Four questions from the bank, answered in four and a half minutes

On a Friday afternoon a lender writes to an owner of ten bulk carriers: the facility is reviewed on Monday, and the credit committee wants the fleet's carbon cost in the file. The email holds four questions. This case follows them in order, with the figure the desk gives for each and the time it takes to get it. Case study 4 did the same for one voyage; this one does it for a fleet.

1 · THE FLEET AND THE REQUEST

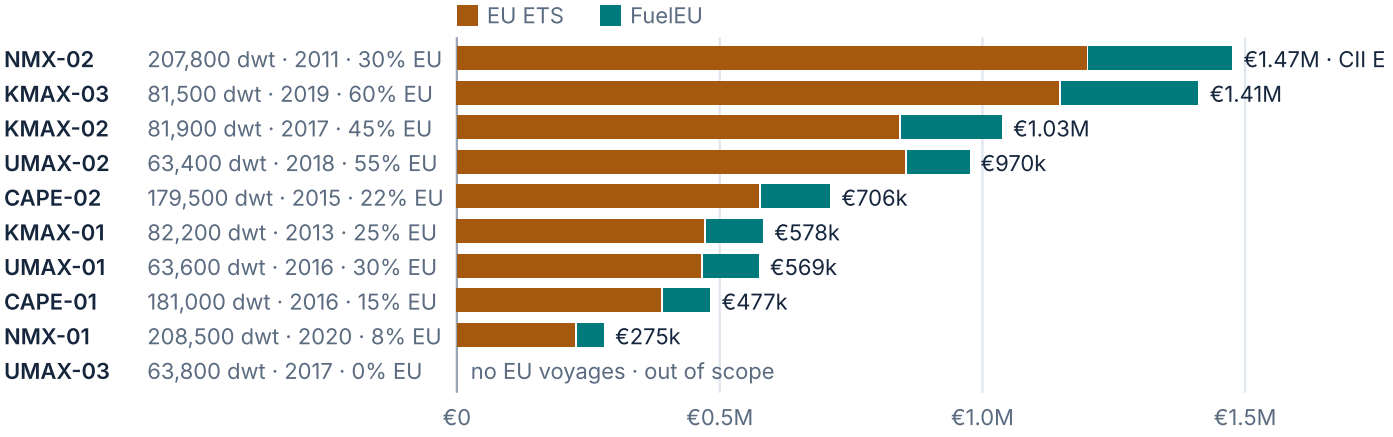
The owner is hypothetical; the fleet is the one of Case study 3: two Newcastlemaxes, two Capesizes, three Kamsarmaxes and three Ultramaxes, 1.21 million dwt, built 2011 to 2020. The technical department keeps one line per vessel: fuel burned in the year, distance, and the share of its voyages that touched the EU. That list, saved as a file, is everything the desk is given.

Fleet list, one file	**10 vessels · 82,704 t of fuel a year · 9 on HFO, 1 on MGO**
EU share of each vessel's year	**0% to 60% · fleet-weighted 27.6%**
Market and rules	**EUA €85 · EU ETS at 100% for 2026 · FuelEU at the 2026 target, pooled**

2 · FOUR QUESTIONS, FOUR ANSWERS

THE BANK ASKS	WHAT IS DONE ON THE DESK	THE ANSWER
1. What does the fleet owe in EU carbon for 2026?	The fleet list is loaded once; two figures are read	EU ETS €6,157,510 (72,441 allowances) + FuelEU €1.33M after pooling = **€7.5M**.
2. Which vessel carries most of it?	Nothing is entered; the per-vessel lists are read	**NMX-02: €1.47M**, a fifth of the fleet's bill, and the fleet's only CII rating E. A Kamsarmax of 40% her size, KMAX-03, owes almost the same (€1.41M) because 60% of her year is in the EU.
3. What changes in 2030?	Nothing is entered; the FuelEU horizon is read	FuelEU goes from €1.33M to **€5.05M** for the same fleet and fuel; EU ETS stays €6.2M at the same EUA price. The bill is €11.2M, half as much again.
4. Would selling the oldest vessel pay?	One button: the fleet exit screen	On class assumptions, without carbon NMX-02 is worth holding to 2035. With carbon, **no holding period beats selling her today**: the exit moves ten years.

3 · WHERE THE 2026 BILL SITS



EU ETS at €85 on each vessel's CO_2e in scope; FuelEU as each vessel's own penalty at the 2026 target, second consecutive deficit year (×1.10). No vessel is in surplus, so pooling moves nothing here. The two largest bars are 38% of the fleet's €7.5M.

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4 · HOW LONG EACH ANSWER TOOK

QUESTION	DESK RECALCULATION	AT THE DESK, QUESTION TO WRITTEN ANSWER	WITHOUT A DESK, WHAT HAS TO BE DONE
1 · The 2026 bill	0.3 s for ten vessels	**1 min 30 s**	Per vessel: fuel to CO_2e with the fuel's factors, the EU share, the EUA price; then each vessel's FuelEU balance against the year's target, pooled, with the multiplier for the second deficit year.
2 · The vessel that carries most	none	**1 min**	The same sheet sorted, with EU ETS and FuelEU added per vessel, and each vessel's CII rating from its own reference line.
3 · 2030	none	**1 min**	The FuelEU balance again at the 2030 target for all ten, pooled, with the multiplier for the sixth deficit year.
4 · Hold or sell	0.1 s	**1 min**	A year-by-year cash flow per vessel to the end of its life, twice (with and without carbon), with surveys, value decline and a discount rate.
The afternoon		**4 min 30 s**	A spreadsheet per question, built for the occasion.

Desk recalculation: from the action to the new figures on screen, measured by RCA in a browser on 12 Nov 2026. Time at the desk: from reading the question to having the answer written down, measured with a stopwatch by one person on 12 Nov 2026, after one practice run; nothing is typed, so reading the figures and writing them down is nearly all of it.

5 · HOW TO READ IT

- **The exposure follows the trade, not the size.** The largest bill belongs to the largest ship, but the second belongs to a Kamsarmax, and an Ultramax that never calls in the EU owes nothing. A lender who ranks the fleet by deadweight ranks it wrongly.
- **2030 is the FuelEU year.** The target moves from −2% to −6%, and a fleet in deficit every year since 2025 pays the sixth-year multiplier, ×1.50. Without the multiplier the 2030 figure is €3.37M; with it, €5.05M. The line assumes nothing is done to the fuel, which is the line a credit committee asks to see first.
- **The answer on the oldest vessel is a screen, not a decision.** Earnings, running cost, value and surveys are class assumptions (a Capesize at €24,000 a day, worth €30M at fifteen years); only the fuel, the EU share and the age are her own. The screen says which vessels deserve the full calculation with their own figures, and it also says where carbon is not the reason: the two Capesizes of 2015 and 2016 screen as sales with or without carbon, which is a view on the market, not on the rules.
- **Carbon decides at the margin.** For NMX-02 the carbon bill of the next ten years is what separates holding from selling. For the Kamsarmax of 2013 it moves the exit from 2036 to 2032, the year before her next survey. For the Ultramax of 2016 it changes nothing.

The point of the exercise is that the reply went out on Friday. None of the four answers needed a model built for the occasion, and each is the same figure the owner's own people see when they open the desk on Monday. MCCS runs on the owner's computer; the fleet list never leaves the office.

Basis. Hypothetical owner, lender and vessels; the fleet and its annual figures are those of Case study 3. Each vessel's line: fuel type, tonnes of fuel and distance for the year, year built, and the share of its emissions in EU scope. EU ETS: CO_2e as the ETS counts it from 2026, 100% surrender for 2026 emissions, EUA €85. FuelEU: 2026 target 89.34 and 2030 target 85.69 gCO_2e/MJ, penalty €2,400 per tonne of VLSFO-equivalent deficit, fleet pooled, Art. 23 multiplier counted from 2025 on the pooled balance (the Regulation counts it per ship). Fuel mix and EU shares held at today's for 2030. CII: each vessel's annual AER against its 2026 required line. Fleet exit screen: vessels aged ten or more; the Newcastlemax is screened on the Capesize row of the class table; class earnings, running cost, value by age and survey costs as the desk carries them, all editable; value falls in a straight line to scrap; discount rate 8%; EUA on the forward curve (+4.3% a year) for this screen only; FuelEU without the multiplier; the IMO Net-Zero Framework not included (adoption vote 4 December 2026); market held flat. Sum of ETS and FuelEU over the screened vessels' holding periods: €13.0M. Figures from MCCS Owner v4.24.8, run 12 Nov 2026. Illustrative; not investment, lending or legal advice.

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