

X-LNG CASE STUDY · AUG 2024

Cutting LNG fleet emissions

Compare schedules for the same 200 cargoes and 40 vessels to measure changes in fuel use and CO₂.

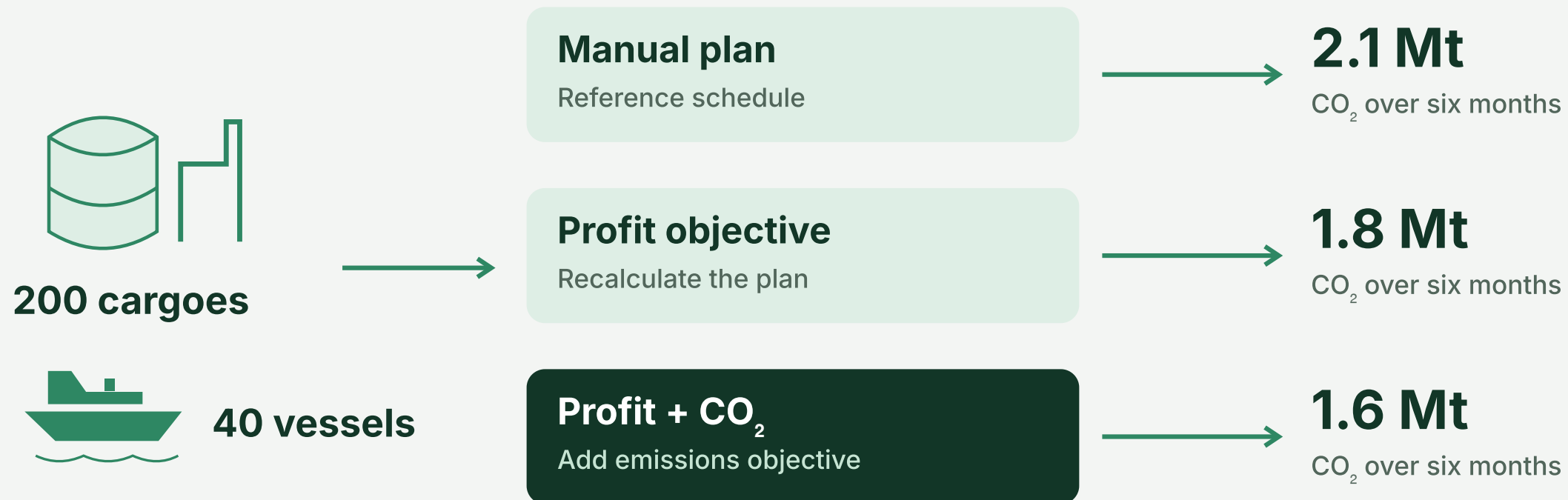


-23%

REPORTED CO₂ REDUCTION VS MANUAL
REFERENCE · SIX MONTHS

Three schedules for the same LNG commitments

Same cargoes, vessels and six-month horizon



Routing, speed, bunker use and idle time are planned together.

Emissions totals are rounded. Lower emissions alone do not establish equal profit.

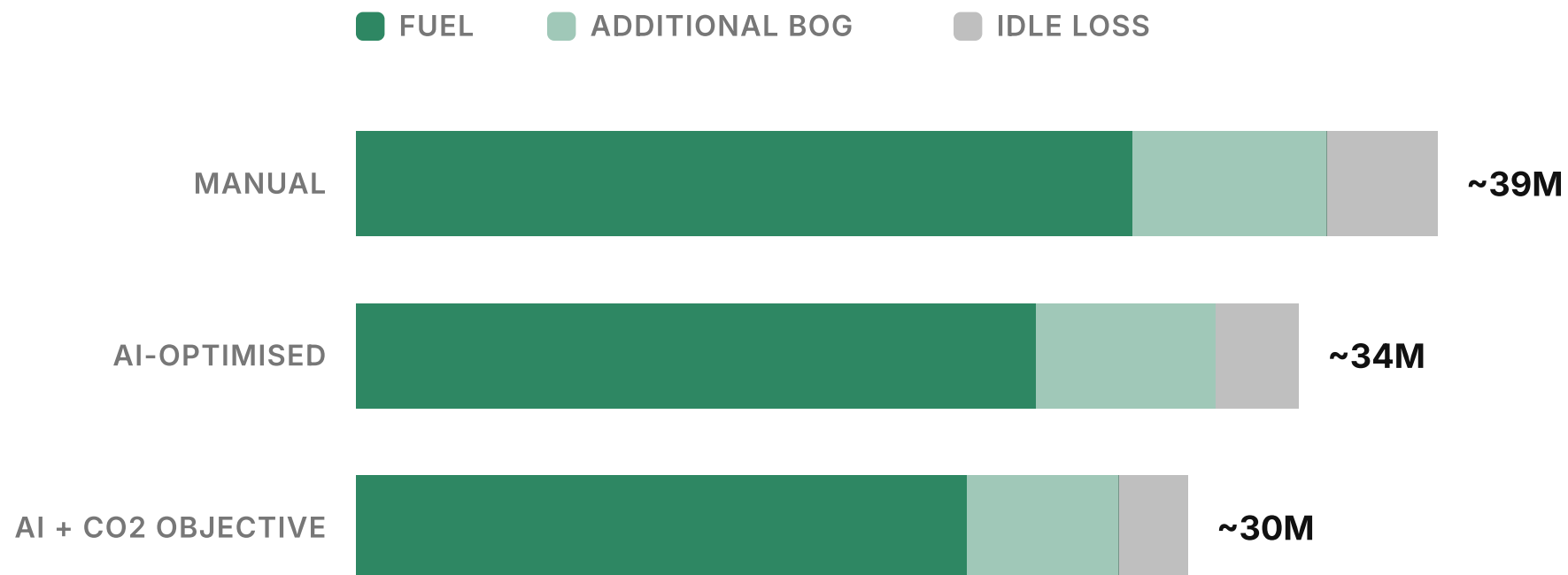
The emissions objective produces the lowest CO₂ total

FLEET CO₂ · MILLION TONNES PER 6 MONTHS · 40 VESSELS



The rounded totals are 2.1, 1.8 and 1.6 million tonnes. The source reports approximately 475,000 tonnes saved against the manual reference, or 23%.

The schedules also change fuel and boil-off losses



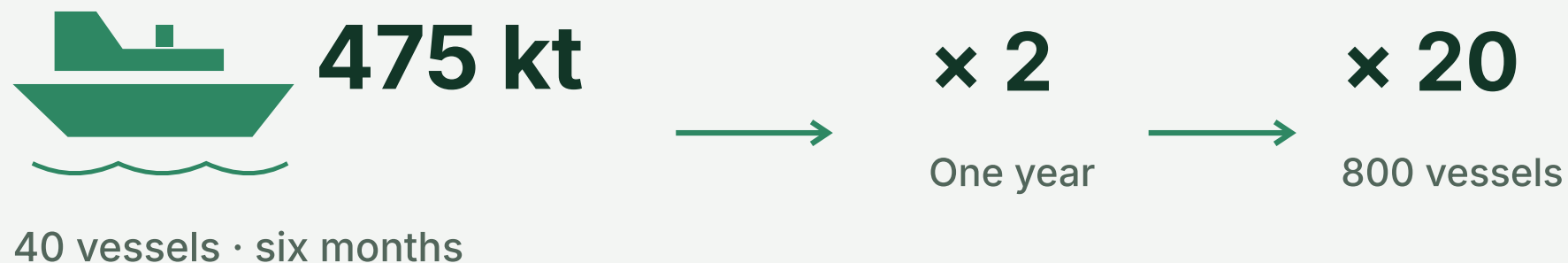
FUEL AND BOG · MILLION MMBTU · COMPONENTS READ FROM THE ENGINE CHART

Fuel consumption, additional boil-off gas and idle losses in the three plans. Components are read from the source chart; lower emissions alone do not establish equal profit.

Separate the model result from the fleet extrapolation

The global figure assumes the same saving per vessel

MODEL RESULT



19 Mt/year

$$475 \text{ kt} \times 2 \times 20 = 19 \text{ Mt CO}_2 \text{ per year.}$$

The extrapolation is not a measured global reduction. The study reports approximately 23% less CO₂ than the manual reference.

RESULT AND SCOPE

23% lower modelled CO₂ emissions than the manual reference schedule.

The 23% reduction is the source's reported result. Chart totals are rounded. The global estimate assumes the same savings per vessel and two comparable six-month periods.

Compare emissions and profit across your scheduling options

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