
2024

Energy Supply Financing Ratio Methodology

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1. Introduction

This paper provides details of the methodology currently used by JPMorgan Chase & Co. (“JPMC,” “we” or the “Firm”) for calculating its Energy Supply Financing Ratio (ESFR). The ESFR is an example of a climate-related disclosure metric that compares the amount of a bank’s financing – including direct financing provided through balance sheet lending, tax-oriented investments and facilitation of capital markets activity – supporting low-carbon-intensive and zero-carbon (referred to as “Low-Carbon”) energy supply versus that supporting high-carbon-intensive and unabated fossil-based (referred to as “High-Carbon”) energy supply. While this disclosure metric can provide more insight into the capital that we are providing, we are not targeting a specific ratio with which to align our financing.

The decision to disclose this ratio was made following engagement with our shareholders including the New York City Comptroller, which serves as the Trustee for each of the New York City Public Pension Funds. Although there have been external efforts to develop and use financing ratios to broadly characterize energy-related financing activity in our industry, we believe designing, measuring and disclosing a Firm-specific financing ratio has several advantages. By utilizing internal data on the specifics of financing activities, which may not be available to data vendors, we can provide more granular insight into the categorization of our financing as Low-Carbon and High-Carbon. Furthermore, by customizing key aspects of the design, such as taking a forward-looking and investment-focused approach, we can provide more insight into how the financing we provide is being used toward investments in Low-Carbon energy supply.

In developing the ESFR, we have relied on the following key principles:

- **Investment-focused:** The primary objective of the ESFR is to provide insight into the relative flow of capital supporting investments in Low-Carbon versus High-Carbon energy supply. To achieve this, we have designed our methodology to: (i) rely on forward-looking investment-related information to estimate how our financing is apportioned between Low-Carbon and High-Carbon investments; and (ii) approximate the amount of our financing that supports investments in energy supply and exclude financing that is used for other corporate purposes.
- **Robust and consistent data:** Our calculations rely on the use of a combination of internal and external data sources. This includes detailed internal information on financing transactions and subsidiary/corporate structure information, as well as well-reported and standardized data from credible external sources.
- **Insightful:** A well-designed ESFR should have informational value for both internal and external stakeholders. For example, through careful selection of boundaries for included sectors and financing instruments, we have sought to closely align the ESFR both with the specific nature of our energy-related financing business and with how we seek to address climate issues more broadly.
- **Transparent:** We disclose relevant details of the ESFR methodology approach, intending to be clear and credible to interested stakeholders. We may make enhancements over time as a result of evolutions in our strategy, metrics, targets, and frameworks; availability of new data; industry best practices; stakeholder feedback; or other external factors.

The ESFR disclosure can provide insight into capital formation in the real economy, but it also has limitations. First, it is a disclosure metric, not a mechanism to drive energy transition. Banks operate in competitive markets and do not control the absolute or relative level of financing opportunities available for energy supply. Rather, the energy transition is driven by a range of factors largely outside of an individual bank's control, including the implementation of policy mechanisms, technological advancements and changing consumer preferences. Second, while this metric can provide further insight into financing we are providing, it is not a direct proxy for decarbonization activity happening in the economy, or for total energy supply investment dollars. Financing provided by banks only reflects a portion of the total capital being deployed by companies engaged in the supply of energy to power the global economy. Capital provided through companies' retained earnings, state and federal governments, venture capitalists and private equity firms also plays a key role in supporting the investment needs of energy supply sectors. We aim to support the energy transition while recognizing the need to continue supporting traditional energy sectors to help their decarbonization efforts and promote global energy security, availability, affordability, and accessibility. We are focused on helping our clients achieve their business objectives, including their efforts to responsibly reduce their emissions today, while diversifying their use of different energy sources over time.

The ESFR is designed to align with our climate-related targets, including our 10-year, \$1 trillion Green objective to support climate solutions and other green initiatives – part of our \$2.5 trillion Sustainable Development Target – and our net zero-aligned targets. However, given the differing aims of the ESFR and our targets, there is some divergence in scope and approach; see Appendix for additional details. For more information, see our [Carbon Compass®](#) methodology, [Our Approach to Our Sustainable Development Target](#) and our most recent firmwide Climate Report, available in the Reports and Disclosures section on our [Sustainability](#) webpage.

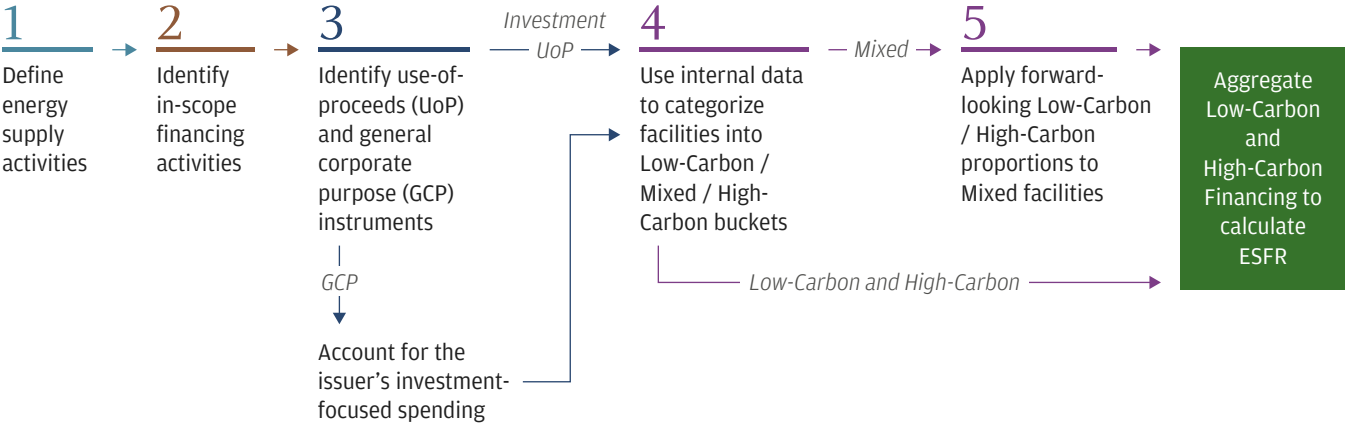
2. Overview of Our Approach

Consistent with the guiding principles outlined in the Introduction, JPMC’s ESFR disclosure metric has been tailored to align with the Firm’s climate strategy, which involves supporting global efforts toward net-zero outcomes while balancing energy access, reliability, security and affordability.

The design process included the following steps:

1. Selecting an appropriate boundary for energy supply sectors and determining which activities are classified as Low-Carbon or High-Carbon;
2. Identifying financing activities to include;
3. Isolating the share of financing most directly associated with the investments companies are making;
4. Classifying financing instruments based on the activity(ies) they support (Low-Carbon, High-Carbon or Mixed, which requires us to apportion our financing into the Low-Carbon and High-Carbon categories); and
5. Developing a forward-looking method for allocating Mixed financing between Low-Carbon and High-Carbon investments.

ESFR PROCESS DIAGRAM



Our approach leverages a combination of internal and external data, enabling us to include relevant financing, identify the investment-focused portion of financing and better allocate shares of Mixed financing facilities to either the Low-Carbon or High-Carbon portions of the ratio.

The table below provides a summary of key elements of the design of the ESRF. For additional details on each component, see Section 3.

		DESIGN CHOICE	NOTES
ENERGY SUPPLY BOUNDARY DEFINITION	Low-Carbon Energy Supply	Zero- and low-carbon power generation Low-carbon fuels Carbon capture, utilization, and storage (CCUS) Electricity networks Energy storage	Consistent with boundary used in the International Energy Agency's (IEA) World Energy Investment analysis ¹
	High-Carbon Energy Supply	Oil & Gas (O&G) upstream, midstream, and refining (including integrations) Coal mining and transportation Coal-, oil- and natural-gas-based power generation	
SCOPE OF FINANCING ACTIVITIES	Lending Products	Syndicated lending ² Bilateral lending Project finance Green loans	Includes JPMC's share of these financing and facilitation activities during the calendar year (CY) for which the ratio is being calculated ³
	Facilitation Activity	Debt underwriting Green bonds Equity underwriting Private capital underwriting	
	Investment Types	Tax-oriented investments	
INVESTMENT-FOCUSED PORTION OF FINANCING	Low-Carbon Investment/ Use-of-Proceeds (UoP) Financing	Tax-oriented investments, green bonds, and green loans are treated as investment-specific financing and credited to the ratio as 100% Low-Carbon	These financings can be tied directly to capital investment in energy supply activities
	Project Financing	Project financing is treated as investment-specific financing and either 100% Low-Carbon or 100% High-Carbon based on the underlying asset	
	General Corporate Purpose (GCP) Financing	For GCP instruments, we only include pro-rata share of the company's overall capital spending that was allocated toward capital expenditure (capex) and cash-based mergers and acquisition (M&A) activity during the CY	We estimate the investment-related portion of financing, given that not all proceeds raised are allocated exclusively to making investments
LOW-CARBON / HIGH-CARBON ALLOCATION APPROACH	Low-Carbon / High-Carbon Bucketing	North America Industry Classification System (NAICS) codes determine which lending facilities should be treated as 100% Low-Carbon or 100% High-Carbon	We leverage internally available information on the issuer and UoP to bucket facilities If financing is provided directly to a subsidiary solely focused on one or more energy supply activities, it is included in its entirety as either 100% Low-Carbon or 100% High-Carbon
	Mixed Bucketing	Mix facilities include: (i) lending facilities without a clear investment-focused UoP; and (ii) all facilitation activity, excluding green bonds. The issuer's capex and assets under development are used to determine the Low-Carbon % / High-Carbon % split to be applied to our financing	We leverage external data to estimate the proportion of our financing that is reflective of issuers' Low-Carbon and High-Carbon energy supply activities This is especially relevant for financing provided to power companies with zero- or low-carbon and fossil-based generation, integrated O&G companies, diversified companies, conglomerates and holding companies

1 [IEA World Energy Investment 2024](#)

2 Represents retained credit exposure from loan syndications

3 New originations and refinancings between Jan 1 and Dec 31 of the calendar year

3. Methodology Detail

This section provides a detailed discussion of key elements of our approach, including their underlying rationale and impact on the ESFR. Our aim is to provide further insight into how we have constructed the ESFR and to provide an insightful metric for our stakeholders that is also consistent with how we make financing decisions.

3.1 Energy Supply Boundary Definition

In establishing the exposure boundary for the ESFR, we considered what parts of the energy system should be included. We are involved in financing a wide variety of energy-related activities that are relevant to maintaining the affordability and security of the existing energy supply as well as enabling the transition to lower-carbon sources.

		CATEGORY	ACTIVITY	NOTES	
ENERGY SUPPLY BOUNDARY DEFINITION	Low-Carbon Energy Supply	Low - and Zero-Carbon Power Generation	Solar (photovoltaic, concentrated solar power, solar thermal)	Consistent with boundary used in IEA's World Energy Investment analysis ⁴	
			Wind (onshore and offshore)		
			Geothermal		
			Hydropower		
			Marine		
			Nuclear		
			Bioenergy		
			Fossil-fuel power with CCUS		
			Electricity Networks		Transmission and distribution Public EV chargers
			Energy Storage		Utility-scale and buildings
	Low-Carbon Fuels	Biogases			
		Liquid biofuels			
		Hydrogen production			
CCUS	CO ₂ capture, transport, storage, and utilization				
High-Carbon Energy Supply	Oil & Gas	Upstream (exploration and production)			
		Midstream (pipelines and LNG)			
		Refining			
	Fossil-Based Power Generation	Coal-fired power			
		Gas-fired power			
		Oil-fired power			
	Coal Supply	Coal mining Coal transportation			

⁴ [IEA World Energy Investment 2024](#)

Within the Low-Carbon energy supply sector, we include all low- and zero-carbon power generation (e.g., solar, wind, geothermal, nuclear, abated fossil-based generation); biofuels; hydrogen production; CCUS; energy storage; and electricity networks. Within the Fossil energy supply sector, we include unabated coal-, oil-, and natural-gas-based power generation; Oil & Gas upstream, midstream and refining; and coal mining and transportation. This boundary is consistent with that used by IEA's annual World Energy Investment report. Excluded from our boundary (and IEA's) are energy-efficiency and end-use sectors (e.g., buildings and industry, transport), as our focus is only on energy supply activities.

This boundary is also broadly consistent with our climate-related targets, including our net zero-aligned targets – specifically, Energy Mix for the Oil & Gas and Electric Power Generation sectors – as well as the energy-related criteria of the \$1 trillion Green objective of our Sustainable Development Target.

Other activities such as energy-related manufacturing (e.g., wind turbines, batteries, power generation equipment, oilfield chemicals) were considered but ultimately excluded in favor of a supply-focused approach. A key consideration is that energy-related manufacturing and supply chain activities can be complex, and poor data availability would make it difficult to determine how they contribute to energy supply. We will continue to monitor developments in data availability and consider revisiting these choices in the future.

3.2 Scope of Financing Activities

To calculate the ESFR, we include lending, tax-oriented equity and capital markets (i.e., “facilitated”) activity, as this approach encompasses all financing activity through which we meaningfully support the energy supply. One challenge with industry-wide or generic financing ratios is the potential for undercounting relevant financing, as commonly available data sources do not capture non-public activities. By calculating a Firm-specific ratio, we have the ability to include relevant non-public financing activities and instruments, including bilateral loans and capital markets activity.

	DESIGN CHOICE	NOTES
SCOPE OF FINANCING ACTIVITIES	Lending Products	Syndicated lending ⁵ Bilateral lending Project finance Green loans
	Facilitation Activity	Debt underwriting Green bonds Equity underwriting Private capital underwriting
	Investment Types	Tax-oriented investments

Includes JPMC's share of these financing and facilitation activities during a CY for which the ratio is being calculated⁶

For lending, the ESFR captures newly originated facilities as well as those refinanced during the calendar year for which the ratio is being measured. We include these facilities on a committed basis rather than just outstanding balances to better reflect the total amount of capital made available to clients for investments. Our in-scope lending portfolio also includes all GCP instruments, including revolving credit facilities and asset-based lending facilities, as these also contribute to the total pool of capital available to companies for investments. For facilitated activity, we use 100% attribution of our share of the transaction size for deals originated during the calendar year for which the ratio is being measured. Lastly, our financing includes the tax-oriented investments we provide as well as the portion we syndicate to other investors. Tax-oriented investments enhance the economics of renewable energy projects and are part of how we support investment in new renewable energy supply.

5 Represents retained credit exposure from loan syndications
 6 New originations and refinancings between Jan 1 and Dec 31 of the calendar year

3.3 Investment-Focused Portion of Financing

A key feature of our approach is our focus on isolating the share of our financing activities that support real-world investment in energy supply. This requires treating different forms of financing differently based on whether they are inherently investment-focused or can be used for multiple purposes.

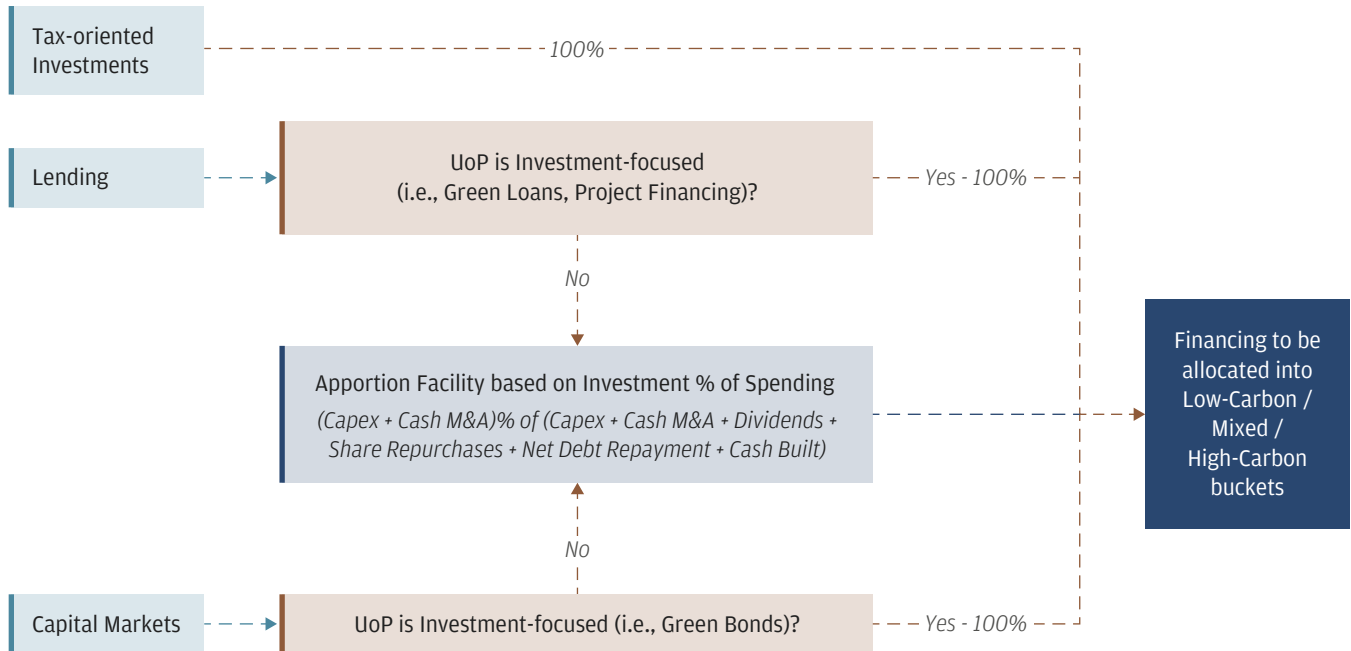
		DESIGN CHOICE	NOTES
INVESTMENT-FOCUSED PORTION OF FINANCING	Low-Carbon Investment/ UoP Financing	Tax-oriented investments, green bonds, and green loans are treated as investment-specific financing and credited to the ratio as 100% Low-Carbon	These financings can be tied directly to capital investment in energy supply activities
	Project Financing	Project financing is treated as investment-specific financing and either 100% Low-Carbon or 100% High-Carbon based on the underlying asset	
	GCP Financing	For GCP instruments, we only include pro-rata share of the company's overall capital spending that was allocated toward capex and cash-based M&A activity during the year in focus	We estimate the investment-related portion of financing, given that not all proceeds raised are allocated exclusively toward investments

Tax-oriented investments, green bonds and green loans are treated as investment-specific financing and allocated as 100% Low-Carbon. Green-labeled products can be used for a variety of projects and purposes beyond just energy supply activities. To account for this, we assume an even split of JPMC's share of the deal value by listed UoP subcategories and only include the energy supply-related portion. Project financing is also treated as investment-specific financing and allocated as either 100% Low-Carbon or 100% High-Carbon based on the underlying asset.

In contrast, GCP lending and general traditional capital markets activity can be put to a variety of uses, so they do not on their own provide an accurate picture of investment-related financing. Simply excluding these instruments would significantly understate the total financing we provide in support of energy supply. Conversely, including them in their entirety would overstate their impact on such investment. We therefore seek to account for only the investment share of such facilities, as we believe that the ESFR should provide insight into the relative flow of capital supporting real-world investment in Low-Carbon and High-Carbon energy supply.

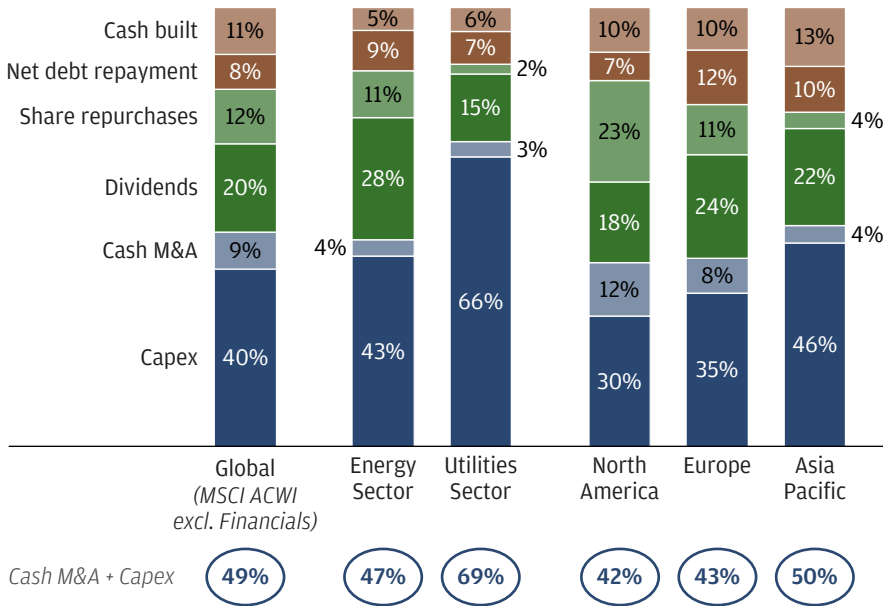
To do so, we assume that the external GCP financing raised by companies and the cash they generate from operations are proportionally credited in line with their capital spending, including capital spent on investment activities. Using a combination of third-party (e.g., FactSet, S&P Capital IQ), internal and company-reported data, we tabulate how each issuer has deployed capital in three general ways: investment (capex and cash M&A), payout (dividend payments and share repurchases) and balance sheet management (net debt repayment and building cash on the balance sheet). We then scale our share of financing based on the investment share of each issuer's overall capital spending.

INVESTMENT-FOCUSED FINANCING CALCULATION



These calculations are done on a company-by-company basis. Where financial information is not available, we use the median of investment share for other companies included in the ESRF from the same subsector as a proxy.

2023 CAPITAL SPENDING BY COMPANIES IN THE MSCI ACWI INDEX



As illustrated by the figure, the investment share of capital allocation varies by sector, region and over time. At present, a larger proportion of our financing to smaller or newer companies is focused on investing activities compared to large, well-established companies that balance making investments with shareholder distributions and balance sheet management.

Source Data: FactSet as of Sep, 2024. **Note:** Metrics computed as the sum of spending in each category by the underlying index members as of 12/31/23. Chart represents the proportion of total spending allocated to each category (capex, cash M&A, dividends, share repurchases, net debt repayment, and cash built) during 2023.

By design, this approach aims to include a larger proportion of our GCP financing in the ratio when companies invest a larger share of their capital. This reflects our view that giving \$1 of GCP financing to a company more focused on investing activities should have a greater effect on the ESFR than when that \$1 is given to a company with a broader set of capital spending priorities, irrespective of whether the financing is counted toward the numerator or the denominator.

3.4 Low-Carbon / High-Carbon Allocation Approach

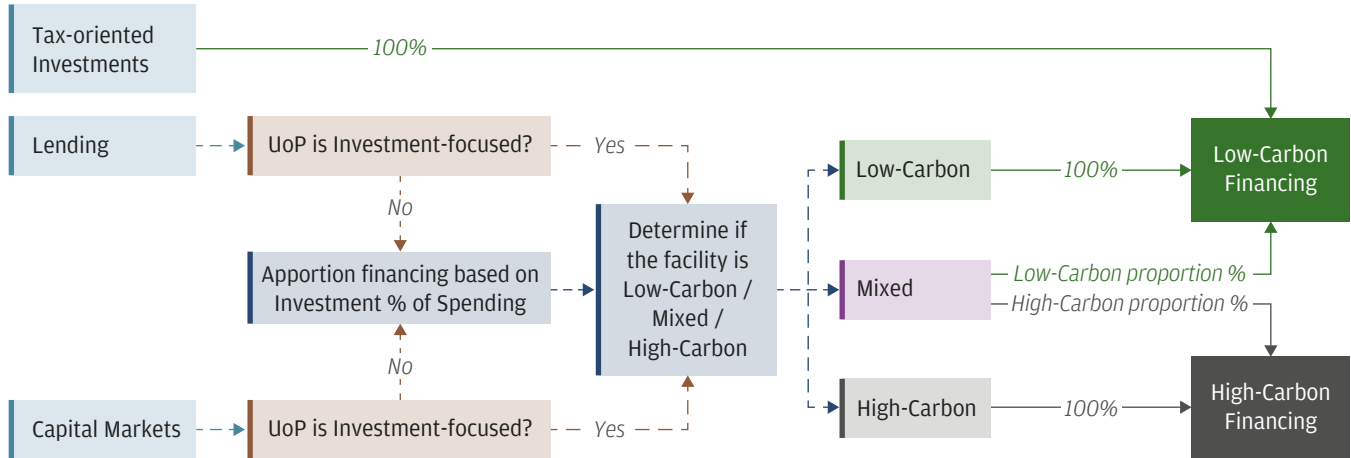
To allocate in-scope financing to either the numerator (Low-Carbon) or denominator (High-Carbon) of the ESFR, we use a combination of internal and external data. For companies we finance that are only engaged in either Low-Carbon or High-Carbon energy supply activities, we are able to directly allocate financing to one of these buckets. For companies that are involved in both Low-Carbon and High-Carbon energy supply sectors, we use forward-looking external data to apportion our financing into the relevant buckets of the ESFR.

	DESIGN CHOICE	NOTES
LOW-CARBON / HIGH-CARBON ALLOCATION APPROACH	Low-Carbon / High-Carbon Bucketing	<p>NAICS codes determine which lending facilities should be treated as 100% Low-Carbon or 100% High-Carbon</p> <p>We leverage internally available information on the issuer and UoP to bucket facilities</p> <p>If financing is provided directly to a subsidiary solely focused on one or more energy supply activities, it is included in its entirety as either 100% Low-Carbon or 100% High-Carbon</p>
	Mixed Bucketing	<p>Lending facilities without a clear investment focused UoP and all facilitation activities (excluding green bonds) are treated as Mixed facilities. The issuer’s capex and assets under development are used to determine the Low-Carbon % / High-Carbon % split to be applied to our financing</p> <p>We leverage external data to estimate the proportion of our financing that is reflective of issuers’ Low-Carbon and High-Carbon energy supply activities</p> <p>This is especially relevant for financing provided to power companies with zero- or low-carbon and fossil-based generation, integrated O&G companies, diversified companies, conglomerates, and holding companies</p>

With this calculation, our access to detailed internal data allows for improvement in the accuracy of the allocations into Low-Carbon and High-Carbon. An industry-wide ratio, or one calculated with higher-level publicly available data, will likely provide an incomplete picture. For example, if a borrower is a subsidiary and owner of a single Low-Carbon asset and its parent company is involved in multiple energy supply sectors, allocating the financing using the parent’s involvement in energy supply activities can distort the categorization of the financing to the subsidiary (Low-Carbon, High-Carbon or Mixed). With our approach, the ability to use more granular internal data helps address this challenge.

For our lending activity, we first identify those facilities that can be allocated as either 100% Low-Carbon or 100% High-Carbon, based on NAICS codes. The availability of internal issuer and certain UoP information is helpful, as it enables better estimation of financing flowing to specific activities, such as to individual subsidiaries of larger companies. Remaining lending facilities and all facilitated financing (other than green bonds) are treated as Mixed financing; this includes companies involved in both Low-Carbon and High-Carbon energy activities, as well as diversified companies, conglomerates and holding companies.

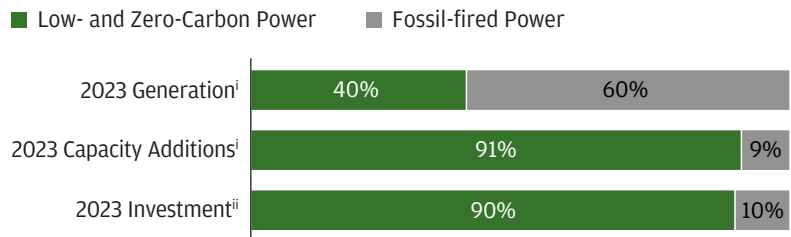
LOW-CARBON/HIGH-CARBON ALLOCATION PROCEDURE FOR IN-SCOPE FINANCING



For Mixed facilities, external data is used to determine the Low-Carbon and High-Carbon proportions to be applied. Where available, we use forward-looking investment data – either through capex or assets under development – to derive these proportions as it better reflects where companies are actually making investments. This is in contrast to more widely used approaches that predominantly rely on backward-looking revenue data or existing fleet of assets.

The example of the power sector helps to illustrate the difference between these approaches. Looking to generation data as a proxy for revenue suggests that ~40% of the sector’s generation activity is Low-Carbon. Conversely, examining where the sector has invested capital over the past year suggests that ~90% has been directed to Low-Carbon. The difference between these Low-Carbon proportions can result in meaningful differences in calculated ESFR values.

GLOBAL POWER SECTOR GENERATION, CAPACITY ADDITIONS, AND INVESTMENT ACTIVITY



ⁱ Source: IEA World Energy Outlook (WEO) 2024; ⁱⁱ Source: IEA World Energy Investment 2024; Note: Low- and Zero-Carbon Power includes renewables, nuclear, fossil fuels with CCUS and other renewables; Fossil-fired Power includes unabated coal, unabated gas, unabated oil and other non-renewables

Where no capex or asset data are available, we use a waterfall approach to determine the appropriate split between Low-Carbon and High-Carbon. Specifically, existing asset base, revenue or activity-specific proxies are used, if available; otherwise, the facility is treated conservatively and allocated 100% to High-Carbon. Information sources for these calculations include third-party data providers (e.g., FactSet, S&P Capital IQ, CDP) and company-reported data.⁷

For large Mixed companies, we acknowledge that bias may arise in the Low-Carbon proportions that result from treating their investment-focused financing (such as green bonds or tax-oriented investments) and dedicated Low-Carbon subsidiaries as 100% Low-Carbon and applying their overall Low-Carbon / High-Carbon proportions to their GCP financing. To account for this, we cap the Low-Carbon proportion we apply by incorporating the share of their capex spent on Low-Carbon energy supply investments and how much Low-Carbon financing we have already accounted for in the ratio through their investment-focused financing and Low-Carbon subsidiaries.

⁷ Data inputs are typically matched with the period of the ratio’s measurement; however, in some instances data availability may necessitate the use of slightly older data. For example, CDP data is typically reported on a one-year delayed basis, which means our ratio in some instances uses inputs from a previous year’s CDP reporting period

4. CY 2023 ESFR Calculation

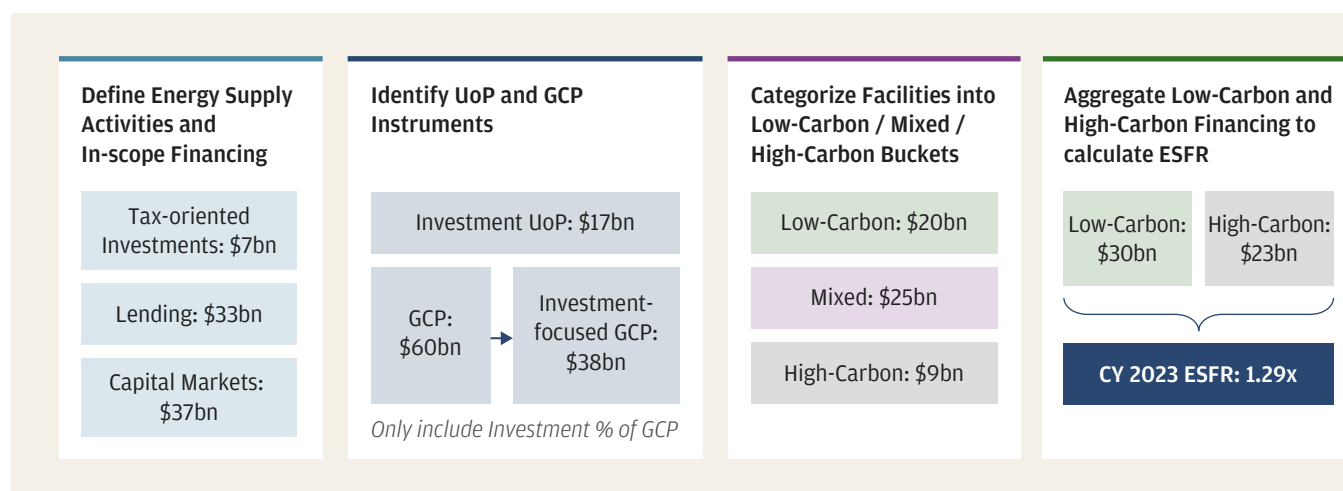
In the previous section, we outlined details of the design choices underlying JPMC’s ESFR calculation approach. Our approach is the result of three key design choices:

1. **Use consistent and well-reported internal and external data**, increasing the accuracy of how financing is categorized into the Low-Carbon and High-Carbon buckets.
2. **Apply an investment-focused lens to our financing of energy supply**, isolating the investment portion of our financing when it is not a dedicated UoP facility.
3. **Take a forward-looking view**, reflecting how our clients are investing in building out future energy supply, irrespective of their current asset base.

We believe these design choices are embedded in our methodology, which aims to reflect how our financing relates to the investment flows across global energy supply. The table below provides a summary of what this means in practice, including how each type of included financing is allocated to the Low-Carbon and/or High-Carbon portions of the ratio, and where capital allocation percentages are applied to account for the investment-focused portion of GCP financing.

	INSTRUMENT	% FINANCING INCLUDED	LOW-CARBON %	HIGH-CARBON %
INVESTMENT UOP FINANCING	Green Bonds / Loans	Energy Supply %	100%	0%
	Tax-oriented Investments	100%		
	Project Financing	100%	0% or 100% <i>(depending on underlying asset)</i>	100% or 0%
GCP FINANCING	Low-Carbon Credit	Investment % of Total Spending	100%	0%
	High-Carbon Credit		0%	100%
	Mixed Credit			
	Capital Markets (excl. Green Bonds)		Low-Carbon %	High-Carbon %

For the year ended December 31, 2023, this approach has resulted in an ESFR of 1.29x. This implies that, similar to the ratio of global investment in Low-Carbon vs. High-Carbon, the financing we provided to low- or zero-carbon energy supply activities was larger than that provided to fossil-related activities during the year. The underlying components of the aggregated ESFR, including the totals for Low-Carbon and High-Carbon financing, are summarized below.



5. The Case for a Technology-Enabling ESFR

As noted in the Introduction, two of the guiding principles for our approach are for the ESFR to be investment-focused and insightful to internal and external stakeholders. We believe our methodology effectively prioritizes these attributes, particularly by focusing on external financing that is being used to build out future energy supply.

Our methodology, similar to those published by others to date, allocates all energy supply financing into the Low-Carbon or High-Carbon category. While this is a reasonable starting point, it does not recognize that each technology (or fuel) within the Low-Carbon and High-Carbon categories has different emissions impacts and financing needs. For this reason, we believe there is value in considering the concept of a Technology-Enabling ESFR, as an enhancement to the current framing of banks' ESFRs, in which the numerator and denominator are adjusted to account for these critical variations across different energy sources.

Such an approach would reflect that each technology has different capital needs relative to how the world is currently investing in it. For example, in IEA's Net Zero Emissions by 2050 Scenario (NZE), Low-Carbon technologies are expected to grow rapidly to meet a greater share of total energy demand, which will require a significantly higher rate of capital investment than they currently receive. There are also variations in the capital requirements for individual technologies. For example, according to IEA's NZE Scenario, technologies like renewable power generation and electric grids require only a modest increase relative to the current pace of investment, while hydrogen and CCUS need a much more significant increase.

Currently, the lack of available data is a major challenge in calculating a Technology-Enabling ESFR, but overcoming this may provide more real-world insights into the pace of capital formation across different sources of energy supply. We welcome feedback from different stakeholders on this topic.

Appendix

Alignment with Carbon Compass[®]

Another key area of JPMC's climate strategy is our net zero-aligned 2030 portfolio-level carbon intensity targets for eight high emitting sectors. Below is a summarized comparison of the boundaries we use to construct our ESFR disclosure metric with those used for Carbon Compass[®], which covers the methodology used to construct our portfolio targets.

		JPMORGAN CHASE ESFR	JPMORGAN CHASE CARBON COMPASS [®]
ACTIVITY BOUNDARIES	Low-Carbon Energy Supply	Low- and zero-carbon power generation	Electric Power portfolio
		Electric networks	<i>Not covered</i>
		Energy storage	<i>Not covered</i>
		Low-carbon fuels	O&G Operational and Energy Mix portfolios
		CCUS	Energy Mix portfolio ⁸
	High-Carbon Energy Supply	Oil & Gas upstream	O&G Operational and Energy Mix portfolios
		Oil & Gas midstream	<i>Not covered</i>
		Oil & Gas refining	O&G Operational and Energy Mix portfolios
		Coal-, oil-, gas-fired power generation	Electric Power portfolio
		Coal mining	Restricted activity ⁹
		Coal transportation	<i>Not covered</i>
FINANCING BOUNDARIES	Lending Products	✓	✓
	Facilitation Activity	✓	✓
	Tax-Oriented Investments	✓	✓
	Accounting of Financing	JPMC's share of facilities originated or refinanced during a CY	JPMC's share of committed lending (12-mo avg), capital markets (3-yr avg) and tax-oriented investments
	General Corporate Purpose Financing	Only include the investment % of the facility (based on investment % of overall capital spending)	✓

8 Only CCUS activity by in-scope companies is currently captured. Does not include standalone CCUS companies at this time.

9 Coal mining is included in our list of restricted activities. Specifically: (i) We will not provide project financing or other forms of asset-specific-financing where the proceeds will be used for new coal mine development or for the acquisition, expansion and/or refinancing of an existing coal mine; (ii) We will not provide financial services to clients deriving the majority of their revenues from the extraction of coal; and (iii) We will not provide financial services to coal mining clients involved in mountaintop mining.

Abbreviations

CAGR	compound annual growth rate
capex	capital expenditure
CCUS	carbon capture use and storage
CDP	Carbon Disclosure Project
CY	calendar year
ESFR	Energy Supply Financing Ratio
EU	European Union
EV	electric vehicle
GCP	general corporate purpose
IEA	International Energy Agency
JPMC	JPMorgan Chase
LNG	liquid natural gas
M&A	merger and acquisition
NAICS	North American Industry Classification System
NZE	net zero emissions
O&G	Oil & Gas
PV	photovoltaic
S&P	Standard & Poor's
UoP	use-of-proceeds

Disclaimer

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