in-sediments-revealing-geological-history-of-indian-subcontinent/article68469565.ece

A compelling historical study of the Saurashtra Basin's sediments by a team of researchers from the Indian Institute of Technology Bombay (IIT

Bombay) and National Centre for Earth Science Studies, Thiruvananthapuram is piecing together the region's paleogeography, that reveals ancient supercontinent configurations, providing insights into how continents were formed and have moved over time.

Located in the Western India, spanning western Gujarat and the north of Mumbai coastline, Saurashtra Basin expanses in 2,40,000 square km area spanning sea and land. Much of the landscape here remains buried in volcanic rocks called Deccan Traps, created by volcanic eruptions at the Western Ghats during the Cretaceous period, 66 million years ago. However, the sediment beneath the volcanic ash and rocks hides the extraordinary journey of the Indian subcontinent over the millennia.

Explaining the formation of the region, Dr. Pawan Kumar Rajak from the Department of Earth Sciences, IIT Bombay and the lead author of the study said that the Saurashtra Basin was formed by the separation of India from Madagascar about 100 million years ago. Before the separation, India, Madagascar, and the Seychelles were joined together. After the separation, the western margin of India became lowlands, while the north and north-eastern parts of the study area acted as highlands, Mr. Rajak said.

Rivers flowing from the highlands of the north and eastern regions of the subcontinent brought along with them the sediments from these regions, depositing them in the low-lying Saurashtra Basin. The eruption of Deccan volcanism, which happened later, covered a vast area of the Saurashtra Basin, making it difficult to study the sediments. Today, only the mountains, hills, river sections and road-cuts expose the sediments of that time, Mr. Rajak said.

The study focuses on the Mesozoic' era sandstones in the Saurashtra Basin. The Mesozoic era, known as the age of the dinosaurs, spans from about 252 to 66 million years ago. By examining the mineral content and employing cutting-edge dating techniques on these sandstones, the study pieces together the source and routes of the materials leading to their current location in the basin. The team used two techniques: electron probe microanalysis (EPMA) and laser ablation-inductively coupled plasma-mass spectrometry (LA-ICP-MS).

Explaining the usages of these techniques, Mr. Rajak said, The high precision and low detection limits of LA-ICP-MS allow us to know the minerals' composition and ages on a small scale. The EPMA can determine the composition of minerals as well as the Uranium-Thorium (U-Th) age of a mineral, such as monazite, and helps identify the possible sources.

The team focused on zircon and monazite; minerals known for preserving geological data remarkably well. Both are rare earth elements-bearing minerals and contain a significant amount of U and Th in their crystal lattice. Decaying U or Th into lead (Pb) is used as a geological clock. So, studying these minerals helps us gain information about important geological events in the past, Mr. Rajak explained.

To the northeastern part of the Saurashtra Basin is a region with 600 metres of thick sediment, called the Dhrangdara Group, from the late Jurassic-early Cretaceous period. The study shows that the sandstones in the Dhrangdara Group primarily originated from two primary Precambrian' sources, the earliest part of Earth's history, covering most of our planet's timeline. Researchers found that the Neoproterozoic rocks (about 1 billion to 540 million years ago) and Archean rocks (dating back from 4.5 billion to 2.5 billion years ago) are the primary sources of the sediments in the Saurashtra Basin.

The study also hints at paleo-drainage patterns the ancient river systems and these findings are crucial for understanding how landscapes evolved and reshaped over time due to geological forces.

Map of Western India with study area highlighted.

| Photo Credit:

Special Arrangement

An analysis of minerals, like rutile and tourmaline, in the sandstones indicated a varied derivation from multiple geologic sources such as granites, metapelites (metamorphosed clay-rich sediments), and tourmalinites. Their chemical characteristics helped trace the rocks back to their origins in older terrains like the Aravalli and Delhi supergroup of rocksmajor regional features known for their long-standing geological history. The analysis of the samples show multiple sources contributing to sediments. Initially, it was thought that the Aravalli-Delhi Fold Belt (source region) was the only contributor to the sediments in the basin, Mr. Rajak said.

The study of the zircon minerals suggests a predominant contribution from formations dating back to 3.5 billion to 539 million years ago. These timelines correlate with ancient supercontinent cycles such as the formation and breakup of Columbia, Rodinia, and Gondwana. These are names given to massive landmasses that once contained most or all of the earth's continents but eventually split and drifted apart to form the continents as we see them today.

During the supercontinents Columbia (1800 Ma) and Rodinia (1200 Ma), all the continents of the current globe were part of a single mass. The geological ages we obtained in our study indicate that the source rocks (mountains) formed during those time cycles, Professor Santanu Banerjee, from the Department of Earth Sciences at IIT Bombay said.

The study touches on significant orogeniesmountain-building eventsand tectonic configurations that shaped the earth's crust. The sands from the Mesozoic era in Saurashtra capture a historical narrative of the Bhilwara, Aravalli, and South Delhi progenies. These events represent significant periods where the earth's crust was dynamically altered due to tectonic activities, leading to the formation of mountains and other geological structures.

The next plan is to work in the same area to refine our understanding of the source areas and paleogeographic changes of that time. We must check whether the sediments were also sourced from Madagascar and Seychelles. We plan to contact ONGC to get seismic data for the study area to determine the basin configuration and trace sediments across the Arabian Sea, Mr. Banerjee added.

Headline	India's nuclear power set for major expansion with 21 new reactors: Jitendra Singh		
Publication	ET Energyworld	Edition	Online Coverage
Published Date	1 Aug 2024	Journalist	Bureau

India's nuclear power set for major expansion with 21 new reactors: Jitendra Singh

https://energy.economictimes.indiatimes.com/news/power/indias-nuclear-power-set-for-major-expansion-with-21-new-reactors-jitendra-singh/112181831

New Delhi: In a significant development for India 's nuclear energy sector, Union minister of state for atomic energy Jitendra Singh said that the country is currently constructing nine nuclear reactors with a combined capacity of 7,300 MW. Furthermore, plans are in place to build an additional twelve reactors, as part of India's aggressive push to expand its nuclear capabilities.

While replying to an unstarred question in Lok Sabha, the minister reassured the public about the safety standards of these facilities, emphasizing that "there are no discrepancies in operational safety of nuclear power plants." He noted that these plants are operated by highly trained personnel who are licensed by the Atomic Energy Regulatory Board (AERB), and that safety protocols are periodically reviewed and enhanced.

Singh also highlighted the extensive measures taken to monitor the health impact of nuclear facilities on nearby populations. He stated that reputed local medical colleges, in conjunction with Tata Memorial Hospital, Mumbai, conduct regular health assessments for those living near these plants. These studies have conclusively shown that the operations of nuclear power plants do not adversely affect the health of the surrounding communities.

Further discussing the infrastructure developments, the minister mentioned the ongoing construction of a greenfield Nuclear Fuel Complex (NFC) at Rawatbhata, Kota, Rajasthan. This new facility, which includes a PHWR Fuel Fabrication Facility and a Zircaloy Fabrication Facility, aims to produce 500 tons per year of fuel tubes. With an investment of Rs 4256.20 crore, this project is about 50 km from Kota and is nearing completion, marking a significant step towards enhancing India's nuclear fuel self-sufficiency.

These announcements come at a time when India is making concerted efforts to bolster its energy security and transition to more sustainable energy sources. The expansion of the nuclear power sector is seen as a key element of this strategy, promising to significantly enhance the country's energy independence in the coming years.

Headline	State clear barriers for fastracking GAIL project		
Publication	Millennium Post	Edition	Online Coverage
Published Date	1 Aug 2024	Journalist	Bureau

State clear barriers for fastracking GAIL project

https://www.millenniumpost.in/bengal/state-clear-barriers-for-fastracking-gail-project-574017

Kolkata: State's chief secretary B.P. Gopalika on Wednesday held a meeting with Sandeep Kumar Gupta, c	hairman and
managing director, GAIL (India) Ltd at Nabanna for quick clearing of hurdles associated with gas pipeline of	connection in
the state.	

Headline	MIGA to expand India footprint, help in energy transition: Officials		
Publication	The Economic Times	Edition	Online Coverage
Published Date	1 Aug 2024	Journalist	Banikinkar Pattanayak, Deepshikha Sikarwar

MIGA to expand India footprint, help in energy transition: Officials

https://economictimes.indiatimes.com/news/economy/infrastructure/miga-to-expand-india-footprint-help-in-energy-transition-officials/articleshow/112176983.cms

MIGA typically promotes cross-border investment in developing countries by providing guarantees and credit enhancement tools to induce investors and lenders to deploy funds in projects that may not otherwise gather investor interest. MIGA now wants India to use its credit guarantee instruments to crowd in private investors in development projects, not just at home but also in other developing countries, they indicated.

World Bank 's Multilateral Investment Guarantee Agency (MIGA) is to bolster its partnership with India substantially to help boost the country's energy transition and other development initiatives, its top officials told ET on Wednesday.

MIGA typically promotes cross-border investment in developing countries by providing guarantees and credit enhancement tools to induce investors and lenders to deploy funds in projects that may not otherwise gather investor interest.

MIGA now wants India to use its credit guarantee instruments to crowd in private investors in development projects, not just at home but also in other developing countries, they indicated.

"India is the best place to deploy guarantees. There is a huge need for infrastructure development. So, we did two transactions in the past six months. That's very unique. We want to use it more here," MIGA executive vice president Hiroshi Matano said, suggesting that there was "plenty of room" available for India to raise resources and find collaborations. Greater collaboration between MIGA and India also coincides with India's emergence as a leader of developing countries, Matano indicated. Energy, water, and infrastructure sectors are potential areas of deeper engagement with India, he said.

Earlier, MIGA had supported only one small project in India in 1997. But over the last six months, it signed up for a \$317.5-million solar refinancing project with State Bank of India and a \$132-million plan with Dedicated Freight Corridor Corporation

MIGA is holding discussions with senior Indian government officials as to how to strengthen the partnerships and allocate funds where they are most required, Matano said.

Talks with SIDBI

Junaid Kamal Ahmad, vice-president (operations) at MIGA, said the organisation will soon have talks with Small Industries Development Bank of India- (SIDBI), which can use its guarantee to finance small and medium enterprises engaged in various development projects.

Ahmad said MIGA's credit guarantees are bolstering the "leveraging part of the World Bank group and complementing the lending part." He said Indian state-run financing entities, including SBI, could use MIGA guarantees to support projects in other developing countries. "Every dollar of our economic capital that we put into a guarantee, we crowd in close to \$20 of private finance," Ahmad said.

"There are those state-owned enterprises that are better suited for the domestic market (investment) and then there are those that are better suited to go abroad. Our purpose is to support platforms for scale and impact," he said.

Private capital in climate transition

Developing countries, said Matano, need trillions of dollars for climate change initiatives, and it would be impossible for multilateral agencies or the public sector alone to raise that much of resources. This warrants large-scale deployment of private capital that can be facilitated by MIGA through its guarantee instruments, he suggested.

Headline	India slashes windfall tax to Rs 4,600 per tonne		
Publication	The Economic Times	Edition	Online Coverage
Published Date	1 Aug 2024	Journalist	Bureau

India slashes windfall tax to Rs 4,600 per tonne

https://economictimes.indiatimes.com/industry/energy/oil-gas/india-slashes-windfall-tax-to-rs-4600-pertonne/articleshow/112181567.cms

India reduced the windfall tax on domestically produced petroleum crude to Rs 4,600 per tonne from Rs 7,000 per tonne due to a drop in crude prices. The export duties on petrol, diesel, and aviation turbine fuel remained nil. The new rates took effect on August 1, as announced by the CBIC.

Synopsis India slashed windfall rate on domestically produced petroleum crude to Rs 4,600 per tonne from Rs 7,000 per tonne on softening of crude price.

There export duty on petrol, diesel and aviation turbine fuel will continue to be nil.

The new rates will be effective August 1, the central board of indirect taxes and customs (CBIC), said in a statement issued late Wednesday.

In its last revision on July 16, centre had hiked windfall tax on domestically produced crude oil to Rs 7,000 per tonne from 6,000 per tonne.

The tax is levied in the form of Special Additional Excise Duty (SAED).

India imposed a windfall tax on crude oil producers from July 2022 and extended the levy on exports of gasoline, diesel and aviation fuel, as private refiners wanted to sell fuel overseas to gain from robust refining margins instead of selling locally. The government revises the tax fortnightly.

Headline	Problem power: on small modular reactor plan		
Publication	The Hindu	Edition	Online Coverage
Published Date	1 Aug 2024	Journalist	Bureau

Problem power: on small modular reactor plan

https://www.thehindu.com/opinion/editorial/problem-power-on-small-modular-reactor-plan/article68468861.ece

The Indian government is planning to team up with the private sector to study and test small modular reactors (SMRs). Nuclear energy is an important power source in the world's energy mix as it waits for the development and maturation of (other) renewable energy technologies while fossil-fuel-based sources, especially coal, continue to remain relevant and more affordable. Nuclear power offers a sufficiently high and sustainable power output, even if externalised costs like those of building safe and reliable reactors and handling spent nuclear fuel complicate this calculus. Indeed, cost and time estimates that expand to nearly twice as much as at the point of a project's commissioning are not unheard of.

The nuclear power tariff is thus higher from younger' facilities, even if they also fill gaps that haunt power from renewable sources. SMRs, of 10 MWe-300 MWe each, are smaller versions of their conventional counterparts. They aspire to be safer without compromising commercial feasibility by leveraging the higher energy content of nuclear fuel, a modular design, a smaller operational surface area, and lower capital costs. But the challenge is to have this aspiration survive SMRs' external costs.

The government's privatisation of nuclear power generation will also increase the demand for regulatory safeguards against radioactive material being diverted for military use. The first-generation SMRs are expected to use low-enriched uranium in facilities assembled on-site with factory-made parts, to produce waste that can be handled using existing technologies and power that can be sold at economical rates.

But the reactor will need frequent refuelling and will yield a consequential amount of plutonium; both outcomes will stress proliferation resistance. The IAEA has touted the use of safeguardable' reactor designs but such solutions will increase capital costs. Subsequent SMR generations may also require more enriched uranium, especially if their feasibility is pegged on longer periods of continuous generation, or more sophisticated systems to increase fuel-use efficiency, which would increase the operational surface area and the generation cost. In fact, nuclear reactors have a fixed baseline cost and safety expectations that do not change with energy output, which means SMR-based tariffs need not automatically be lower.

This is why the Department of Atomic Energy increased its reactors' capacity from 220 MW to 700 MW. SMRs' ability to bolster the prospects of nuclear power in India will thus depend on their commercial viability and in turn on the availability of less uncertain market conditions, stable grids, and opportunities to mass-produce parts and the price of proliferation resistance.