



एनटीपीसी लिमिटेड
(भारत सरकार का उद्यम)
NTPC Limited
(A Govt. of India Enterprise)

केन्द्रीय कार्यालय/Corporate Centre

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Sub: Transcript of Annual Analysts & Institutional Investors Meet held on 18 August 2025

In terms of Regulation 30 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, this is to inform that the Annual Analysts & Institutional Investors Meet of the Company was held on 18 August 2025.

Transcript of the above-mentioned Meet is attached herewith and can also be accessed at:
<https://www.ntpc.co.in/investor-updates/transcripts>

Yours faithfully,

(Aditya Dar)
Executive Director (Finance)



NTPC Limited

21st Analysts and Institutional Investors Meet 18 August 2025

Management: Mr. Gurdeep Singh, CMD

Mr. Mahabir Prasad, Joint Secretary and Financial Adviser,
Ministry of Power and Government Nominee Director

Mr. Jaikumar Srinivasan, Director (Finance)

Mr. Shivam Srivastava, Director (Fuel)

Mr. K. Shanmugam Sundaram, Director (Projects)

Mr. Ravindra Kumar, Director (Operations)

Mr. Anil Kumar Jadli, Director (Human Resources)

ED (Finance):

Ladies and gentlemen, it is my proud privilege to welcome you all for our 21st Annual Analysts and Investors Meet. Our company, under the visionary leadership of our CMD and the Board, has kept up with the expectations of our stakeholders and has recorded multi-fold progress in our operational and financial performance. What more can we do to position NTPC Group as a leading energy provider and realize value for our stakeholders?

To discuss this, today we have with us the Board of Directors, led by our Chairman and Managing Director, Shri Gurdeep Singh, in the center, who has an illustrious career spanning over 37 years in the power sector. His wide-ranging experience encompassing all aspects in the power sector, both in private and public, in different organizations and cross-cultural environment, has provided him with the unique ability to deal with intricate and complex issues of the sector. He has positioned NTPC at the forefront of the energy landscape and has started many initiatives to transform NTPC from merely a coal-based power generating company to a sustainable integrated energy company.

On the left side of our CMD is Mr. Mahabir Prasad, Joint Secretary and Financial Adviser, Ministry of Power, who is also a Government Nominee Director on the Board of NTPC. He is a 1998 Batch Officer of the Indian Railways Account Services and has rich experience in project management, financial evaluation of large projects, budgeting, policy formulation etc. He was associated with the first PPP project, Pipavav Railway Corporation Limited of the Railways.

On the left side of Mr. Mahabir Prasad is Mr. Shivam Srivastava, Director (Fuel), who has over 36 years of experience with outstanding contribution in areas of fuel handling, fuel management, safety, plant operation & maintenance and in coal mining projects. He has been instrumental in ensuring fuel security and building self-reliance in coal supplies for power projects of NTPC. As Director (Fuel), he is responsible for ensuring fuel availability, affordability and security for our generating stations along with development and safe operations of captive coal mines of NTPC.

On the left side of Mr. Shivam Srivastava is Mr. Ravindra Kumar, our Director (Operations), who joined NTPC in 1989 and has diverse and versatile experience in commissioning, operation & maintenance, engineering and project management of our projects. He was actively involved in the development of first supercritical power plant of Bangladesh India Friendship Power Company Limited. In his current role, he is responsible for overall planning for safe, reliable, sustainable and efficient operations of our generating plants, while ensuring compliance with environmental laws.

On the right side of our CMD is Mr. Jaikumar Srinivasan, our Director (Finance), who has more than three decades of illustrious career spanning power and mining sectors

in the field of finance, accounts, taxation, commercial, electricity regulations, renewables, IT and project development. Under his able guidance and hands-on approach, the company has repeatedly exceeded the street expectation on the financial front. His relentless efforts and dynamism have resulted in further consolidation of our financial as well as commercial position.

On the right side of our Director (Finance) is Mr. K. Shanmugam Sundaram, our Director (Projects), who has more than 36 years of diverse and versatile experience in project as well as commissioning stages of Greenfield and Brownfield power projects. Shri Sundaram was actively involved in the development of first supercritical power project of NTPC at Sipat. He is known for his holistic understanding of the power sector, strong leadership at both corporate and site level and his commitment to the timely execution of projects through a people-oriented approach.

On the extreme right, we have Mr. Anil Kumar Jadli, our Director (HR), who joined NTPC in 1993 and has a career spanning more than three decades encompassing both line and HR functions. After working in line function for around a decade, he transitioned over to HR domain in 2004. From then onwards he has looked after various facets of HR in different projects of NTPC. He moved to corporate HR in the year 2020 where he was instrumental in formulation and implementation of various HR strategies and initiatives.

With this backdrop and without taking any more of your time, I will now request CMD to begin with his opening remarks and set the tone for the event. Thank you.

CMD:

Thank you, Aditya. Good evening. So, first of all, let me thank each and every one, despite of some kind of challenging situation, you have made it here and that too also on time. So, thanks for, especially for today, when the situation is a little bit difficult. So that's the point and as Aditya just introduced all the Directors, so all the functional directors are here.

Special thanks to Mr. Mahabir Prasad, who is the Joint Secretary, Ministry of Power, and who is a Board member has also joined us. So let me give you a few things which I would not like to go too much in detail because that presentation will be made by Director (Finance) very soon. And then obviously we can get into some clarifications or explanations.

But at the same time, let me add a few things that this year has been a little different than the earlier years and that has caused that the overall generation in the country has been more or less flat. Most of the people who are very eager to crunch the numbers, they will be saying there is no growth.

But there is a very strong message in that. Because this is a very positive growth and that positive growth is that if there are good rains, if the monsoon is setting in well in advance, that means our agriculture demand is coming down, our water table is going up, and more than that, our air conditioning load is coming down, which is also good for the health of the environment.

Although one can always argue that we are only interested in those numbers. But overall, this is very good for the economy, and we would have seen that our inflation is well within control.

It has been seen in the past many years that whenever the rain is very good, the second half of the year or just after the rainy season is over, growth really overtakes the expectations, and this is a positive on that aspect. We are very comfortable as far as the coal stocks are concerned.

We have been able to, as a power sector, we have been able to provide the power on demand and hopefully there should not be much concern on that side. So, this is what I just wanted to clarify that some of you may be seeing that and asking that why there is no growth, etc., etc. But as far as NTPC is concerned, we have added the capacity in the Q1, which is 2716 megawatt, which probably is the highest in the history of NTPC and we are sure that we will keep breaking this record as we go forward. Till date, we have added around 3050 megawatt, which was against the last years of total around 4000. So, it is a quantum jump.

This capacity includes almost all type of capacities, whether it is renewable or whether it is coal based. Another significant thing is that our, one of the tough assignment or the project, which is called Barh, which all of you will be, those who are associated for a long time and who have been tracking our stock. So, we have commissioned that in full capacity. So, this has taken a little longer time. But despite of all odds, whether it is Russia-Ukraine war, and despite of that, our engineers have worked day & night and we had to place people there and we could really get all those items and we have commissioned that plant and now it is fully operational on that side. So now let me give you something different input.

We had our business plan almost around six years back. We had kept around 130 gigawatt by FY32. We have already revised that and the upward revision is, it is 149 gigawatt by FY32 instead of 130. And in that also there is going to be, there will be additional capex, which will be going in the PSP, green chemicals, BESS etc., so put together, we aim to invest about INR7 lakh crore by FY32. We will be able to give the break-up. The presentation will show that. If not, then we can always look at that. You would have seen something in the media that the two of our hydro companies, THDC and NEEPCO, so NEEPCO we have now got the approval, and we have more or less

started work on the three projects, Tato-I, Tato-II and Heo. So, it is going to be, ultimately it is going to make its capacity double in the next five to six years. So, whatever the plants were there in NEEPCO, it is going to be doubled by next five to six years. And in case of THDC, we have already commissioned two units of the pumped hydro of 250 megawatt each. By October end, we expect that the full 1000 megawatt capacity should be fully operational. And this is also going to boost our capacity.

We have very recently achieved a 100% load on Patratu Unit-1 and in this year, we are expecting that the Unit-1 and Unit-2 will also be commissioned by the end of the financial year.

RBI has allowed us to raise ECB up to US\$1 billion to finance the capex requirement. So, this is also quite positive.

With the quality overhauling, means maintenance activities, we have been able to reduce our forced outage from 4.18% to 3.42% in Q1 and 3.75% in the entire year compared to the 4.03% in the previous year.

We have refinanced and with the refinancing and restructuring, INR 4,870 crore of loans were refinanced, reducing interest rates by 2% and restructuring of INR 23,294 crore of loans achieved a rate cut of more than 1%. All of you will be knowing that we are allowed to retain half of that as a regulatory mechanism on that in addition to reducing the cost of the power to the consumers.

Another significant thing that I must mention that our Bangladesh project, which was commissioned last financial year, but I think then both the units are operational and there had been concern on that. Director (Operation) will be able to throw more light.

The foundation stone or the groundbreaking, rather, of our Sampoor project in Sri Lanka was done by Honorable Prime Minister and President of Sri Lanka last to last month. So that is also going to be another area of our development.

Another, on the storage side, we all know that PSP and BESS are the two items which we are probably knowing, but we are also working on something called carbon dioxide battery. Last time we mentioned this, but as of now you can have the further discussion with our Head of R&D, who is here, and similarly, on the green chemical side. So, this you will be finding little strange, but I did mention in the last year's briefing that the green energy will also be translating into the derivatives, green derivatives, chemicals and the green hydrogen derivatives. So, we have already won one of the green ammonia bid and, in that case, also our ED for the hydrogen, so I would encourage all of you to engage with him.

We have also other activities on the NTPC Green and NREL, all those things. So, the CEO for the NGEL is also present here, Mr. Sarit Maheshwari. So, I am sure that there will be many questions on that and please feel free, there will be status by them and what is the future plan. But let me without any hesitation to mention that our journey for the renewable energy is well on track.

There is a lot of work which is going on the land securitization and we, as earlier, whatever we do, we do in a way that it is not becoming a kind of problem next year. This year we are likely to add around 6 gigawatt, that is what we had said and about 1.4 gigawatt or 1.3 gigawatt has already been added in this year. So, he will be able to throw more light.

There is one concern which you would have noticed from media reports or may be analyzing, most of the renewable energy companies that there is some kind of curtailment on the renewable energy. So, it's not only the capacity what we have to put, but it is important that where we have to put, so that the curtailment does not happen.

And as you people know that we are only and only in this power sector, so we keep a track of the entire grid and we are also conscious of that strategy that which plant we should start, where we should start early, and which investment should come first and then prioritize on that.

As of now when we are discussing, there is another trend which is going to start. I'm sure that there will be some kind of regulation which will be given by CERC soon, hopefully, but State of Bihar has already given us that we will be putting BESS in Barauni.

That will be on the cost plus basis because that will also help the grid for the distribution companies. So, this is a new thing what we are trying to enter. Till now this was a standalone and the different one. So, this is another avenue which has opened. On the captive coal mining side, last year we had done almost 45 million ton. This time we are trying to have 50 million ton. As I said that we are quite comfortable as far as the coal situation is concerned. So, these few things are very important.

Now coming back, it is important to say that, for FY25 NTPC has paid interim dividend of INR 5, and this was in the two tranches of INR 2.5 each and further Board of Directors have recommended final dividend of INR 3.35 subject to the shareholders' approval in the upcoming AGM. With this, the total dividend will become INR 8.35 which is approximately 42% of our profit.

Capex, I just mentioned. We had many kinds of accolades, some awards, that I don't want to get into, because that will be covered by Director (Finance). So, I would just

conclude my initial remarks that on Mahi Banswara, this name should have become now well known by all those who are tracking NTPC. We expect that the foundation stone will be laid in the second part of next month. This is going to be 4x700 megawatt in the joint venture with NPCIL. In addition to that we are also already working in the different states for the sites and there is a full-fledged team which is working for the nuclear.

As we move forward, as was mentioned by Aditya that we are quite proactive in deciding how we have to move about. So, this is not on the cost of the coal. The coal based plants already, we will be putting around 26 gigawatt in addition to our 62 gigawatt, so it should become 88 gigawatt to 89 gigawatt in the next five years. So that is the target. We have already awarded, or the work is going on in approximately 16.5 gigawatt to 17 gigawatt. The rest of the awards will be done in the next few months and by any way in this financial year we target to award all these projects.

As you will be knowing, long back we had declared that we don't have any immediate plan to start new greenfield coal-based power project, because we have advantage with respect to the others that we have sufficient space in our existing plant and that too also in the pit head plants. So, we are trying to put the capacity in the pit head plants so that we will be more competitive today and, in the days, to come, because the coal will be cheaper, the land in hand, the time will be shorter. So, all these things and we were the first one in the line to put the order so that whether it was BHEL or whether it was L&T, we are ahead of our competitors in this sector on that side.

So, let me take a pause here and request Director (Finance) to give his presentation in detail and then we will come back to other things. Thank you.

ED (Finance): Thank you, sir, for highlighting the achievements and future path and prospects for NTPC. I now request Director (Finance) to make a presentation about NTPC. Sir.

Director (Finance): A warm good afternoon to all of you. Warm because I can see sunshine re-surfacing as we started our session. So let me begin this presentation with the sectoral outlook of the company, our view followed by discussion on emerging opportunities in the sector, our strategic plans, our transitional goals, our steps in new frontiers, our present visibility in terms of our growth trajectory, highlights of our operational efficiency and robustness of our financials.

Starting with the sectoral outlook and the company overview, India's economic momentum is poised to remain strong with energy demand projected to surge, according to the CEA estimates. This growth is fueled by structural reforms, a favorable demographic dividend, infrastructure-driven investment and universal access to electricity.

The per capita electricity consumption is expected to nearly double to 3000 units by 2050, bringing it much closer to the global average. Energy consumption is forecast to rise from 2474 billion units in FY32 to 3776 billion units by FY42, while peak demand is anticipated to touch 575 gigawatt by FY42, representing a robust CAGR of 5% over this period. These strong fundamentals underpin the power sector potential for sustained growth, positioning it as a compelling avenue for long-term value creation for the investors.

As the nation's largest power producer, NTPC continues to serve as the backbone of India's Energy infrastructure and serve as a catalyst for the country's economic development and prosperity. With a clear focus on emerging trends in energy space and global opportunities, our vision is to establish ourselves as a leading player in the global energy landscape. This vision is anchored in our unwavering commitment to NTPC Group's core values, which are Integrity, Customer-Centric approach, Organizational Pride, Mutual Trust and Respect, Innovation and Learning and a clear focus on Total Quality and Safety.

Presently, NTPC is having 83 gigawatt installed capacity and a further 31 gigawatt capacity is under construction. Our share in the country's electricity generation is 24%, with just 17% installed capacity. Even at this huge scale, we have been continuously demonstrating exceptional all-round performance. Our wide geographical footprint coupled with proximity to coal mines provides strategic advantage to spread and mitigate risk, facilitating cost optimization. Further, with an ambitious growth plan, we hope to maintain our leadership position.

Our corporate plan charts a well-defined growth trajectory, with renewable energy driving a significant share of this expansion. In FY25, we added a 4 gigawatt of new capacity, followed by an additional 3 gigawatt in FY26. At present, nearly 31 gigawatt capacity is under construction. We continue to set benchmarks in operational excellence, consistently outperforming the all-India average in both Availability Factor and Plant Load Factor. FY25 was a landmark year as we achieved record highs in generation, profitability and revenue realization.

Now we turn to our strategic plans and transitional goals. Our Vision 2032 charts a bold transformation into a leading energy major, anchored in a diversified portfolio spanning conventional power, clean green power, green hydrogen and its derivatives, along with a strong presence across the entire energy value chain. This strategic direction will broaden our revenue stream and strengthen our resilience, ensuring sustainable growth in the sector with diversified portfolio.

NTPC is steadfast in its commitment to India's national goals of achieving net zero emission by 2070 and installing 500 gigawatt of non-fossil fuel capacity by 2030. As

As we progress towards a carbon-neutral economy, we are shaping an integrated energy spectrum covering renewable energy, nuclear power, green hydrogen and green chemicals, green mobility, energy storage and waste-to-energy initiatives.

Our portfolio will also feature low emission thermal power with strong focus on maximizing the use of low carbon fuels, integrating biomass and the deploying of advanced Carbon Capture, Utilization and Storage (CCUS) technologies. With these initiatives, we are building a comprehensive green ecosystem that will power India's sustainable future and drive our transition to net zero.

Coming to our steps in the new frontiers, NTPC has entered the nuclear energy domain with an ambitious goal of installing 30 gigawatt of nuclear capacity by 2047, contributing significantly to the nation's 100 gigawatt target. We are advancing two key initiatives on the nuclear front. First is ASHVINI, our joint venture with NPCIL. This is developing four 700 megawatt reactors at Mahi Banswara, Rajasthan, with all necessary government approvals in place.

Second is NPUNL, our newly formed subsidiary is dedicated to harnessing advanced nuclear technologies. In addition, we have signed MOUs with state governments to identify suitable land parcels and facilitate for identification of land and development of nuclear project sites.

The NTPC group has an ambitious plan to develop 21370 megawatt of pump storage capacity. Of this, 11000 megawatt is under NTPC and 10370 megawatt through THDC and NEEPCO. Recently, 500 megawatt capacity of Tehri PSP commenced commercial operation with additional 500 megawatt capacity scheduled to come online within the current fiscal.

We have been allocated 5600 megawatt of PSP project across Tamil Nadu, Maharashtra, Chhattisgarh and Madhya Pradesh and we aim to commission 3 to 5 gigawatt of capacity by FY32. Feasibility studies for 19 projects are complete and detailed project report for four projects are in advanced stage of preparation.

With these plans, NTPC is positioned to leverage PSP as a key enabler of grid stability and seamless renewable integration. NTPC is at the forefront of building India's green hydrogen and energy storage ecosystem driven by innovation and scalable projects. In green hydrogen, we have commissioned a 150 kg/day plant using treated water from an STP at NETRA and are preparing to launch a one TPD facility at Simhadri that will harness sea water.

At our Pudimadaka hydrogen hub, we are advancing a series of global first, converting flue gas CO₂ to ethanol, producing sustainable aviation fuel, developing India's first

CO₂ pipeline and establishing world's first CO₂ based green urea plant. In energy storage, we are constructing a 160 MWh CO₂ based storage system at Kudgi, Vanadium Redox Flow Batteries at NETRA and 3.6 MWh phase change material systems at Dadri.

NTPC is actively advancing all four pillars of CCUS, that is CO₂ capture, CO₂ compression & pipeline transportations, CO₂ utilization and CO₂ sequestration. This initiative underscores our commitment to decarbonization, foster a circular economy and create significant avenue for further growth in the evolving clean energy landscape.

Moving to our present visibility in terms of growth trajectory, NTPC is poised for a robust growth with 31 gigawatt of capacity under construction and plans to add 7.2 gigawatt through new thermal orders to ensure a reliable base load supply. In line with its vision for a cleaner energy mix, the company aims to expand its renewable portfolio from 8 gigawatt at present to 60 gigawatt by 2032, reinforcing its leadership in green energy.

The company is also pioneering advancements in energy storage, targeting 3 to 5 gigawatt of pump storage PSP by 2032 and is making a strategic entry into nuclear power with 2.8 gigawatt of capacity planned to be awarded within this fiscal year. To realize this ambitious growth target, NTPC has outlined a cumulative group capex of INR 7 lakh crore by 2032, demonstrating a strong financial commitment and delivering long-term visibility for the stakeholders. As we mark 50 years of operation, this initiative reaffirms NTPC's position as the backbone of India's power sector, blending legacy strength with agility to deliver future-ready sustainable growth.

Now coming to our operational excellence, NTPC's operational efficiency has remained consistently strong, underpinned by adoption of best-in-class maintenance practices and a relentless focus on performance excellence. In FY25, the company achieved its highest-ever group generation of 439 billion units, reaffirming its leadership in the sector. NTPC also continues to maintain a significant lead over the all-India plant load factor, as can be seen in the PPT slide, reflecting its superior asset utilization and operational reliability.

NTPC's robust payment security mechanism has been instrumental in ensuring timely and reliable payments from the customers, thereby maintaining effective control over the trade receivables. This collection efficiency is reflected in a sustained positive trend with the revenue realization period for the trade receivables consistently coming down and outperforming the regulatory norm of 45 days. As you can see that it has reached to 32 days in FY25.

As regards fuel security, NTPC has secured long-term fuel supply agreements with coal companies, ensuring a reliable and consistent supply for our operations. To strengthen fuel security, we have diversified procurement channels through bridge linkages, our own captive mines and e-auction route, while resorting to coal imports sparingly whenever essential only. In FY25, these measures enabled us to maintain adequate coal availability across all stations, ensuring uninterrupted power generation.

Turning to the coal mining front, NTPC's group manages a robust asset base of nine coal mines with a combined peak capacity of 91.6 million metric tons per annum. In FY25, the company achieved a production milestone of 46 million tons, reflecting a strong 28% year-on-year growth and underscoring its operational excellence in mining.

Looking ahead, NTPC targets meeting at least 25% of its coal requirement through captive mining by FY30, further enhancing fuel security and supply reliability.

Some of the key sustainable initiatives- Climate change and sustainability have emerged as defining global challenges, compelling energy companies to balance the growing demand for power with urgent need to protect our planet.

NTPC has developed a comprehensive sustainable strategy titled the Brighter Plan featuring well-defined key performance indicators and measurable targets. Through sustained efforts and an unwavering commitment towards environment and sustainability, NTPC strives to be a leading example for responsible and clean energy generation.

NTPC is deeply committed to corporate social responsibilities, striving to create meaningful and lasting changes in the communities it serves. In FY25, the company invested INR 363 crore in diverse CSR initiatives with a strong focus on health, sanitation, safe drinking water, education and other areas that directly improve quality of life. These efforts have touched the lives of approximately 1.6 million people, many in remote and backward regions, fostering human development and empowering communities to build a better future.

At NTPC we believe in continuous development of our employees and provide comprehensive training to employees on technological advancements and latest operational management practices. Our key employee performance metrics like sales per employee, value added per employee, profit per employee and man MW ratio have shown consistent improvement as can be seen in the slide. NTPC continues to build all-round laurels in various fields of operations, corporate governance, internal audit, quality, HR, CSR, safety etc.

NTPC takes pride in its work culture of high trust and high performance. Regarding the financials, NTPC's financial performance has been consistently outstanding, marked with sustained growth and robust profit levels over the years. In FY25, the company achieved its highest ever standalone profit of INR 19,649 crore, showcasing our strong financial management and operational efficiency. The momentum has continued in FY26, company posting strong financial results for Q1 FY26, profit after tax for Q1 FY26 stood at INR 4,775 crore.

Our consolidated financial performance has also shown consistent growth, underpinning our strategic investment in value, accretive joint ventures and subsidiaries. In FY25, the group achieved a notable 12% increase in profit, reflecting the strength of our diversified portfolio and the effectiveness of our growth strategy. The group's EBITDA also recorded significant increase, underscoring our capability to deliver strong operational earnings while maintaining disciplined financial management.

NTPC's balance sheet has continued to expand, reflecting the company's strong financial position and long-term stability. Steady growth in gross fixed assets has translated into stronger and more efficient returns, reinforcing our operational strengths. Our ability to secure low-cost financing has allowed us to maintain competitive tariffs in regulated business, while enhancing cost efficiency in the renewable energy segment. For over three decades, NTPC has upheld a consistent track record of dividend payout, striking the right balance between rewarding shareholders and reinvesting in future capacity expansion.

As I draw closer to the end of my presentation, I would like to leave a thought. NTPC is not merely adjusting and adapting to the future, but it is actively shaping it. As we make a decisive shift towards clean, scalable and sustainable energy solutions, our foundation remains unshakable in terms of operational excellence, disciplined capital commitment and a policy-aligned growth. With a clear capacity addition roadmap and strategic investment in renewables and nuclear, NTPC is uniquely positioned to deliver resilient earnings and create enduring value.

We invite you to join on this transformative journey where scale meets sustainability and conviction meets performance. The future of energy is being built today and NTPC is leading from the front. Thank you for your attention.

ED (Finance):

Thank you, sir, for an extremely comprehensive yet concise presentation on NTPC. I now invite the participants to interact with the Board members and request that you state your name, your organization's name and please limit your questions to maximum two, so as to give sufficient opportunity to others.

- Mohit Kumar:** Hi, good evening, sir. I am Mohit Kumar from ICICI Securities. My question is on how much do you think NTPC can add or should add more, apart from the already announced pipeline? My second question is, many of the states are putting up capacities under the DBFO model? Do you think there is a case for us to participate in a state-based bid to add more capacity to pipeline?
- CMD:** So, I did mention to you that we will be having 26 to 27 gigawatt addition to around 62 gigawatt, whatever it is commissioned. So, it should be around 88 to 89 as of today. We have the appetite to add another double-digit number in our existing plants. So, we have sufficient headway. Now coming back to the second part of the question, every company has its own strategy. In the past you have seen whose strategy has been right or not right. Can I leave it here or do you want me to explain?
- We have decided we are going ahead with the existing Brownfield projects mainly for the pit head and that will be cost-plus as of today. So tomorrow we can change our strategy, that is a separate issue. But in the today's situation where the equipment is a constraint, where the transmission network is taking a little longer. So, all the right of way, whether it's a transmission line, whether it's a water line, whether it's anything else, it's taking a little longer time.
- Brownfield expansion, in my opinion, makes far better sense than starting the new greenfield. That does not mean that one should not start. I'm not saying that. But if you are already having the kind of your appetite or the capacity available, in the form of the land and the other infrastructure, why not utilize that? Yes, please.
- Girish:** Hi, sir. Thanks. Girish from Morgan Stanley. Just color on the INR 7 lakh crore breakup as to how much of nuclear is included there and PSP?
- CMD:** I think Nuclear is only around 2 gigawatt in that.
- Girish:** So is there any upside because you've spoken about bigger number in nuclear in the past.
- CMD:** Yes. But that is something only up to the time.
- Girish:** Okay.
- CMD:** See, the nuclear takes a little longer period. I think that's what.
- Girish:** Sure. And how much is PSP of that in 7 lakh crore number?
- CMD:** The hydro total is around 70,000. So, in that itself the PSP is taken care.
- Girish:** Sir, 7.2 gigawatt is what you expect to order on Thermal this financial year?

- CMD:** Yes.
- Girish:** Or will it be combination spillover in next year as well?
- CMD:** No. This financial year we said.
- Girish:** And we should expect about INR 11 crore to INR 12 crore per megawatt?
- CMD:** You will be lucky enough if you can get in that.
- Girish:** Okay. More than that. Thanks.
- CMD:** And that too also with the brownfield, by the way. Yes, please correct me if there is anything there. Please feel free to just intervene or correct me if there is anything.
- Subhadip Mitra:** Subhadip from Nuvama. Sir, Subhadip Mitra from Nuvama. Am I audible?
- CMD:** Yes.
- Subhadip Mitra:** Perfect. So, on the renewable side, in the overall 60 gigawatt plan that we have, what is the progress in terms of signing up of new PPAs or MOUs, if you can give us a split of that?
- CMD:** Yes. I just did mention that we have brought the CEO of the renewable with us so he can share. But what we are doing, this REIA or the PPAs, This is going to be a mix of the two in the sense that there will be PPAs, there will be some flexible utilization, there will be some merchant. But we are on track to achieve that 60 gigawatt by 2030.
- Director (Finance):** Out of this, the initial phase 30 gigawatt if you talk about that, over the next 3 years, current year plus next two years would be roughly around 20 gigawatt and the balance would be in the next 2 years. As far as the current year's 4465 megawatt is concerned, 100% land connectivity is there, PPA is 87% tied up.
- Next year 8196 megawatt is there, close to 80% PPA is tied up and 100% again land and 82% connectivity is available. And for the year next, 8 gigawatt, more than 93% of land is tied up, 76% connectivity is there and close to 60% of the PPA is in place.
- Subhadip Mitra:** Understood. Thank you. That answers my question.
- CMD:** See, one thing what is worth mentioning is that whenever we take the investment decision, we get to the details and it's all with a kind of practical assumptions what we take. But at the same time, that does not mean that we will go on doing the paralysis of analysis. So we will be, if there is some kind of aggressiveness is required, we will do that.

But at the same time, we don't get into a kind of that this is the number, and we will go ahead with that. So, this is driven by the well thought of assumptions and all practical, this is what being a government company, we record everything, and this remains open to scrutiny.

Director (Finance): So, if I may just add, the renewable will follow a different paradigm as different from the thermal conventional business where typically the PPA has to be in place and then we do all the tendering and other things. Probably here there has to be a shift otherwise because it's a very competitive market. So, there has to be a continuous progress on both the sides. We keep tying up PPA on one side, participating in the bid, we create inventories of land banks, strategic tie-ups with other states for joint ventures. So, sourcing and application both have to be concurrent. Sometimes we will have to make some advanced plans. So, at a given snapshot, you may not find 100% PPA, you may not find this thing, but that is part of the whole sector.

CMD: By the way, we are one of the companies where we can take a risk of going ahead with some kind of creating the inventory of the project and if the PPA is coming, on the way we can sign that. So going for the financial closure or maybe tying up the finances including the debt for 1 or 2 gigawatt, it is easily possible from our side. And this is what I was saying that we keep taking the pragmatic assumptions rather than anything else.

Apoorva: Hi sir, Apoorva from IIFL. Sir, you gave an interesting update on battery at Barauni, right?

CMD: Yes, very interesting.

Apoorva: So, would you like to throw some more light on that, the rationale of co-locating it at a coal power plant and the opportunity with other states as well?

CMD: Yes, it is going to be with almost every state, you can assume. At least all the forward-looking states will be definitely jumping on this side, we believe. The idea is that during the daytime, the power should be made available from those states, so that instead of bringing down to 55%, we can stick to, let us say, go to 70% or so and we can store that energy during the daytime.

And incidentally, this is a technical part, but it is a very interesting commercial sense that during the evening time when the ambient temperature is lower side, the line capacity increases. Otherwise, also there is a scope for around 10% in those lines, but during the evening hours when the ambient temperature is relatively lower, you can feed in more power. And this power belongs to them.

So, this is a win-win situation for both of us, and they are the bigger beneficiary than what we are, because we will be at the end, we will be taking only return on equity and the O&M cost. But at the same time, this power, which is available to them, this is available at INR 10. Almost, that is the peak time that they are able to trade or whether they have to buy it at that point of time, without creating any extra infrastructure other than the BESS.

And let me again reiterate here, and you can ask Mr. Shaswattam in detail who are interested, that our CO₂ battery, which is 160 megawatt hour, which is going on in Kudgi at present, so we will invite you to visit that place. We plan to commission that by July next. If that is going to be as per our kind of assumption, because this is only second in the world. So, there is one which is in Italy and this is the next one which is getting commissioned. If this is getting commissioned, we are becoming free from the critical minerals. So, there is no critical mineral requirement like BESS. So, we are quite upbeat on that. And in that case, there is no restriction that this has to be that small or that big.

And another point is, it can store for a longer duration. And another one is that you can modulate that. So, there are many things. We are keeping a tab on the different situations that is emerging out. We had very good discussion on the nuclear thing. I'm sure that somebody will be jumping and say that what is SMR progress. So, it looks like that the SMR is going to take a little longer period, but it will come.

SMR is nothing, but a modular one. Let me clarify to all of you that SMR is not a 10 megawatt or 50 megawatt. It can be as big as 200 megawatt what BSMR, what NPCIL is doing, or it can be even the 470 megawatt what Rolls-Royce is doing, so on. So, what I would request you people that you should be interested in the nuclear rather than this, whatever it is. There is no subcritical or supercritical kind of things. There are different technologies in that.

But as far as the, I think from the investor side, this would be a nuclear and then how, at what cost the power will be available, whether it's long-term, etc., etc. I think we will be, and there is a clear kind of pathway. The Prime Minister has declared this on 15th August also again, and in addition to NPCIL, we are going to emerge as one of the biggest players.

Like what we have done in coal, we will be also doing in the case of nuclear. But coal is not going to go away tomorrow, as we are just discussing, and Mohit was dot on spot to ask that how many, how much more megawatt we can add? So, I think then it will go parallel.

So, there are many things, renewable, nuclear, then coal, gas is still, we are thinking of some other methods for gas, but I hope that at the next opportunity we will discuss that and we will make sure that the power is available as per the demand, and it is affordable and reliable.

Apoorva: A follow-up question.

CMD: I thought, I am speaking for a long time, you will forget that whatever it used to be.

Apoorva: Sir, as you are progressing more and more deeper into transition, we are seeing a lot of sort of complementary technologies, be it batteries, green chemicals, all of these emerging. So how do we assess which part of business will be located in which company? So, for example, will green chemicals be a part of NTPC or NTPC Green?

CMD: You have already said, the green chemicals will be part of the NTPC Green. And I did mention, and you can get further detail from Mr. Panda, that we have already won one, and there is another bidding going on at present. I can see the face of Mr. Panda that what is going on, he is keeping a close watch on that.

But this is all going to be like, all of you would have seen that news that Honorable Prime Minister laid the foundation stone of our green hydrogen hub at Pudimadaka. So, with the land we had procured way back, around 12 years back, for the imported coal-based plant for 2000 megawatt, okay? And that time we were very close to award it. So, we annulled that.

And just coming back to Mohit's question, the first question he has asked, we did take a considered decision and till now it has proved to be right. If you would have gone with the 4000 megawatt, imported coal-based plant, we would have been some serious concerns on that.

Subhadip Mitra: Sir, follow up from my side.

CMD: You again? Give chance to someone else also. By the way, he is also coordinating. So, you have much more chance to ask the questions. Okay, go ahead.

Subhadip Mitra So, like you are looking at co-locating batteries with a thermal plant, is there any thought of co-locating batteries with existing plain vanilla solar plants.

CMD: You have really asked a very pertinent question. Going forward, most of the bids may be with some storage. This discussion is going on. And there is a time we are also discussing with some of the states that whatever plant we have put up and that power, whatever is available during the day, we can provide the same power at an incremental cost and incremental rate, whatever it is, in the evening peak hours.

So those things are bound to come. But we are also not that aggressive at this point of time, realizing that there is a lot of correction which is happening in the storage, both technological side as well as the cost side.

Subhadip Mitra

Understood. Thank you.

Director (Finance):

With this emerging concept on non-solar hour connectivity, which is available in the existing connectivity, that gives an avenue for going in for a co-located storage for the existing player also. And in case existing players are not able to come up, then it will be available for others also too. So that opens up a bit more optimization of the existing connectivity.

CMD:

There are only a few persons who are asking questions. Why didn't you ask this question in the beginning?

Mohit Kumar:

Sir, on FGD Installations, we have already gone ahead and done the investment and State GENCOs and private GENCOs are not investing. So, it puts us at a disadvantage.

CMD:

No.

Mohit Kumar:

Are they compensating for us?

CMD:

Yes, answer is unequivocally yes. So, we are governed by the environment norms. We are governed by the rules and regulations at that point of time. And we are operating in the cost-plus regime. So, Both Director (Finance) and Director (Projects), can reflect more on that. But you can take it clearly that whatever investment we are doing, that's not going to put us at a disadvantageous position.

Mohit Kumar:

Because the cost will go up, right?

CMD:

Compared to the?

Mohit Kumar:

State GENCOs and private GENCOs?

CMD:

How many state GENCOs have put up anyway?

Mohit Kumar:

The existing ones, Sir.

CMD:

So, what I said is that we are in a regulated regime. That too also cost plus. And we have done this investment only after clearance from there. Having said that, if you are putting the FGD, you are taking care of the environment far better than if not putting the FGD.

Just to inform you people here that we have taken a pause at that, once this notification was issued. Already CEA and the ministry is working on that, that what should be the

criteria for the new projects and which one we should really take up. Director (Projects) can tell that further than if he wants to.

Director (Project): For the old projects, already the cost is taken care. It is cost plus only. For the new projects, following the guideline, we have kept the FGD on hold. In the meantime, CEA has formed a committee to decide upon the financial and all.

Of course, we will be in advantage because we have done the FGD. We will be compensated. If tomorrow the law of the land changes, it will be advantageous for us only.

Mohit Kumar: Sir, all the pumped storage power plants will come in the NTPC, right?

Director (Finance): I was mentioning in my presentation that some of them will come in the THDC and NEEPCO also.

Mohit Kumar: Not in the NGEL, right?

Director (Finance): NGEL, we don't contemplate any PSPs, at this stage.

Sumit Kishore: Sir, Sumit Kishore from Axis Capital. My first question is on green hydrogen, you know, in terms of your plans at Pudimadaka and over the next 4-5 years, where do you see NTPC's investment scale for green hydrogen production and what kind of commitment is NTPC making for the next 5-6 years on green hydrogen?

CMD: Frankly, let me share with you that it is going to be sizeable, but at the same time there was some kind of wait and watch for the hydrogen related. And you know very well what has happened, after January this year, some declarations on this kind of net zero, etc., this climate and other things obviously. But if you speak to all the Europeans or the other part of the world, this remains intact.

So, as I said, there was some time lag. So, let us not get into the numbers there, but the Pudimadaka itself is going to be around INR 85,000 crore total investment. Whether we are going to do from total on the balance sheet of NGEL, or whether we can also try to start having the model of facilitating others and try to charge.

This can be a kind of SEZ model where you can enable people to come, and you can charge on that. But there will be a sizeable investment from our side. Because at the end, this is the coastal location, and this is the best part is that this will be proving to be a good export-oriented place.

And if, let's say there is an off taker, he wants to join hands with us, or he wants to invest in that, we should be flexible on that. So put together, it will be around INR 80 to 85,000 crore of the total investment in that.

- Director (Finance):** Apart from NGEL, there are some endeavors on the molecular business, which our R&D wing NETRA is doing, which I was mentioning in my presentation.
- Sumit Kishore:** Sir, I want to again ask you on nuclear. With the capital cost that is involved, let us say by FY32, the first unit gets commissioned. What kind of tariffs are you looking at for that kind of capital cost, managing the risks around fuel and everything else? And what does it mean on a cost-plus-ROE model? And how does nuclear power basically fit into the merit order?
- CMD:** I know, See, the last question first. On the merit order, it is also must-run. It's a non-fossil; it's also taking care. So, that's it. But the cost part is dependent on the total cost of the project, completed cost of the project. And it's a long construction period in comparison to the others.
- So, this IDC and IEDC is a major component on that. The whole exercise which is going on is that how to reduce the time of execution and how to make it completely indigenous so that the cost will remain under control. So, there are some estimates as of now that it will be somewhere between INR 15 crore to INR 20 crore per megawatt.
- If that is going to be the cost, tariff will be in the range of anywhere between INR 6 to INR 8.
- Director (Finance):** INR 7.5.
- CMD:** INR 6 to INR 8, I just said. Depending on the interest rates, this is rough figure as of today. Again, we have the head of nuclear, Mr. Pal, here. So, you can have the further discussion and another, Mr. Samal, who is our engineering head for the nuclear. You would appreciate that why we have invited these people specifically because that is going to be the future things. And it's every year we'll be having the similar kind of discussions.
- Sumit Kishore:** Intuitively, just INR 6 to INR 8 appears way higher.
- CMD:** See, the INR 6 to INR 8 looks to be higher, but with passage of time it will stabilize. I don't know whether we should discuss this point, but take it granted that there will be some cost to the environment.
- Sumit Kishore:** Thank you so much.
- Director (Finance):** See, one significant thing is nuclear is going to be predominantly having a characteristic of a must-run. Isn't it? You compare that with the cost of coal. Isn't it? With coal, PLF is going to be less and less with the more injection of RE, whereas this

is going to be more insulated. You know, it's not required to flex. So, from that point of view, it becomes a very sustained, durable base load coming forward.

CMD: By the way, I think some people were just sharing some numbers. That figure is also being talked about for the coal based, and if it is going to be backed down, this cost goes up.

Sumit Kishore: Definitely. Thank you.

Sharad Chandra: Sharad Chandra, Investment Advisor. There was a slide in which there was a possibility of selling directly to Commercial and Industrial Consumers. So how does that work? Do you have your own transmission line? And what is a power purchase agreement? Is it regulated, unregulated? So that's question number one.

Question number two, currently you have about 15% of your capacity in renewable. By FY32, it will be about 40% renewable. So, the question is, the problem India faces today, we have a surplus capacity. But the peak load can't be serviced. So, when there is a peak load requirement at that time, because lack of battery storage and other things which are developing, there is a power outage. And that may also be primarily due to poor quality of DISCOMs networks. So, these two areas, if you can just highlight, why not invest more in thermal to keep that peak demand requirement to be satisfied? Thank you.

CMD: We discussed that we are investing in thermal also.

Sharad Chandra: Only 7.

CMD: No, 27.

Sharad Chandra: No, but from current 15%, you are going 40% renewable energy.

CMD: No, that is okay. Percentage-wise you are talking about. So, with that, there is going to be some kind of price coming down in case of energy storage also. I did mention that. And we will have to find a balance that how much we should do. Let's not try to put these new coal-based plants to run only during non-solar hours. That is something which should be clarity then, at least for the power professionals. Your other question was?

Sharad Chandra: Directly.

CMD: Directly. C&I is through the power purchase agreement and the open access system. So, this is a bilateral contract. You can see the type of bilateral contracts between the seller and the buyer through the open access.

- Director (Finance):** See, any C&I is not by some design. It is like when we keep exploring the C&I. And wherever some bulk consumer comes who can have an agreement, pay the cross-subsidy surcharge and if he still finds a value, he can come to us. Indian Oil Corporation, for instance, we are setting up a RE facility to be off-taken by them. It is on a more negotiated basis. So that can also be classified as a C&I. We have an arrangement with Damodar Valley Corporation where they will be off-taking our floating solar. We keep talking to railways or other C&I industries, big industries. So, this will be on a negotiated basis, wherever we find an opportunity.
- Sharad Chandra:** And rate of return is not regulated?
- Director (Finance):** Rate of return is not regulated. But there can be an arrangement where we can have a cost-plus arrangement also on a negotiated basis. Though it is not regulated.
- Sharad Chandra:** So, is there any target by FY32 on this front?
- Director (Finance):** No. we are not chasing in a compulsive way. I mean, we continue talking and we are finding, this is a way of ensuring some off-take guarantees besides participating, because this will lead to better returns. So, it is a kind of sweetening of our portfolio.
- CMD:** We have acquired one asset in our joint venture with ONGC. And our off-taker of that power is Hindalco. That is a very selective one. Hindalco is a very reputed company and we had those kind of rates were negotiated at that. In fact, there can be different type of arrangements as we open this market. We can always say that it can be open book with the returns which are similar or better than regulated returns. But to keep your reply short, this is not in the regulated regime. You had mentioned something more important that we are surplus in power.
- Sharad Chandra:** Capacity wise?
- CMD:** No. Capacity let's try to spend a few seconds on this. The hydro capacity is only available when there is a water flow. The wind is only available when there is a wind is blowing. And solar is only when the sun is shining. So, to put together you will have to find that how much is the capacity what is required.
- And the CEA does a very comprehensive work on that. We are part and parcel of those discussions. Otherwise, why we are trying to put up new coal-based plants and new renewables and so on. So, we try to make these studies and then accordingly we put up the capacities on that.
- Sharad Chandra:** Sir, I understand that because the power gensets are being sold and the cost of that power is INR 8 to INR 10. So, obviously, I understand that. But that's why I am asking that why the Government of India is not motivating more thermal power to come.

- CMD:** They are motivating.
- Sharad Chandra:** Environment is obviously required. But growth of this country is also required.
- CMD:** No. But they are doing that. That's what I said. We are doing everything. It's not this or that. It's a combination of all.
- Director (Finance):** See, our country has already taken a differentiated approach. We are not joining this bandwagon of a net zero by 2050. And we are saying that yet we will have to ramp up the coal capacity to a level. And then by that time all this RE-RTC will be more stable, and the rate would have gravitated. So that's the opportune time to then cut off. Because many of our capacity today has outlived the life in the country. So, all those things would be then kind of started decommissioning. So, it will be required.
- Ramesh Bhojwani:** Ramesh Bhojwani from Mehta and Vakil. We have our nine coal mines and we have mined 45 million metric ton against a peak capacity of 91.6 million metric ton. Two thoughts on that. When we are mining our own coal from our mines, is the cost of coal cheaper to us than we get the coal from Coal India Limited?
- Director (Finance):** See, the primary idea of NTPC getting into its own captive mines is, the more preponderant thing is fuel security. Isn't it? Evidently, Coal India is sitting over a lot of legacy mines which was opened. Probably they were very good in the merit order with good stripping ratios. Increasingly the latest mines are going to be those which may have a larger stripping ratio. So, they have been auctioned.
- So, comparing an average of the coal prices, which may be 30 years old, 25 years old, with the latest one, with the latest capital cost, it won't be comparable. Isn't it? Definitely, if you take on a mine-to-mine basis, it is going to be different. But what we should ideally do is we should compare our latest mine with their latest mine.
- Ramesh Bhojwani:** Yes.
- Director (Finance):** Isn't it? I think those are comparable.
- Ramesh Bhojwani:** Wonderful. And you also have a target of 25% from your mines of coal.
- Director (Finance):** Yes. 25%.
- Ramesh Bhojwani:** The other thing which you referred in your highlights in the initial opening remarks is that with very, very benign inflation of 1.6%, it is imperative that RBI goes further in repo rate reduction or interest rate reduction. May happen in September. And with that, there was a signal and an indication that with that, you will be enabled to lower the cost per unit of power which you are supplying and it is highly imperative that the per unit cost of power which we are supplying, if we reduce it, it will do a lot of good, not

only for retail, for commercial, but even for industry. I would like your thoughts on that.

CMD: No. You tell me that it is in everyone's interest to reduce inflation. It is also in everyone's interest to reduce interest rate. But what will happen and what will not happen is not in our control. Nor can we guess anything for that. But one thing which you have raised is very important. It is that suppose someone had bid out and he had bid out at a time when the interest rate was very high. Is he going to reduce it? Prices? No. In our regulated returns, will the cost of power be reduced? Answer is yes.

So, to this cost plus, we can go on saying something, but it was structured as it is taking care of both sides. And that is the reason we are saying that it is. See, let us say that you have put up a bid at the time when the interest rate was only 2%, just example only, 5%, 6%, and it becomes double, then some of the developers may start asking that this was the assumption, now what can happen? But if this goes to the other side, I don't think they will be happy if you start questioning them.

Director (Finance): So, answering your question directly, in a cost plus, wherever this rate of interest goes, it may sometimes be rising or falling, but that will be translated into a tariff. So, the benefit of that lower interest rate will be passed on to the customer.

Ramesh Bhojwani: Thank you and all the best.

CMD: Thank you. Aditya, The questions are coming only after a deep sense of thinking. If there are some more questions, let us take last few questions, otherwise it is over to you.

ED (Finance): I think you and Director (Finance) covered almost everything which they could ask, in your speech. We now conclude this 21st Annual Analysts and Investors Meet, I am grateful to our CMD, our Directors, JS & FA Ministry of Power, and senior management present here for taking time out for this interaction. The address by CMD and the presentation by Director (Finance) highlighted the achievements of NTPC and showcased the potential that NTPC has. I am thankful to all our analysts and investors who are present here today, despite inclement weather, whose faith has driven us to exceed our performance, both operationally and financially, year-after-year. Last and but not the least, my heartfelt thanks to Regional Executive Director, Western Region I, and his team for making excellent arrangements for this meet. We hope to see you next year. I now invite you for refreshments. Thank you.

Note: This transcript has been edited for readability and does not purport to be a verbatim record of the proceedings.