



### Planning/Programme

- Launch Hull 801: The vessel was launched on Tuesday 21<sup>st</sup> November 2017 and is now berthed at the outfitting quay at FMEL. The original contract date for the launch was 24<sup>th</sup> August 2017, this could indicate on paper that the programme is 3 months behind schedule. This is not the case, the vessel is several months behind schedule. The production drawings, outfitting, electrical installation, machinery, piping installation, equipment deliveries etc is way behind schedule, the planning and the execution of the installation work so far has been poorly organised and the co-ordination of the activities at the outfitting quay will be a major challenge for FMEL.
- Hull 801, as of 29<sup>th</sup> November 2017 97% fabrication achieved. Original date for 100% fabrication 16<sup>th</sup> January 2017. Currently 10 months (and 3% in terms of fabrication) behind schedule.
- Hull 802, as of 29<sup>th</sup> November 2017 60% fabricated achieved. Work re-commenced on hull 802 w/c 27<sup>th</sup> Nov 2017 after more than 6 months with no activity. Less than 5% achieved in the last 8 months. Original date for 75% fabrication 16<sup>th</sup> December 2016. Currently 11 months (and 15% in terms of fabrication) behind schedule.
- With FMEL now working on both vessels, we await to see how in the forthcoming weeks and months they will manage the workforce and production areas to progress both vessels.
- Delivery Hull 801: At a meeting at FMEL offices on 03<sup>rd</sup> Nov 2017, FMEL advised new delivery date for hull 801

   20th October 2018. CMAL's view is that this date is unachievable and will be several months later than this
   and also requires a significant improvement in performance.
- Delivery Hull 802: FMEL are to advise new date for delivery.





#### Workforce

FMEL have recently employed an experienced and well regarded Production Manager. The yard still lack many key personal management, technical and supervision personnel.

#### **Manoeuvring and Berthing Simulation Tests**

CMAL and CFL met with the software developers w/c 27<sup>th</sup> November 2017 to discuss the model and how it can be further developed to reflect how the vessel is expected to perform. Wind loads and coefficients were adjusted with the result that the model was behaving in line with expectations on how the vessel will perform. The software developers will email the updated software to the City of Glasgow College, following which further simulation tests will be carried out. It is hoped this will take place early December 2017.

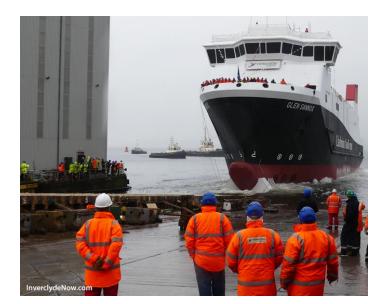




#### Photographs – 801











# Agenda Item 8 – Project Updates Dual Fuel Vessels 1 & 2 – Progress update



### Photographs – 802







## New Vessel Project Updates - Agenda Item 8 a

**Duel Fuel Vessels – Vessel 1 Milestones, Actual progress compared with Schedule** 



YARD NO. 801									
Milestone	Original Scheduled Date See Note 1	Revised Scheduled Date See Note 2	Revised Scheduled Date See Note 3	Revised Scheduled Date See Note 4	Revised Scheduled Date See Note 5	Revised Scheduled Date See Note 6	Revised Scheduled Date See Note 7	Actual Date	Comments
Cutting of Steel	15 Dec 2015	15 Dec 2015	-					15 Dec 2015	Achieved on original scheduled date Rev 01
10% Fabrication	18 Apr 2016	13 Jun 2016	-					10 Jun 2016	Achieved 2 months later than original schedule Rev 01 Achieved in line with revised schedule Rev 03
25% Fabrication	14 Jun 2016	26 Jul 2016	-					04 Aug 2016	Achieved 2 months later than original schedule Rev 01 Achieved in line with revised schedule date rev 03
35% Fabrication	15 Aug 2016	12 Sep 2016	-					06 Oct 2016	Achieved 8 weeks later than original schedule Rev 01 Achieved 4 weeks later than revised schedule Rev 03
50% Fabrication	14 Oct 2016	14 Oct 2016						09 Dec 2016	Achieved 2 months later than original and revised schedules
Major Equipment and Lock Out Items Installations	14 Nov 2016	13 Mar 2017 to 18 Jan 2018	-	14 <sup>th</sup> June 2017	16 <sup>th</sup> July 2017			16 <sup>th</sup> July 2017	Not all major equipment has been delivered/installed: Electrical Switchboards, Propellers/Shaft lines/, RoRo Equipment still to be installed.
75% Fabrication	15 Dec 2016	15 Dec 2016	10 Feb 2017					31 <sup>st</sup> March 2017	Achieved 3 and a half months later than originally scheduled.
100% Fabrication	16 Jan 2017	16 Jan 2017	16 June 2017	10 <sup>th</sup> July 2017	15 <sup>th</sup> Sep 2017				97% Fabricated. Original date for 100% fabrication was: 16 January 2017. Currently 10 months (and 3% in terms of fabrication) behind schedule.
Berth Join Up	14 Mar 2017	28 Apr 2017	14 Jul 2017	15 <sup>th</sup> Aug 2017	06 <sup>th</sup> Oct 2017			17 <sup>th</sup> Nov 2017	Achieved 8 months later than original schedule
Hull Inspection Prior to Paint	17 Apr 2017	26 May 2017	21 Apr 2017	24 <sup>th</sup> July 2017	tba			18 <sup>th</sup> Aug 2017	Partial area inspected only.
Launch	14 Aug 2017	24 Aug 2017	24 Aug 2017	24 Aug 2017	21 <sup>st</sup> Sep 2017	21 <sup>st</sup> Nov 2017		21 <sup>st</sup> Nov 2017	The status of the drawings, outfitting and installation several months behind schedule.
Delivery	25 May 2018	29 Jun 2018	25 May 2018	25 May 2018	25 <sup>th</sup> May 2018		20 <sup>th</sup> Oct 2018		

Note 1: From Cardinal Programme Rev 01 dated 14 Dec 2015 Note 2: From Cardinal Programme Rev 03 dated 16 May 2016 Note 3: Email from FMEL 09 Dec 2016 Note 4: 12<sup>th</sup> May 2017

Note 5: Emails Week 28/2017

Note 6: Email 04 Sep 2017

Note 7: Meeting FMEL 03 Nov 2017



## New Vessel Project Updates - Agenda Item 8 a

**Duel Fuel Vessels – Vessel 2 Milestones, Actual progress compared with Schedule** 



YARD NO. 802							
Milestone	Original Scheduled Date See Note 1	Revised Scheduled Date See Note 2	Revised Scheduled Date See Note 3	Revised Scheduled Date See Note 4		Actual Date	Comments
Cutting of Steel	15 Dec 2015	15 Dec 2015	-			15 Dec 2015	Achieved on original scheduled date Rev 01
10% Fabrication	18 Apr 2016	13 Jun 2016	-			10 Jun 2016	Achieved 2 months later than original schedule Rev 01 Achieved in line with revised schedule Rev 03
25% Fabrication	14 Jun 2016	02 Aug 2016	-			04 Aug 2016	Achieved 2 months later than original schedule Rev 01 Achieved in line with revised schedule date rev 03
35% Fabrication	15 Aug 2016	26 Sep 2016	-			06 Oct 2016	Achieved 8 weeks later than original schedule Rev 01 Achieved 2 weeks later than revised schedule Rev 03
50% Fabrication	14 Oct 2016	18 Nov 2016	20 Jan 2017			13 Jan 2017	Achieved 3 months later than original schedule Rev 01
Major Equipment and Lock Out Items Installations	14 Nov 2016		TBA	16 Oct 2017			"Installation" of all the "Major Equipment" has not been commenced on the 14th November 2016 as per original plan.
75% Fabrication	15 Dec 2016	19 Jan 2017	05 May 2017	22 Sep 2017			60% Fabricated. Fabrication at a standstill. Less than 5% achieved in the last 8 months. Original date for 75% fabrication was: 16 December 2016. Currently 11 months (and 15% in terms of fabrication) behind schedule.
100% Fabrication	16 Jan 2017	20 Feb 2017	20 Oct 2017	13 Oct 2017			FMEL to advise new date.
Berth Join Up	14 Mar 2017	05 Jan 2018	14 Dec 2017	10 Nov 2017			FMEL to advise new date.
Hull Inspection Prior to Paint	17 Apr 2017	02 Feb 2018	24 Nov 2017	31 Oct 2017			FMEL to advise new date.
Launch	12 Oct 2017	20 Mar 2018	12 Jan 2018	17 Nov 2017			FMEL to advise new date.
Delivery	26 Jul 2018	29 Aug 2018	26 Jul 2018	26 Jul 2018			FMEL to advise new date

Note 1: From Cardinal Programme Rev 01 dated 14 Dec 2015 Note 2: From Cardinal Programme Rev 03 dated 16 May 2016 Note 3: Email from FMEL 09 Dec 2016 Note 4: 12 May 2017