

FINANCED CARBON EMISSIONS - MOMENTUM CASE & TARGET SETTING

Client: A UK Top-4 Bank

THE QUESTION

“Absolute or intensity — which metric should the bank declare for each energy vertical, and what would meeting the 2025 target take from today's loan book?”

i CONTEXT
the mandate

A Top-4 UK bank was preparing to declare **2025 climate targets for its energy loan book** and needed the right yardstick for two very different verticals — **Upstream** (which must manage a *decline*) and **Power Generation** (which must *transition*). I built the momentum case for both: where each portfolio's financed emissions are headed by 2025 on current commitments, in absolute and intensity terms.

ii COMPLEXITY
what made it hard

The bank's existing baseline came from a **third-party top-down model** whose 2019-2025 deltas were so small (~0.8–4%) they **carried little signal** to explain or defend if declared. Refinement of small numbers (few percentages) requires a sound methodology and granular analysis. The **metric choice was a nuanced one**: absolute rewards divestment, intensity rewards staying invested and decarbonizing. The **real grind was the data**: emissions reported on mixed scopes, mixed years and mixed units across counterparties, targets stated on incompatible bases and in many cases, no targets defined and must be interpreted or calculated first.

iii APPROACH
where the rigor lived

Rebuild the baseline bottom-up, counterparty by counterparty, for the ~80% of each book by financing, rebuilding every name's 2019 scope 1+2+3 intensity from its own reported emissions and production, and validating each figure rather than trusting the data as given. **Target Estimation**: For 2025, where a counterparty had publicly declared targets, we normalized them to a common basis; where it did not, we read through annual reports to surface the underlying commitments, then used interpolation to estimate a 2025 intensity that accounted for the BAU trajectory, with IEA STEPS sector trends for the rest. Each result was financing-weighted into the portfolio and calculated in both metrics: absolute and intensity.

iv OUTPUT
by vertical

UPSTREAM

Bottom-up showed a **defensible ~4% reduction** in intensity vs. the ~0.8% per 3rd party top-down model — small enough to be noise. Hitting a 15% intensity cut means shedding ~62% of the book — **absolute is the recommended metric** here.

POWER GENERATION

Bottom-up showed **intensity falling ~12%** vs. the ~4% per 3rd party top-down model — **three times the ambition was already locked in**. A 30% intensity cut means dropping the emitters behind ~16% of the book, which is feasible. Validated **intensity as the right metric** choice, as it rewards the transition.

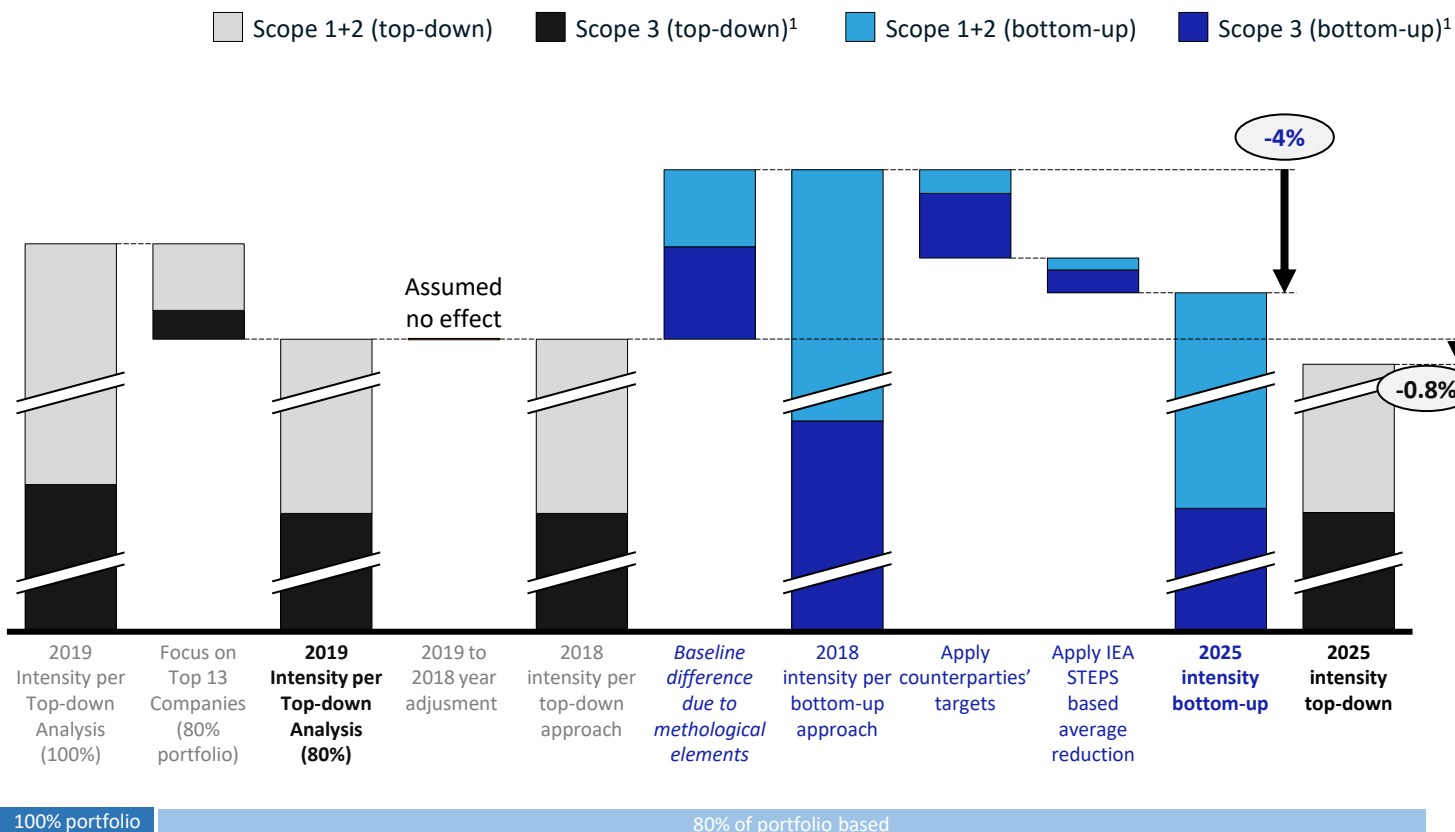
OUTCOME The client **adopted our proposed methodology** for tracking portfolio emissions and declared their **targets based on our recommendations**.

SIGNATURE ANALYSIS

Built bottom-up, the Upstream book's intensity falls ~4% by 2025 — whereas the 3rd-party top-down model saw almost nothing

UPSTREAM

Momentum case reduction in financed upstream upstream emissions intensity, 2018-2025, KgCO_2/kWh



¹ Actual ratio of Scope 3 to Scope 1+2 is not reflected due to break points in the chart. Scope 3 share is ~80%+ of the total Scope1+2+3 intensity

OUR BOTTOM-UP APPROACH VS TOP-DOWN 3rd PARTY MODEL

Counterparty-level, not sector-level

- ◆ Counterparties' intensities were measured bottom-up based on their reported production and emissions levels. Focusing on top 13 accounting for 80% of portfolio kept the analysis granular yet manageable.

Targets read, normalized, interpolated

- ◆ Declared targets normalized to a common 2025 basis; where none existed, annual reports were read and 2025 estimated by interpolation against a BAU path.

Methane and product mix captured

- ◆ Bottom-up included methane and the oil/gas mix of each borrower — both invisible to the CO₂-only top-down view.

THE REFINEMENT The third-party top-down model showed a ~0.8% change from 2019-2025 — practically a flat line and not good enough to use. Our bottom-up granular analysis resolved this into a **defensible ~4% reduction**. Our work also **exposed a ~5% baseline gap** due to crude methodology the bank would otherwise have declared blind.

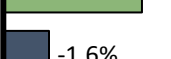
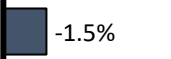
SIGNATURE ANALYSIS

Top 5 counterparties account for 2.9% of total 3.8% reduction, and two lean on longer-dated scope 3 targets

UPSTREAM

ILLUSTRATIVE SANITISED CONTENT

Target – Medium Confidence
Target – Low Confidence
STEPS direction

Counterparty	Financing size ¹ , % of total portfolio size, 2019	Contribution to portfolio intensity change, %	Targets considered	Intensity 2018-25 variation applied in the analysis	
				On scope 1+2	On scope 3
Company 1		 0.48%	Intensity target on upstream O&G operations to 20-21kg CO ₂ e/Boe by 2025, from a 2017 baseline of 23 kg CO ₂ e/Boe (assumption no progress in 2018)	 -5.1%	 -1.3%
Company 2		 0.56%	No target	 -11.4%	 -1.5%
Company 3		 0.96%	Absolute target to reduce scope 1+2 emissions by 6 MtCO ₂ e by 2025 (4Mt achieved by 2018), intensity target on scope 3 of -15% by 2030 vs. 2015 level	 -12.1%	 -5.6%
Company 4		 0.38%	Target on net carbon footprint (scope 1+2+3 intensity) to -20% by 2035 vs. 2016 level ((assumption no progress in 2018)	 -3.5%	 -3.5%
Company 5		 0.53%	Target to cap growth in operations (scope 1+2) emissions by 2025, and to cut the carbon intensity of the products sold (scope 3) by 50%, by 2050 or sooner	 -7.9%	 -8.3%
Company 6		 0.14%	Target on Upstream oil intensity of 5–10% (13% already achieved in 2018) and on Upstream natural gas intensity of by 2–5% (8% increase in 2018)	 -4.8%	 -1.4%
Company 7		 0.31%	Target on scope 1+2+3 intensity to be reduced from 70gCO ₂ /MJ in 2018 to 66,6gCO ₂ /MJ in 2025	 -4.9%	 -4.9%
Company 8		 0.09%	No target	 -11.5%	 -1.6%
Company 9		 0.03%	No target	 -11.5%	 -1.6%
Company 10		 0.15%	Target on scope 1+2+3 intensity of 15% by 2035 vs. 2018 levels	 -6.2%	 -6.2%
Company 11		 0.06%	Target on scope 1 and 2 emissions from operations of 30% by 2030 using a 2019 baseline	 -15.0%	 -1.5%
Company 12		 0.04%	Target on CH ₄ intensity from operations to 0,36% by 2025 vs. 0,43% in 2017 (assuming no progress in 2018). STEPS variation applied on CO ₂ intensity	 -11.8%	 -1.4%
Company 13		 0.02%	Target to reach 8gCO ₂ /Boe in 2025 from 9gCO ₂ /Boe in 2017 (assuming no progress in 2018)	 -7.4%	 -1.3%

Portfolio (top 13 ≈ 80% of book)

3.8% total reduction

Source: Momentum Case Modelling, Public Data Analysis of Portfolio