DONG Energy A/S

Transcript :: German auctions and zero-subsidy wins ::

Dear participants. Welcome to this conference call regarding DONG Energy's wins in the German Offshore Wind Auction. DONG Energy's CEO, Henrik Poulsen, will open with a brief introduction and then after we will open up for a Q&A session. Please respect that DONG Energy will release its results for Q1 2017 on 27 April and is therefore restricted in answering all questions related to current operations. I now hand over the line to Henrik Poulsen. Please go ahead, sir.

0.00.33

Henrik Poulsen

Thank you and thank you all for joining this call. I hope that you have all had a good Easter break. On the outcome of the German offshore wind auction, we are of course well aware that our zero subsidy bid may have come earlier than what the market has expected. However, it is important to re-emphasise that the offshore wind industry with DONG Energy acting as a front-runner has achieved very significant cost reductions in recent years. And these cost reductions will continue in the years to come, not least fuelled by the next generation of turbines to be introduced post-2020. This zero subsidy bid essentially demonstrates the cost competitiveness of offshore wind and the technology is massive global growth potential. Governments and consumers and not least the climate will benefit tremendously from not only cleaner but also cheaper energy. I am convinced that governments around the world will increase demand for offshore wind on the back of the technology's rapid progress and its many inherent benefits. This will further reinforce the global supply and demand balance in the offshore wind industry. It is our mission as a company to deliver green and economically viable energy systems to the governments and consumers we serve. This is a purpose which drives our strategic development, it drives our innovation and now organisation and I am convinced it will also deliver significant value to our shareholders as it has for the past five years. I do understand the concerns that have been voiced about the zero bid and the related increase in market price exposure but I would encourage you to also look at the significant upside. Offshore wind is increasingly standing out as a very attractive technology and DONG Energy is strongly positioned to tap into this global potential. Offshore wind becoming more and more cost competitive is a positive, not a negative.

Specifically in relation to the German auction, it is important to note that the regime is different from other tender and auction regimes in Europe as the project will be constructed seven years from award. This means that for the specific case of what we refer to as our Cluster 1 project, that is the combination of Borkum Riffgrund West 2 and OWP West, both of those projects will be combined into one project standing at 480 MW. This project will benefit from a new and much larger turbine than the ones used today. At the same time and quite importantly, the transmission asset, as you know, is not part of the construction scope in Germany. This is obviously a key reason why a zero bid is feasible. The situation will be quite different in markets where the transmission asset is in scope. In addition, there are a number of other significant economic levers driving down the cost of electricity. In the case of Cluster 1, we have very strong site characteristics, including wind speeds above 10 m/s and we have extensive operational cluster synergies with adjacent DONG Energy wind farms.

We also see extensive improvement and cost reduction opportunities across the balance of plant between now and 2024, which includes installation procedures, foundations, cabling, lifetime O&M etc. And then the German authorities have opened up for an operational lifetime of 30 years. And the asset will be able to last that long and probably even longer. These economic drivers deliver a cost of electricity well below our forecast wholesale power price and will allow us to create value without subsidies. The CAPEX per MW will be significantly lower than the DKK 22-24 million per MW guided for the build-out programme at the time of the IPO last year. To reflect the merging exposure we have added 250 basis points to our WAC for the Cluster 1 project and our business case meets this increase in the hurdle rate.

Compared to German power price forecast available from leading research firms, our price forecast is fairly conservative. We will towards an investment decision in 2021 monitor the key factors that will determine long-term prices in Germany, including the impact of EU actions to deliver a meaningful price on CO2, phase-out of coal and nuclear capacity and, of course, the build-out of renewables.

For all of these input factors, we use assumptions relative to external market forecast that leave at least as much upside to our business case assumptions as there is downside. When it comes to CO2 pricing as a key input parameter, external market forecasts are typically based on the premise that the CO2 price long-term will drive the green transformation. This leads to fairly high long-term CO2 prices in the EUR 30-40 range in real terms. We do not take this approach. We assume the current pricing mechanism will continue with some support from the ETS reform initiatives underway on the other side of 2020.

In other words, we assume that emission reduction targets mostly will be reached through a range of not least national initiatives as we see it today rather than the ETS driving the transformation. This leads to a significantly lower CO2 price in our forecast than in the forecasts from the external research firms.

Should the research firms be proven right, this scenario will come with a meaningful upside to our business case.

When it comes to the build-out of renewables, we assume a relatively fast and sizable build-out of solar PV, onshore wind and offshore wind, which will exert downward pressure on long-term wind capture prices.

The third major input factor is the assumed phase-out of thermal capacity and here we basically rely on official records of capacity going offline. In summary, our price forecast is based on some level of upwards support from long-term CO2 pricing but at a much more moderate level than external market forecasts as well as a phase-out of thermal capacity.

Adding downward pressure, as I said, is an assumed significant build-out of renewables.

With the German projects we have, and this is quite important to, of course, understand. We have essentially acquired an option to make a final investment decision in four years from now. And we obviously also have an opportunity to potentially add more volume to the projects in next year's German auction.

All indications point towards a solid business case. We will spend the coming years maturing the case and further validating our input assumptions. We are quite comfortable with the cost estimates used in our business case based on a very thorough technical assessment and the tangibility of the improvement levers that we have applied. As I mentioned, we will monitor power price developments and the factors determining long-term power prices. And at the same time, we will explore opportunities to log in prices for all or part of the asset's lifetime through market-based contracts.

We remain fully committed to financial discipline and our track record of only undertaking value creating projects where we can deliver a spread on top of our cost of capital. Should the business case, against our expectations, not prove attractive in four years from now, we will abandon the projects and write off the value of the bid bond. The total value of the bid bond for the three projects that we won comes to EUR 59 million.

While we recognise that the cost of this option is significant, it needs to be seen in the context of three factors. First of all, the value creation potential we believe we can realise as we continue to develop the projects and their economics over the coming years. We believe the value potential is a meaningful multiple of the option premium being paid. Secondly, the material benefits that these projects will bring in terms of allowing us to stay on the front curve of the industry's innovation and cost curve. This is how we shape the industry and our company and this is how we created significant value for our shareholders over the past years. We will continue to do so.

Last but not least, you also need to see this in the context of DONG Energy's broader portfolio, pipeline, projects and opportunities. We will continue to have a portfolio with a very high combined share of fully regulated and contracted income. We are also confident that we will be able to continue to win new projects with a fully regulated price in new and existing markets where we take on development risk and build the full transmission asset. In the upcoming UK, Taiwan and US auctions, a number of factors will lead to different economics and different expected bid levels. In the UK, projects for the next CfD Round over the next few months – these will have to be executed earlier than the German Cluster 1 project.

This timeline would in our assessment not allow us to apply next generation wind turbine technology. In combination with full grid scope for developers this substantially changes the economics and the expected bid levels. In the US and Taiwan both of these offshore wind markets are, as you know, still in an early stage of development. The exact timeline for projects under development is uncertain but next generation wind turbine technology will expectedly not be utilised for build-out up to 2025. Higher expected cost levels for new markets overseas, for instance due to immature local supply chains, local legal restrictions and/or local technical challenges in combination with full grid scope will also lead to economics and bid levels that will be quite different from the ones in the German auction.

For the reasons mentioned, we expect also in the years to come to win projects at fixed and guaranteed prices. At the time of the IPO last year, we said that 80-90% of our EBITDA in 2020 would come from regulated and contracted income streams. Assuming that we build the new German projects and have them in full operation by 2025 we would in our projection still be comfortably within the 80-90% range of regulated and contracted EBITDA not only in 2020 but also in 2025. This includes the Cluster 1 project

operating at no subsidy as well as Anholt and Borkum Riffgrund 1 exiting the subsidy period in 2024-2025. And we would still be well within the 80-90% range.

When you submit a bid in a highly competitive auction like the one in Germany, you basically have to ask yourself at what price would you be fine not winning the project. In tenders during 2016, where we did not win, we subsequently had no regrets as we would not have been ready to FID these projects at the winning strike price. In the case of the German auction, we ultimately had to recognise that if we were pushed out of the allocation by competitors bidding at zero, we would have had regrets when it comes to the Cluster 1 project.

In the end, this led to the bid strategy applied and we are very pleased with the projects we have won and the option acquired. As said, we are convinced we can create value from this option and if, against our expectations, this should change towards FID in 2021 we will not build the projects.

You should also consider that in next year's German auction there is a carve-out for projects in the Baltic Sea leaving less capacity for North Sea projects. By taking significant capacity in this year's auction, we have established a strong platform for continued long-term expansion in Germany and we have an opportunity to further build on this platform in next year's auction.

Let me end there and on that note open up for any questions. Please go ahead.

0.14.54

Operator

Thank you and ladies and gentlemen, if you do have a question for our speakers, please press star and 1 on your telephone keypad. Again, to ask your question, please press star and 1 on your keypad. We will take our first question from Casper Blom with ABG. Please go ahead, your line is open.

0.15.14

Casper Blom

Thanks a lot. First of all, well done in continuing to drive down costs, sure that this is something that we will all be happy about long-term. First a question regarding your assumptions on pricing for these zero subsidy bids. I am not sure whether you will be able to sort of put numbers on this, but looking at where spot prices in Germany are today, probably at these EUR 25-30 per MWh, would that be enough to satisfy your required return on such projects? That is my first question. Thanks

0.15.49

Henrik Poulsen

Casper, I am not going to get any more specific than I have already been. Again, I know you guys of course would like to have us provide more detail and I fully understand and respect that but again for competitive

reasons we are not ready to release too many details as to what the exact input assumptions are. What I did say is that we have a relatively conservative market price forecast compared to the external forecast available in the market. It is a forecast where we see some upward support for the long term from CO2 pricing and thermal capacity phase-out and we do see some downward pressure from an expansive build-out of renewables. And based on this relatively conservative projection, we do see a solid business case.

0.16.40

Casper Blom

Okay, fair enough. Then a second question, please. You talked about the strategy that you have applied in these bids of the zero subsidy. Have you got any indication to what competitors were bidding? Do you know if there were others also applying for zero subsidy bids and that you were then chosen on the back of your large experience and vast market share in this field? Or are you the first one really to come with a zero subsidy bid?

0.17.18

Henrik Poulsen

We don't know about any other bids than the winning bids from the EnBW and ourselves so we wouldn't know if there have been other zero bids. In theory, that could be possible but we wouldn't know. The other criteria you mention have not been important in the allocation. The allocation has been fully taken on quantitative criteria.

0.17.42

Casper Blom

Okay, fair enough. Then just a quick clarification. Henrik, did you say that you had added 250 basis points on top of your usual WACC in this calculation?

0.17.51

Henrik Poulsen

That is correct, yes.

0.17.54

Casper Blom

Thank you.

0.17.58

Operator

Thank you and next we will move to Gavin Kennedy with Bernstein. Please go ahead. Your line is open.

0.18.05

Gavin Kennedy

Hi, this is Gavin Kennedy from Bernstein. Just two questions, please. The first is: Could you just give us a sense of the relationship between the CAPEX per MW and the turbine size? Would say going from 8 to 15 MW say half your CAPEX per MW or can you give some sort of a rough rule of thumb? And then the second was just: Can you give us a sense of how much lower the break-even CAPEX is expected to be in 2025 versus your IPO guidance? I mean, if we are getting to, say, roughly 50% reduction would we be in the right area? Or can you give some general sort of indication, please? Thank you.

0.18.36

Henrik Poulsen

Yes, again, obviously this is a very sensitive area in terms of beginning to put numbers on it, so Gavin, I hope for your understanding that we are not going to give you any specific numbers. What we do say is that compared to the guidance provided at the time of the IPO which covered the build-out plan that we had at that point, we do see a very significant reduction in CAPEX per MW in this project that we are scheduling for 2024 so I am not going to put a specific number on it.

0.19.11

Gavin Kennedy

Okay, and just in terms of the relationship then between CAPEX and turbine size, can you can you give any sort of rule of thumb at all?

0.19.17

Henrik Poulsen

No, I think when we had the Capital Markets Day back in February we did indicate a rule of thumb on the OPEX per MW over the lifetime. We have not given a similar rule of thumb on the relationship between turbine size and CAPEX per MW and I will rather not go into it because essentially that would be more or less giving you the exact number so I hope again for your understanding that this is commercially very sensitive.

0.19.43

Gavin Kennedy

No problem, thank you.

0.19.47

Operator

Thank you. Next, we will go to the line of John Musk with RBC. Please go ahead. Your line is open.

0.19.55

John Musk

Yes, thanks everyone. Two questions from me as well. Firstly, in terms of your power price forecast how exposed are you to any potential changes in market structure in Germany in particular if we were to see capacity markets introduced at some point in the future which could have a downward pressure on power prices? Is that something that you have considered? And then secondly, can I just confirm what you said around, yeah walking away from these projects that the write-off would be EUR 59 million. Are there no other penalties associated with that? I mean that seems a risk that the German government is taking there to allow people to basically walk away from this in three or four years' time.

0.20.48

Henrik Poulsen

On the first question on the capacity markets in Germany, yes this is something we do take into account in our modelling and this is one of the input parameters where we also run sensitivity scenarios on the potential introduction of capacity markets so yes that is one of our modelling parameters. On the second point, there are no other penalties. The EUR 59 million is the total value of the bid bonds that we have had to put in to participate in the auction and this is the option value that we would leave on the table, should we ultimately in four years decide not to FID the project.

0.21.33

John Musk

Okay, thank you.

0.21.37

Operator

Thank you and next we will move to Marcus Bellander with Carnegie. Please go ahead. Your line is open.

0.21.44

Marcus Bellander

Thank you. A number of questions from me. First, do you have any commitments from suppliers of turbines or other equipment when it comes to the technology you are planning on using?

0.21.58

Henrik Poulsen

We don't go specifically into the relationship or the commitments we have made with the supply chain. I will just say we feel comfortable with the technical levers we have applied, including our assumptions on the turbine and the size of the turbine, we are obviously working closely with suppliers on the next generations of turbines but above and beyond that we are bound by confidentiality in our relationship with the major turbine manufacturers so I would rather not go into any kind of detail here.

0.22.33

Marcus Bellander

Okay, a second question. You mentioned that you were more comfortable with this bid obviously than the auctions that took place a few months ago. What has changed in those three or four months? Why are you so much more comfortable with a zero subsidy bid than you are with those subsidy levels we saw back in December in Holland and Denmark?

0.22.58

Henrik Poulsen

There are a few factors, Marcus, driving the difference. The biggest one is the timing; so this is a project that will be built in 2024 which makes us comfortable assuming that we will have access to the next turbine platform and this, of course, is a major driver in terms of pushing cost of electricity further down as we have seen in the past, introduction of new turbine platforms leads to a step change in the cost of electricity, not only by driving down the cost per MW for the turbines but also driving cost down across the entire balance of plant.

Secondly, it obviously gives us even more time to further enhance also all other parts and levers across the construction, installation and operation of an offshore wind farm so again the timeline is a significant difference, not only on the turbine side but also on all other input parameters.

Thirdly, it is a very attractive site. We enjoy very significant wind speeds and we enjoy significant operational cluster synergies from existing German assets and German assets under construction. And then we do here assume that we will have a lifetime of 30 years, which is obviously an extension compared to previous projects and again this is based on the specific regulatory framework put forward for the German auction. So those are essentially a handful of levers that create a very significant difference to the Dutch and Danish tenders that we saw last year.

0.24.43

Marcus Bellander

Maybe if I could follow up on that, I mean the timing argument, I am not sure I quite understand it because that is not something that is unique for DONG, I mean that is something all players had in this tender and did not have in the previous auctions and also the cluster synergies you had that at Borssele as well, I guess I am just, what I am getting at is have you become more aggressive on your assumptions in some way when it comes to cost…

0.25.15

Henrik Poulsen

We haven't gotten any more aggressive, I would say, the methodology we have used to come to the cost estimate is the exact same approach that we have taken in all previous tenders and auctions. It is a very comprehensive exercise involving all of our engineering teams, the entire management team in wind power, so we have been running the exact same process. But it does make a major difference if you can assume that you will have access to a turbine in the 13-15 MW size compared to the current 8-9 MW size. So essentially we haven't made any changes to our approach, whether it goes for the cost estimates or the power price forecast. We have taken the exact same approach as for previous tenders and auctions.

0.26.05

Marcus Bellander

Understood. Thank you. And then my last question if you could explain why there was a EUR 60 subsidy bid on one of the wind farms and a zero subsidy bid on two of the wind farms? Is there such a big difference between these wind farms or what is the dynamic there?

0.26.23

Henrik Poulsen

There are some big differences. The biggest difference is that on the Gode Wind 3 project we did not want to assume that we would have access to the new turbine platform as it is being constructed or it would be constructed earlier than the Cluster 1 project. So we are, in terms of timeline we are probably with these projects in our expectation shortly before and shortly after where we will have access. So that is a big difference. The other difference is that the site characteristics are slightly less attractive than the Cluster 1 project.

0.27.03

Marcus Bellander

That is very helpful. Thank you very much.

0.27.07

Operator

Thank you. Next we will move to Kristian Godiksen with SEB. Please go ahead, you line is open.

0.27.13

Kristian Godiksen

Thank you, a couple of questions. Firstly, can you elaborate a bit on your visibility for the next turbine generation, like how many players are developing turbines in the size of 13-15 MW as you, right? Secondly, how much higher is your cost of capital for the zero bid projects and I guess you can't mention a specific level but could you give an indication in percentage points how much higher it is? And then thirdly, what is your view on doing farm-downs of these zero subsidy bid projects as I guess you need to tap into a new type of investor? Thank you.

0.27.55

Henrik Poulsen

Thanks, Kristian. In terms of cost of capital, as I mentioned we have added 250 basis points to our traditional WACC for wind power projects. So that is the increase we have taken to reflect the merging risk on the zero subsidy project. When it comes to partnership opportunities that would be too early to tell. The commercial teams in Wind Power will now start looking at what are the different commercial models that might be available to further reinforce our business case over the next couple of years. So I would rather leave that discussion there for now and come back to it once we have moved a little bit further down the road here. When it comes to the wind turbine and the suppliers I will just pass on the word to Samuel Leupold who will just comment on that.

0.28.40

Samuel Leupold

Thank you, Henrik. And I can basically just refer to what you said before already which is we are very close to all major OEMs for offshore wind turbines and therefore we, on a continuous basis we have deep insight into their development pipeline and we consider ourselves a partner in the development of their next generation turbines so therefore this is not just bid specific but it is a continuous process which we believe is actually probably a competitive advantage which we have compared to other players. I cannot be more specific than that given that obviously we are subject to confidentiality and have signed NDAs and obviously these manufacturers they are living in a competitive world and therefore they rely on us being very careful in what kind of information we can disseminate on the projects and the new technology they have in their pipeline.

0.29.44

Kristian Godiksen

Thank you. And that is totally fair but can you just maybe give us how many players that are developing turbines in the size of 13-15 because we have in general seen it is only MHI Vestas and Siemens winning the projects. Are there any more or is it these two guys we are talking about?

0.30.01

Samuel Leupold

Well, I guess I cannot be specific on that one obviously but I mean you can probably assume that everybody who wants to play in offshore wind turbines in the medium to long run needs to be aware that there is a continuous development on technology and therefore I think I can probably say that everybody who wants to stay in that business needs to have projects up in their pipeline and everybody understands probably that one of the most powerful drivers for cost going forward continues to be the wind turbine so I guess that is probably the answer I can give at that point in time.

0.30.39

Kristian Godiksen

Okay, thank you.

0.30.42

Operator

Thank you and next we will move to Jørgen Bruaset with Nordea Markets. Please go ahead, your line is open.

0.30.49

Jørgen Bruaset

Thank you very much, a couple of questions from my side as well. First of all on the lifetime expectancy of 30 years and longer than that, is that only related to the expectations of the 13-15 MW, meaning that for the Gode Wind project you assume 25 years as you have done previously? And also what about farms being constructed from now up until the delivery of the new turbines, should we then assume 24-25 years as well or should that also be regarded as potential for 30 years or longer?

0.31.30

Samuel Leupold

I think, as you know, so far we have for our wind farms where we have taken investment decisions so far we have the right to operate these wind farms for 25 years and we stay with that. In Germany, as you understand, there has been explicitly an opening in the tender rules that 30 years or an extension of 5 years

from 25 to 30 years can be asked for and so is explicitly foreseen and therefore obviously that makes a difference for us in these specific circumstances. From a technical point of view, we have gained on the analysis of the various components of a wind farm and we feel comfortable that we can use that kind of additional space created in the German auction rules.

0.32.22

Jørgen Bruaset

Okay, thank you. And also just a short follow-up. On the whole optionality way of thinking, of doing this bid, is that something that we should see more of coming forward? Is that something that has changed materially from how you have done investment cases historically? Or how should we view this in terms of the general approach to new projects?

0.32.48

Henrik Poulsen

I wouldn't assume that this is a new general approach that you should expect us to adopt for coming auctions and tenders. As I alluded to earlier, we do see the auctions coming up in the UK, US and also the way the Taiwanese market is developing. We expect those auctions to come with different economics, different mechanics and our approach would also be different. So we would not be thinking of those as an option driven approach. There is a key difference here again which is that we are seven years between award and construction, which also means that it is a pretty long time span to actually model in terms of your business case and that in itself actually has driven us to take this more option-based approach where we will now have four years to continue to enhance the projects, move them forward, technically, commercially, to make sure that they stand out as very strong business cases when we have to make an FID by 2021. So the timeline in itself has led us to take an option approach to this particular auction.

0.34.00

Jørgen Bruaset

Okay, thank you very much.

0.34.04

Operator

Thank you. Next we will move to Pinaki Das with Bank of America. Please go ahead, your line is open.

0.34.10

Pinaki Das

Hi, thank you very much for taking my questions. I have quite a few questions but I will focus on two or three of them. The first one is on the bid bond that you mentioned, the 59 million. Do you have any other costs relating to project development that you have already spent on the three projects or potentially you might

spend on some of the decentral sort of extensions that you might plan in the next few years? So I am just trying to get at how much is the total investment exposure on top of the 59 million bid bond? That is my first question.

0.34.45

Henrik Poulsen

I mean we have had development costs on the projects up until now. Those are development costs that we have expensed as per our general approach we expense all of these development costs so yes there have been some development costs in the past. On a forward basis, we will of course spend some money maturing the projects and then there is the EUR 59 million bid bond. I would rather not start quantifying the development costs. I am not sure we would have a very specific estimate right now. But in the bigger scheme of the upside we are looking at, they are relatively limited.

0.35.27

Pinaki Das

Okay, cool. Thank you so much. And the second question is around the power price exposure and this is just around the technicalities, I mean when you would build a wind farm and it starts to generate power, would you have to accept the market power price whatever the power price at that point is or would you be able to take that power and actually sell it on a forward contract, on a 2-3-4 year view or maybe other medium term contracts by local parties?

0.35.53

Henrik Poulsen

Yes, those would be options. We would be able to sell them forward into the market, we could look at opportunities to sell them through corporate PPAs and other types of power purchase agreements so there would be a number of commercial opportunities in the market that we would explore between now and FID.

0.36.17

Pinaki Das

Yeah, I mean the reason I was asking that was, you know, sometimes it happens that you have a surge in renewable production actually the power price goes down quite a lot. So how to sort of avoid that, probably by sending forward, yeah?

0.36.33

Henrik Poulsen

Could you just repeat the question? I missed the first part of it.

0.36.36

Pinaki Das

Yes, sorry. I was saying that sometimes when renewable production goes up, you typically can have a decrease in the power price. So I guess the strategy to offset that will be to sell forward earlier.

0.36.50

Henrik Poulsen

Yeah, but first of all, the way we model our pricing is based on a wind capture price so we take account of the wind production's impact in the power prices at which we can sell our production. So we don't assume sort of a base rate power price, we assume a power price where we have accounted for the price pressure that comes from the wind production in and of itself and on the near-term to mid-term horizon we would typically use hedging to lock in our prices.

0.37.30

Pinaki Das

Cool. Thank you. And the third question is around competition. I mean you mentioned earlier that you are obviously leading the whole process along with some of the turbine manufacturers in developing these new turbines, you know right at the forefront of this technological revolution. I was quite surprised to see that actually EnBW also bid at zero subsidies. So is it possible that a lot of the other guys are also in on these new turbines and therefore the big competitive advantage that DONG has had, being the pioneer, you know, is that getting somewhat diluted or do you still feel confident about it? How come they were able to bid at zero subsidies basically?

0.38.16

Henrik Poulsen

I obviously wouldn't be the right person to answer that question. I am sure they also have made assumptions in terms of access to new technology, in terms of the cost improvements that they can secure between now and 2024 or 2025 but going more specifically into guessing as to what they have assumed obviously would be very difficult for me. Over time no doubt, most developers will have access to the same type of technology. I would still believe that given our experience and the scale of our business that we may have still some industrial advantage on our competition.

0.39.01

Pinaki Das

Okay, thank you. And just a last follow-up on the turbine technology, you know, it took a long time to get to 7-9 MW offshore turbines and you are talking about 13-15, which is a bit of a surprise to me at least, I was hoping that probably the turbine guys were considering all the risks of an investment will probably look at sort of 10-12 MW rather than a big step change to almost doubling versus the 7 MW. You know what are the sort of risks associated with going from 7-8 to 13-15 rather than only 1 or 2 MW more? And do you think

there could be for example any delays in the projects being delivered beyond 2025 or are there any penalties relating to those?

0.39.47

Henrik Poulsen

I would say that we have a long track record of being the first developer to introduce new turbine platforms, we are the first ones to adapt the 3.6 MW, we are the first to take in 6 MW, 7 MW and now also the 8 MW from MHI Vestas. So we have a long track record of being a first mover on adopting new turbine platforms. So far, the transitions from one platform to the next have all gone quite smoothly. We do see that the turbine suppliers, generally speaking, are building on the same technological principles and platforms and therefore we see the risk, as we migrate from one to the next, historically has been relatively low and we believe that will also be the case as we migrate towards the next platform after 2020.

0.40.38

Pinaki Das

Great. Thank you so much.

0.40.44

Operator

Thank you. And next we will move to Ian Turner with Exane BNP Paribas. Please go ahead, your line is open.

0.40.52

Ian Turner

My question has been asked, thank you very much.

0.40.55

Operator

And thank you. Next we will move to Mark Freshney with Credit Suisse, please go ahead, your line is open.

0.41.03

Mark Freshney

Hello, I have two questions. Firstly, in terms of the guarantees that you have on some of the turbines, I mean you have only just installed the 8 MW at Burbo Bank and that will be, I think, the first major project for that machine and now we are talking about moving to bigger machines. So what kind of guarantees do you have with the OEMs? And secondly, my question is on the exact structure of the contract. My understanding is

that you basically for the zero subsidy you take power price but you have protection so if the power price goes below zero, you don't have to sell at negative prices. Can you give a bit more flavour about some of the other nuances of the contract that you have, please? Thank you.

0.42.03

Henrik Poulsen

In terms of the first question of guarantees from the OEMs again, as Samuel alluded to, we are bound by confidentiality agreements with our suppliers and I would rather not start discussing the specific arrangements we have with either one of them. I will just say that we are comfortable with the projection we have made here and the assumptions we made as to the excess that we will have to the next generation of turbines. When it comes to the power price dropping below zero, production would essentially be brought to a halt, should we reach a sub-zero market environment.

0.42.44

Mark Freshney

Okay, thank you.

0.42.49

Operator

Thank you and next we will move to Kristian Johansen with Danske Bank. Please go ahead, your line is open.

0.42.55

Kristian Johansen

Yes, thank you, so obviously we have talked a lot about turbines. I am just curious obviously for the next generation of turbines being 13-15 MW. They must need a new design for foundations, it also puts another requirement to vessels and so on. I mean what is your assumptions for those significant cost parts as well and have you been in the same type of dialogue with suppliers as you have on turbines?

0.43.21

Samuel Leupold

Yes. Of course. The industry is anticipating that such a step change will happen and it is not only the OEMs for wind turbines that are looking into adapting to the next round of basically size for WTGs but it is all the other parts of the supply chain and the contractor worlds that are anticipating that as well. So people who are in the contracting business they understand that the next generation of turbines is in development so they are looking into adapting their lifting equipment, there are new sizes of vessels being ordered and everybody is anticipating this new environment and the same goes, of course, for people like actually us who are designing their own foundations so we obviously are and have started in good time to make sure that we are capable of delivering still very competitive foundations that go as the next generation of wind turbines.

So it is not just something that is driven by the R&D departments of OEMs, it is the whole industry anticipating the trend and adapting accordingly.

0.44.31

Kristian Johansen

Okay, very clear. And then more clarification to what was talked about earlier. So if we look at the auctions coming up over the next 18 months, as you talked about before, is it fair to assume that you are not going to be able to assume the next generation of turbines for any of these auctions?

0.44.50

Henrik Poulsen

Yes, I think that is a fair assumption, Kristian, broadly speaking. When you look at the UK CfD auction coming up, we are looking at construction a couple of years earlier than the Cluster 1 project in Germany. And when it comes to the US and Taiwan it is at least our current assumption that during the early part of establishing those markets we would not be able to rely on the next generation platform.

0.45.17

Kristian Johansen

Let me phrase it the other way around. Are there any sort of events in the pipeline where you can assume using the next generation of turbines?

0.45.28

Henrik Poulsen

That depends on how far out you start defining the pipeline and how far out the projects that we will be bidding for, how far out they are supposed to be constructed. So, you know, we start almost getting into the discussion of what is the timeline and the cut-off point for answering the question and I would rather not start indicating for a specific auction what we assume in terms of turbine technology. That becomes a little sensitive from a competitive point of view.

0.46.04

Kristian Johansen

Fair enough. That was all from me. Thank you very much.

0.46.08

Operator

Thank you. There are no further questions at this time. I will hand the call back over to our speakers. Please go ahead.

0.46.13

Henrik Poulsen

Alright, if there are no further questions, again, thank you all very much for the interest taken here and thank you for dialling in at relatively short notice. Should you have any follow-up questions, as always, please don't hesitate to approach us through Henrik and the IR team. Have a continued good day. Bye.