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Richard Leonard
Convenor
Public Audit Committee
Scottish Parliament
Edinburgh

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Dear Mr Leonard,

New vessels for the Clyde and Hebrides: Arrangements to deliver vessels 801 and 802

To be consistent with your question about reports I have given to SG, I do not have details on the £45m loan and focus on the total of **~£277m** made up of:

- **£83m** as paid by CMAL to FMEL (vs. FMEL estimate, June '19 of £123m incurred by them).
- The FMPG budget of **£122m** as set out in March '22, increasing the previous budget of £110-114m.
- The additional budget of **£72m** which is currently subject to due diligence by SG.

The build programme is still coping with legacy issues embedded by decisions made in 2015 onwards by FMEL, as well as factors from the past few years and this has led to the overall increase from £97m to £277m.

My personal, subjective view, is that we can attribute the increase to three factors:

1. **Time** – an increase of ~£50m in overheads relates to the simple fact that the two ferries will have carried the costs of the shipyard for ~9 years by the time of delivery of 802 in '24.
2. **Pricing** – if FMPG had bid for the two ferries in the near past for delivery in '23 & '24 as now planned, I estimate we would have priced the ships at ~£140m. Hence inflation and better knowledge of the complexities of these ships would have created an increase of ~£40m.
3. **Management & Build errors** – the balance, an increase of ~£90m[1], is a function of mistakes and other factors, e.g., recovery from administration through the pandemic etc, over the whole period since the contracts were placed in 2015.

   In summary, I categorise these as 5 main issues:

   a. Decisions by FMEL to run concurrent design and engineering, starting construction of the hull and superstructures before the design was complete – this always, in my experience, adds significant costs, and embeds design gaps and future re-work.

[1] *Perhaps £40m more if the £45m loan was attributed in some way to the difference between the £123m claimed as incurred by FMEL and £83m paid to them by CMAL*

b. Decisions by FMEL not to follow conventional shipbuilding practices and to build 'a largely empty ship' – i.e., not to outfit units and modules in the sheds (fit windows) prior to assembly on the slipway – this decision alone could have doubled the sub-contractor and direct labour manhours, resulting in outfitting materials – pipes, racks, etc., – being lifted onto the ship (801 afloat since 2017) by crane or carried up gangways. For example, the number of pipe-spools and end fittings probably doubled through this decision because each spool had to be smaller and more portable.

c. The termination (as allowed by contract) of the overall electrical and power management contracts in late '19 by the principal contractor just prior to administration, and then the associated significant changes to new electrical contracts and new suppliers required in 2020.

d. In parallel, the need for significant changes to the design contracts and key engineering partners in 2020, post administration.

e. Challenges in rebuilding the engineering teams post administration and nationalisation, managing labour and contractors through this and the pandemic, and the high numbers of new starts and leavers during the pandemic 2020 and 2021 (~180 starters and ~130 leavers across trade skills and office-based staff).

Overall, all the sub-sets of point 3 overlap and interlink.

Yours sincerely,

David Tydeman
Chief Executive Officer