



“JSW Energy Limited Q2 FY25 Earnings Conference
Call”

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Moderator: Ladies and gentlemen, good day and welcome to Q2 FY25 Earnings Conference Call of JSW Energy Limited hosted by Investec Capital Services. As a reminder, all participant lines will be in the listen only mode and there will be an opportunity for you to ask questions after the presentation concludes. Should you need assistance during the conference call, please signal an operator by pressing star then zero on your touchtone phone. Please note that this conference is being recorded.

I now hand the conference over to Mr. Anuj Upadhyay from Investec Capital Services. Thank you, and over to you.

Anuj Upadhyay: Thank you, Yashashvi Good evening, everybody. On behalf of Investec Capital Services, I welcome you all to the Q2 FY25 post result conference call of JSW Energy Limited. We have with us the leadership team from the company, including Mr. Sharad Mahendra, Joint MD and CEO; Mr. Pritesh Vinay, Director of Finance and CFO; and Mr. Bikash Chowdhury, Head of Investor Relations and Treasury.

And now without any further delay, I will hand over the call to Mr. Sharad Mahendra, for his opening remarks, which will be followed by Q&A. Over to you, sir.

Sharad Mahendra: Thank you, Anuj. Good evening, everyone. Thank you for joining today's call. The quarter gone by has been very exciting for the power sector and especially for JSW Energy. The sector dynamics are evolving towards increased adoption of renewable energy due to the advent of low-cost energy and storage solutions. This provides a blend of opportunities for developers like us to continue supporting the nation's goal towards sustainable growth.

Given the resilient growth environment, the GDP is estimated to increase by 7% or more in FY25 driven primarily by robust industrial and service sectors, and the expectation of higher government expenditure in the remaining quarters of the year.

Before we delve into our quarterly performance, I would like to provide an overview of the current power demand landscape. The power demand for the country grew at 5.4% in the first half of fiscal year 2025. In quarter 2, due to a higher base of 12.4% year-on-year demand growth has seen a nominal growth of just over 1%. We continue to expect a strong demand -- power demand for the rest of the year backed by robust economic activities in the country. The quarter witnessed a peak demand of 231 GW in Sep-24.

In line with the power demand growth, the country's generation increased by 5.8% year-on-year in FY25 and 1.6% in quarter 2 of current fiscal. When we divide this all India thermal PLF stood at 64.8% in the quarter as compared to 66.7% last year same quarter. The share of intermittent renewable in the total generation has increased to 15% in the quarter as the country added 22 GW of renewable capacity dominated by 19 GW of solar installation in the last 12 months.

Talking about the power capacity, the total installed capacity in the country has reached 453 GW and have surpassed 200 GW mark in renewable energy, including large hydro. Year-to-date, in the current fiscal, the country has added 10.7 GW of power capacity. The net capacity addition in quarter 2 stands at 6.5 GW, when compared with 3.5 GW in Q2 FY24 is a significant increase.

Capacity additions in the quarter were driven by renewable capacity additions of 6.4 GW, and out of this, solar dominated this with a capacity addition of 5.3 GW, while the wind capacity addition was 700 MW during the quarter.

Moving on to the bidding activity. In the first half of the year, the total utility-scale auction for approximately 22 GW capacity happened with a notable dominance of hybrid and FDRE projects. This trend underscores the growing emphasis on integrating multiple renewable sources and developing bespoke solutions for distribution companies.

To effectively address challenges such as grid stability, RPO obligations and supporting India's ambitious renewable energy targets, tailored solutions with energy storage are essential.

We've seen remarkable progress made on energy storage in this quarter. The government has fast tracked and has revamped the approval process for concurring on the pumped hydro storage projects. I am pleased to share that our Bhavali hydro pump project in the state of Maharashtra is also one of the projects concurred by CEA in September '24. And for this, we have signed the power purchase agreement with MSEDCL for 12 GWh of storage, and it will be delivered in the next 48 months.

When we come to thermal, the coal prices, as we have seen that have largely remained flat year-on-year, while strengthening on a sequential basis by marginal 2%. If we talk of a particular index like API4, it stood at \$110 in quarter 2 as compared to \$109 per ton in quarter 2 of last year. As we speak, API4 coal prices are currently ruling in the same range at around \$111 per ton.

Within the domestic market, Coal India has taken sufficient steps to keep robust coal supply. And we have seen a low e-auction premium for domestic coal procurement, especially in Orissa and Chhattisgarh.

Coming to the merchant market, we have seen a strong volume surge. The quarter gone by has witnessed growth of approximately 27% in cleared volumes at power exchanges due to a steady monsoon till September, leading to higher hydro and wind generation. However, the day ahead market prices have decreased 24% year-on-year to almost ₹ 4.5 versus ₹ 5.9, which was prevailing in quarter 2 of last fiscal. The merchant prices trended lower, while coal prices were flat year-on-year, resulting in lower spread for volumes sold in short-term markets. For us, the merchant volumes were high year-on-year. However, the dark spreads compressed due to a softer merchant market tariff.

Coming to JSW Energy's performance in quarter gone by, we have commissioned 204 MW of capacity during this quarter, which is entirely wind capacity. This represents almost 29% of the total 700 MW wind capacity commissioned in the country during the quarter. Our net generation for the quarter rose by 14% year-on-year, reaching 9.8 billion units, driven by a 14% year-on-year increase in both renewable and thermal generation. Net generation from tied-up portfolio was up by 9% year-on-year in the quarter, while short-term generation increased by 68% YoY.

Coming to the thermal, the generation increased 14% year-on-year, driven by strong performance by our Ratnagiri and Vijayanagar thermal plants and an incremental contribution

of almost 467 million units from JSW Utkal Unit-1. The long-term thermal generation was up 7% year-on-year, while the short-term generation increased 51% year-on-year. The renewable generation increase was particularly driven by the addition of 619 MW of wind capacity and a 5% YoY increase in hydro generation due to better hydrology.

If we speak of hydro, hydrology this year has been better. And for H1, the hydro generation for Pan-India was up by 4.2%, while our hydro assets generated 21.6% year-on-year increase in the generation. Like other regulated hydro assets, our Karcham-Wangtoo hydro power plant witnessed a revision and two-part tariff. As per the CRC regulation, there is a change in the rate of depreciation after 12 years, resulting in year-over-year decline in tariff and EBITDA.

We are on track to reach our first target of 10 GW capacity by FY25 and 20 GW of capacity before 2030. We have secured new RE projects with 3.7 GW of capacity in quarter 2, taking our total locked in capacity to 19.2 GW.

We also made significant progress on the energy storage front and have signed, as I mentioned earlier, a power purchase agreement for one of the largest pump storage project in the country of 12 GWh with MSEDCL. This project is located in the state of Maharashtra. And the power supply will be to the state of Maharashtra. We are ready to start the work as this is to be delivered in 48 months' time frame.

Regarding our under-construction projects, we are making significant progress on our under-construction wind projects, which are on track for completion within the current fiscal. Our Kutehr project site of hydro, which had suffered a severe land slide in the first quarter of this current financial year, which washed away access roads impacting project activities. Now the work has resumed, and I'm pleased to share that we have completed the boxing of Unit-2 also this quarter, and all 3 units are expected to be commissioned in the current financial year.

The Utkal Unit-2 had some teething issues and is expected to be synchronized in the third quarter while Unit-1 has now stabilized well. Also, I'm glad to share that we have signed long-term PPAs for 2/3rd of our new projects won in the calendar year and have started construction activities at some of the projects. These projects are expected to be commissioned within the next 24 months. And for more details on our under-construction projects, please refer to Slide 13.

On energy storage, we are constructing Asia's largest battery energy storage system with 1 GWh capacity, which is partly tied up SECI. It is scheduled for commissioning by June 2025. Additionally, for our green hydrogen plant of 3,800 tons of hydrogen, coupled with 30,000 tons per annum of green oxygen, the construction work has commenced in the previous quarter and equipment deliveries have started, and we expect this to be commissioned by March 2025.

With our strong foundation and fundamentals, I'm confident that JSW Energy is well positioned to excel in the coming quarters. Thank you very much.

Now I'll hand over to Pritesh, who will provide more details on our financial performance.

Pritesh Vinay:

Thank you, Sharad, a very good evening to all the participants. Sharad has already covered for the quarter. If you see our net generation was up by 14% YoY. But despite the net generation being up by 14%, the revenue for the quarter actually went up only by 2% on a year-on-year basis. And a large part of that is explained by the change in depreciation at Hydro business that Sharad already talked about, which is consistent with what some of you would have seen in the previous quarter, that is the first quarter, which led to a lower tariff and a lower EBITDA.

EBITDA for the quarter stood at just over ₹ 1,900 Cr. On a headline basis, it is actually down by 5% YoY. But if you look at the EBITDA bridge, which is there in the presentation on Slide Number 9. In last year's EBITDA for second quarter, there was a onetime truing up impact at the hydro business due to a tariff order that had been received previously of ₹174 Cr, which is nonrecurring in nature. So adjusted for that, the underlying EBITDA was ₹ 1,834 Cr. So, on a like-to-like basis, the underlying EBITDA is actually up by 4% YoY.

The profit after tax for the quarter was marginally up at ₹ 853 Cr compared to ₹ 850 Cr last year. If you look at the first half basis, the profit after tax is actually up by almost 20% at ₹ 1,375 Cr. The balance sheet continues to be healthy. If you look at the net debt movement during the quarter, on a sequential quarter-on-quarter basis, the net debt went up by almost ₹ 1,500 Cr and stood at about ₹ 24,875 Cr. And the bulk of this increase is largely explained by the debt drawdown for the projects which are under construction.

The net debt to EBITDA headline basis is at about 4.1x. But if you strip off the debt due to capital work in progress on an underlying sustained normalized basis, the net debt-to-EBITDA stays at healthy 2.2x. And the net debt-to-equity was at 0.9x. We continue to maintain a very strong liquidity profile with cash and cash equivalents of close to ₹ 5,700 Cr at the end of the quarter.

The receivable cycle continued to be range bound in the 60 to 70-day range. So, at the end of September, we were at about just over ₹ 2,500 Cr of total receivables. Of this, only about 30%-35% was overdue and the balance amount was not due yet. Since the end of the quarter, in the month of October till date, we've seen a healthy collection continue and overdues have actually come down as we have seen.

So I think I'll stop there, and then we'd like to open the floor for Q&A, please.

Moderator:

We'll take a first question from the line of Noel Vaz from Union Asset Management.

Noel Vaz:

Thanks for the opportunity I just have two queries. Firstly, on the slide which talks about locked-in capacity of 19 GW. Now there is a reference to 3.5 GW of pipeline in the previous quarter slide, I think it was a much larger figure. So is this due to the fact that all the PPAs that were signed in the quarter? And what is the remaining 3.5, if you can give some color on that?

Pritesh Vinay:

Yes, Noel, you're right, a significant part of the pipeline has been converted into a PPA. So if you look at the subsequent Slide Number 13, which actually gives a project-wise detail of PPAs signed on the left-hand side and the balance LoA/LoI on the right-hand side, you will be able to reconcile everything.

- Noel Vaz:** Thank you, and lastly, relating to the energy storage, the total commitment that we have stated for by 2030 is doing about 40 GW. There has been some element of battery energy storage that we have already started working towards and we've already got about 16 GW of PSP already signed up. Is it correct to assume that the remainder will all be PSP? Or do we have some color on how much will be battery energy storage?
- Sharad Mahendra:** See, this will be definitely a mix of both because both battery energy storage and pump storage, both complement each other based on the needs, what the discom or any buyer who is needing. For a shorter storage of 2 hours or 4 hours battery energy storage with shorter lead time of commissioning the projects start getting the supply. So it will be a mix of both. Energy storage coupled with solar energy is something which we have seen started happening, the kind of bids which are coming. So both will coexist, and we will be definitely looking towards both pump storage as well as battery energy storage.
- Moderator:** The next question is from the line of Swati Jhunjhunwala from JM Financial PMS.
- Swati Jhunjhunwala:** My question is around energy storage. So first is that the tariff that you have for each project, that tariff is sort of -- can I say it's kind of a rental regardless of if you do one cycle a day or two cycles a day in BESS or PSP. Is that fair to assume that it's sort of a rental?
- Sharad Mahendra:** Yes, Swati, you are right. This is a rental per MW per month. This is a rental model, which is -- and the project is designed based on the need what the buyer is asking for, but it's a rental model, yes.
- Swati Jhunjhunwala:** Understood. And the power input and output is the buyer's headache, not yours?
- Sharad Mahendra:** Yes, buyer has to provide the input power, and they only take the output also.
- Swati Jhunjhunwala:** Understood. And for BESS and PSP mode, one if the projects are commissioned, what sort of cost will be there? Because is it fair to assume that you know that the cost will be minimal since -- I mean, could you just highlight something on that?
- Sharad Mahendra:** See, cost is something which is a matter, which is very dynamic, maybe what is the cost of battery, what is the cost of cell and comparing with pump storage, which is maybe 4-year cycle to complete the project. So it is very difficult to give a number to the cost. But of course, the tariffs are in relation to what the project cost is, meeting the desired return. And operations and maintenance, if you are talking of, so it is two different, the kind of maintenance, which is required in battery energy is limited storage and pump storage is more of a hydro power -- hydro project.
- Swati Jhunjhunwala:** Okay. So we can compare hydro PSP cost in relation to a normal hydroelectric power project?
- Sharad Mahendra:** No, no, no, not really. Because there are differences in that. We're building a hydro project and the kind of work, which is required in a normal hydro project, here, it is limited. So it is not comparable. You can say maybe a pump storage is a subset of hydro with some of the parts which is required in hydropower project is not a part of this.

- Swati Jhunjhunwala:** Understood. So costs will be lower is what you are trying to say?
- Sharad Mahendra:** Should be lower. Yes, yes, yes. It will be.
- Swati Jhunjhunwala:** Understood. And debt to equity for both should be 80-20, is that right?
- Pritesh Vinay:** Well, that will be pushing the envelope, Swati. It actually -- it is not one size fits all because it depends on the unit economics and the underlying cash flow. You know so the lenders typically -- I think 80-20 would be very aggressive. That would not be the number we should be working with. I think for these kinds of projects, which have you know long gestation period, a higher amount of construction risk and a much, much longer asset life, it should be safe to assume either a 70-30 or at max 75-25.
- Swati Jhunjhunwala:** And, can you just give me a broad figure as to -- so when the BESS -- when the SECI first project has come in, that time, the capital cost for BESS was much higher than, let's say, the latest tender that you've gotten. So, could you just highlight on the cost, maybe per MW basis or an overall project basis, some color on the capital cost?
- Pritesh Vinay:** No, Swati, we would not like to do that because as Sharad was saying, yes, you are right. The capital cost was different at the time of when the bids were happening, and it has since moved. And we also have examples where the reversal happened at the time of the bid the equipment cost for some of the other projects were X and subsequently, the commodity super cycle happened, and X became X plus Y.
- So that is the part of the prudence in terms of risks to be priced in from a tariff discovery and the discipline. So are you -- how aggressive you're going to be in a bid and all that. But yes, it is safe to assume that whatever you are seeing in the market is largely the kind of price that anybody would be paying at a certain point of time.
- Moderator:** We'll take our next question to the line of Puneet Gulati from HSBC.
- Puneet Gulati:** My question is you guys are the pioneers both on the battery side and pump storage. How do you view the LCOE for both of them? What do you think is the storage cost and per unit basis for battery 2 to 4 hour and pump storage?
- Pritesh Vinay:** So Puneet, I'd like to take a stab at that one. See, they are not like-for-like comparison, right? One is a longer duration energy storage. And the second is, of course, we are aware that a lot of experiments and a lot of lab work is happening in terms of even on the battery side to have longer duration energy storage, but the commercial viability of that is still to be panned out, right? So the way one has to look at it is that from the user point of view or from the offtaker point of view, right?
- And the offtaker, which typically is a grid, is looking at a mix of multiple sources of power. They could be grey, they could be green, multiple modes of generation. And they are trying to solve either a peaking our deficit or a load following solution depending on which state, what kind of load profile they have.

So, these are meant for different kinds of solutions. So I wish life was simpler and for everybody, including us, if we could make it to a common size metric equivalent and do a plain comparison, but what is also happening is this, and I'm sure you are aware is that there's been a rapid decline in the at least lithium-ion battery prices because of which the LCOS equivalent, if there were to be a terminology like that, the gap is narrowing, right? And therefore, the cost of battery storage on a per unit basis would still be higher compared to PSP on a total cost basis.

Puneet Gulati: What would those numbers be for you?

Pritesh Vinay: But yes, we can't do a like-for-like comparison.

Sharad Mahendra: And also, Puneet, to add what Pritesh just said, see, there are 2 aspects we have to see. There is a stark difference between battery energy storage and the pump storage. If any DISCOM or any buyer is looking for a 2-hour to 4-hour solution, maybe it may be better in terms of the unit cost for them to buy battery storage.

But we have to see the negative of that, that, that will be mostly it is coming in for 12 years depending on the battery life. If it is a larger storage of 6 hours or 6 hour plus or 8 hours and a project for 40 years tie-up, that is a better and more economical solution in terms of the unit cost. So it is different depending on the use, as Pritesh said.

Puneet Gulati: So is there a way -- I mean if you were to allocate your time and capital, can you decide where -- which direction would you build towards? Where would you allocate higher time and capital towards a battery energy storage or a pump storage? Is there a way to think like that in your mind?

Sharad Mahendra: See, if you see the time and the effort required to set up the plants, of course, battery energy, you start, you complete in about 18 months' time and you start getting the returns. But you have to remember that what is that period for you are investing for 12 years. The PPA here, maybe -- and it's a very, very different skill set, as I told you. It is very, very difficult to either this or this.

What the country's need is, what is -- especially when we are seeing that the peak hour demand growth is higher than the normal growth. Bulk of the demand growth is coming in during the peak hours, whereas the peak demand, we reached 231 GW. It has already reached this year in September, which is likely to increase going forward. So this is a solution which will be taking care for a larger duration.

Pritesh Vinay: If I can add to that, Puneet, just bear with me for a minute. One important aspect that got missed out is the underlying returns in the opportunity, right? So that will be the North Star, right, for us from a capital allocation decision point of view. Till last year, we used to be asked, do you have anything against solar and you have only wind in your portfolio and no solar? Because an important element in all of this is the bidding behaviour or the -- how the tariff is being priced in, in terms of the competitor bids, right? So if, for example, in our view, the returns get eroded in both, then we will not pursue either of them, right? So that is also an important metric to keep mind of, right?

Puneet Gulati: Understood. And for your MSEDCL, when are you likely to place contracts for equipment?

- Pritesh Vinay:** We'll do that because the PPAs have been signed, which means that clock has started ticking. So, we have already floated. And all that is kind of mapped out, so we should be able to do that in the next few quarters.
- Puneet Gulati:** Understood. And in your contracts, especially on the SECI side, where there are both LOAs one, but PPAs not yet signed. Would you foresee any of the contracts, which are at the risk of not being signed at all given the tariffs that would have been discovered?
- Sharad Mahendra:** No, Puneet, I think the -- if you see -- recall the whatever LOAs we have got is in the last few months only 4 to 6 months, and there has not been any very significant change in the tariff discoveries. So -- and today, we see that 2/3 of other LOAs, what we received in last 7 months, we have been able to sign the PPAs. So right now, we don't see this as a challenge that PPAs not getting signed.
- Puneet Gulati:** Understood. That's very helpful. And lastly, if you can comment upon -- your potential JV with SANY turbines? And what kind of competitive advantage do you see them giving to you in future?
- Sharad Mahendra:** Yes. See, as I've stated earlier during last quarter also that with SANY, we had entered into a technology license agreement for the 3.X platform, which is the 3MW WTG. Now, we have upgraded, and we are going ahead with 4 MW platform from SANY. And also to derisk, we are in the process of finalizing the technology license agreement for even manufacturing of blades in India rather than importing the blades and for which we are at advance stage of finalizing the location and procurement of land has been completed almost.
- And we will be now going ahead with SANY for the technology license and so that we can start the project work for manufacturing of blades going forward within India. So this is how we are taking care. And also, we are working not only limiting to 4 MW. In case there is an opportunity, our technology understanding agreement with them will also -- we will move ahead even to the 5x platform, which is a 5-MW plus platform.
- Puneet Gulati:** And turbines will still come from China? Or is there a plan to assemble here as well?
- Pritesh Vinay:** No, no, no. China, no. SANY already has the facilities in India. They will be supplying. It cannot be imported also. WTG is to be supplied from India only. Import is not permitted.
- Moderator:** We'll take our next question from the line of Akhilesh Bhandari from Millennium Capital.
- Akhilesh Bhandari:** So firstly, on the overall target. So, we are within touching distance of getting to a 19 GW in terms of the -- 20 GW target in terms of the overall visibility. So any comments on if you're looking to -- if you're aspiring for a higher target in terms of the overall generation capacity? And secondly, you also have the option of -- and you are already investing in storage and different segments have different equity IRRs. So in terms of allocation of incremental capital, what is the pecking order if you look at storage versus renewable generation?

Sharad Mahendra: I think the first one I'll just tell you, in terms of the overall locked-in capacity was we have said 19.2 GW and the first milestone of 10 GW, as we have been saying earlier, maybe for quite some time that we will be reaching the first milestone of 10 GW by end of current fiscal.

And as we have said that the PPAs which are in hand and as we have been guiding earlier also, so maybe we have a 24-month window for the new projects and the PPAs which we have signed. So we are on track to move in the timelines. And going forward, we will decide. In terms of the capital allocation, Pritesh has already said earlier, maybe Pritesh can add to this.

Pritesh Vinay: Yes, Sharad, you're right. So it will again be driven by underlying returns because it's very difficult to crystal ball how future bids will play out and how the price discovery in future bids is going to pan out, right? So we're going to take each day as it comes and look at both the availability, the organizational capability, meaning the execution capability and the size of the opportunity and the underlying returns of the opportunity.

So yes, storage is -- and with that precisely in mind, if you recall, last year, we had laid out what we call Strategy 2.0, where in addition to 20 GW of generation, we said now we are confident that we will also pursue 40 GWh of storage solutions also, right? So I think that is all we will be able to say at this point of time. But depending on how the underlying returns plays out, we'll be calibrating that progressively.

Akhilesh Bhandari: Got it. And for the 3.3 GW of PPAs which are yet to be signed, by when are we expecting you know completion, especially on the group captive, which is a significant portion of the pipeline?

Pritesh Vinay: So the group captive should be done within this financial year, before March '25. The others, I would want to be a bit more circumspect having seen what has happened in the past. So I belong to the camp that nothing is done until it is done.

So while we are reasonably confident. And the most important driver is, as Sharad mentioned, is a largely narrow or a range-bound behaviour in terms of the tariff discovery and subsequent auctions, right? So you're not running a tail risk of the -- any potential offtaker being disincentivized to go for the earlier PPA, right? So we are not in that situation, thankfully. But let's see how this plays out.

Akhilesh Bhandari: But sir, sorry, sir, just may squeeze one more. But at the industry level, are we seeing any signs of delay in signing PPAs given that a significant quantum of capacity has been auctioned over the last 12 to 18 months. Any signs of delay which we are seeing in PSAs or PPAs getting signed at the moment?

Sharad Mahendra: No. See, we have to remember that maybe as we said that in the last 7-8 months, what LOAs we received 2/3 of the PPAs have been signed, which is a significant percentage of the PPAs signed. And we don't see -- because we have to remember that for each state, each DISCOM, there is an RPO obligation, which they have to reach by 2030. So keeping that thing in mind and also coupled with storage, it is also coming out, renewable energy is coming out as a replacement to the high-power peak demand requirements where many of the DISCOM states are in a state of shortage where the peak demand.

So I think we don't see any significant delay in signing of PPAs because normally SECI or any other agency, which is calling for the bids. Normally, they also speak to various states and then only they come out. So we don't see this as right now as a challenge. But yes, pure wind and pure solar, which I have been saying earlier also, has reduced. We see more of hybrids, more of storage or more of solar plus storage, these kind of customized solution bids are going to take a larger percentage of the overall bidding rather than plain vanilla solar or vanilla wind.

- Moderator:** We'll take our next question from the line of Rajesh Majumdar from B&K Securities.
- Rajesh Majumdar:** Sir, my first question was that we have commissioned around 495 MW only in first half, and we had a target of getting to 10 GW by December. And now you're talking about FY25. Is that correct, sir? Now the 10 GW operational capacity will be not December, but FY25?
- Sharad Mahendra:** Yes, FY25.
- Rajesh Majumdar:** Okay. Yes. So my related second question was that, see, we normally do 2/3 of our EBITDA in the first half. And if you look at the EBITDA trends, they are more or less flat and only 495 MW has come in the first half itself. So given this trend, will we see a year of consolidation in our business in terms of low growth as compared to what we have seen in the last 2 years?
- Sharad Mahendra:** See, in terms of capacity, what you are talking of, we just wanted to share, which I said in my opening remarks that the capacity addition to reach 10 GW out of this 350 MW of Ind-Barath Utkal and 240 MW of greenfield hydro is well on track, and we are sure that this will be commissioned within this year. So this takes us to maybe the 600. Over and above this balance is the renewable energy projects, which we are in line to commission, which are at advanced stages.
- Rajesh Majumdar:** Yes. I know that you don't give any profit guidance, but I'm just worried that our rate of growth is probably going to be slightly lower than what we had envisaged earlier given the kind of normal delays that we are seeing in terms of the commissioning of the projects. Is that a right assumption, sir?
- Pritesh Vinay:** So Rajesh, I mean, it is arithmetic, right? I mean you will be able to, I'm sure, model it that, for example, we are sitting at close to just under 7.7 GW of operating capacity and say the balance 2.3 GW is going to get completed between now and March, you will be able to figure it out. So we would not like to comment on any financial forward-looking guidance. You'll be able to derive what should be the numbers you should be looking at.
- Rajesh Majumdar:** Right, sir. And just an added question. I just wanted some color on the short-term market because we saw a dip in the short-term market in 2Q, and we are also going into a season where the demand will be lower. So when do you expect the short-term market to kind of pick up in terms of pricing if you can hazard a guess there?
- Sharad Mahendra:** See, two things, if you see quarter 1, the short-term market was good. The demand was there. It is only that in quarter 2, we have witnessed the slowdown in the short-term market. We have to remember the 2 factors. One is the hydro generation, which was much better what it was in quarter 2 of last year.

And also the wind capacity addition, which has taken place and the wind season now getting over in quarter 3 and sometime in quarter 4, again, the wind season will start. So we are sure that the merchant market will be -- definitely, we expect it to be better. And the demand also -- keeping in mind the monsoons and the weather conditions going forward, the demand is expected to be better from quarter 3 onwards is what we are seeing.

Moderator: Next question is from the line of Sumit Kishore from Axis Capital.

Sumit Kishore: My first question is in relation to capex. Could you please discuss what has been the capex in the first half of the fiscal? And what is your target for the full year? And if you could also outline what is the remaining capex for the 2.1 GW to be commissioned within FY25?

Pritesh Vinay: For the first half, the total capex from a cash outflow point of view has been just shy of ₹ 4,000 Crore. And our -- if you recall earlier, we had talked about a ₹ 15,000 Cr capex for the full year. So, we should be -- we are targeting just over ₹ 11,000 Crore of capex in the balance period of the year. Of this, the to be spent for the ongoing projects in order to hit the 10 GW mark is roughly ₹ 4,500 Cr. And the balance will be the capex for the future pipeline of projects that we will do.

Sumit Kishore: Okay. This is excellent. So, we should assume that the zero date for the contracted capacity of 5,388 MW to be commissioned over a 24-month time frame has started?

Pritesh Vinay: Yes, yes. Once the PPA gets signed, my clock starts ticking, right?

Sharad Mahendra: Yes.

Sumit Kishore: Yes. And in this ₹ 110 billion capex and the difference of ₹ 45 billion for under construction projects, how much is for the battery project and the green hydrogen project?

Pritesh Vinay: Green hydrogen is a very small, right? It's a small capex and that will get completed in March as well. So that is not going to move the needle. The battery project is going to be, I would guess, closer to somewhere in the range of ₹ 1,800 crores to ₹ 2,000 crores in that range. That I think, should be the number. We are still -- we have a potential upside risk in terms of a lower cost out there. But the worst case being conservative, you should work with that ₹ 1,800 crores to ₹ 2,000 crores.

Sumit Kishore: And that is also largely for FY25?

Pritesh Vinay: That is targeted for completion by June. So there will be a spill-over to the next fiscal year, yes. Partly 1Q, partly 2Q because there'll be certain performance-based payments that will happen subsequently.

Sumit Kishore: And just one quick question on you know we have seen how the technology improvements and overall price reductions for modules are happening. So, for a new build solar project, what is the new thumb rule for capex per MW? And what sort of CUF would you be assuming at a reasonably not sunny site?

Sharad Mahendra: See, in terms of the capex, module is a critical part of the overall project. So, module prices coming down will impact the capex, however it may be difficult to give an exact number or approximate number for a project cost. Module prices definitely have moderated. So giving the exact number, but there are a lot many factors. module is only one of the element. So -- and regarding CUF, again, it depends from geography to geography. It can range from anything from 26% to 28%, depending on where the project location is.

So all these factors are considered before maybe the overall -- as Pritesh has already said that maybe the benchmark high-teens returns is the benchmark. So all those factors while during the assumption, a conservative assumption of maybe in case of solar, the P75 is considered rather than going aggressive.

So all those factors we consider, but this is what they look like. Module has definitely moderated. But overall project cost needs to be seen. There are many other things, how far is the project from the connectivity? How much is the transmission line a developer has to put. So there are very variable factors on this.

Moderator: Next question is from the line of Sudhanshu from JM Financial.

Sudhanshu: Congratulations on winning the first large pump hydro storage project. Comparing to some of our industry peers, we are more focused on the wind and our renewable portfolio. Just wanted to understand what is the thought process behind this? The first question. Second is sir, as we are seeing the battery energy storage prices are reducing so sharply. So in our FDRE projects going forward, are we going to see more of a mix from the solar rather than the wind?

Pritesh Vinay: Sudhanshu, probably you joined this call a bit late. Earlier, there was a question in which I actually gave a specific example that we used to get asked this question that why we are more leaning in favor of wind compared to solar. But you just corrected me. It is not that we were asked that question earlier. We are still being asked that question. That was on a lighter note.

But see, we are driven by underlying returns, right? So it's a function of also the competitive intensity or the -- what we would want to call a rationality of behaviour in terms of the price discovery in any competitive bid. So it so happened that when we were building the Phase 1 of our greenfield projects, to what appeared to us, and we could be wrong, the returns were more in wind projects compared to the solar projects, which were a function purely of the tariffs being discovered in solar auctions relative to the cost to build, right?

And when that equation changed, say, from the beginning of this calendar year onwards, then we have actually gone the other way around. So, if you look at our pipeline of projects beyond the 10 GW, it is solar heavy, right, 4 GW of the pipeline is actually solar, right? So therefore, the limited point we would want to make is this we are, how should I put it, fuel type or source type agnostic, right? But we will more be driven by underlying returns in any opportunity. That's point number one.

The second question that you asked in terms of FDRE, and storage and Sharad actually mentioned it a few minutes ago that in our view, more and more the share of load following solutions or solutions, which will require solving for a specific problem, which would be either

meeting, taking our deficits, etcetera, which will need more and more of a generation plus a storage combination that is going to there. And that is what we also see to be playing out largely in the last few months.

Moderator: We'll take the next question from the line of Nikhil Abhyankar from UTI Mutual Fund.

Nikhil Abhyankar: Sir, can you talk about your land bank and connectivity for all the new projects that you have won and the projects for which you have signed any PPAs? Do you see any kind of a lag in getting transmission connectivity or the transmission projects have been completed, not today, but 2 years down the line?

Sharad Mahendra: Yes, Nikhil, in fact, I just want to tell you that as we said that we have signed the PPAs in almost 5.7 or 5.8 GW of PPAs, which we have signed, almost 80% of this PPAs, the connectivity we have been successful to secure. So connectivity, we don't see and balance 20% also going forward is in pipeline. So we don't see right now for this PPA signed, the connectivity as a challenge. 80% of the connectivity has already been secured.

Regarding the land, we have been working on this regarding the wind also, maybe almost 60% to 70% of the locations already in possession and it is a daily work. It's a continuous work, which is evolving. So we don't see this as a challenge for this PPAs what we have signed. We are confident of executing within the PPA timeline.

Nikhil Abhyankar: Okay, sir. And sir, for this 12 GW hour PSP project, what kind of return should we expect? Are this purely based on ROE -- fixed ROE PPAs? Are these fixed ROE PPAs?

Pritesh Vinay: No, no. Nikhil, these are not reg returns. These are not regulated return projects. This is not a cost-plus ROE. This is a competitive bid-based price discovery, right? So there was an auction that was conducted and there were multiple people quoting for tariffs, and that was how the price got discovered. So you don't have an assured ROE. That's point number one.

And like any competitive bid project, from our point of view, as we've been consistently maintaining that if our hurdle rate is a mid-teen levered equity IRR, so suffice to say that we've gone ahead with the project and signed the PPA. We are reasonably confident of getting a return which is meeting the hurdle rate.

Nikhil Abhyankar: Understood. And sir, you earlier also mentioned about green hydrogen. So we have also signed MOUs for larger capacities around 80,000-90,000 tons per annum. So any progress on that?

Sharad Mahendra: See, Nikhil, as I said some time back that our first, which is country's largest or maybe it is only 3,800 tons of green hydrogen. See, it is that, yes, there is -- that our group company steel also moving towards the green steel are definitely have plans. But as we all are aware that we are waiting for the right economics to work out and also to have a reasonably long-term PPAs, we are waiting for the right time. But presently, if you ask me in immediate terms, we have guided this till 2030, the number what we have said, the MOU, which we have signed, maybe in terms of execution, we are waiting, maybe till the economics work out.

And the way technology is evolving, we are -- the confidence level is high that even the cost of equipment, likewise everything will be moderating and also the power cost at these levels, maybe it's a matter of time when the technology allows to be techno-economical solution for green hydrogen.

So till then, we see that maybe for some time. But this execution of this project is going to be as a pilot project, as a learning for us as JSW Energy as a supplier, it's going to be a good learning and for the user also to blend the green hydrogen in their steel manufacturing. So we will be future ready after the commissioning of this project, ongoing project by March '25, and we'll wait for the right time when the economics work and the returns are protected, then only we'll be moving ahead.

Nikhil Abhyankar: Sure, sure. Just a final question. The FDRE project that we have won recently 330 MW. So we are setting up a capacity of 330 MW for it. If we look at -- if we compare it with the peers, this capacity is ratio of 1.5 is far lower than what peers are quoting. So can you mention about the configuration that you are using for this project?

Sharad Mahendra: See, as we see that this project when it is there, again, it depends on various things that what is the solution the buyer is asking for, what is the geography which we are, and then the breakup between the wind and solar. Somewhere, maybe if it's a very high area where the solar PL -- CUF is 28% as compared to majority of the locations of 26%, 27.5% so it is a design which we do, which we have a dedicated team, which works out on the most economical auction to maximize the returns if the tariff is discovered.

So it is very difficult to say that this is the ratio others is following. It's because geographical location, the kind of equipment, if I'm using a 4 MW machine for wind or 5 MW or someone is using 2.7, so there are a lot of variables in this. So based on which is the best option, we decide on the breakup.

Moderator: We'll take the last question from the line of Anuj Upadhyay from Investec Capital Services.

Anuj Upadhyay: A majority of the questions have been answered. Just maybe one clarification on the model sourcing part. So, this 3-plus GW of solar capacity, which we are adding, would the volume be sold through the captive management as earlier we had discussed plan to set up a model capacity. So would those be sourced through our own captive management or through the third party?

Sharad Mahendra: See, for modules right now, what we are doing is that there is a lot of capacity, which is there in India, which is, again, not getting utilized. So what we have done is that the cells we have tied up with the suppliers and we'll be importing the cells, and we have blocked the capacities on a conversion basis, and that is how we will be taking care of our module requirements from the capacities -- enough capacities which are available and are not getting utilized in India.

Anuj Upadhyay: So the arrangement is with a single supplier, or do we have a multiple supplier, through which we have...

Sharad Mahendra: So multiple Tier 1 suppliers, after technical -- due diligence from our team once the suppliers are approved then we go ahead, and we have already finalized.

- Anuj Upadhyay:** Got it, sir. And you mentioned about the ₹ 15,000 Cr of capex this year. Any numbers you want to throw for next year, that is FY26 or '27?
- Pritesh Vinay:** Premature, no Anuj. We'd like to wait for the last quarter of the year and at that time, we'll be in a better position to give you a more crystalized number.
- Anuj Upadhyay:** Fair enough, sir. Just last one if I may chip in. Apart from Maharashtra, any other states actively coming out with the PSP tender?
- Sharad Mahendra:** Yes, there is an ongoing tender which is state of Uttar Pradesh has already called for. Again, that is also a large PSP tender. And other states also are actively considering. We understand Rajasthan also is in advanced stage of discussion for pump storage. So there are various states who are now looking for towards pump storage.
- Moderator:** Sir, any closing comments?
- Sharad Mahendra:** No, thank you, everyone. And I think it has been a good interaction, and we have -- and in case there are any other questions which come later, please, you can write to our Investor Relations team, we will definitely get the answers from our side. And wish you all a very, very happy and prosperous Deepavali from our side. Thank you very much.
- Pritesh Vinay:** Thank you.
- Moderator:** On behalf of Investec Capital Services, that concludes this conference. Thank you for joining us, and you may now disconnect your lines.