

Energy Supply Banking Ratios: Implementation Guide

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BloombergNEF

Section 1. Purpose of this document

This guide sets out the series of steps involved in calculating the ratio of low-carbon to fossil-fuel-facilitated financing – known as **the Energy Supply Banking Ratio (ESBR)** – in line with BloombergNEF's *Energy Supply Banking Ratios* report ([web](#) | [terminal](#)).

Where possible, this document outlines a range of possible design choices and scope of data inclusion that an individual bank may wish to consider.

Primary audience

The intended audience for this document includes, but is not limited to:

- **Bank enterprise sustainability teams**, looking to calculate an ESBR either to guide **internal strategy** on climate alignment and grow their low-carbon business, and/or to **report to investors**.
- **Individual bank deal teams**, including but not limited to capital markets, asset/infrastructure finance, tax equity, and sustainable finance, contributing detailed **underlying deal data and figures** to the reporting arm of the bank.
- **Investors and civil society**, aiming to interpret self-reported ratio figures from individual banks and assess the level of alignment or divergence from BNEF research.

Guiding principles for BNEF's chosen approaches

Throughout this document, we outline the choices BNEF has made in the design and calculation of the ESBR. The guiding principles, which we recommend returning to as new choices arise, are as follows:

- **Structural alignment to real economy investment and commonly referenced climate scenarios**: Wherever BNEF has made design decisions on the inclusion of particular sectors or portions of the energy value chain, the guiding principle has been alignment with underlying climate scenarios to enable comparison between current real economy activity, future investment implied by these climate scenarios, and current financial activity.
 - Although this framework is scenario neutral, the reference points for future investment volumes are those implied by climate scenarios that limit global warming to 1.5C with low or no overshoot.
 - Seven scenarios from three institutions with the backing of national governments – the International Energy Agency (IEA), Intergovernmental Panel on Climate Change (IPCC) and Network for Greening the Financial System (NGFS) – were selected. These scenarios imply investment in low-carbon energy supply must average four times as much as for fossil fuels this decade to be on track for 1.5C. That ratio climbs to 6:1 in the 2030s and 10:1 in the 2040s. For more on the underlying analysis, see *Investment Requirements of a Low-Carbon World: Energy Supply Investment Ratios* ([web](#) | [terminal](#)).
 - Though investment in new infrastructure is distinct from financing in several key ways, financial activity directionally tends to reflect the underlying real economy.
- **Relevance to facilitating real-world decarbonization and scaling climate solutions**: With the ESBR, BNEF seeks to introduce a climate metric tied to the important role financial

institutions play in facilitating the broader energy transition. It is BNEF's view that existing metrics for assessing banks' climate progress, such as financed emissions, provide a limited view of the impact banks can have in supporting material real-world decarbonization.

- While financed emissions reporting has served as an important tool for identifying banks' *exposure* to risk-prone heavy-emitting sectors and guiding banks toward decarbonizing their own portfolios, this metric exclusively focuses on the climate 'problem' and provides little indication of banks' growth-oriented role in **scaling climate solutions**. The narrow focus on cleaning up one institution's books on paper can also in practice lead to 'transferring' those heavy-emitting deals and projects to less climate-focused parties willing to finance them.
- When calculating the ESBR, BNEF sought to focus on the role of banks in facilitating capital for low-carbon solutions and place that in the context of their continued support for fossil-fuel companies and infrastructure. This led to the choice to include financing 'flows', or capital underwritten, as opposed to outstanding exposure (in other words, 'stock').

BNEF's data offering for banks' calculation of the energy ratio

In addition to this implementation guide, BNEF will also provide the data necessary to align with our calculation of energy supply-based "adjustment factors," or estimates of the portion of a company's business driven by low-carbon energy and fossil fuels. As described in [Table 2.1 below](#), these adjustment factors are primarily revenue-based and used as a proxy for how a company with business in the energy sector might spend the funds raised through general corporate purpose financing (unlabeled loans, fixed income and equity raises). Adjusting these transactions is core to how BNEF is able to allocate financing to low-carbon energy and fossil fuels when there is no specific use of proceeds or project being financed.

Historically, for the first two iterations of the ESBR report covering 2021 and 2022 financing activity, BNEF used a combination of sources including internal and third-party data to build its adjustment factors database, such as: BNEF's low-carbon capital expenditures for 40 oil and gas majors, BNEF's Clean Energy Exposure Ratings (CEERs), Urgewald's Global Coal Exit List and Global Oil and Gas Exit List, and Bloomberg Industry Classifications (BICS) revenue segmentation.

Moving forward, BNEF will calculate adjustment factors, including fossil-fuel exposure, in-house and plan to share with clients later this year. The publication of both the **Clean Energy Exposure Ratings (CEERs)** and **Fossil-Fuel Exposure Ratings (FFERs)** will enable those banks interested in aligning with BNEF's treatment of the energy company universe to do so.

Clean Energy Exposure Ratings (CEERs) and Fossil-Fuel Exposure Ratings (FFERs)

BNEF's **Clean Energy Exposure Ratings (CEERs)** assess the proportion of a company's revenue derived from clean energy activities, assigning bucketed ratings from A1 (high exposure, or 50-100% of the company's revenue driven by clean energy) to A5 (no exposure, or 0%) for 109,343 companies. Exact non-zero percentage revenue exposures are provided for the 2,658 companies for which detailed revenue reporting breakdowns are available, or estimates can be made using data like unit sales volumes.

Many companies do not report revenue breakdowns or have clean energy exposure that is too small to merit breaking out, or cannot be estimated precisely. So, to further identify as many companies as possible with exposure, we estimate rating categories by leveraging Bloomberg and BNEF non-financial data, such as evidence of clean energy project ownership or business models. In those cases, we are unable to provide a precise percentage value and use

conservative default proxy values (the median of the bucketed rating) for our ESBR analysis.

The bucketed ratings are as follows:

- A1 Main Driver (50-100% clean energy exposure)
- A2 Considerable (25-49% clean energy exposure)
- A3 Moderate (10-24% clean energy exposure)
- A4 Minor (<10% clean energy exposure)
- A5 No Exposure (0% clean energy exposure)

The CEERs include revenues drawn from solar, wind, hydro, nuclear, power grids, energy storage, hydrogen, geothermal, bioenergy and carbon capture. The CEERs also track electrified transport on the energy demand side. This data is already available to BNEF clients via BNEF's *Clean Energy Exposure Ratings: 3Q 2024 Update* ([web](#) | [terminal](#)).

Similarly, BNEF's **Fossil-Fuel Exposure Ratings (FFERs)** will assess the proportion of a company's revenue derived from fossil-fuel activities in a manner similar to the CEERs. This includes revenues from coal, oil and gas exploration and production, refining, distribution and energy generation. The FFERs will also track traditional internal combustion engine vehicles on the energy demand side. Along with the *Clean Energy Exposure Ratings*, this data will be available to BNEF clients in October. In the future, we aim to have this data available both to Terminal clients as a standard data field, as well as in a standalone enterprise dataset for separate purchase.

Section 2. BNEF’s ESBR methodology and corresponding design decisions

This section outlines the main methodological steps, BNEF’s approach, decisions and rationale, and touches briefly on other possible approaches.

2.1. Build universe of issuing companies and calculate issuer-level energy supply adjustment factors

Table 1: Build universe of relevant energy-sector issuing companies

Step	BNEF approach	BNEF rationale	Other possible approaches
1. Define relevant sectors within the energy transition	Our ratio is focused on <i>energy supply</i> . We define relevant sectors along the energy supply value chain as the development, extraction, transportation of primary energy, as well as power generation. This also includes manufacturing of relevant equipment, like turbines or panels.	Alignment to the benchmark 4:1 Energy Supply Investment Ratio (ESIR), derived from seven leading 1.5C climate scenarios. Comprehensively cover important components of the value chain relevant to the transition. The scenarios we rely on do not provide a comparable benchmark for energy demand.	<ul style="list-style-type: none"> Define scope of ratio differently to include energy demand (like transport) or other sectors. Narrow scope to the same universe of companies a bank analyzes in its net-zero portfolio for the power and energy sectors. Standard Industrial Classification for energy.
2. Calculate issuer-based adjustment factors by determining energy-sector activity of individual companies	Where possible, we use the portion of a company’s <i>capital expenditure</i> that maps to relevant sectors. This applies only to oil and gas majors. Where capex data aligned to the sectors laid out in step 1 is lacking (as it is for most companies), we use the portion of a company’s <i>revenue</i> that maps to relevant sectors.	Capex is best aligned with how a company will spend newly raised capital but is not often reported or classified in a standardized way that aligns with granular industry classifications. Revenue is a more backward-looking metric but is more widely available by sector.	<ul style="list-style-type: none"> Treat companies as ‘pure-plays’ – either clean or fossil – and drop adjustment factor methodology.
2.a. Choose data sources for energy-sector adjustment	In the first two iterations of this report, we use BNEF’s <i>Clean Energy Exposure Ratings</i> (CEERs), Urgewald, and Bloomberg Industry Classifications (BICS) revenue exposure. In the next iteration of this report, we will use a new, streamlined BNEF product for <i>Fossil-Fuel Exposure Ratings</i> (FFERs) combined with CEERs. See section 1.3 for more.	Gather as much high-quality data on energy sector exposure as possible. Reduce reliance on several third parties to streamline process.	<ul style="list-style-type: none"> EU Taxonomy capex/revenue alignment. Use alternative data sources that align more closely with banks’ other use cases.
2.b. If using multiple sources, develop a logic to prioritize sources	In the first two iterations of this report, we prioritized the sources in this order: <ul style="list-style-type: none"> BNEF’s tracking of low-carbon capital expenditure by oil and gas majors. BNEF’s <i>Clean Energy Exposure Ratings</i> Urgewald’s fossil-fuel revenue exposure BICS revenue breakdown by sector We then combine the sources up to but not exceeding 100% for a given company. 	Prioritize most well-researched, detailed sources where available, but supplement with broader data to maximize coverage.	

Source: BloombergNEF

2.2. Gather bank-facilitated transaction data

Table 2: Gather bank-facilitated transaction data

Step	BNEF approach	BNEF rationale	Other possible approaches
1. Define scope of financial products and asset classes included	Include debt (bonds, syndicated loans, labeled use-of-proceeds based sustainable debt), equity (initial public offerings and share issuances), project finance and tax equity.	<ul style="list-style-type: none"> • Cover as comprehensively as possible the new capital raised by companies and projects for the energy sector where banks are involved. • Rely on existing commercial databases where possible (except for tax equity). 	<ul style="list-style-type: none"> • Use alternative data sources. <p>Include other financing mechanisms, like:</p> <ul style="list-style-type: none"> – Direct lending and/or bilateral loans – Mergers and acquisitions – Retail lending, such as for solar installations – Other private transactions not reported to public or commercial databases.
2. Collect transaction data for defined issuer company universe	Collect all bonds, loans and equity issued by companies (and subsidiaries), using the Bloomberg Terminal.		
3. Determine attribution or allocation of given deal value to the bank	<ul style="list-style-type: none"> • Rely on Bloomberg LEAG <GO> credit approach to debt transactions. • Borrow Bloomberg IPO <GO> methodology for “number of shares sold” by a given bank for equity transactions. • Use BNEF League Tables and IJGlobal’s approach for project finance transactions. • Tax equity commitment in a given year, collected directly from banks. 	<ul style="list-style-type: none"> • Leverage existing, accepted methodologies where possible and aligned to guiding principles. • Align values (prior to adjusting for energy exposure) with underlying data sources. 	<ul style="list-style-type: none"> • Fees: Apportion deal value to banks by considering the fees charged by each party involved. • Lender approach: For loans specifically, apportion deal by actual amount of money spent off balance sheet. • Alternative league table approach: Assign value to other roles the bank may have played in a given transaction (such as advisory etc.)
4. Collect project finance transaction data for defined sectors	Include all project finance deals for the power and energy sectors from BNEF and IJGlobal. Reconcile with Terminal data to ensure no double-counting.	All energy supply assets are in scope.	Use alternative data sources.
5. Supplement with other relevant financial products and asset classes	<ul style="list-style-type: none"> • Collect all labeled sustainable debt issuances with any energy-related use of proceeds, regardless of issuer. None of these transactions are treated as fossil-fuel. The low-carbon portion is adjusted using the portion of use of proceeds that are energy-related (in other words, solar, wind or hydro). • Gather tax equity data from banks directly. 	<ul style="list-style-type: none"> • Energy-related projects funded through labeled sustainable debt are in scope, no matter the issuing company. • Tax equity market is concentrated enough to collect data directly from key players (no commercial or public data exists). 	See step 1.

Source: BloombergNEF

2.3. Adjust and aggregate data to a final ratio

Table 3: Adjust and aggregate data to a final ratio

Step	BNEF approach	BNEF rationale	Other possible approaches
1. Apply issuer adjustment factors for general corporate purpose transactions	Multiply issuer company adjustment factors by bank league credit for each transaction to arrive at a dollar value of low-carbon and fossil-fuel portion.	Proxy portion of capital raised that could be invested in low-carbon and fossil-fuel segment of the company's business.	Treat companies as 'pure plays' and drop adjustment factor methodology.
2. Adjust use-of-proceeds-based sustainable debt	Assume an even split of deal value by listed use-of-proceeds ESG project subcategories. Multiply percentage of energy supply-related categories (in other words, solar, wind, storage, etc.) by deal value.	Estimate portion of capital raised that could be used for low-carbon energy supply – rather than other sustainability purposes (social, water management, agriculture, etc.).	<ul style="list-style-type: none"> Do not adjust sustainable debt, or include full value toward low-carbon. Use an alternative assumption around energy-related portion of use of proceeds, like gathering historical data for that issuer from green bond impact reporting.
3. Aggregate final data to an Energy Supply Banking Ratio	Sum the adjusted low-carbon and fossil-fuel values for each individual deal facilitated by the given bank and take the ratio.		

Source: BloombergNEF

Conclusion

For the calculation and presentation of an energy supply banking ratio to be complementary to existing sustainable finance and financed emissions reporting, it would ideally be underpinned by

- Alignment to real-economy investment and commonly referenced climate scenarios.
- Relevance to facilitation of real-world decarbonization and scaling climate solutions.

About us

Contact details

Client enquiries:

- Bloomberg Terminal: press [<Help>](#) key twice
- Email: support.bnef@bloomberg.net

Katrina White	Senior Associate, Sustainable Finance	kwhite202@bloomberg.net
Ryan Loughhead	Associate, Sustainable Finance	rloughhead1@bloomberg.net
Jonas Rooze	Manager, Sustainability and Climate	jrooze@bloomberg.net

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