

OFFICIAL REPORT AITHISG OIFIGEIL

# Net Zero, Energy and Transport Committee

**Tuesday 24 October 2023** 



The Scottish Parliament Pàrlamaid na h-Alba

**Session 6** 

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## Tuesday 24 October 2023

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## NET ZERO, ENERGY AND TRANSPORT COMMITTEE 29<sup>th</sup> Meeting 2023, Session 6

## CONVENER

\*Edward Mountain (Highlands and Islands) (Con)

#### **DEPUTY CONVENER**

\*Ben Macpherson (Edinburgh Northern and Leith) (SNP)

#### **COMMITTEE MEMBERS**

\*Jackie Dunbar (Aberdeen Donside) (SNP)

\*Monica Lennon (Central Scotland) (Lab)

\*Douglas Lumsden (North East Scotland) (Con)

\*Ash Regan (Edinburgh Eastern) (SNP) \*Mark Ruskell (Mid Scotland and Fife) (Green)

\*attended

## THE FOLLOWING ALSO PARTICIPATED:

Jim Fairlie (Perthshire South and Kinross-shire) (SNP) (Committee Substitute) Andrew Miller (Ferguson Marine (Port Glasgow) Ltd) Graham Simpson (Central Scotland) (Con) David Tydeman (Ferguson Marine (Port Glasgow) Ltd)

#### **CLERK TO THE COMMITTEE**

Peter McGrath

LOCATION The Mary Fairfax Somerville Room (CR2)

## **Scottish Parliament**

## Net Zero, Energy and Transport Committee

Tuesday 24 October 2023

[The Convener opened the meeting at 09:15]

## Interests

The Convener (Edward Mountain): Good morning, and welcome to the 29th meeting in 2023 of the Net Zero, Energy and Transport Committee. We have apologies from Jackie Dunbar, and Jim Fairlie is attending as her substitute. Jim, welcome to the meeting. It is good to see you here. Because you are attending as a substitute member of the committee, the first agenda item is to invite you to declare any relevant interests that you have.

**Jim Fairlie (Perthshire South and Kinrossshire) (SNP):** Thanks, convener. I have no relevant interests other than a prior membership of NFU Scotland.

The Convener: Perfect. Thank you.

## Decision on Taking Business in Private

## 09:16

**The Convener:** Item 2 is a decision on whether to take items 5, 6 and 7 in private. Item 5 is to consider the stakeholders' views on "Scotland's Guiding Principles On The Environment: Statutory Guidance" and the recent Scottish Government report on the effectiveness of environmental governance regulations, item 6 is to consider the evidence we will hear under agenda item 3, and item 7 is to consider whether to seek approval for the appointment of an adviser. Are we happy to take those items in private?

Members indicated agreement.

## MV Glen Sannox (Hull 801) and MV Glen Rosa (Hull 802)

#### 09:17

**The Convener:** Item 3 is an evidence session with Ferguson Marine Port Glasgow Ltd, following the company's latest quarterly update on the completion of the MV Glen Sannox—hull 801 and what I think will be called MV Glen Rosa but, as it has not been launched yet, I will refer to as hull 802. We will examine issues raised in Ferguson Marine's latest quarterly update as well as other issues affecting the delivery of the two vessels.

I am pleased to welcome Andrew Miller, the chairman of Ferguson Marine Port Glasgow Ltd, and David Tydeman, its chief executive officer. Thank you for joining us. Before we begin, I believe that David wants to make a brief opening statement.

David Tydeman (Ferguson Marine (Port Glasgow) Ltd): Good morning, convener. Thank you for the opportunity to come here today and to take any questions that you might have for me or our chairman, Andrew Miller.

In the first few months after being appointed CEO of Ferguson in February 2022. it became very clear to me that the design was far from complete for Glen Sannox and much rework and redesign would be required. As context, less than 5 per cent of cabling and only 20 per cent of pipe spools had been installed at that time. Regrettably, we have encountered many more problems than I first imagined and the amount of work to solve design clashes and errors of the past has been significant.

However, we have now reached a stage where design is essentially complete. From that, for the first time since I took office, a sense of control has been established over the scope of work for contractors, direct labour Ferguson staff and associated materials.

The principal contractors for Glen Sannox are on framework contracts, pricing for work as it arises by agreed labour rates, management charges and materials costed separately. As new design or redesign has been found, work scope has increased, and contractor and Ferguson direct labour costs have risen month by month. I estimate that 50 per cent of the increases over the last 18 months on Glen Sannox—about £35 million—have come directly from reworking the design, which has sometimes regrettably involved two or three iterations.

Although the equipment on board the Glen Sannox is not complex in its own right, the vessel

is made complex by the need to fit a lot of systems and major components into restricted spaces. In that sense, these two ferries are far more complex than the MV Loch Seaforth, the largest vessel in the current fleet, and more complex than the four ferries being built in Turkey for Caledonian Maritime Assets Ltd.

The design challenges have been substantial and

"more complex than a type 26",

according to senior industry visitors whom I have had on site, and they have been made far more difficult by the changes in designers and staff through the recovery twice from administration, nationalisation and the pandemic. However, we are making steady progress for trials to start in the new year with Glen Sannox and then we will set out to prove the final design is fit for purpose and able to deliver the reliability that is expected and required by all involved.

Having, at last, a final design and a clear work scope allows a more confident approach to Glen Rosa, and we have been able to get main contractors to offer fixed prices. Through that, we now have, perhaps for the first time, an opportunity to stay within the budget and contingencies.

Overall, combining the £123 million incurred by Ferguson Marine Engineering Ltd between 2015 and 2019 and the latest forecasts that I have set out, Glen Sannox will have cost just over £200 million to complete, whereas Glen Rosa is expected to be £40 million less, reflecting the benefit of being the second ship. Within that, the overall cost of equipment and materials has doubled from around £50 million to £100 million, and £80 million will have been needed to cover the overheads of the shipyard.

I am pleased to advise that the work developing with BAE Systems for the type 26 programme has secured work for nearly 30 Ferguson staff, who otherwise would be faced with empty fabrication halls, and that work has also covered some of the overheads of the yard. The new work is an important aspect in securing staff morale on site, which is essential for maintaining the productivity we need to maintain on Glen Rosa and Glen Sannox.

## Thank you.

**The Convener:** There are a whole heap of questions, as you would expect. I will start off with an easy one.

Looking back, when you first took over the construction, was it clear that there were serious problems with the construction of the vessel at that stage? Were you clear from day 1, when you moved into the yard, that there were problems?

**David Tydeman:** Not from day 1. Within the first three months, I realised that the design was incomplete, there were areas of clashes in routing of systems and there was a complex problem ahead of me.

**The Convener:** When I visited the yard in 2018, there were pipes going up the lift shaft, which would clearly not allow the lift to operate. You identified problems within three months. Why were they not picked up before? I do not understand why, after the yard was nationalised, there appears to have been two years in which the problems could have been dealt with. Is that a fair assessment?

David Tydeman: That is a fair assessment. I am not sure why it took so long. In February 2020, just before lockdown happened, the contracts placed with International Contract were Engineering Ltd, the designers that we use, and it was given a fixed-price contract with liquidated damages to produce the design by November 2020. During that lockdown period, with the yard not working, ICE produced nearly 20,000 drawings formalising the design that had been developed by FMEL, using different designers, from 2016 through to 2019.

The Ferguson team on site was pretty thin at that time. Looking back, they barely had scope to catalogue the 20,000 drawings, let alone approve them. Therefore, the issue of drawings over that period had a lot of circled holes, areas of questions and things to be clarified. It took another year to progress through that, system by system.

**The Convener:** I am unclear why, 10 months after the yard was nationalised and we had a turnaround director in the yard, nothing was turned around and it got worse. Can you explain that?

**David Tydeman:** I cannot explain it; I was not there at the time. When I took office 18 months ago, it was clear that there were still large gaps in systems conflicts, very little of the piping had been put into place and a lot of the cabling still had to go in. We had only had about 10,000m of cabling in place in the ship in February 2022 and we now have 310,000m of cabling. All that has gone in in the past 18 months.

**The Convener:** We paid nearly £2 million to a turnaround director who did not turn it around?

David Tydeman: That is not for me to say.

**The Convener:** We come to questions from Ash Regan.

Ash Regan (Edinburgh Eastern) (SNP): There was the announcement recently of further cost increases, which will be of concern to many people who have been watching the costs increase over the past period. Could you outline the reasons behind this latest increase to costs?

**David Tydeman:** If we look at the two ships separately, the largest increase is on Glen Sannox. That is a product of finalising the design, reworking the design and regrettably doing some things twice or even three times as we have rerouted cables and rerouted pipework. One small example is the hydraulic pipework in the front of the ship that is associated with opening the clamshell doors. That was all installed in mild steel and should have been stainless steel, so we had to take all of that out and redo it. That is one of many examples.

Ash Regan: You spoke in your opening statement about material cost rises. Is that due to different materials being required or is it due to inflationary pressures that we see at the moment?

**David Tydeman:** It is a bit of both. The roughly £50 million budget in 2015 was for the main engines and generators. A lot of that equipment was bought pretty much on budget in 2015, 2016 and 2017, but the rest of the cabling materials, outfitting materials and pipework has had both scope and inflation aspects.

Ash Regan: Can you detail what proactive steps you are taking to ensure that any further cost increases will be kept down to an absolute minimum?

**David Tydeman:** The first action is that we have finished the design. As I said in my opening statement, this is the first time that I have felt in control of the work scope. If you know what you still have to do, you can price it. We have had open-ended contracts, time and materials with all the contractors, and we could not get them to give fixed prices when we could not give a fixed scope. Therefore, the increases that we have faced over the past 18 months have been directly a result of asking contractors and labour to do more work.

With Glen Rosa, a year ago, when we set out the £105 million budget, we had aspirations that we might be able to reduce the number of man hours. I called it a stretch target in the letter that I wrote at the end of September a year ago. Inflation and increase in work scope has eroded that ambition for stretch, but the increase that I announced in that letter was only £5 million—from £105 million to £110 million. That is linked to defining the scope and dealing with inflation aspects. There is less increase forecast on Glen Rosa and, as I said in my opening statement, I believe that we have a chance now of sticking to budget within the contingencies on Glen Rosa.

Ash Regan: You have a current revised cost estimate and you have a current predicted delivery date. How confident are you that you will meet both of those?

David Tydeman: I am more confident in the pricing than I am in the delivery dates, because

there is an uncertainty of the trials process. Once we start to run the engines and test the ship over the coming months, in January and February particularly, we will know whether the design works and whether any vibration issues cause things to come loose. Those are conventional things that you test in the trials process with a ship.

As I said in my opening statement, the ship in itself and the equipment are well proven. There is nothing there that is out of line with the market, but it is a complex ship, in that systems are overlaid on it, and the trials process is there to test whether it all works. If the trials go smoothly and the handover for Glen Sannox happens before the end of March, I am confident that we can stick to the programme with Glen Rosa following that. If we get some delays in the trials from Glen Sannox, it will have a cascade effect on to Glen Rosa.

Ash Regan: You said in your written update and you repeated in your opening statement that the design work is now largely complete. However, you also have a contingency of £30 million at this stage of the project. If the design work is complete, why the need for the £30 million contingency?

**David Tydeman:** The contingency is in two parts: a maximum of  $\pounds 12$  million on Glen Sannox and  $\pounds 18$  million on Glen Rosa. I set that out in the letter that I sent at the end of September to the committee. The Glen Sannox contingency is linked to trying to put numbers on possible things that might come out of trials, such as whether we need to replace things, whether we need to buy new equipment, whether we have delay costs and whether we have to rent quayside space for running the trials. The  $\pounds 12$  million is allowed for, for those sorts of aspects.

#### 09:30

On Glen Rosa—the £18 million—I put a range of between £3 million and £18 million. We are in the process of trying to secure fixed-price contracts with the contractors. The electrical contract and the piping contract is nearly 50 per cent of the subcontract costs on Glen Rosa. We are in negotiations at the moment. Some contingency within the £18 million is anticipating that, to be able to transfer risk to the contractors and get them to go to fixed price, I may have to negotiate a bit on the pricing. Some of the £18 million is allowing for negotiations that may happen; the other parts of it are for potential delay costs if we get a cascade effect from trials from the Glen Sannox.

Monica Lennon (Central Scotland) (Lab): Good morning. In your most recent written update, you have highlighted the effects of Covid lockdowns on construction progress, but previous updates, such as the one from July 2021, highlighted how effectively the yard dealt with Covid. What proportion of the six-year delay is attributable to Covid and to those lockdown periods?

David Tydeman: It is very hard for me to say, as I was not there at the time. It was claimed that Covid had a £5 million to £6 million impact, but that claim was made in 2021, which was before my time. That seems to be a small sum for the effect of lockdown on the yard for six or nine months, particularly because the drawings were being produced by ICE at that time and a fairly thin engineering team was trying to cope with that. Imagine trying to get technical approval of drawings from people who are working remotely, including, in some cases, from the Outer Hebrides. One of the CMAL engineers was trying to approve technical drawings while working on a dial-up line on his laptop. The embedded costs of that period were far more than £5 million or £6 million and. therefore, the cascade time impact would also be more.

**Monica Lennon:** Does that mean that the impact of Covid has previously been underestimated?

**David Tydeman:** My personal opinion is that it has.

**Monica Lennon:** You made an interesting point about remote working having a negative impact, but others might say that shipbuilding is an international industry and it is quite established that contractors work around the globe and are able to communicate effectively. Is that something that you recognise and agree with?

**David Tydeman:** It is a mixture. There are some benefits of working remotely in some areas. Procurement teams can work remotely. The ICE design contractors are based in Romania and we have pretty good dialup lines and can work remotely with them.

When you are physically putting the ship together and the engineering team needs to walk through the corridors and engineering spaces, they have to be onsite. Remote working can work, but when you are putting a ship together you have to be onsite to see the work being done.

**Monica Lennon:** There has been reference to a shortfall of skilled labour also contributing to delays. Can you expand on the spread of skills previously and your view of that now?

**David Tydeman:** When the contract was placed in 2015, Ferguson was recovering from administration and had reduced staff numbers to 70: 20 salaried staff and 50 with trade skills. That

was a pretty thin team to start the project with. It ramped up to about 200 within the first year, and we are now running at about 320. Within the trade skills we have, there are 60 welders and platers, most of whom are within five years of retirement. At the other end of the spectrum, we have 60 apprentices all under 25. There is a big gap in the middle.

The skills mix in the yard is challenging if I look five years ahead. How do we fill the gap that will be created by retirement, train people up, and recruit people in the middle-age groups to come in and build a more sustainable team for the future?

**Monica Lennon:** Indeed, and you have a plan in place for that. Looking at your most recent written update, I see that it mentions that designers were

"set an impossible timeline and deliverables."

Who set the timeline, why was it impossible and what effect does it have on costs and delivery?

**David Tydeman:** I mentioned just after my opening statement that 20,000 drawings were produced in a nine-month period between February and November 2020, during the lockdown period and early pandemic. It would have been my predecessor who placed that contract in February 2020.

The CEO of the design company said that they agreed to a fixed price with liquidated damages if they did not deliver by November, but in doing that, they produced nearly 20,000 drawings with comments and mark-ups on them, without a team at Ferguson able to receive them properly, catalogue them and certainly not technically check them. It was unwise to set that task with that deadline and fixed price. At the time, it might have seemed logical to get a nice fixed price from the design contractor, but it embedded a lot of questions all over the drawings that were produced and it took a lot of time to settle them.

**Monica Lennon:** What is your understanding of the role that ministers played in setting those deadlines or reviewing those deadlines?

**David Tydeman:** I am not aware of past ministerial roles. I know only about the relationships that I have had during the past 18 months.

**The Convener:** You left that answer hanging. You said that you know about the relationships that you have had in the past 18 months. You had better tell us about them, because we do not know.

**David Tydeman:** My apologies. I had regular meetings, first with Ms Forbes, and then Mr Swinney, the Deputy First Minister, and with Neil Gray in the past few months. Most of the reporting

is done weekly and monthly via the sponsoring team.

**The Convener:** You are saying that they are hands-on.

David Tydeman: The sponsoring team is, yes.

Ben Macpherson (Edinburgh Northern and Leith) (SNP): A number of other recent projects have had challenges, including the building that we are in now, where, as I understand it, the design was not complete before the project was initiated. How much of a problem has that been throughout the progress of the two vessels? To use your words, if the design had been largely complete at a much earlier stage, would that have had a significant and positive impact on where we are now?

**David Tydeman:** Definitely, yes, it would have had a big impact. It does not matter whether you are trying to put a new kitchen in your house or build a building like this. If you know what you are asking the contractors to do on day 1, you get a clearer price and programme. With a complex vessel like this, having a lot of uncertainty in the design led to mistakes, to rework and to increased costs. There is no doubt that the design was not robust enough when the steelwork was started a long time ago.

**Ben Macpherson:** Is there anything more that you want to relay to us about why the design was in that position when the works were initiated?

**David Tydeman:** I can only look back with hindsight. The king's counsel report that was published last week highlighted that the statement of technical requirements was originally drafted for a 200m vessel and it was reduced for the 100m vessels that we are now building. That implies that the specification was larger than perhaps it needed to be.

The multiport operation that was in the original specification certainly led to a complex ship with quite a lot of redundancy, such as switching between the two main engines. You can switch power from one engine to both propeller shafts and you can run both propellers from one engine, swap it over and run it from the other side. There are 16 different modes in the propulsion system alone and we have a complex ship management system that allows all those options to be run from the bridge or the main switchboard room. That level of sophistication for the ship has driven the design complexities.

**Ben Macpherson:** Looking forward, and with the design now largely complete, are there areas of the design that concern you at this juncture that still need to be completed or are you satisfied that the remaining areas that require to be fully decided can be considered and signed off in a timeous manner?

**David Tydeman:** We are being asked to build the second ship the same as the first one, with minor improvements. Where we can route cables or piping more efficiently, we are doing that in the design planning.

I have also spent effort with the designers on making sure that we have captured all the learning from Glen Sannox. In the work packs, where typically a 40-hour work pack would be issued to a supervisor in a job, he has one drawing and does not have to refer to 10. He does not have a mixture of modification sheets and marked-up drawings as we have changed how we do things from how we did them for Glen Sannox. As we plan the programme and start the work, I hope that we will have a clear definition of what we are trying to do.

**The Convener:** I hope that they are all numbered correctly. Passenger cabins were also dictated on the original specification, but they were never built.

**Jim Fairlie:** I am new to this committee, so if I am asking things that have been asked previously, tell me.

Mr Tydeman, earlier you talked about mild steel being used in the hydraulic clamshell doors when it should have been stainless steel. That seems like a basic error to have made. If you are building a house, you know the weight of the lintel that you have to put in to hold up a window or a garage door. Who is responsible for making those decisions and making those costly mistakes?

**David Tydeman:** I am sorry; let me clarify. I was talking about the hydraulic pipework for the control systems, not the structural steel.

**Jim Fairlie:** I understand that it is the hydraulics.

**David Tydeman:** The specification came out of our design team and it was wrongly specified. Somebody had written down mild steel, had the piping built and had it installed. It is in a weathertight, sea-water environment rather than in a watertight environment inside the clamshell doors, and it has to be stainless steel. It was a simple error and it was missed.

Galvanised pipe was also used in areas where it should not have been used and I had to change that as well. We have had lots of mistakes.

**Ben Macpherson:** That was my next question that you have just answered. Have there been lots of mistakes?

David Tydeman: Unfortunately, yes.

**The Convener:** Douglas Lumsden, you have some questions and I would like to get Mark Ruskell in.

**Douglas Lumsden (North East Scotland)** (**Con):** I come back to the point that you made at the start—you said that these two ferries are more complex than a type 26 frigate. That sounds incredible. How on earth did we get into that situation?

David Tydeman: I honestly do not know, because the specification was produced a long time ago, before I became involved. I reiterate that they are more complex in the sense of having to fit a lot into a small space. That is where the challenge lies, rather than with the individual components. Obviously, there are more sophisticated systems on a type 26 frigate, but a ferry is U-shaped around the car deck, and everything has to be squeezed into the side casings and below the car deck. That is the fundamental engineering challenge with a ferry.

**Douglas Lumsden:** If it is so complex, what does that mean for the maintenance of the vessels over their lifespan? Does it mean that it will be a lot more expensive to keep them running?

#### 09:45

**David Tydeman:** I do not know. As I said in my opening statement, the individual components the engines, the generators and the ship management system that have been chosen—are all well-proven technologies and should be reliable. The complexity lies in the fact that it could take five hours to strip down a pump rather than two hours because of restricted access, which means that a few other things have to be taken apart before you can get to the job in hand. If the ship proves to be reliable, it might mean only that an annual three-week dry docking becomes a four-week dry docking. I could imagine the complexity resulting in that sort of burden on maintenance rather than anything more significant.

**Douglas Lumsden:** Could the complexity of the engine management system not potentially cause issues? Are the systems not more complex than what was needed?

**David Tydeman:** The Praxis system that has been installed for ship management is well proven. It has been developed to reduce maintenance issues because it interconnects so well. The fact that more information is available to the chief engineer and the captain on their desktop avoids them physically having to go and look at things. Therefore, the data management should be reliable, and it should be a sophisticated ship to operate. **Douglas Lumsden:** On the pricing, we have been told that the £97 million original contract price was understated and that it should have been a lot more, but given that FMEL's bid was the most expensive one, how could that be?

**David Tydeman:** That was long before my time. We are going back eight or nine years to the bidding process in 2015. Having looked at the specification and priced it with the benefit of hindsight, in one of my letters I estimated that the ships should have cost £70 million each in the marketplace—in other words, £140 million rather than £97 million. I put that figure to the Public Audit Committee last December. I do not know how other competitors could have priced it lower than that.

**Douglas Lumsden:** That £70 million figure is still a lot less than £200 million and £160 million. It seems that, instead of building two vessels, we have built a gravy train. That is a huge amount of money. What has happened to that extra £220 million? Has it all gone to contractors? Has it gone on things such as the installation of the wrong equipment, which has had to be taken out and scrapped? Where has that money gone?

**David Tydeman:** There has been some scrapping of pipework and other equipment that has been taken out. You will remember that, in February 2022, we took out 20,000m of legacy cables and had to scrap that. In the original price of £97 million, there was about £70 million for contractors and materials. From what I have been able to see, the £50 million of that that was for equipment and materials has become £100 million, through inflation and buying some things twice. That component has gone from £50 million to £100 million.

There was only about £10 million or £12 million in the original £97 million for overhead contribution for the shipyard. The ferries were meant to be partially contributing to the yard for a period of about four years. If we add FMEL's £123 million to the figures of £130 million and £110 million for the two ships, we can see that the budget included about £80 million of overhead recovery for the shipyard over eight or nine years. Overhead contribution is one significant part of the increase, and the rest is the result of increases in direct labour costs and subcontractor costs.

**Douglas Lumsden:** However, if you were building the ferries again, the cost would be a lot less, as you said earlier.

**David Tydeman:** Yes. Overall, of the total of  $\pounds$ 360 million—the  $\pounds$ 240 million for FMPG and the  $\pounds$ 123 million for FMEL—more than  $\pounds$ 200 million is external spend, and the rest is internal overheads and labour at Ferguson.

**Douglas Lumsden:** The dual-fuel aspect has added a lot of complexity to the project. However, one of the unsuccessful bidders on 801 and 802 has since delivered four dual-fuel vessels of roughly similar size for a lot less money. Have you learned anything from that company? Are you in communication with it? How was it able to deliver dual-fuel capability when you have not been able to?

**David Tydeman:** I have not been in touch with the others. The complexity of the liquefied natural gas system is to do with the space that it takes up. There is a very large cylindrical tank in the middle of the ship that stores the very-low-temperature LNG in liquid form, and there is a sophisticated heating system that turns that into the gas that is used by the engines as a substitute for the marine diesel. As a system, that is not complex. There is one pipe—albeit a low-temperature steel pipe—for loading low-temperature liquid once a week or once a month when you have to fill the tank. You then purge that line, close it off and you have liquid in the big cylinder tank in the ship. That turns into a gas and you run the engines.

That is well-proven technology that is used on many ships all over the world. LNG is well proven. The only complexity for this ship is that we have not commissioned an LNG ship in the United Kingdom before—such ships have previously been built elsewhere—and we will go through the learning of the final commissioning of that system in the coming months. The issue is the space impact. The LNG tank takes up a lot of space in the ship.

**Douglas Lumsden:** Will the vessels ever run on LNG? Initially, they will not, will they?

**David Tydeman:** We will hand them over with dual-fuel capability, so CalMac Ferries will be able to run them on both fuels from handover. How it chooses to operate them is its decision.

**Douglas Lumsden:** I imagine that part of the commissioning process will involve the ship running on LNG. You will have to prove that it works.

**David Tydeman:** We will prove the whole ship, starting with the diesel system. We will then commission the LNG and run the engines, switching between the two fuels.

**The Convener:** We will go back to the subject of overhead costs, on which Mark Ruskell and Jim Fairlie want to come in.

Mark Ruskell (Mid Scotland and Fife) (Green): Returning to the issue of overhead recovery, you said in your letter to the committee that some of the overheads for the yard would be covered by "other business". Will you describe what that other business is? Has that other business come in since nationalisation?

**David Tydeman:** Yes—that is business that I secured with BAE to be a subcontractor for the type 26 programme. It is only starting slowly. We have about £2 million-worth of work to build three small units for type 26 number 3 that is currently being built in Govan. That has kept about 30 people busy in the fabrication hall. We started that in July and it is due to be completed before Christmas.

Currently, there is an invitation to tender out for a lot more work for the type 26 programme, and we are bidding for that. I am not sure what we will secure for next year, but that could soak up about 30 to 40 per cent of the yard's capacity from spring onwards, which is important for keeping people busy. We would then do an overhead allocation proportionately to the ferries and the other work.

**Mark Ruskell:** Have the difficulties with 801 and 802 affected you as a business? Would you have expected to have more work coming in, or is the work on the frigates what you would have expected to have right now?

**David Tydeman:** We chose deliberately to position for the work for the frigates. We have also submitted quotes to Babcock for the type 31 programme over at Rosyth, and we have looked at a number of other small projects, including steelwork fabrication, bridges and linkspans. However, frankly, until very recently, all the workforce was fully occupied on the ferries.

**Mark Ruskell:** So you do not see any reputational damage.

**David Tydeman:** The constant media coverage has been difficult. Certainly, getting BAE to place work with us is a morale boost and an indication that it trusts us. We need more of that.

**Jim Fairlie:** My question is along the same lines. How long is the BAE contract for? How many people will it keep employed? Looking forward to the longer term, what are the long-term prospects for keeping the yard open and keeping people employed?

**David Tydeman:** For BAE's type 26 work, it is currently trying to find a supplier to do the bow blocks for ships 4, 5, 6, 7 and 8. That is between £80 million and £100 million of work over perhaps five years. There is possibly further work to come from the type 26 programme after that. That is a significant pipeline of work. If we do not get the bow-block contracts, there are smaller units that are very similar to the three that we are making at the moment. There could be 10 or 12 units per year for that ship programme over the next five years. One way or another, we are trying to

strategically position ourselves to be a key subcontractor for the type 26 programme.

That could take up about 100 people and keep the fabrication halls busy. The work is very suitable for Ferguson, as the yard is only 15 miles down river from Govan. It is easy to transport the finished units by barge up river to the shipyard in Govan. It involves free-issue materials and freeissue engineering—our job is as a fabricator. That is simple, repeatable work that we can do well to a good quality, and we are getting very good feedback for the work that we are doing on what is called the pilot project.

That will not keep the yard completely busy once the Glen Rosa is finished. We need something else, and I have set out to the board and to our sponsor team in the Scottish Government and ministers that, for the yard to recover, we need repeatable work. We need to get into a drumbeat of work that is within our capabilities and that we can do consistently, using the facilities as they are currently built, so that we are not trying to do something that stretches the facilities or stretches the team.

The obvious programme to complement the BAE work is the small ferry replacement programme—the seven small ferries. Those are 50m vessels involving a simple system of electric propulsion, with big plug-in battery banks, switchboards and electric motors. We could contract with a specialist supplier for all the plug-in electrical pack. We would build the steelwork together—we would build it in six or seven units. We know that we can do that and CMAL knows that we can do that. If we could get the small ferry programme and the pipeline of work from the type 26 programme, we will have a sustainable fiveyear vision ahead of us.

**Jim Fairlie:** That has sparked another question. Is it the design part of the project that has been the problem, rather than the implementation?

**David Tydeman:** It is certainly one of the major issues. The implementation has been stop-start, which has not helped.

Jim Fairlie: Fundamentally, it is the design.

**David Tydeman:** Yes, fundamentally, design is the issue.

**Jim Fairlie:** When you talked about the BAE contract, you said that that is repetitive yard work. Are you trying to avoid the design side? Do you not have the capability for the design as well as the fabrication?

**David Tydeman:** I am not trying to avoid it but, as a strategic choice, we have to restore our reputation and have a new chapter in the future of the yard. If we choose wisely the right work, we will win back our reputation. We have a weak design team and weak design capability. Choosing the small ferry programme, which is a relatively simple package that is repeatable, working with BAE as a subcontractor with its design and assembly procedures and routines, provides a stable environment in which I think we can do well.

Jim Fairlie: Thank you.

**The Convener:** I presume that the designs were signed off by CMAL as and when they came up, as the sponsor for the vessels. Why did it not pick up the design problems that you have talked about? Is it working with you at the moment?

**David Tydeman:** We have a team of CMAL people on site as the owner's representatives, and have had for years, right through the contract. That was first as the client with the FMEL contract and then on behalf of Scottish ministers, who have been our client for the past few years. That team regularly look at the ship, walk the ship and come up with what are called owner's observation reports, or OORs. We have had a list of 600 or 700 areas that that team has identified that need design improvement, and we gradually work through them.

#### 10:00

**The Convener:** I am totally confused. You have CMAL signing off the designs—the designs are a problem, and you say that they are not signed off. CMAL also signs off the payments—it signed off £82 million of a £97 million contract when only half a boat was constructed. What is going on? I do not understand where the buck stops. You say that the issue is the designs; CMAL has signed off the designs. I am confused about who is carrying the can between the two of you.

David Tydeman: There are four stages of design: concept, basic, detailed and production. The concept and basic design are produced by the specifying client, which was a combination of CalMac and CMAL back in 2014-15. When FMEL took on the contract, it took design accountability, and the buck should stop with it to deliver within its contract price. Its argument in the past, from what I have been able to read, was that the design specification was not complete. It requested variations and had a large claim in 2019. By that time, FMEL was forecasting that the cost had doubled from £97 million to £197 million, and £83 million, as you said, was paid out. A £45 million loan was also written off and used to cover the difference between the £83 million and the £123 million. The company then went into administration in 2019 through the failure of that agreement.

The Scottish ministers then took on the contract and nationalised the shipyard, and the accountability has been with me and my predecessor, and the management team. CMAL is just an observer on whether we are building to the specification.

**The Convener:** Are you saying that all the problems with design that you face now fall back to your predecessor?

**David Tydeman:** A fair amount of them fall back to the FMEL team in the early stages proceeding to build an empty ship without advanced outfitting and before putting modules together. That was further exacerbated by the contract placed with ICE in 2020.

**The Convener:** I do not want to cover old ground, but I know for a fact that, if I was representing a client and I signed off £82 million-worth of work and only got £30 million-worth, I would probably be for the high jump. I am an exsurveyor, and maybe being a surveyor is different from building boats, but somehow I doubt it.

**Douglas Lumsden:** I want to get clarity on one point. Mr Tydeman, you spoke about the costs of the vessels being £200 million and £160 million. Does that include the pre-nationalisation costs and other costs, such as the loan to the yard that you mentioned? Are those figures the costs for everything that the Government has paid towards Ferguson's and for the two vessels?

**David Tydeman:** Yes. In the FMEL documents that I have seen, which date back to June 2019, which was pre-administration, the £123 million incurred costs to date are broken down into £75 million for Glen Sannox and £48 million for Glen Rosa.

To go back the convener's comments a moment ago, about £40 million-worth of fixed equipment was bought within that £83 million, so it was not just steelwork; there was a lot of equipment bought. However, yes, the £123 million plus the £130 million plus the £110 million adds up to the £360 million.

The Convener: I have one or two questions on the reasons for the delay that you have given. Who within your operation speaks to the Maritime and Coastguard Agency regarding approvals? Is it you or somebody else?

**David Tydeman:** It is a combination. I have been involved personally. As I mentioned, within my first three months, I realised that there were design gaps, one of which was an MCA issue. I was shown drawings dating back to 2016-17 that had red-line marks from the MCA highlighting that cargo rules had been used for some of the crew spaces and that there were non-compliance issues on stair widths and other aspects.

The earliest that I could get the MCA to come and see me was 15 June 2022. The regional director, the principal surveyor from the Glasgow office and the technical manager came for a meeting with me and two of my senior management team—the engineering director and the compliance director. We went through the issues, saying that the drawings clearly showed that the design, which was produced years ago, had structural limitations on escape shafts and on stairwells up from the car deck to the passenger decks. There were also assumptions on the routing and corridor widths for the evacuation of passengers from, let us say, the observation lounge, on deck 6, through crew spaces to get to the muster stations on deck 5.

We had a fairly lengthy conversation 18 months ago. My key question to them was whether there were any red-line issues that we would not be able to solve, because that was high on my radar. Identifying and designing evacuation routes and escape routes is normally one of the first things that you do with a ship, and that should have been sorted out long ago, in 2015-16. The surveyors in that meeting assured me that we would find a solution, although they used the term "equivalence in compliance" rather than "exemptions".

The MCA never acts as a consultancy. It will not give advice on how to solve a problem; you have to come up with the answers yourself. However, the output of that conversation was that we should do some three-dimensional computer modelling for evacuation routes. We employed Lloyd's Register to use its sophisticated modelling to do that and to show that we could get rule compliance, which means getting everybody on the ship to the muster stations and off down through the slides within an hour. That is the allowed maximum time.

The modelling showed that we could get everybody out in 29 minutes, which led to a feeling that we would get compliance, or equivalence the form that gives you an exemption or equivalence approval is called a 1261 form. The first 1261 form was issued in November 2022, after we had done the evacuation modelling. That led to the submissions down to head office in January this year, 2023, but it was not until April 2023 that we realised that head office had a stricter approach to the application of rules, decisions that had been made a long time ago and the modelling, and we had to do some rethinking between April and June. I have been closely involved with the MCA over the last few months.

**The Convener:** Is the compliance director the same person who has run through the whole project or did the compliance director change when the issue went to the MCA?

**David Tydeman:** He was originally an employee of FMEL and transferred across under the Transfer of Undertakings (Protection of Employment) Regulations in nationalisation. He was the one who highlighted to me the early drawings from 2017.

We were perhaps overconfident that we would get all these exemptions, based on the modelling and the conversations last year, and it was a bit of a surprise that we had to do the design changes that we have done over the past few months.

The Convener: I wrote to you in August asking when you approached the MCA regarding the escape hatches and routes. You said that the first 1261 application was submitted in July this year, and that it was for just one escape route. You are telling me that you submitted it in July, when you actually identified the problem nearly two years ago.

David Tydeman: They were separate issues. I am sorry if my letter to you was not clear, but the 1261 exemption that was issued in November 2022 related to the main stairwells that come up through the casing from the car decks. As you park your car, get out and walk up the stairs either side into the passenger areas, the tread width for those stairwells is 800mm, and it should be 900mm. Given that you come up single file and the modelling allows for a person to be roughly 500mm wide, the fact that it was 800mm instead of 900mm was deemed not to be a serious issue, because there was plenty of width for the handrailing and access for staff. That 1261 exemption was issued for both ships in November 2022.

The application that we submitted in July this year related to the assumptions that we had made in the modelling that, for passengers on deck 6 in the forward area observation lounge, there is only a single staircase down to the evacuation areas on deck 5. The only alternative to that is to go through the crew spaces—the crew cabins and corridors to the two staircases at the rear of deck 6. In the latest update that we got in April or May, that was deemed to be unacceptable. As I said, the MCA does not give you a solution, it just says that the design is not accepted and that we cannot rely on passengers going out through crew spaces.

**The Convener:** I understand that and I understand that revisions 4 and 5 were done in November last year. However, revisions 7, 8 and 9, which I suspect are the ones that you are talking about at the moment, were submitted only in July this year. We have had a letter from the MCA, which is clear that, exactly as you have just said, it is not up to it to design out the problem; it is for you to work with it. The letter goes on to say that the regulations that it is referring to have been extant and in force since 2009. It says that there were amendments but that they made no difference. Therefore, the MCA is unclear why you are citing this as a problem—it says that it has

been fully consistent on the requirements since 2009.

There seems to be a discrepancy. The MCA says that it is your fault, and you say that it is the MCA's fault because it is interpreting in a different way. You cannot both be right; one of you has to be wrong.

**David Tydeman:** In the meeting that I had with the local surveyors from the Glasgow office and the regional director in June 2022, and the modelling that we did after that, we were fully aware that FMEL and Holder Marine, back in 2015-16, had made some assumptions that the cargo rules could be used for the crew areas, and the ship had been designed with that in mind.

To put that into context for the committee, if you have professional crew, you assume that they will not panic in the same way that passengers might and you are allowed narrower doorways and corridors for circulation within the crew spaces. The ship was designed with those assumptions in mind, and the conversations on how we would get approval for the ship have been going on with the local office. In April this year, that was finally overruled by the head office, which wrote you that letter that I saw last night. There was a disconnect between the local conversations that we were having with the MCA in Glasgow and the final decisions from the head office in Southampton.

**The Convener:** Really? The committee will, I would suggest, have to consider that further, because you are saying that there is a discrepancy in somebody else's offices, whereas the MCA is quite clearly saying that it is down to you.

**David Tydeman:** The responsibility had to rest with Ferguson for, first, producing a design with the wrong assumptions, as the MCA very clearly set out. There are precedents of other ships out there with crew spaces on ferries that are designed with narrower corridors compared to the passenger spaces. That is not allowed any more. I know that the principal surveyor from the Glasgow office flew out to Turkey to look at the four ships that CMAL is having built there to check that there was no issue with those ships after this clarification was issued in April.

We have come up with a solution of producing extra staircases so that the passengers do not have to go through the crew areas. We have also bought 17 new doors to make them wider in the crew spaces to get as close to compliance as we can there. The work on those areas—the staircases and the extra doors—has cost about £1 million, through the design, buying the equipment and the disruption costs. We have come up with a solution—we have found a compliant solution.

Yes, it is Ferguson's responsibility to get that right, and we did not get it right in the past.

The Convener: Is it not disingenuous to put it in the report that you gave to Parliament that that was one of the reasons for the delay, when the delay should have been identified, or was identified, over 18 months ago? I humbly suggest that, if you had started addressing it 18 months ago, the delay might not have existed.

## 10:15

**David Tydeman:** There are two aspects. First, it has not caused a delay to the handover. We have been able to come up with a solution. The staircases are in place and are being finished off now. We are waiting for the doors to be delivered—they are due in December and will be fitted within the trials period. The extension to the time that I referred to in my letter at the end of September is mainly down to electrical and piping work and finishing off the rest of the ship. We have been able to cope with the MCA changes that we have had to make within the programme.

Yes, when I wrote to you in June and August, I believed that the issue would cause a risk of delay to the ship. However, with hindsight, as I clarified in the letter at the end of September, we have been able to cope with the escape route changes within the programme, and the programme has slipped for other reasons.

**The Convener:** What concerns me is that the MCA letter clearly says that

"there has been no reassessment"

of the application of the regulations. They have not changed. You are saying that they have changed, and the MCA is saying they have not, so it is your word against the MCA's.

**David Tydeman:** We should not get into that position. The conversations that we have been having on-ship in the shipyard with the local surveyors led us to believe that we would get exemptions, without having to change the doors in the crew space and without having to put in new staircases. As I said a moment ago, maybe we were overconfident in those assumptions from the conversation with the local surveyor. The issue has been very clearly and finally clarified by that letter that I saw last night.

The Convener: Yes, it is a fairly damning letter.

Does anyone want to come in on the MCA letter before I ask a slightly different question?

**Douglas Lumsden:** We asked the cabinet secretary when he became aware of issues with the MCA and he said that it was on 28 June, when he received a submission that

"set out the requirement for FMPG to install additional escapes in the upper deck areas."

What I cannot understand is that, two days later, we had an update from you that had only a fleeting mention of the MCA and no mention of additional stairways having to be installed. Why was the committee not told at that opportunity that additional staircases had to be installed? The cabinet secretary knew two days before.

**David Tydeman:** It was still work in progress and we did not have a clear solution agreed with the MCA. I am not sure why I could not give you clear information at that time.

**Douglas Lumsden:** However, the cabinet secretary was given clear information that additional escapes on the upper deck area had to be installed. Surely if he was told two days earlier, we should have been told in the update on 30 June.

**David Tydeman:** We did not get approval for the stairwell design and the extra doors until the end of August, so we knew that we would have to design some solutions but I did not have a fixed solution at that time.

**Douglas Lumsden:** As a committee, we should have been told, in just the same way as the cabinet secretary was told two days before, of the issues that were looming. I think that that would have just been a courtesy to the committee. I will leave it there, convener.

**The Convener:** Andrew Miller, you are aware of all these delays. From the board's point of view, are you comfortable that assumptions were made that proved not to be valid at the end of the day?

Andrew Miller (Ferguson Marine (Port Glasgow) Ltd): Yes. I have been chair for the past 10 months and we have had some issues of competence at the board level, which we are sorting out. People are not keen to do second terms, as it were, which is a bit of a disappointment, but I fully understand. I spent the last week-two full days—going through applications and interviewing people for the board roles. The board is across the issues that we have spoken about today. It is a bit messy. It is like trying to catch a bus when the bus is running, jumping on it and making sure you do not break your leg, but the board is capable and competent in this area. We have two board members who have extensive shipbuilding experience, one who was a submarine architect at BAE and another who worked on the Clyde in the past. There is nothing that has come up today that is a surprise to me personally.

The Convener: David Tydeman, before we move on to some other questions from other members, could you just clarify? You said that

these additional fire escape routes and the known requirements to be met will reduce the passenger carrying capacity from 1,000 to the 800s, I think. What effect does that have on lorries and cars? Is there a reduction?

David Tydeman: No. The target carrying capacity for lorries and cars remains the same. I should clarify that our contract was for 960 passengers. Although the target was 1,000, the contract was signed at 960. The revised 1261 approvals that we have had with the MCA for the stairwells and doors allow a maximum of 929, which is a drop of only 31, but we could achieve that 929 only by using some bench seating and higher-density seating in some of the areas. CMAL and CalMac have decided they would rather maintain the quality of seating and reduce the head count to 852-I think that that is the figure in discussion at the moment. It is their choice whether we maximise to the allowable 929 or reduce to 852. You would need to ask them for more details, but I understand that there is less than a month where numbers are likely to be above 800.

**The Convener:** Indeed, which is why I think the Rural Economy and Connectivity Committee questioned why they were asking for a ferry to be built with 1,000 seats on it. However, my question to you was whether it is still exactly the same number of cars and lorries.

**David Tydeman:** Yes. In the contract, we have loading conditions, permutations of lorries and cars that we have to verify. The inclining test that we will do at the end of January to verify the vertical centre of gravity of the ship as built will be the final refinement of the load-carrying capacity and we hope to prove that we meet the target in January.

**The Convener:** The ferry as built will still meet the dead-weight requirements and the speed requirements in the original contract.

**David Tydeman:** Yes. I am assured that we have more than enough power to hit the 16.5 knot speed requirement, although I understand from CalMac that the operating speed will be around 14 knots. The dead-weight is just under 900 tonnes, which is the carrying capacity in the contract.

**The Convener:** So it will meet the original contract.

**David Tydeman:** Subject to the inclining test and all the trials going right, yes, I hope to meet the contract.

**The Convener:** Douglas, I think that you have some further questions.

**Douglas Lumsden:** Yes, about the 1261 application that was rejected back in November 2022. When was CMAL notified of that? When

was Transport Scotland notified that that 1261 application had been rejected?

**David Tydeman:** Sorry, could I clarify? It was not rejected in November 2022. That was when the first 1261 was issued, confirming that the 800mm-wide stairs in the casings were acceptable. We submitted the rest of the evacuation modelling finally at the beginning of this year. The first we heard that that was not going to be accepted was April this year. At that time, we started discussions with CMAL, because we wanted to involve it as we came up with solutions for the extra stairwells and the door changes.

**Douglas Lumsden:** So it would have been just after April that you received the rejection of that document and you informed CMAL and Transport Scotland at that time.

**David Tydeman:** CMAL first, because we have regular meetings with CMAL; we meet Transport Scotland only once a month.

**Douglas Lumsden:** We have heard in the past that weekly meetings take place between Ferguson and Scottish Government officials. Would it have been discussed at those meetings?

**David Tydeman:** Yes. The monthly meeting was a main progress meeting, but more recently, over the past few months, we have been meeting weekly. It is a meeting of what is called the handover planning team, in which we are trying to work on the logistics of handing over Glen Sannox to CMAL. The weekly meeting involves Transport Scotland, CalMac, CMAL, the Scottish Government and us.

**Douglas Lumsden:** Would the 1261 process have been discussed during those weekly meetings?

David Tydeman: Yes.

**Douglas Lumsden:** So the Government would have known in April that there was an issue around the stairwells because of the 1261.

**David Tydeman:** The weekly meetings were not running in April. They only started from July or August onwards. The first monthly meeting that I advised SG was towards the end of May.

**Douglas Lumsden:** So, at the end of May, the Scottish Government would have known that there was an issue on the escape plan and the 1261. I am trying to work out why this committee was not aware of it until much later, and it seems that the cabinet secretary was not aware of it until much later as well. It would have been discussed at those meetings. This is maybe a question for us, convener—we have to try to work out why that was not fed back to the cabinet secretary if it was discussed at the meetings at the end of May that we have heard about.

David Tydeman: I have to clarify whether the meeting was at the end of May, as maybe it was in June, but in the process that we went through we decided that we would make it broadly public when we knew what the solution was. At the time, all we knew was that we had a problem, but we did not have a solution. We had not worked out how to fit the staircases and how to solve the doors and whether we would have a bigger problem or whether we could come up with a solution with staircases. We made the sponsoring team aware that we were in discussions, trying to find solutions, and we did not get a solution agreed until the end of August. During that period, I was not aware of how the sponsoring team was reporting to the cabinet secretary and ministers. That is a disconnect. I report to the sponsoring team.

**Douglas Lumsden:** No, of course, but it is useful for us to know that Scottish Government officials were aware in May. Thank you.

**The Convener:** Graham Simpson, welcome to the committee.

**Graham Simpson (Central Scotland) (Con):** Thanks for allowing me some time to ask a couple of questions. I think that it would be worth while if I follow up on some of what has been said already. To summarise what you have been saying, you have been building a vessel that is

"more complex than a type 26".

It does not meet—or has not been meeting safety regulations. According to Mr Miller, people are fleeing the board, you could say like rats— [*Interruption*.]—well, people have left the board.

**Andrew Miller:** Attracting quality people to the board has been significantly challenging.

**Graham Simpson:** Mr Tydeman, my understanding is that your director of compliance left his post last month. Is that correct?

David Tydeman: Two months, I think.

**Graham Simpson:** Two months ago. Was he being blamed for this MCA issue?

**David Tydeman:** No, not personally. He wanted to set up as an independent consultant and he chose to go and set himself up in that way a couple of months ago. The lead on design responsibility sits with the engineering team.

**Graham Simpson:** What impact will the director of compliance leaving have on the completion of all the ship's documentation, including classification society documents? **David Tydeman:** Very little. The engineering team and the quality team are on top of the documentation and the close-out.

**Graham Simpson:** Are you concerned at all that there are other areas of non-compliance on the ship?

**David Tydeman:** No. As I said, I called the MCA in for a meeting 18 months ago to ask it that question—whether it could put on the table anything that would cause me a problem. I thought that we were on the right track with the MCA approvals from that meeting in June 2022. It was a surprise in April this year to see a change of direction, which we have fortunately been able to solve. I had a similar meeting with the senior people from Lloyd's Register and was assured at the time that we were on track and on a steady path to get the certification from Lloyd's. I do not believe that we have any surprises in that dimension.

## 10:30

**Graham Simpson:** Have you checked? The issue that we are talking about appears to have come out of the blue for you, although it should not have come out of the blue because the rules have not changed.

**David Tydeman:** No, it should not. As I said, perhaps we were overconfident because of the 1261 being issued on the main staircases last November. It was a surprise. In May or June—somewhere around there—when I realised that we had the MCA issues to solve, I also called the senior surveyor from Lloyd's and said, "This has surfaced with the MCA. Is there anything from Lloyd's that could similarly surprise me?" He took a few days to go and investigate and then came back and said no, he did not think so.

**Graham Simpson:** Can you explain to the committee what the role of a classification society is?

**David Tydeman:** A classification society, whether it is Lloyd's Register, the American Bureau of Shipping, Det Norske Veritas or any of the international societies, publishes rules for construction of vessels and notations for whether you want, for example, unmanned machinery space or built under survey. It is a well-proven process over a couple of hundred years. The client can always choose which classification society and which rules it wants to build its ships to, and CMAL chooses to specify Lloyd's Register. The notation that we are required to achieve is specified in the contract.

**Graham Simpson:** Does the classification society have to sign off all the steelwork on the vessel?

**David Tydeman:** Yes. All the structural drawings, the outfitting drawings and the machinery drawings are submitted to Lloyd's for plan approval in the early stages and the surveys on site verify that we have built in accordance with the approved drawings.

**Graham Simpson:** Has that happened? Has all the steelwork on the hull on the Glen Sannox been signed off?

**David Tydeman:** I am not sure whether we have everything signed off at the moment—the surveyors are regularly on site—but it will be by the time we finish the vessel. I know that, for example, we have just achieved Lloyd's sign-off on the starboard side of Glen Rosa. They are just surveying the port side.

**Graham Simpson:** I will move on to one other area, convener, if that is okay. It is about something that you mentioned, Mr Tydeman. You have made a request to Neil Gray for extra money for the yard. Mr Fairlie mentioned the future of the yard, quite rightly. You have asked Neil Gray for extra money essentially to modernise the yard. Have you had a response to that yet?

**David Tydeman:** No. It is still being considered by Mr Gray and his department.

**Graham Simpson:** It was pretty time critical, wasn't it?

**David Tydeman:** The time-critical element was the long lead time for a plating line. The manufacturer is Finnish and builds a plating line roughly every six months. At the time that we submitted the application earlier this year, we were hopeful of placing a long lead time purchase order for the plating line and having delivery by December 2024. We have now lost two slots since then and the earliest delivery would be December 2025.

**Graham Simpson:** My understanding is that you needed to get an order in in this calendar year.

**David Tydeman:** As months go by, we do not lose a month, we lose a six-month slot. Currently, if we could place an order in the next month or so, we could probably have the plating line installed by December 2025. If it slips another couple of months, say towards Christmas, it might be summer 2026 before we could have it installed.

**Graham Simpson:** Are you saying that Neil Gray needs to come back to you by the end of November, say?

**David Tydeman:** As soon as possible would be lovely.

**Graham Simpson:** If that does not happen, what is the impact on the future of the yard?

**David Tydeman:** The productivity is low in the yard, as we know. In our pricing of the work for BAE, for example, we know that we are not as competitive as other yards that have modern plating lines and modern facilities. It is the client's choice as to whether it can place all the work and pay a premium in some areas, so we are winning some work with BAE, even though we have low productivity. Given that the plating line cannot be installed for nearly two years—or more than two years now—at the earliest, we will not get to decent productivity until 2026, which makes pricing work for BAE harder; it makes pricing the small ferries harder. The longer we postpone it, the harder it gets.

**Graham Simpson:** Yes, I understand that, because we have discussed this, but you are saying that we need a decision. Thank you, convener.

**The Convener:** Thank you. Jim Fairlie, you wanted to come back with a follow-up.

Jim Fairlie: It is just a follow-up and a follow-on to what Douglas Lumsden was asking you earlier. Again, this may be something that has been discussed in the past that I do not know about. You talk about these weekly and monthly meetings that you have had, and Douglas was referring to the fact that this committee did not know about the rejection of your 1261 application. You alluded to the fact that you waited until you had found a solution. When you go to the Government, is your point to tell it what your problems are? The Government will not come to you with a solution and you need to find the solutions yourself, so I presume that any delay is not about trying to hide anything but is so that you can say, "Right, I know what the problem is, but here is the solution." Am I right in that assessment?

**David Tydeman:** Yes, you are right. We have no reason to hide things so, as soon as I am aware of an issue, I table it internally first with the management team and then in the weekly and monthly meetings with the sponsoring team. Sometimes there is a problem on the table for a while before we come up with a solution. Therefore, we cannot price it until we know what the solution is.

**The Convener:** I have a final question. The pricing of all this seems quite opaque to me. You have the costs that you put out, plus the contingency plan, plus what I call the Derek Mackay loan, then you have the extra money that has been given to the yard, and then you have some capital investment subsequent to that. That basically means that we are talking about £175 million to produce each of these ferries—that is roughly where I am at. That does not include any of the stuff that needs to be done in the harbours

to make sure that they can take these boats. We know that Ardrossan cannot and there are no LNG tanks, so there is probably quite a lot of extra money in there that is not part of the contracts. If each of these boats, Glen Sannox and 802, has cost £175 million to build, what value will CMAL be putting them on its books at? That is the value that they will have to be insured at and that is their true worth, so what do you think the true worth of each of these boats is? It cannot be £175 million, surely.

**David Tydeman:** I do not know what decisions CMAL will make; that is up to CMAL. I said earlier that I thought that a market price would be around £70 million if you were going to the market to buy one now. That was the figure that I put in my letter to the Public Audit Committee last December.

**The Convener:** Effectively, we have wasted  $\pounds100$  million on each of these boats. We have paid  $\pounds175$  million for a boat that is worth  $\pounds70$  million?

**David Tydeman:** Running the simple maths, that seems to be the answer.

**The Convener:** Wow. If there are no other questions, I thank you very much for coming and giving your evidence this morning. I will briefly suspend the meeting to allow you to depart and for the committee to take a break.

10:39

Meeting suspended.

10:46 On resuming—

## Documents Subject to Parliamentary Control

The Convener: Our next item of business is to consider a document subject to parliamentary control, "Scotland's Guiding Principles on the Environment: Statutory Guidance". I thank all those people who submitted evidence during the past few weeks to help us. The statutory guidance is prepared under section 17 of the UK Withdrawal from the European Union (Continuity) (Scotland) Act 2021. The guidance can be published only after it has been laid before the Parliament for 40 days. During that period, the Parliament may agree a motion resolving that the guidance should not be published. If such a motion were agreed, the guidance would not be published, but no such motion has been lodged. Do members have any comments on the guidance? As I am not seeing anyone wanting to comment, does the committee agree that it does not wish to make any recommendations in relation to the document?

Members indicated agreement.

**The Convener:** We are agreed. That concludes our public meeting and we will now go into private session.

10:47

Meeting continued in private until 11:29.

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