

Fleet of the Future Update

Board update May 25, 2023





Agenda

- ☐ Vehicle acceptance status
- ☐ Reliability
- ☐ Car Availability
- ☐ Budget Forecast
- ☐ Schedule
- ☐ 425 order update
- ☐ Progress Photo



Vehicle Acceptance Status

- ❑ 505 cars conditionally accepted and ready for revenue service.
- ❑ 521 cars have been delivered
- ❑ Reliability has improved and is much higher than the legacy fleet
- ❑ MTBF CS (Mean Time Between Failures) service delays = 12000
- ❑ MTBF CR (Contractual Revenue) = 400
- ❑ The Project Team is continuing to work with Alstom to identify both short- and long-term changes to improve the of the vehicle reliability



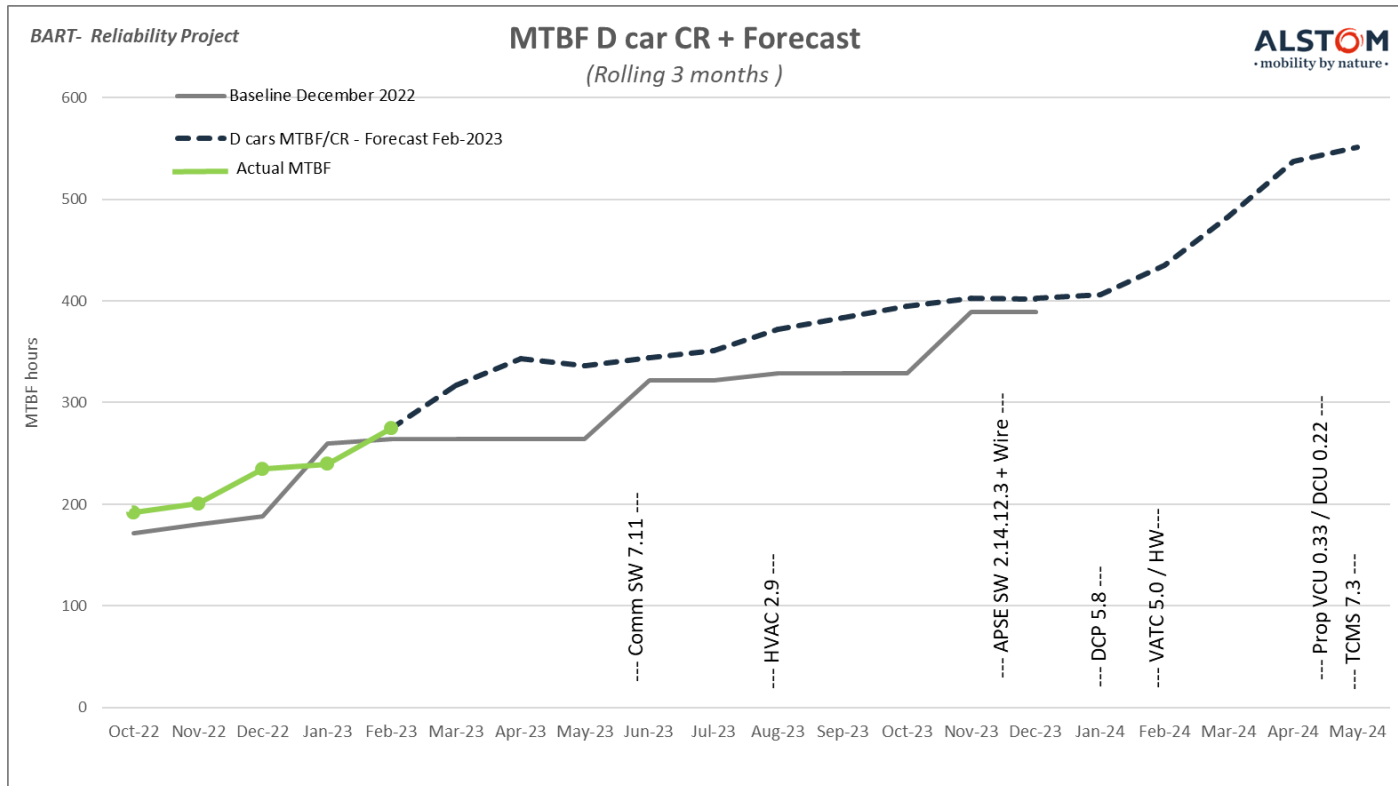
Reliability Improvement

- ☐ VATC (Vehicle Automatic Train Control) back up issue resolved.
- ☐ TCMS (Train Control Monitoring System) fault management plan. Next change summer 2023
- ☐ Doors DCP (Door Control Panel) released to capture issue. Next release January 24
- ☐ Communication 7.11 software release June 2023
- ☐ APSE (Auxiliary Power Supply Equipment) lockout upgrade on 32 car to evaluate solution
- ☐ HVAC (Heating, Ventilation, Air Conditioning) lockout modification in progress



MTBF Aggregated D + E / CR

Actuals and Forecast based on February 2023 Data





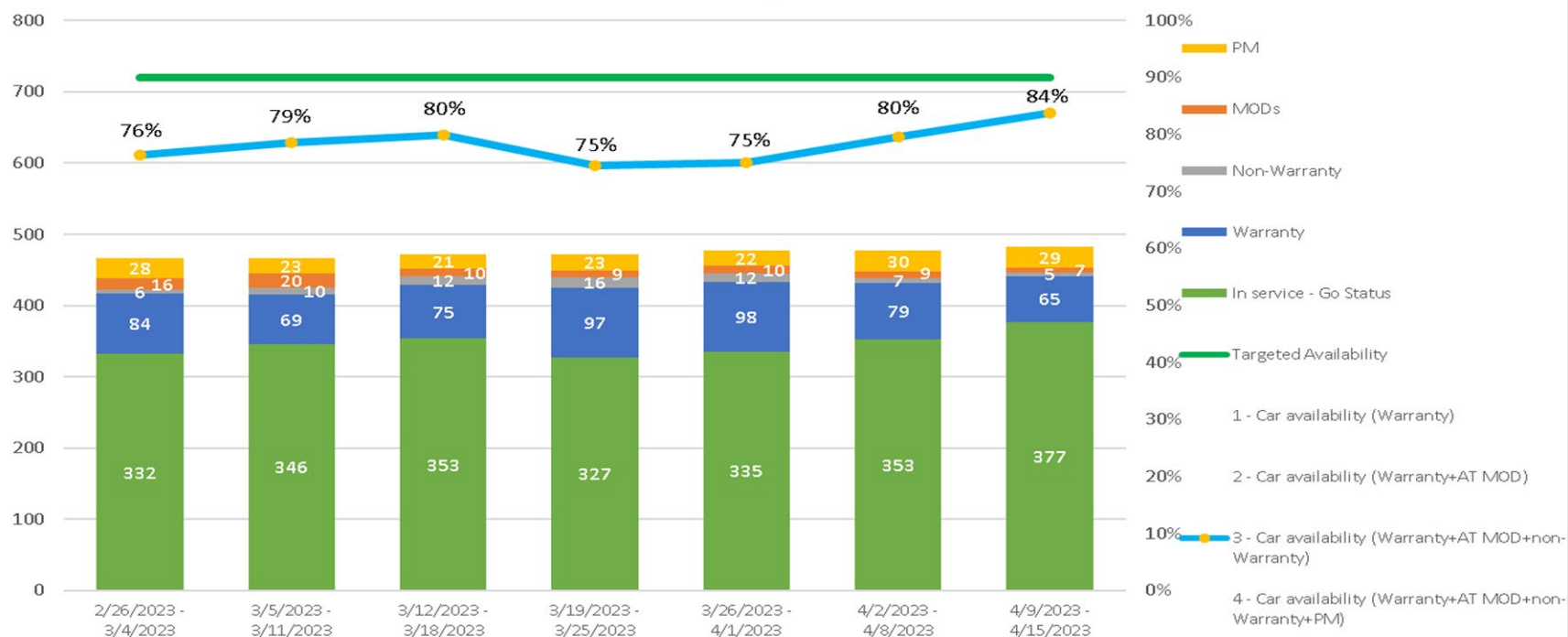
Wheel Flat Improvements

- ☐ Speed code optimization.
- ☐ Investigating wheel adhesions sticks.
- ☐ Investigating GPS for position resolution.
- ☐ CBTC (Communication Base Train Control) installation for position resolution.



CAR AVAILABILITY & NO-GO

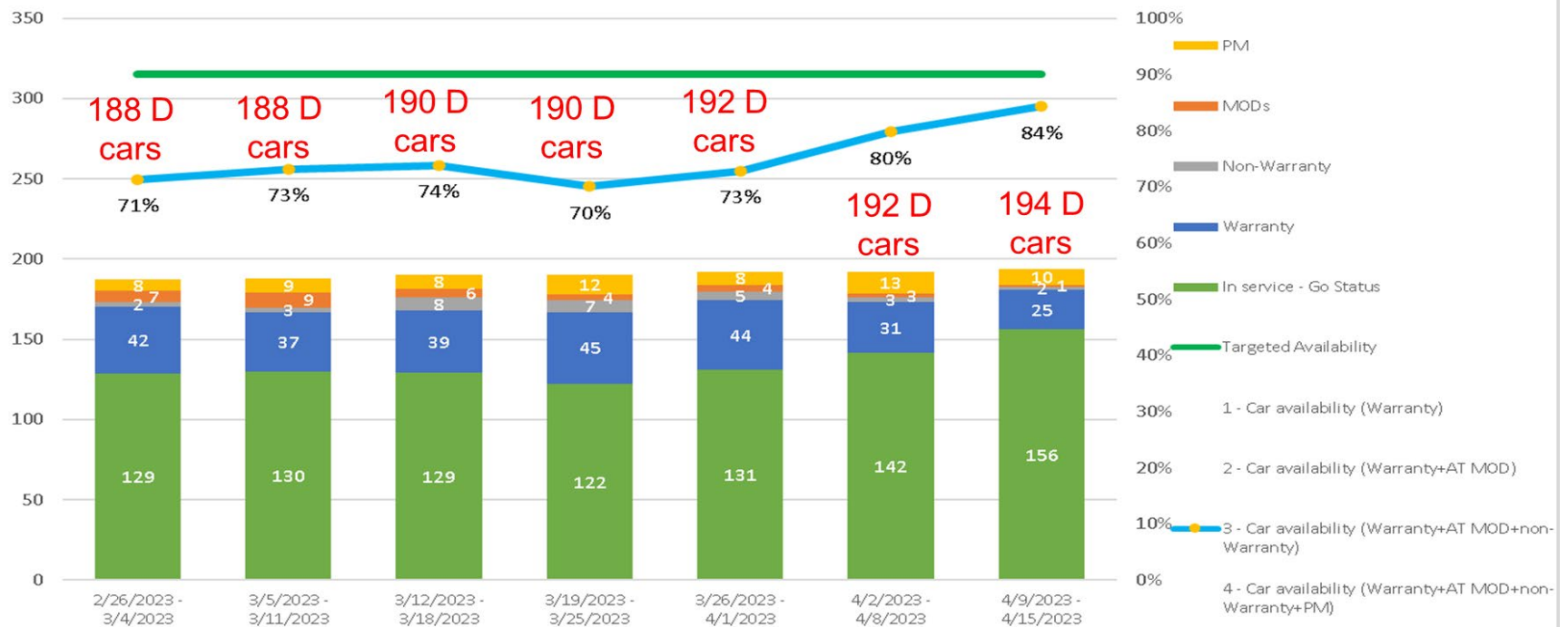
All Cars Availability - 7 Weeks





CAR AVAILABILITY & NO-GO – ONLY “D” CARS

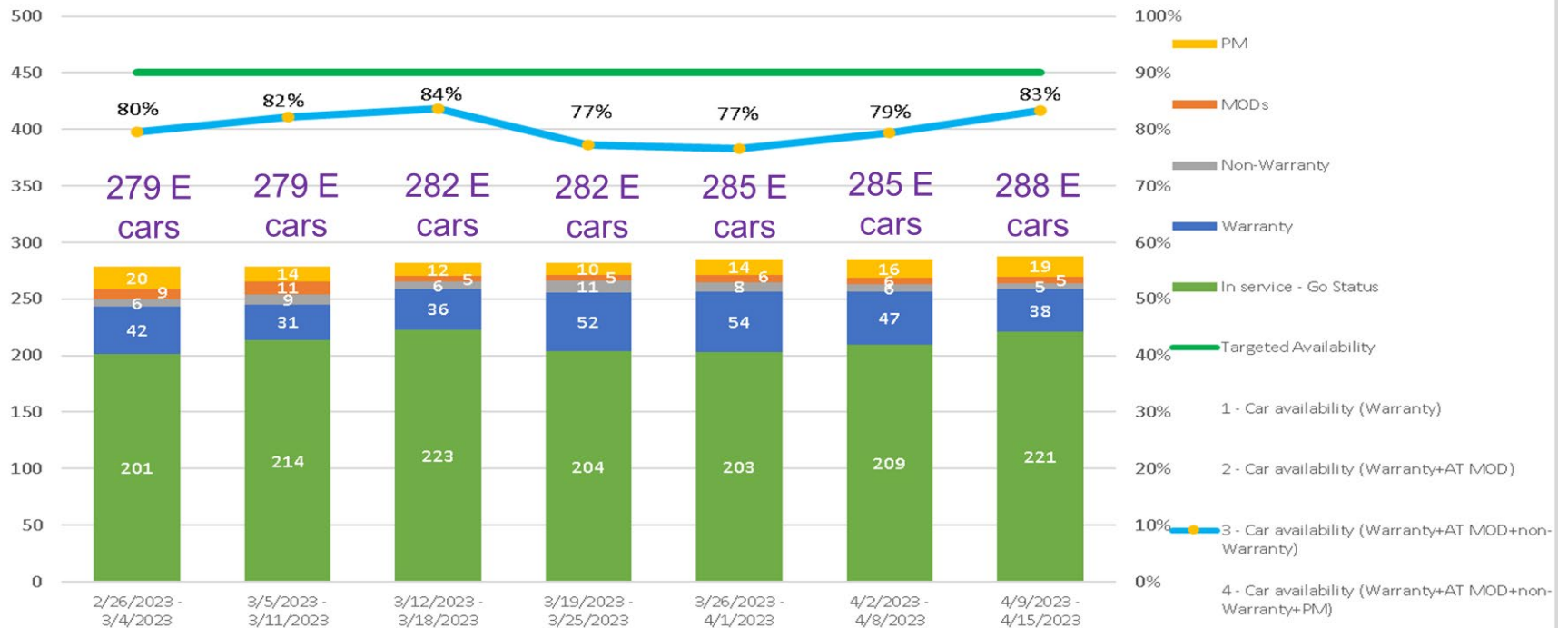
D Cars Availability - 7 Weeks





CAR AVAILABILITY & NO-GO – ONLY “E” CARS

E Cars Availability - 7 Weeks



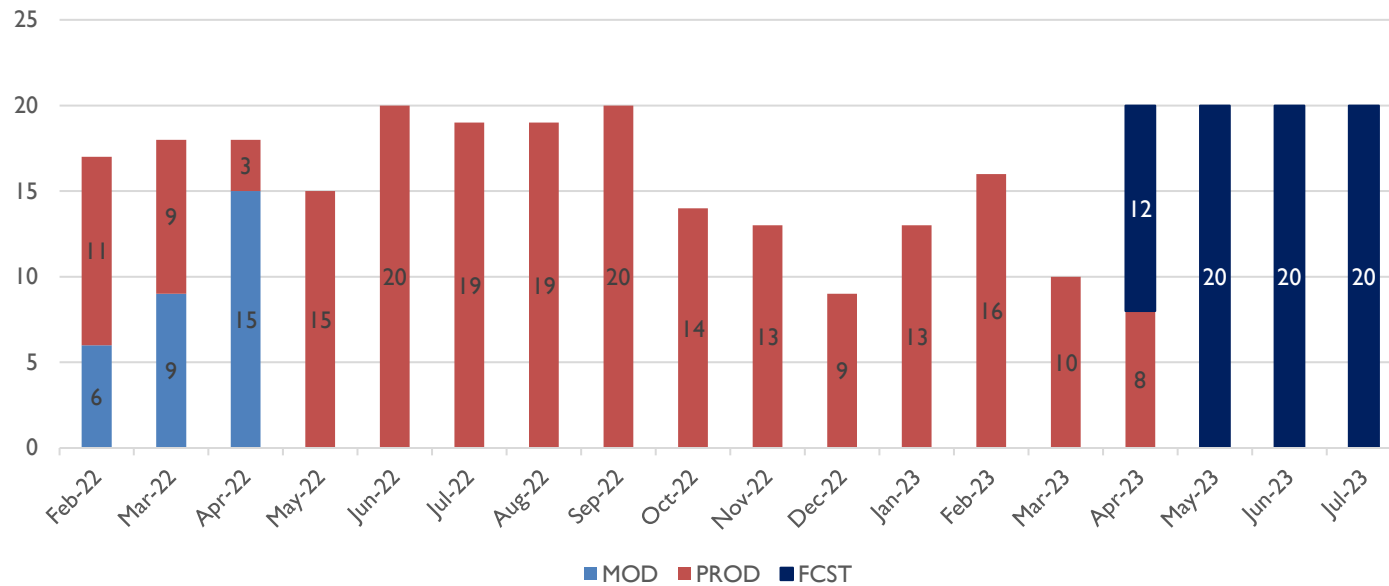


Schedule

Milestone	Approved Schedule	Bombardier Current Forecast	Actual	Status
Award of Contract	N/A	N/A	5/30/12	Complete
Complete Final Design Phase	9/30/14	9/30/14	9/30/14	Complete
Commence Pilot Vehicle Delivery	4/30/15	3/15/16	3/15/16	Complete
Complete Pilot Car Delivery	8/25/15	11/19/16	11/19/16	Complete
Delivery of First Production Vehicle	12/30/16	11/6/17	11/6/17	Complete
Complete Delivery 260 th Vehicle	9/21/18	11/24/20		Complete
Complete Delivery of 775 th Vehicle	9/27/21	8/23/24		In Process
Complete Warranty of 775 th Vehicle	10/27/25	8/24/28		In Process



Delivery Forecast





Budget Forecast

Description	Baseline Budget (775 Cars)	Expended ITD	Cost to Complete	Forecast at Completion (775 Cars)
New Car Procurement Contract	\$1,862,912,122	\$1,155,990,357	\$749,703,071	\$1,905,693,428
Vehicle Consulting Services	\$53,807,035	\$26,347,141	\$1,677,754	\$28,024,895
Professional Services Consultant	\$10,731,662	\$5,667,396	\$409,393	\$6,076,789
Misc. Expenses	\$5,568,150	\$1,560,894	\$966,490	\$2,527,384
Direct Purchase Material	\$3,098,020	\$1,723,329	\$481,153	\$2,204,482
Project Management	\$75,323,502	\$80,346,393	\$22,155,731	\$102,502,125
Escalation	\$326,879,920	\$40,817,159	\$97,747,285	\$138,564,444
Subtotal	\$2,338,320,410	\$1,312,452,669	\$873,140,878	\$2,185,593,547
Reserve	\$245,679,590	\$0	\$245,679,590	\$245,679,590
Total	\$2,584,000,000	\$1,312,452,669	\$1,118,820,468	\$2,431,273,137



Core Capacity Vehicles

- ☐ Contract for base of 100 cars executed in November 2020
- ☐ First option 152 cars executed February 2023
- ☐ Next Option due 3rd quarter 2023
- ☐ Production to start when 775 cars complete
- ☐ All E cars



Pittsburg Production Stations

