

Caledonian Maritime Assets Limited



Project: New Vessels 1 & 2
100m Dual Fuel Ro-Pax Ferries
Yard Numbers: 801 & 802

Quarterly Update Report for
Transport Scotland

February 2016 to April 2016

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EXECUTIVE SUMMARY

Stage payment certificates 1, 2, 3 and 4 for vessels 1 and 2 processed. FMEL advise that there will be a delay in achieving the scheduled dates for the next fabrication stages 5, 6 and 7 and that they will be back on schedule for stage 8 (50% fabrication).

Fabrication has commenced 7 weeks later than originally scheduled; this is due to the delay in the issue of the hull structure drawings by FMEL and the redevelopment of the shipyard. FMEL have employed around 30 additional steelworkers from the Intermarine Group in Poland. The workers are employed on a 3 month contract which will be extended as required. FMEL advise that the local market could not provide the required skilled personnel.

FMEL have advised after further design development and access to more accurate and detailed hull and equipment weight figures; that to be able to achieve the 900 tonnes contract deadweight at 3.4m contract draught at the 16.5 kts contract speed, it will be required to fit the larger 8 cylinder engines as the power required is in excess of that which can be delivered by 6 cylinder engines. FMEL has provided 3 options for deadweight, powering and fuel consumption. CMAL advised CFL and Transport Scotland of these options and CMAL's recommendation on the 04th March 2016. We await CFL's views on the operational and cost implications of the 3 options. The time taken to assess the implication of the proposals from the shipyard may possibly have an impact on the construction programme as the shipyard cannot finalise the order for the main engines and the delivery date for the main engines.

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1. Project Progress

1.1 Design/Production Progress and other Project activities

1.1.1 Fabrication

REDACTED

1.1.2 Deadweight/Powering/Fuel Consumption

We were informed by FMEL that after further design development and access to more accurate and detailed hull and equipment weight figures, that to be able to achieve the 900 tonnes contract deadweight at 3.4m contract draught at the 16.5 kts contract speed, it will be required to fit the larger 8 cylinder engines as the power required is in excess of that which can be delivered by 6 cylinder engines. FMEL has provided 3 options for deadweight, powering and fuel consumption for our consideration.

The options are summarised in Table 1-1 below with approximate annual fuel costs:

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Table 1-1 Deadweight and powering options including approximate annual fuel costs

	Option 1	Option 2	Option 3
Draft	3.4m	3.4m	3.5m
Propulsion Power at 16.5 knots including Sea Margin	6026 kW	4598 kW	4986 kW
Propulsion Power at 14.5 knots including Sea Margin	3476 kW	2710 kW	3148 kW
Deadweight	900 tonnes	759 tonnes	900 tonnes
Annual cost of fuel; MGO @ 30p/litre Speed: 16.5 knots both routes	Redacted	Redacted	Redacted
Annual cost of fuel; MGO @ 40p/litre Speed: 16.5 knots both routes	Redacted	Redacted	Redacted
Annual cost of fuel; MGO @ 50p/litre Speed: 16.5 knots both routes	Redacted	Redacted	Redacted
Annual cost of fuel; MGO @ 60p/litre Speed: 16.5 knots both routes	Redacted	Redacted	Redacted
Annual cost of fuel; MGO @ 30p/litre Speed: 16.5 knots Uig, 14.5 knots Ardrossan	Redacted	Redacted	Redacted
Annual cost of fuel; MGO @ 40p/litre Speed: 16.5 knots Uig, 14.5 knots Ardrossan	Redacted	Redacted	Redacted
Annual cost of fuel; MGO @ 50p/litre Speed: 16.5 knots Uig, 14.5 knots Ardrossan	Redacted	Redacted	Redacted
Annual cost of fuel; MGO @ 60p/litre Speed: 16.5 knots Uig, 14.5 knots Ardrossan	Redacted	Redacted	Redacted

Note: For options 2 and 3 the vessel will still be designed to carry the maximum deadweight of 1180 tonnes as specified in the contract technical specification for the Stornoway to Ullapool route. This would be at 3.7m draft rather than 3.6m draft. Existing vessel Loch Seaforth is 4.8 m draft.

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CMAL's recommendation is to ask the shipyard to develop the model testing and final designs around Option 2 and 3 for the following reasons:

- Reduced fuel consumption
- Reduced fuel cost
- Reduced emissions
- Minimal reduction in cargo deadweight capacity

The 3 proposed options have no effect on car number capacity or freight vehicle number capacity. Option 1 (900 tonnes @ 3.4m) will increase displacement and will increase GT and port dues.

CMAL advised CFL and Transport Scotland of these options and CMAL's recommendation on the 04th March 2016. We await CFL's views on the operational and cost implications of the 3 options.

Note: The time taken to assess the implication of the proposals from the shipyard may possibly have an impact on the construction programme as the shipyard cannot finalise the order for the main engines and the delivery date for the main engines.

1.1.3 Master Construction Schedule

REDACTED

1.1.4 Drawing Approval Schedule

REDACTED

1.1.5 Ship Design Risk Analysis

A HAZID meeting was held on 22nd and 23rd of March 2016, "LNG Fuel Risk Assessment". Attended by FMEL, CMAL, Wartsila, LR and MCA, CFL were not able to attend. The next stage in the process is the FMEA, safety critical equipment and bunkering safety study followed by Stage 4 HAZOP – final design assessment.

CFL have requested consideration be given to have the ability to bunker LNG from the vehicle deck in addition to shore side. This requirement is not in the original statement of requirements from CFL and will be put to FMEL for consideration.

1.2 Stakeholder Groups

REDACTED

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Table 1-2 Yard No 801 Actual production progress compared with schedule

YARD NO. 801			
Milestone	Scheduled Date	Actual Date	Comments

REDACTED

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Table 1-3 Yard No 802 Actual production progress compared with schedule

YARD NO. 802			
Milestone	Scheduled Date	Actual Date	Comments

REDACTED

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2. Actual Expenditure compared with Profiled Expenditure

Table 2-1 Yard No 801 Actual expenditure compared with profiled expenditure

YARD NO. 801						
Instalment Number	Milestone	Profiled		Actual		Comments
		Date	Expenditure	Expenditure	Date	

REDACTED

Table 2-2 Yard No 802 Actual expenditure compared with profiled expenditure

YARD NO. 802						
Instalment Number	Milestone	Profiled		Actual		Comments
		Date	Expenditure	Expenditure	Date	

REDACTED

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Table 3-3 Vessel Procurement and Construction Risk Register

Risk No		Risk Description	Significance	Risk Likelihood 1 – 5	Risk Impact 1 – 5	Risk Level H/M/L	Mitigating Controls	Further Actions	Current Status
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REDACTED