



बीएचईएल ने अनुसंधान एवं विकास, प्रौद्योगिकी विकास एवं नवाचार और डिजिटलीकरण की श्रेणियों में तीन प्रतिष्ठित स्कोप पुरस्कार जीते। भारत के माननीय उपराष्ट्रपति जगदीप धनखड़ ने यह पुरस्कार प्रदान किए।



AWARD— BHEL

BHEL has won three prestigious SCOPE Awards in the categories of R&D, Technology Development & Innovation, and Digitisation. The Vice President of India, Jagdeep Dhankhar presented the awards to K. Sadashiv Murthy, CMD, BHEL, & Jai Prakash Srivastava, Director (E, R&D) & (Finance - Addl. Charge), BHEL. Tajinder Gupta, Director (Power), BHEL & Ms. Bani Varma, Director (IS&P), BHEL were also present on the occasion.



AWARD— RAILTEL

Vice President of India Jagdeep Dhankhar presented the SCOPE Eminence Award to RailTel. The company won the award in Institutional Excellence (Miniratna I & II) Category for overall outstanding performance during the yr 2019-20. The award was presented in a grand ceremony held today at Vigyan Bhawan, New Delhi. Talking about the award, Sanjai Kumar, CMD/RailTel, said 'The RailTel family is deeply honored to receive the prestigious SCOPE award from Sh.

Jagdeep Dhankhar, the Vice President of India. Our heartfelt gratitude goes to SCOPE and the distinguished members of the jury for acknowledging the relentless efforts and commitment demonstrated by the entire RailTel team. A special expression of thanks is extended to all our stakeholders for their steadfast support.

AWARD—OIL INDIA LTD. has been honoured with the prestigious SCOPE Eminence Award in the category of CSR & Responsiveness for the period 2019-



20. The award was presented by Jagdeep Dhankhar, the Vice President of India, during the distinguished SCOPE Award ceremony held in New Delhi on the 18th of January 2024. Ashok Das, Dir. (HR), OIL accompanied by Ranjan Goswami, CGM-PR, OIL graciously accepted the award on behalf of Oil India Ltd. The SCOPE Awards have been instituted to recognize the outstanding contribution of PSEs & their leaders in terms of performance & achievements towards the development and growth of their enterprises and the economy at large.

SCOPE The Vice President of India, Jagdeep Dhankhar, presented the SCOPE Awards at Vigyan Bhawan in recognition of the exemplary performance & incessant contribution of PSEs in varied fields that contribute to the nation's socio-economic progress.

Oil India Receives Prestigious SCOPE Eminence Award for Corporate Social Responsibility & Responsiveness



Oil India Limited, a leading fully integrated oil & gas Maharatna CPSE, has been honoured with the prestigious SCOPE Eminence Award in the category of 'Corporate Social Responsibility & Responsiveness for the period 2019-20.' The award was presented by Jagdeep Dhankhar, the Vice President of India, during the distinguished SCOPE Award ceremony held in New Delhi on the 18th of January 2024. Ashok Das, Director (Human Resource), OIL accompanied by Ranjan Goswami, CGM-PR, OIL graciously accepted the award on behalf of Oil India Limited. The SCOPE Awards have been instituted to recognize the outstanding contribution of Public Sector Enterprises (PSEs) and their leaders in terms of performance and achievements towards the development and growth of their enterprises and the economy at large. The Awards for were decided by an Eminent Jury under the Chairmanship of Justice T S Thakur, former Chief Justice of India and comprising distinguished panel of eminent Jury members.

Crude basket price may not fall in FY25

Rituraj Baruah
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The price of the Indian basket of crude oil is unlikely to reflect cheap Russian oil prices in the next financial year despite making up a significant chunk of India's oil imports.

The Indian basket of crude oil represents a derived basket comprising of sour grade (Oman & Dubai average) and sweet grade (Brent dated) of crude oil processed in Indian refineries in a ratio of 75.62 : 24.38.

Two people aware of the developments said that irrespective of the quantity of Russian oil imports the crude basket price may not include their price as there is no benchmark price of the Russian crude variants.

The price of the Indian basket of crude oil is meant to largely represent the cost of the country's crude imports. Given that discounted Russian supplies constitute a large part of the total imports, the actual cost of the imports would be lower than the price represented by the Indian basket.

After India became a major buyer of Russian oil in FY23



The crude basket price is a key reference for the government on policy matters, economic analysis, taxation and gas prices. HT

backed by deep discounts post sanctions imposed by the West, there were expectations that the ratio for the calculation of the basket price would be revised to include Russian supplies. It was not included in this fiscal and there were expectations of its reflection when the change is made for FY25.

“Going ahead also the crude basket price will not reflect the Russian imports as there is no benchmark price of those crudes. Russian crude

is not traded on the exchanges. How does one benchmark them? There would be a slight revision in the basket price ratio. But, it would only

The price of the Indian basket of crude oil is meant to largely represent cost of the country's crude imports

include the price of the existing Brent, Oman and Dubai crudes,” said one of the two people mentioned above.

The other person said: “Refiners are buying Russian oil at discounted rates and there is no certainty on the prices. So, it's difficult to take a benchmark price.”

Queries mailed to the union ministry of petroleum and natural gas remained unanswered till press time.

The crude basket price is a key reference for the government on policy matters, economic analysis, taxation and gas prices. Under the new gas pricing norms, the price of domestic natural gas is set at 10% of the Indian basket crude price every month.

“In case Russian crude price is included in the India crude basket, the basket price may see a decline of around \$4 per barrel in the current scenario as it forms around 30% of the total oil imports. Given that the Russian imports were insignificant till few years back, it may have not been reflected in the crude basket. However, India has further diversified its import sources which are by and large not reflected in the basket price,” said Prashant Vasisht, senior vice president & co-group head—Corporate Ratings, Icra Limited.

On 18 January, the price of the India crude basket stood at \$78.46 per barrel.

So far this month, it has averaged at \$77.87 a barrel, against \$77.42 per barrel in December.



Govt may opt for 15-20% hike in capex

Seeks To Sustain Public Spending To Boost Demand, Investment, Jobs In Economy

TIMES NEWS NETWORK

New Delhi: Government is likely to opt for a 15-20% increase in capital expenditure next year, above the Rs 10 lakh crore provided for the current financial year, as it seeks to sustain public spending to spur demand and investment in the economy.

The road transport and highways ministry may be allocated Rs 3.2 lakh crore for 2024-25, compared with Rs 2.7 lakh crore during the current fiscal year — an increase of 18.5%. Similarly, railways could see a 14% rise to Rs 2.8 lakh crore next year, as against Rs 2.4 lakh crore this year.

The move is seen to be positive for sectors, such as, cement and steel, as well as for job creation, as it comes on the back of a

healthy rise during the current financial year. In her budget speech last February, finance minister Nirmala Sitharaman had announced a 30% increase in capex to a record Rs 10 lakh crore. Railways and roads had bagged almost half the funds, amid scepticism over their ability to use resources.

For the current year, roads and highways ministry, which has exhausted 87% of the budgeted money, has received an additional Rs 6,000 crore. During the current fiscal year, railways has used over three-quarters of the allocation, railway minister Ashwini Vaishnaw said.

Government sources said impact of higher capex by Centre has been positive for the economy, helping it navigate a tro-

POSITIVE FOR GROWTH



ubled global environment on the back of steady domestic de-

mand. Strong orders have also resulted in cement companies

ramping up production capacity and large EPC companies having their hands full with projects to be executed.

Politically too, a major focus on large infrastructure creation, such as highways and airports, has helped the Narendra Modi government portray itself as a builder of a “new India”, an image that it would want to reinforce in the interim budget ahead of crucial general elections in less than three months.

At a recent meeting with chief secretaries, government had urged the states to step up focus on capex. In the last few budgets, Sitharaman has also provided for additional funds to states through interest-free loans to help boost their public spending.

● **NET-ZERO MOVEMENT**

Greening the blue economy



ALTERNATIVE FUEL. The LNG terminal in Kochi is a vital step forward in decarbonising India's maritime sector



RAJESH MENON

When we talk of 'green logistics', it covers sustainable practices across the length of the logistic value chain. However, 'green shipping' as a subset is extra significant because around 90 per cent of world trade moves through seas, and the maritime sector accounts for around 3 per cent of total greenhouse gas (GHG) emissions.

When more than 10,000 moving ships consume more than 300 million tonnes of fuel oil annually, in addition to the onshore utilisation of fossil fuel-based energy, it is a given that the maritime sector needs to develop a mitigation strategy. It is with this objective that the International Maritime Organisation's revised strategy aims to achieve net zero emissions by 2050. Endeavours towards this transition are generally considered by the industry as green shipping. Initiatives to use non-fossil fuels in ships, use of non-conventional energy for shore-based operations, and digitalisation of processes are part of this transition.

Global likeminded initiatives include the Green Voyage 2050 project between IMO and the government of Norway, and the Clydebank declaration for developing green shipping corridors. Additional ideations include techno-

logy interventions for the use of alternative fuels like liquefied natural gas (LNG), hydrogen, and electric power. Also under discussion is the use of fuel optimisation systems with the help of big data analytics and artificial intelligence, enabling the ship management team to monitor engine and voyage conditions for optimal fuel usage. In addition, integrated process digitalisation efforts are underway at various ports.

GLOBAL SOUTH PRIORITIES

The recently concluded COP 28 UN Climate Change Conference reiterated the need for many of the initiatives but remained divided between the global north and south. Many countries of the global south require cheap energy as they endeavour to address the needs of poverty alleviation, housing for the needy, and urban and infrastructure development. Hence, they are dependent on fossil fuels without any technological leverage for transition. On the other hand, the developed nations with their high per capita usage of fuel and contribution to emissions are expected to lead and provide financing options for the transition.

Irrespective of the hurdles, the global south has made sincere efforts towards the transition to green shipping.

Singapore, a key maritime nation, has made a blueprint for 2050 whereby it has set up future funds for decarbonisation and sustainable maritime transport. Through energy-saving activities like electric mounted cranes, intelligent

gate management systems, and green lighting, a beginning has been made.

As a responsible maritime nation, India too has taken far-reaching steps. Viewing hydrogen as the next-generation potential fuel for shipping and other energy requirements, the national hydrogen mission plans to incentivise commercial production of green hydrogen. We have made strides in LNG bunkering with Kochi terminal setting up a facility. Moreover, all our ports are encouraging shore usage of power through electric motors, adopting strict standard operating procedures to address marine pollution, developing waste recycling methods, and creating green belts around ports.

BABY STEPS MAKE WAVES

The government's Harit Sagar green port guidelines talk about appropriate infrastructure management. The requirements include creating green cover over 20 per cent of the port area; conversion of diesel-operated machinery to electric power, particularly shore-to-ship power; enhancing usage of renewable energy to 60 per cent by 2030; and minimising usage of freshwater.

While the path ahead is challenging, our baby steps are noteworthy.

The writer is a maritime expert

We value your feedback.
Do send your comments to
bl.logistics@thehindu.co.in

● **TRASH TO TREASURE**

Making green H₂ from coke cans

A low-cost and eco-friendly solution can power the hydrogen economy from scrap metal

Team Quantum

Producing hydrogen without greenhouse gas emissions is hard and expensive, right? Wrong!

All you need to do is to take several coke cans, shred them into metal scrap and put them into a bucket of water. Out comes hydrogen.

But the problem is, the amount of gas that gets produced by this method is so small that it's hardly worth the effort. This is because the oxygen in the water quickly reacts with the surface aluminium to form a film of oxide, which prevents further reaction. The answer is to find a chemical (a catalyst) that will scrub off the oxide layer. Some researchers have used gallium for that purpose. Others have shown that if you use a fine dust of silicon-doped aluminium, the

hydrogen yield is pretty high.

However, aluminium is costly. Indeed, you can use aluminium scrap, but scrap is never pure metal; it comes alloyed with other materials, which hampers hydrogen production.

'Production of hydrogen using metal scrap' is a subject matter of intense research today.

A group of scientists headed by Professors RB Harikrishna, Hemagni Deka, T Sundararajan and G Ranga Rao, of the Department of Chemical Engineering, IIT Madras, have demonstrated that discarded metal wastes can be used as feed-materials for thermochemical production of green hydrogen. The gas is produced by splitting water using industrial waste-metal scrap at high temperatures. This process requires significant energy input in the initial stage to attain the



istock.com

desirable temperature. Subsequently, the energy input can be reduced due to the exothermic nature of the process, the researchers note in a recent publication in *The International Journal of Hydrogen Energy*. They studied the reaction between metal scrap and steam for hydrogen production. Their method produced 500 mL of green H₂ per gram of scrap material at 1150°C, with a conversion efficiency of about 94 per cent. "This is a potential method to utilise scrap metals for large

scale production of green hydrogen without carbon emissions," they say. Through this process, a ton of metal waste can produce approximately 5,00,000 litres of hydrogen. The byproduct produced is primarily magnetite, which is a potential additive for magneto-rheological fluids. This is an environmentally friendly process and can be developed as a cost-effective method for green hydrogen production. There are many other types of scrap metal materials which can also be employed to generate hydrogen by this process.

MONOLITHIC GAIN

Meanwhile, US-based company in Nebraska called Monolith has claimed to have developed a technology for producing cheap green hydrogen using methane pyrolysis. It still uses natural gas, but says the emissions are

just 0.45 kg of CO₂, per kg of hydrogen produced compared with 11.3 kg of the conventional 'steam methane reforming' process. If the feedstock is from biogenic or recycled sources, CO₂ emissions will be negative, says Monolith.

The company is backed by investors such as Decarbonization Partners, Mitsubishi Heavy Industries, Warburg Pincus and TPR Rise Climate.

The process is simple—use electricity to super-heat methane. The process needs one-seventh of the electricity that an electrolyser would (about 55 kWhr per kg of Hydrogen). The heat breaks the bonds between the hydrogen and carbon atoms on the CO₂ molecule. Hydrogen and carbon atoms emerge out of the contrivance separately, so you end up with two useful products—hydrogen and carbon black.

Oil & gas sector seeks reliefs, policy push

ARUNIMA BHARADWAJ
New Delhi, January 21

THE COUNTRY'S NATURAL gas industry has sought greater emphasis on implementation of reforms aimed at promoting consumption of the fuel in the upcoming interim Budget.

The industry expects the government to make use of natural gas mandatory for areas where the infrastructure is ready and gas is flowing to help the country achieve the target of increasing gas share in the energy mix to 15% from the current 6% by 2030.

The industry is also hopeful of the long-standing demand of natural gas being categorised under the infrastructure sector to avail improved financing and credit opportunities.

"We look forward to the government's commitment by considering the inclusion of natural gas under the GST ambit," said Hardip Singh Rai, chief executive officer of THINK Gas. Of course, the GST Council, which comprises the Centre and states, will have to take a call on this.

The government has been emphasising on making the country a gas-based economy while taking several initiatives to increase the share of gas in the energy mix in the recent few years. Stakeholders see the trend continuing with more emphasis given on domestic PNG (piped natural gas) connection.

"It is possible that we might see some incentive structure for city gas distribution players to improve the viability and execution of projects," said Kapil Garg, Oilmax promoter and founder.

Sandeep Trehan, president, marketing & business development at THINK Gas also expects the central government to coordinate with the state governments and bring about policy initiatives such as reduction in VAT.

Furthermore, the country's oil sector has urged the government to consider bringing petroleum products under the ambit of GST and discontinuation of special additional excise duty (SAED) on



crude oil as it impacts the profitability of upstream companies and refiners.

"With the softening of crude prices and reduction in GRMs (gross refining margins), the industry has been demanding that the SAED be discontinued," Girishkumar Kadam, Senior Vice President & Group Head - Corporate Ratings, ICRA said. "Exempting LNG imports from customs duty like crude, which attracts nil duty, would promote the use of natural gas as a fuel," he said.

Currently, imports of liquified natural gas (LNG) attract customs duty of 2.5%.

The government had imposed SAED on crude oil and certain refinery products in July 2022 and has revised it multiple times.

During FY24 the government has cut LPG (liquified petroleum gas) prices and the industry's expectation is for an adequate budgetary provision owing to volatility in crude oil prices, ICRA noted.

Interim Budget 2024 may also focus on energy transition practices by the public sector oil and gas companies as the country moves towards attaining net-zero by 2070.

In Budget 2023, the government has allocated ₹ 30,000 crore for capital investments for state-owned oil marketing companies towards energy transition. The amount has not been released to the OMCs yet.



तेल-रसायन से अस्थिर आय !

आरआईएल के इस खंड की कमाई सीमित और उतार-चढ़ाव भरी रहने के नजर आ रहे आसार

अमृता पिल्लै
मुंबई, 21 जनवरी

दिसंबर 23 में समाप्त हुई तिमाही (वित्त वर्ष 24 की तीसरी तिमाही) की कमाई के नतीजों के बाद रिलायंस इंडस्ट्रीज (आरआईएल) के एक शीर्ष अधिकारी और विश्लेषकों ने कहा कि तेल-से-रसायन (ओ2सी) खंड की कमाई अस्थिर और सीमित रहने के आसार हैं। आरआईएल के प्रबंधन ने कहा है कि हालांकि रिफाइनिंग मार्जिन की स्थितियां अनुकूल दिख रही हैं, लेकिन डाउनस्ट्रीम पर दबाव बना हुआ है।

ओ2सी कारोबार में आरआईएल का रिफाइनिंग, पेट्रोकेमिकल और ईंधन का खुदरा व्यापार खंड शामिल हैं। कंपनी के मुख्य वित्तीय अधिकारी वी श्रीकांत ने आय के नतीजों के बाद कहा 'बाजार में व्यवधान के कारण कुल मिलाकर ओ2सी आय कुछ अस्थिर रहने वाली है।' इस खंड के संबंध में शेयर बाजार का नजरिया भी आरआईएल के प्रबंधन के अनुरूप है।

जेफरीज के विश्लेषकों ने आय के नतीजों के बाद अपने नोट में कहा है कि ओ2सी कारोबार के मामले में मार्जिन सीमित दायरे में रहने के आसार हैं। सेंट्रम के विश्लेषकों ने शनिवार को जारी एक रिपोर्ट में कहा है कि ओ2सी खंड में निकट अवधि के दौरान दबाव रह सकता है। एमके जैसे अन्य विश्लेषकों ने अपने नोट में कहा है कि ओ2सी का वैश्विक दृष्टिकोण चीन के मांग-आपूर्ति



■ आरआईएल का कहना है कि रिफाइनिंग मार्जिन की स्थितियां अनुकूल दिख रही हैं, लेकिन डाउनस्ट्रीम पर दबाव बना हुआ है

दृष्टिकोण पर निर्भर करता है।

वित्त वर्ष 24 की तीसरी तिमाही में ओ2सी खंड के एबिटा में पिछले साल की तुलना में एक प्रतिशत की मामूली वृद्धि दर्ज की गई और यह 14,064 करोड़ रुपये रहा। इसके बारे में कंपनी ने कहा कि नियोजित रखरखाव और निरीक्षण की वजह से काम बंद रहने के कारण इसमें कमी आई है। शटडाउन के अलावा डाउनस्ट्रीम केमिकल ने भी मार्जिन पर असर डाला। एमके के विश्लेषकों ने रिफाइनिंग मार्जिन के बेहतर परिदृश्य के कारण वित्त वर्ष 24-26 में अपने ओ2सी के एबिटा

■ ओ2सी के कारोबार में रिलायंस इंडस्ट्रीज का रिफाइनिंग, पेट्रोकेमिकल और ईंधन का खुदरा व्यापार खंड शामिल हैं

अनुमान में दो से चार प्रतिशत तक का इजाफा किया है। हालांकि उन्हें लगता है कि पेट्रोकेमिकल का मार्जिन कमजोर रहेगा।

श्रीकांत ने शुक्रवार को जेट ईंधन उत्पाद की मांग का उल्लेख करते हुए कहा कि इन उत्पादों की निरंतर मांग वाले इस माहौल में रिफाइनिंग मार्जिन की उम्मीद की जा सकती है। वित्त वर्ष 24 की तीसरी तिमाही के निवेशक प्रस्तुतिकरण के अनुसार जेट ईंधन की वैश्विक मांग पिछले साल के मुकाबले 11 लाख बैरल प्रतिदिन बढ़कर 76 लाख बैरल प्रतिदिन हो गई है।

आरआईएल का नवीन ऊर्जा गीगा परिसर इसी साल होगा शुरू

एजेसियां
नई दिल्ली, 21 जनवरी

उद्योगपति मुकेश अंबानी की रिलायंस इंडस्ट्रीज लिमिटेड इस साल की दूसरी छमाही में नवीन ऊर्जा गीगा परिसर शुरू करेगी। कंपनी ने तिमाही नतीजों की घोषणा के दौरान निवेशक कॉल में यह जानकारी दी। रिलायंस गुजरात के जामनगर में 5,000 एकड़ क्षेत्र में गीगा परिसर बना रही है। इसमें फोटोवोल्टिक पैनल, ईंधन सेल प्रणाली, हरित हाइड्रोजन, ऊर्जा भंडारण और पावर इलेक्ट्रॉनिक्स के लिए पांच गीगा कारखाने शामिल हैं।

कंपनी ने निवेशकों के समक्ष तीसरी तिमाही के परिणामों की घोषणा करते हुए कहा कि हम इस वर्ष विभिन्न चरणों में नवीन ऊर्जा इकाइयां शुरू करने की राह पर हैं। शुक्रवार को तीसरी तिमाही के नतीजों की घोषणा के बाद अंबानी ने कहा कि नवीन ऊर्जा गीगा परिसर 2024 की दूसरी छमाही में चालू होने के लिए तैयार है। मुझे विश्वास है कि रिलायंस का नवीन (हरित) ऊर्जा कारोबार स्वच्छ ईंधन की स्वीकार्यता की वैश्विक क्रांति में महत्वपूर्ण भूमिका निभाएगा।

धीरूभाई अंबानी हरित ऊर्जा गीगा परिसर दुनिया की सबसे बड़ी एकीकृत नवीकरणीय ऊर्जा विनिर्माण इकाइयों में से एक होगी। रिलायंस ने पांच लाख करोड़ रुपये के पूंजीगत व्यय के साथ 100 गीगावॉट नवीकरणीय ऊर्जा स्थापित करने के लिए गुजरात सरकार के साथ एक समझौता ज्ञापन (एमओयू) पर हस्ताक्षर किए हैं। कंपनी को हरित हाइड्रोजन के लिए कच्छ में 74,750 हेक्टेयर (हेक्टेयर) जमीन के टुकड़े के लिए सैद्धांतिक मंजूरी मिल गई है। कंपनी ने नवीन ऊर्जा मूल्य श्रृंखला में मजबूत विशेषज्ञता वाले 10 वैश्विक प्रौद्योगिकी नवप्रवर्तकों में रणनीतिक रूप से निवेश किया है।