BANKING ON-BUSINESS AS USUAL:

The energy finance imbalance.







STAND









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DISCLAIMER

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EXECUTIVE SUMMARY

Between 2021 and 2024, the 65 biggest banks globally allocated to fossil fuels more than twice the amount of money allocated to sustainable power supply. Only 1,368 billion dollars financed sustainable power supply while 3,285 billion dollars financed fossil fuels. i.e. a ratio of 0.42:1.

Concretely, only 42 cents went to sustainable power supply for each dollar they allocated to fossil fuels. A figure far from the 6:1 ratio by 2030 - indicated by the International Energy Agency (IEA) in its Net Zero Emissions (NZE) scenario - and even the more conservative 4:1 ratio articulated by Bloomberg New Energy Finance (BNEF), to which banks have become increasingly attentive and receptive, especially in North America. This raises serious doubts about the ability of banks to align their activity with a decarbonization trajectory, and to reach net zero by 2050.

This ratio remained almost flat during the analyzed period.

Over 2021-2024, the annual value passes successively from 0.40:1 to 0.41, 0.45 then 0.42. A closer look at financial flows for sustainable power supply shows that they have followed the same fluctuations as financial flows for fossil fuels. Both decrease annually between 2021 and 2023, then increase in 2024 to return close to 2021 levels. Yet, aligning with a net-zero trajectory requires cutting annual financing to fossil fuels by 60% by 2030, with the immediate end to all support to their expansion, while doubling annual financing to their alternatives. The fact that the ratio did not increase over the past four years reveals that banks have not even started to align their energy financing with a net-zero trajectory.

Yet, in the race where all banks are late, there are significant disparities.

European banks stand out, even though they are still nowhere near what is necessary. Almost all are in the top half of the ranking, with a regional ratio of 0.70:1 over the period. At the bottom of the ranking, Japanese banks (0.35), US banks (0.25), and Canadian banks (0.22) are still actively delaying the energy transition.

Financing for sustainable power supply is heavily concentrated in a few countries.

93% of financing allocated to sustainable power supply is tapped by companies and projects based in OECD countries and China. This illustrates a problem raised also by the IEA: "emerging markets and developing economies (EMDE) represent one third of global GDP, two third of global population, but only 18% of clean energy investments"³. This concentration is highly problematic as the transformation must be global and EMDEs have even greater needs for financing.

Banks recognize the importance of addressing the transformation of the power sector but do not demonstrate how they intend to align their financing activities with a net-zero trajectory.

So far, many banks have set intensity targets for the power sector but very few demonstrate how this will influence the way they finance the sector, starting with setting a financing target based on a scope centred on sustainable solutions, and linked to an Energy Supply Financing Ratio (ESFR). Only 8 banks set a financing target dedicated to the power sector and only 4 banks are publishing their ESFR.

What is

THE ENERGY TRANSITION?

The "energy transition" is a catchall concept encompassing technical issues; this section aims to clarify the meaning of certain terms that are sometimes used in ambiguous manner, for this report.

Generally, "energy transition" refers to a progressive shift from the existing (fossil-based) energy system to a new system, whose scope is often unclear and subjective. In the context of this report, the "energy transition" refers to a radical transformation of the energy system, in particular for energy supply where sustainable power rapidly replaces fossil fuels (and is not added to them) in a timeline compatible with a net-zero trajectory by mid-century, with low or no overshoot and limited reliance on "negative emissions". Among such scenarios, the International Energy Agency (IEA)'s Net Zero Emissions (NZE) scenario is the most referenced, providing a 50% probability of reaching climate objectives based on the emergence of a "clean energy supply" system, mostly based on clean power¹.

However, "clean energy" includes technologies that extend our reliance on fossil fuels, such as hydrogen produced using fossil fuels, or that are incompatible with a rapid and just energy transition, such as biomass or nuclear energy. It also bets on the use of immature technologies that are non-existent at a commercial scale, such as carbon capture, use

and/or storage (CCUS). Those technologies, whose development is uncertain, are associated with damaging social, environmental and climate impacts or risks.

Hence we highlight the need to focus our efforts on sources and technologies that are available at scale, rapid to deploy, and have minimal impact on human communities and ecosystems. We refer to such solutions as "sustainable"².

Focusing on sustainable power supply increases the chances of success and does not detract from the relevance of aligning with the investment targets set out in the NZE scenario.

In particular, this report focuses on sustainable **power "supply"**, which encompasses power generation (technologies used to generate power, such as wind turbines or solar panels) and power provision. The latter includes technologies used to distribute power from where it is generated to where it is consumed and to improve flexibility of the grids. This includes battery storage, seasonal storage, expansion and modernization of power grids, interconnections, and such. Sectors linked to end-uses, such as transport, buildings or industry, are not included.





The transition is not yet fast enough or fair enough.

Antonio Guterres, UN Secretary-General, July 22, 2025



What is

THE ENERGY SUPPLY FINANCING RATIO?

The IEA's NZE scenario outlines a pathway to achieve carbon neutrality by 2050 and limit global warming to 1.5°C. To reach this goal, two major shifts in global annual energy investment are required by 2030, compared to 2023 levels:

- Fossil fuel investments must decrease by 60%, falling to US\$ 0.4 trillion annually.
- Investments in clean energy (mostly power) supply must double to US\$ 2.5 trillion annually.

Together, these trends create an Energy Supply Financing Ratio (ESFR) of 6:1 by 2030. This means that for every dollar invested in fossil fuels, six dollars are invested in power generation from renewables (mainly solar and wind), grids, and battery storage⁴.

While the 6:1 ratio is a global benchmark for companies' investments, not banks' financing, it still sets a relevant reference for banks that commit to align their energy financing with net-zero goals. Indeed, as capital providers, banks enable and steer investments through their financing products and services. The IEA states⁵: "These economy-wide ratios provide an important guide for financial actors looking to assess their equity and lending portfolios against net zero targets." Banks should use this ratio to assess the balance between fossil fuel financing and sustainable power supply financing.

In short, financing trends show if the bank is moving in the right direction while the ratio shows how close the bank is to a net-zero trajectory. These elements combined enable an assessment of the bank's actual contribution to the decarbonization of energy supply, and therefore of our economies.

Analysing this metric, and framing the debate around it, is even more critical, as increasing expectations to address energy finance ratios are emerging.

Both in 2024 and 2025, the New York City Comptroller (NYCC) put forward resolutions at the AGMs of the biggest Northern-American banks, to get them to publish their "Clean energy supply ratio", without specifying how it should be calculated. Negotiations resulted in several banks publishing their ratio (JPMC, Citi) or committing to do so (ScotiaBank, RBC). The NYCC stated that it expects this ratio to become "a standard disclosure for banks and an increasingly important tool for investors to evaluate a banks' climate risk and climate commitments, including the pace and scale of their financing of the energy transition."

Bloomberg New Energy Finance (BNEF) published in September 2025 the fourth edition of its "Energy supply banking ratio" study. Though our approach differs on several points (see FAQ), the conclusions are quite alike. Throughout its analyses, BNEF didn't see significant growth in the ratio of low-carbon financing to fossil fuels, and underlined that "the banking industry is not yet delivering the money needed to limit climate change" in its latest analysis.

Various stakeholders are also increasingly studying this metric:

• The European Banking Authority (EBA) included the "ratio of financing of low-carbon energy supply technologies in relation to the financing of fossil-fuel energy supply technologies" as an indicator that banks should monitor in its ESG risk guidelines from January 20259.

- In July 2025, **SBTi** recommended that "financial institutions shall calculate, by inscope financial activity type, their clean energy–to–fossil fuel financial exposure in terms of both absolute exposure amounts and the [resulting] ratio"¹⁰.
- In August 2024, World Resources Institute (WRI) included a "Green versus fossil" finance ratio in its Financial Institutions
 Net Zero Tracker¹¹, in connection with the ratio of the IEA's NZE trajectory.
- In April 2025, the Institut Louis Bachelier (ILB) published a detailed article¹² to detail why the Energy Supply Financing Ratio is a necessary metric to assess banks, and discuss the methodological basis of a standardized approach.

METRIC OF THE REPORT	WHAT IT MEASURES	WHERE IT SHOULD BE	HOW TO READ IT
Fossil fuel trend	Is the bank reducing fossil fuel financing fast enough?	On a trend of at least -9% per year, to decrease by -60% by 2030	A trend of "-X%" (or +X%) means that, over the 2021-2024 period, the bank reduced (or increased) its annual financing to fossil fuels by X% per year on average.
Sustainable trend	Is the bank increasing sustainable power supply financing fast enough?	On a trend of at least +15% per year, to double by 2030	A trend of "+X%" (or -X%) means that, over the 2021-2024 period, the bank increased (or reduced) its annual financing to sustainable power supply by X% per year on average.
Financing ratio	Is the gap between the two curves widening to approach the 6:1 benchmark?	At least 6:1 by 2030	A ratio of X should be read as X:1 - or "X to 1" -, which is the amount of dollars allocated to sustainable power supply for each dollar allocated to fossil fuels. For instance, a ratio of 0.42 should be read as 0.42:1 in full, meaning 42 cents are allocated to sustainable power supply for each dollar allocated to fossil fuels.



We are on the cusp of a new era. Fossil fuels are running out of road. The sun is rising on a clean energy age.

- Antonio Guterres, UN Secretary-General, July 22, 2025



INTRODUCTION

Climate change is accelerating, fueled by an energy system still dominated by fossil fuels. The current impacts on human societies and ecosystems serve as a daily reminder of the urgent need to act now to prevent irreversible climate tipping points and even more severe consequences. A radical transformation in how we produce and use energy is non-negotiable.

This transformation requires a shift to a sustainable power supply system that replaces, rather than supplements, fossil fuels. According to the NZE of the IEA, tripling global renewables capacity to 11000 gigawatts by 2030 is the most powerful lever for reducing fossil fuel demand and cutting greenhouse gas emissions¹³.

Such a transformation is essential to enable the massive electrification of our economies and further reduce fossil fuel use. Under the most ambitious scenarios, electricity's share of final energy consumption must rise from 20% today to over 27% by 2030¹⁴, and more than 60% by 2050¹⁵.

Private banks, as capital providers, bear a major responsibility. By deciding for which sectors they restrict or facilitate access to their financial products and services, they can either slow down or accelerate the shift away from fossil-based economies, toward a sustainable future.

The critical question is whether banks are actively driving the necessary transformation, or if they are slowing it down. Despite public commitments, it remains unclear whether banks have genuinely embraced the opportunities offered by sustainable power solutions; technologies that are accessible, well-established, and frequently both quick to deploy and cost-effective. Instead, there is evidence that many continue to finance traditional, high-emission activities, disregarding the urgent warnings from climate science.

To answer these questions, this report assesses the energy & power financing of the 65 biggest banks globally between 2021 and 2024, comparing their support for fossil fuels and sustainable power supply. By analyzing their Energy Supply Financing Ratio (ESFR), it measures the finance gap between their financing and the needs identified by a net-zero trajectory such as the IEA's NZE scenario.

1

BANKS ARE FAR FROM FINANCING THE ENERGY TRANSITION ADEQUATELY

1 Banks are doubling down on fossil fuels compared to sustainable alternatives



Between 2021 and 2024, the 65 biggest banks globally allocated more than twice as much financing to fossil fuel than to sustainable power supply, landing on a ratio of 0.42:1. Concretely, and far from the communication posture of the banking sector, which often borders on greenwashing - and sometimes wallows in it, this means that banks allocated 42 cents to sustainable power supply for each dollar they allocated to fossil fuels.

Zooming in, only 14 banks have a ratio superior to 1:1 (i.e. financing more sustainable power supply than fossil fuel), and 3 banks have a ratio superior to 2:1.

After 2 years of regression, financing for sustainable power supply in 2024 is barely back to its 2021 level, following the trend of fossil fuel financing. This is not what "supporting the transition" should look like. To align with a net-zero trajectory, the IEA identified two trends to follow in 2023:

- Annual investments in fossil fuels must decrease by -60% by 2030, which represents an annual decrease of at least -9%;
- Annual investments in their alternatives for energy supply (mostly power) must increase by +100% by 2030, which represents an annual increase of at least +15%.

Regarding sustainable power supply financing, only 10 banks were on a trend that could be compatible with a net-zero trajectory (i.e. a trend of at least +15% per year). Among them, only one bank is also decreasing fossil fuel financing fast enough (i.e. a trend of at least -9% per year), meaning La Banque Postale is the only bank that checks both sides of the net-zero equation (firgure 1).

Figure 1: Banks with a sustainable power supply financing trend of at least +15% per year over 2021-2024

BANKS	SUSTAINABLE POWER SUPPLY RELATIVE TREND %	FOSSIL FUELS RELATIVE TREND %
Itaú Unibanco	+37%	+29%
Crédit Agricole	+25%	-8%
Danske Bank	+25%	0%
La Banque Postale	+20%	-58%
Commerzbank	+17%	+16%
State Bank of India	+16%	-8%
ING Group	+15%	-3%
NatWest	+15%	-3%
Santander	+15%	+24%
Standard Chartered	+15%	-1%

On the contrary, many banks are going in the wrong direction:

- Instead of decreasing annual fossil fuels financing, in order to cut them by -60% by 2030, 22 banks have a positive finance trend over 2021-2024, meaning they increased their annual support to fossil fuels during the period.
- Instead of increasing annual financing to sustainable power supply, in order to double them by 2030, 31 banks have a ne-

gative finance trend over 2021-2024, meaning they reduced their annual support to sustainable power supply during the period.

Even worse, **9 banks did both** (increasing their support to fossil fuel while decreasing their support to sustainable power supply), which is the contrary of what an energy transition should look like (figure 2).

Figure 2: Banks with increasing trend of financing for fossil fuels and decreasing trend of financing for sustainable power supply over 2021-2024

BANKS	FOSS	FOSSIL FUELS		SUSTAINABLE POWER SUPPLY		
	Volume (million US	\$) Trend	Volume (million US\$)	Trend		
Capital One Financial	18 912	+7%	108	-54%	0.01	
Toronto-Dominion Bank	96 007	+6%	17 017	-1%	0.18	
BMO Financial Group	72 133	+3%	15 393	-4%	0.21	
Morgan Stanley	82 384	+11%	25 049	-6%	0.31	
Bank of America	158 943	+2%	49 269	-4%	0.31	
Goldman Sachs	87 235	+9%	30 192	-13%	0.36	
Deutsche Bank	49 500	+8%	22 877	-7%	0.48	
KB Financial Group	4 970	+11%	2 575	-37%	0.53	
Nordea	5 937	+2%	12 273	-5%	2.09	

These numbers - particularly the ratios, which differ from those in other analyses - suggest that banks may be artificially inflating their support for the energy transition by including significant financing for problematic technologies such as CCUS, bioenergy, and nuclear. While these controversial technologies fall outside the scope of this report, they are often included in other ratio-based analyses, obscuring a stark reality: since 2021, their financing for sustainable power supply, the core of the energy transition, has actually declined.

Case of Nordea: Nordea has one of the highest ratios, due to a high volume of sustainable power supply finance in proportion to its fossil fuel financing. But the bank's energy financing trends are not consistent with a NZ

trajectory and its ratio is actually decreasing over the period. This is due to both a slight increase (+2% per year on average) in fossil fuel financing and a decrease (-5% per year on average) of sustainable power supply financing.

Regarding what they finance within sustainable power supply, banks favor power generation (59%) over grids and storage, representing 36% and 3% respectively. These infrastructures are essential to enable the rollout of sustainable power generation, such as solar and wind. It is critical that banks increase their support to grids & storage, especially the latter, as the IEA underlines the need to reach parity between financing for renewable power and for grids & storage¹⁶.

Figure 3: Banks' sustainable power suppy and fossil fuels financing volumes, trends, and ratios, over 2021-2024

FINANCING VOLUMES (MILLION US\$) AND TRENDS							RATIO	0	
Banks	Sustainable power supply	Annual average trend	Fossil fuels	Annual average trend	2021	2022	2023	2024	Average
Agricultural Bank of China	23 414	-34%	38 389	-22%	0.70	0.62	0.50	0.51	0.58
ANZ	7 244	+14%	8 354	+3%	1.19	0.37	0.76	1.29	0.90
Banco Bilbao Vizcaya Argentaria (BBVA)	22 913	0%	29 956	+8%	1.06	0.57	0.73	0.75	0.78
Bank of America	49 260	-4%	158 943	+2%	0.31	0.33	0.34	0.27	0.31
Bank of China	29 827	-6%	69 234	-3%	0.48	0.40	037	0.45	0.43
Bank of Communications	11 226	-45%	25 647	-44%	0.43	0.48	0.33	0.48	0.43
Barclays	44 975	+10%	98 884	+18%	0.48	0.54	0.46	0.40	0.47
BMO Financial Group	15 392	-4%	72 133	+3%	0.24	0.21	0.22	0.19	0.21
BNP Paribas	59 426	+7%	66 525	-20%	0.62	0.66	1.62	1.11	1.00
Capital One Financial	108	-54%	18 912	+7%	0.01	0.01	0.00	0.00	0.01
China Construction Bank	17 248	-19%	30 132	-10%	0.64	0.55	0.66	0.45	0.58
China Everbright	19 721	-3%	31 990	-2%	0.66	0.61	0.51	0.68	0.61
China Merchants Bank	27 230	-5%	50 010	-5%	0.50	0.61	0.55	0.52	0.55
China Minsheng Banking	4 505	+14%	11 613	-1%	0.25	0.53	0.35	0.53	0.42
CIBC	22 318	+1%	79 980	-3%	0.23	0.27	0.44	0.22	0.29
сітіс	40 782	0%	77 681	+2%	0.53	0.53	0.56	0.50	0.53
Citigroup	42 756	-6%	160 679	-5%	0.25	0.29	0.28	0.25	0.27
Commerzbank	18 118	+17%	13 091	+16%	1.22	1.44	1.72	1.23	1.40
Commonwealth Bank of Australia	3 328	+13%	2 865	-22%	0.68	1.08	1.72	1.64	1.28
Crédit Agricole	32 806	+25%	55 834	-8%	0.40	0.42	0.60	1.00	0.60
Crédit Mutuel	3 046	+6%	675	-39%	2.11	8.27	4.88	12.44	6.92

Danske Bank	(8 138	+25%	4 872	0%	1.03	2.03	1.35	2.46	1.72
DBS		6 639	-7%	13 791	-10%	0.49	0.47	0.42	0.58	0.49
Deutsche Bank		22 877	-7%	49 500	+8%	0.51	0.61	0.43	0.34	0.48
DZ Bank		6 991	+11%	6 591	+7%	1.27	0.88	0.91	1.44	1.12
Goldman Sachs		30 192	-13%	87 235	+9%	0.41	0.51	0.26	0.25	0.36
Groupe BPCE	0	21 167	+11%	37 474	+1%	0.49	0.40	0.85	0.55	0.57
HSBC	4 D	29 270	0%	67 484	-15%	0.34	0.36	0.70	0.44	0.46
Hua Xia Bank		4 281	-55%	10 223	-45%	0.44	0.47	0.30	0.32	0.38
Industrial and Commercial Bank of China		37 782	-15%	72 690	-11%	0.66	0.42	0.44	0.58	0.52
Industrial Bank Company		17 706	+8%	38 947	-3%	0.42	0.43	0.35	0.57	0.44
ING Group		27 501	+15%	45 302	-3%	0.46	0.65	0.50	0.89	0.63
Intesa Sanpaolo	0	16 086	-7%	21 797	-7%	0.62	1.10	0.57	0.76	0.76
Itaú Unibanco	(13 591	+37%	8 894	+29%	1.20	1.92	1.21	1.70	1.51
JPMorgan Chase		50 347	+2%	192 288	-5%	0.22	0.30	0.26	0.28	0.27
KB Financial Group	:0;	2 575	-37%	4 970	+11%	1.02	0.57	0.19	0.35	0.53
La Banque Postale	0	1 695	+20%	440	-58%	1.27	15.89	6.74	11.96	8.97
La Caixa Group	*	26 089	-12%	18 365	-33%	0.96	1.64	1.88	1.70	1.54
Lloyds Banking Group	4 Þ	4 739	+5%	7 876	-4%	0.78	0.23	0.53	0.93	0.62
Mitsubishi UFJ Financial		55 694	-1%	155 311	-6%	0.34	0.33	0.40	0.37	0.36
Mizuho Financial		47 827	+3%	150 887	+2%	0.32	0.31	0.31	0.33	0.32
Morgan Stanley		25 046	-6%	82 384	+11%	0.36	0.35	0.32	0.22	0.31
National Australia Bank		5 538	-1%	7 592	-31%	0.45	0.64	1.62	0.81	0.88
NatWest	4 Þ	18 439	+15%	9 628	-3%	1.42	1.87	2.17	2.29	1.94
Nordea	•	12 273	-5%	5 937	+2%	2.24	2.33	1.84	1.95	2.09
Ping An Insurance Group		17 250	-49%	25 381	-27%	0.78	0.92	0.52	0.37	0.65

PNC Financial Services	10 975	+9%	56 890	+4%	0.18	0.19	0.18	0.21	0.19
Postal Savings Bank of China	5 841	-18%	8 220	-30%	0.69	0.48	0.90	0.91	0.75
Rabobank	14 685	+11%	13 909	+10%	0.95	1.31	0.93	1.11	1.07
Royal Bank of Canada	29 265	+13%	132 355	-2%	0.18	0.20	0.24	0.27	0.22
Santander	49 143	+15%	48 276	+24%	1.04	1.51	0.86	0.92	1.08
Sberbank*	154	-	3 634	-	0.04	0.00	0.69	-	0.24
Scotiabank	20 845	-2%	103 079	-2%	0.21	0.18	0.22	0.20	0.20
Shanghai Pudong Development Bank	17 334	+9%	34 329	-18%	0.36	0.49	0.47	0.82	0.53
SMBC Group	45 236	-1%	116 428	-3%	0.37	0.41	0.35	0.42	0.39
Société Générale	31 549	+11%	53 940	-19%	0.36	0.51	0.93	0.76	0.64
Standard Chartered	14 585	+15%	37 898	-1%	0.34	0.23	0.56	0.43	0.39
State Bank of India	2 461	+16%	10 622	-8%	0.18	0.24	0.15	0.38	0.24
Toronto-Dominion Bank	17 015	-1%	96 007	+6%	0.20	0.16	0.21	0.15	0.18
Truist Financial	9 728	+7%	62 867	+2%	0.14	0.13	0.19	0.15	0.16
UBS 🛟	26 518	-38%	53 202	-37%	0.51	0.43	0.68	0.41	0.51
UniCredit	24 829	-5%	25 963	-1%	1.06	0.95	0.85	0.,97	0.96
US Bancorp	11 575	+4%	52 773	-3%	0.21	0.18	0.25	0.24	0.22
Wells Fargo	26 584	-4%	143 369	0%	0.21	0.14	0.24	0.16	0.19
Westpac	3 879	-7%	4 194	-1%	1.57	0.41	1.53	0.86	1.09
Total	1 367 578	0%	3 285 338	-3%	0.40	0.41	0.45	0.42	0.42

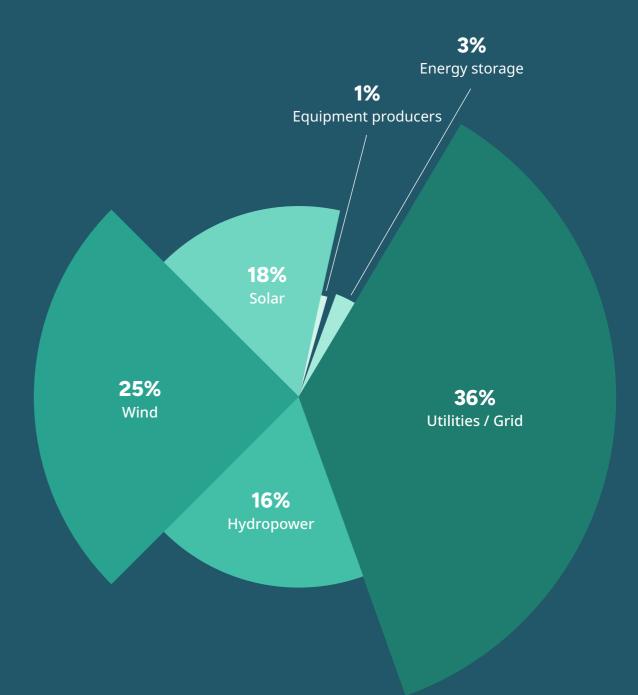
^{*} Incomplete data for Sberbank.

■ Trend is compatible with the NZE trajectory

Trend is going in the right direction but insufficient

Trend is going in the wrong direction

Split of sustainable power supply financing by subsector¹⁷



2 European banks: the best of a poor bunch

Even though no region stands out clearly as even approaching a NZ trajectory, there is a significant gap between some regions. Among the 14 banks that have a ratio superior to 1:1, 11 are Europeans which illustrates a clear difference in progress between regions.



Figure 4: Financing trends and ratios over 2021-2024, by banks' country HQ

BANKS' HQ COUNTRY	SUSTAINA POWER SU		FOSSIL FU	ELS	RATIO 2021	RATIO 2022	RATIO 2023	RATIO 2024	AV. RATIO
	Volume (million US\$)	Trend	Volume (million US\$)	Trend					
France	149 687	+12%	214 886	-13%	0.48	0.53	1.03	0.89	0.73
Germany	47 985	+4%	69 182	+10%	0.69	0.80	0.71	0.61	0.70
Italy	40 915	-6%	47 760	-4%	0.82	1.00	0.72	0.88	0.85
Netherlands	42 186	+14%	59 210	-0,1%	0.56	0.81	0.60	0.95	0.73
Spain	98 145	+4%	96 597	+9%	1.02	1.14	1.01	0.93	1.03
UK	112 008	+8%	221 771	+3%	0.45	0.47	0.61	0.50	0.51
Europe*	537 857	+5%	773 418	-11%	0.59	0.67	0.81	0.74	0.70
China	274 148	-12%	524 484	-11%	0.55	0.52	0.48	0.54	0.52
Japan	148 757	+0,3%	422 626	-2,4%	0.34	0.34	0.35	0.37	0.35
USA	256 571	-3%	1 016 339	+0,3%	0.26	0.26	0.26	0.23	0.25
Canada	104 835	+3%	483 554	+0,3%	0.21	0.20	0.26	0.21	0.22

^{*} Europe figures include banks from Denmark (Danske Bank), Finland (Nordea) and Switzerland (UBS).

Japanese banks (0.35), US banks (0.25), and Canadian banks (0.22) are all gathered among the lowest ratios, with no bank above 0.38. On the other end of the table, European banks are all above 0.39 with a regional ratio of 0.70, but with strong disparities between countries:

- French and Dutch banks have the strongest increase in sustainable power supply finance, contrary to Italian banks that reduced their annual financing to sustainable power supply over the period.
- While German, Spanish and UK banks increased their support to fossil fuels over the period, French banks are leading the decrease in fossil fuel finance.

In May 2024, both BNP Paribas and Crédit Agricole announced they would no longer participate in issuing conventional bonds for companies involved in oil and gas extraction and production, which is likely to reinforce the French banks' trend further in the coming years. Although significant loopholes remain to be fully efficient in cutting finance for fossil fuel¹⁸, other European banks need to replicate this commitment to at least align with the current best practices.



Cost of capital remains a key barrier for sustainable power generation in high-risk markets.

- IRENA, Renewable power generation costs in 2024, July 2025



3 Financing that leaves most of the world behind

Figure 5: Sustainable power supply financing over 2021-2024, by borrowers' country HQ

BORROWERS' HQ REGION	VOLUME OF SUSTAINABLE POWER SUPPLY FINANCING RECEIVED (MILLION US\$)	SHARE	TREND OVER 2021-2024
Europe	498 932	36%	+4%
North America	448 175	33%	+3%
China	252 472	18%	-14%
Asia-Pacific	104 987	8%	-9%
Latin America	48 279	4%	+12%
Africa & Middle East	10 972	1%	+18%
Eurasia	3 758	0.3%	+23%

The majority of banks' financing for sustainable power supply is currently directed towards economies where perceived risks are lower and returns are often more attractive: 93% of sustainable power supply financing went to companies and projects based in OECD and China. In particular, Europe (36%), USA (28%) and China (18%) alone received more than 82%.

Yet, a rapid and just energy transition must be global or it will fail. Domestic and international public finance play important roles that vary widely across regions and sectors but cannot bear all the cost alone. Private finance supports roughly three quarters of energy investments overall¹⁹, and should remain the main source of finance in EMDEs until 2030²⁰. Private banks must therefore play their part to make this transition possible.

Even if financing for sustainable power supply seems to rise in several regions outside of Europe, North America, and China, it is still far from what's needed. The Asia-Pacific region even saw their financing decline over the period, despite the strong development of solar and wind in several countries, such as The Philippines and Vietnam.

Although **no one is expecting private banks to carry the energy transition alone**, the discrepancy between the evolutions of the energy mix in those countries and the financing allocated by banks in those same countries raises questions. By increasing financing to fossil fuels and decreasing financing to their sustainable alternatives, when in fact

solar and wind are soaring in the energy mix, banks cast doubt on the roles they intend to play: hindering or supporting the transition. The latter requires breaking-up with global fossil extractivism and supporting the rollout of a new sustainable system that matches the needs of local human communities around the world.

Figure 6: Comparing the evolution of the share of wind and solar in the country's electricity mix and the financing trends of the banks, over 2021-2024

COUNTRY	EVOLUTION OF THE SHARE OF SOLAR AND WIND IN THE ENERGY MIX ²¹	FOSSIL FUELS FINANCE TREND	SUSTAINABLE POWER SUPPLY FINANCE TREND	SHARE OF FOSSIL FUELS IN TOTAL FINANCING VOLUME
The Philippines	+79% (+2.17 TWh)	+6%	-20%	83%
Vietnam	+31% (+9.12 TWh)	+72%	-4%	60%



Financing solar and storage is not only an investment in sustainable energy, it is an investment in new jobs, economic growth, and energy security. But this report shows that banks are still investing in our past, and not our future. This is especially urgent in emerging markets, where the cost of capital can be up to 7 times higher than OECD countries and a significant obstacle for tapping into their massive solar potential. Increasing commercial investment in these markets is key to derisking finance and building thriving industries, which can transform lives and economies.

- Sonia Dunlop - CEO of Global Solar Council



4 From the frontline: another way is possible

This frontline story accompanies global calls to defund the East African Crude Oil Pipeline (EACOP) and shift investment toward socially-owned sustainable power, in solidarity with frontline communities across Uganda and the broader REPower Afrika movement.

EACOP²², a 1,443 km pipeline designed to transport oil from Uganda to Tanzania, has become a symbol of environmental threat and community dispossession. Stretching through forests, farmlands, and critical water sources, EACOP has displaced over 100,000 people, offering poor and delayed compensation that has thrown families into crisis. It has led to school dropouts, food insecurity, and rising debt, while promises of resettlement have often been unfulfilled. Militarization around oil drilling sites has further exacerbated the situation, with reports of harassment, physical abuse, and increased sexual violence.

Communities are not only opposing EACOP but also advocating for sustainable alternatives. In July 2025, over 100 youth, women, and local leaders gathered to mark the anniversary of the REPower Afrika campaign²³, which promotes community-owned sustainable power systems. This initiative aims to reclaim the development agenda, focusing on sustainable and decentralized power supply that meets local needs.

In Kyakaboga Resettlement Village, residents are campaigning for a solar mini-grid to power their homes and public infrastructure.

They insist on systems that serve the community rather than profits and advocate for solar systems owned by the communities instead of power companies.

Despite international outcry, major banks have financed EACOP, enabling land dispossession and rights violations. This financial backing violates international standards and exposes financiers to legal and reputational risks. However, there is a growing call for these financial institutions to shift their financing away from harmful projects like EACOP and towards a sustainable and peoplecentred power system, advocated by local communities.

Banks have the opportunity to lead in fostering a just transformation of the energy system, ensuring that their financing contributes to the well-being and development of the communities they affect. Instead of fossil devastating projects, they should shift their support towards sustainable power. As the IEA itself is stating, "a sustainable energy system needs to be people-centred". Projects such as decentralized solar mini-grids can empower communities and align with global climate objectives.



Much of Africa's current development is being driven by extractive industries backed by big corporations. But we know what this has brought us: displacement, land loss, ecological destruction, and false promises. REPower Afrika is about reclaiming that development agenda. It is about clean, decentralised energy systems that produce the energy required to meet our needs, powering homes, small businesses, schools, and clinics. It's about having control over the development of our communities.

- Christopher Opio of the Oil Refinery Residents Association





EACOP-impacted communities and residents of the Kyakaboga Resettlement Village gather for a community Townhall to organise around a vision of energy democracy, justice and development. July 2025. Credit: Zaki Mamdoo.

BANKS' CLIMATE STRATEGIES OVERLOOK THE TRANSFORMATION OF THE POWER SECTOR

1 Tracking banks' policies and commitments

Seeing how easily banks are slamming the door on the Net-Zero Banking Alliance (NZBA) shows just how fragile net-zero commitments are, and how easily they can be thrown out the window. Moreover, research finds limited evidence to suggest that net-zero commitments lead to substantial increases in financing for sustainable activities²⁴.

Hence, banks willing to demonstrate the sincerity of their ambition must go beyond wishful statements and implement credible climate strategies that result in actual and lasting shifts of their financing to the energy system. Addressing key sectors such as power supply, with robust sectoral policies to frame dedicated financial targets, should be a priority.

In a vast majority, banks' climate communication is not reflecting the way they finance the energy system toward the transformation of our power supply system. Following the UN Climate Change Conference (COP21) in 2015, many banks announced their intention to support climate action but since then, despite some publishing decarbonization targets for the power sector, very few translated these intentions into actual financial targets. A paradox for companies whose core business is to provide financial products and services, this casts doubt on the sincerity of their commitments.



Among the 65 banks...

36

Banks published blurry targets covering several sectors including, but not limited to, power generation 8

Banks published a specific financial target for the power sector

4

Banks published an energy supply financing ratio

Among the 65 banks assessed in this report, at least 31 banks have set an intensity target for the power sector, acknowledging it as a key sector²³. But **only 8 banks have set a dedicated financing target**, hence truly addressing their financing activities (figure 7). Instead, 36 banks chose to adopt blurry "sustainable finance" targets that cover so many sectors (energy, biodiversity, water, pollution, agriculture, health, education...) that it is impossible to assess their impact²⁴.

If committing to increasing financing for sustainable power supply is essential, it should be combined with commitments to decrease financing for fossil fuel, ensuring that sustainable power is effectively replacing fossil fuels and is not simply added to them. Only 4 banks are publishing their Energy Supply Financing Ratio (BNP Paribas, Citi, Crédit Agricole, and JPMorgan Chase), comparing the support to fossil fuels and to their alternatives. Only BNP Paribas has set a target for a 2030 ratio, though the methodology does not allow for comparison with a net-zero trajectory.

When it comes to the scope of their commitments, banks are failing to define effective scopes that exclude false solutions (such as bioenergy, nuclear, or technologies based on the extended use of fossil fuels) and that cover key enabling infrastructures, such as power grids and energy storage.

37 banks still claim to support the energy transition by financing technologies that shackles us to more fossil fuels, such as carbon capture and storage or hydrogen produced from fossil fuels. Bioenergy (solid biomass, biogas, and biofuels) is the most widespread false solution among banks' scopes, with only 9 banks excluding it.

Only one bank, La Banque Postale, tackles fossil power expansion by applying robust restrictions to its financing to new gas plants and new coal plants, and to companies that develop them.

Among the 65 banks...

37

Banks include technologies that extend our reliance on fossil fuel in their energy transition scope **27**

Banks include grids & storage in their energy transition scope 9

Banks exclude bioenergy from their energy transition scope

Figure 7: Banks with a specific target for the energy transition

		IS THE ENERGY SUPPLY FINANCING RATIO DISCLOSED?	SCOPE OF THE ENERGY TRANSITION INCLUDES		
			Fossil-fuel related technologies?	Bioenergy?	Grids and/or storage?
BNP Paribas	0	Yes	No	Yes	No
Crédit Agricole	0	Yes	Yes	Yes	No
DZ Bank		No	No	Yes	No
Groupe BPCE	0	No	Yes	Yes	No
ING Group		No	Unclear	No	No
La Banque Postale	0	No	No	Yes	Yes
Rabobank		No	Unclear	No	No
Royal Bank of Canada	(*)	No	Yes	Yes	Yes

2 Decrypting existing ratios

Five banks have either published their energy supply financing ratio and/ or the underlying methodology.

JPMorgan Chase and Citi have published their ratio and a detailed methodology. French banks BNP Paribas and Crédit Agricole publish their ratio but do not publish the detailed methodology to explain their approach. RBC is the only one that published a methodology but does not disclose the resulting ratio.

Though all banks are following different methodologies, some common aspects can be observed and loopholes alter the credibility of currently disclosed ratios and methodologies.



	POSITIVE ASPECTS	SIGNIFICANT WEAKNESSES
BNP Paribas ²⁷	Target set for 2030	 Covers only loans (64% of the bank's fossil fuel financing over 2021-2024) and not bond or share issuances Restricted to credit exposure instead of financial flows Restricted to extraction, production and refining for the oil & gas value chain, thus leaving sectors such as LNG and gas power outside of the scope No public methodology document
Crédit Agricole ²⁸		 Covers only loans (73% of the bank's fossil fuel financing over 2021-2024) and not bond or share issuances Restricted to credit exposure instead of financial flows Covers only fossil fuels extraction, thus leaving sectors such as LNG and gas power outside of the scope No public methodology document
Citi ²⁹	 Covers not only loans but also bonds Approach by flows rather than stocks 	 "Low carbon" includes technologies related to fossil fuels (CCUS) LNG is not (or partially) included in the fossil fuel scope Binary allocation (100%) to low carbon or fossil fuels of financing, based on company sector classification (exception for utilities) Alternative ratio without revolving credits (RCF) also published, attempting to water down the importance of RCFs in providing financing to the fossil fuel industry
JPMorgan Chase³º	 Covers not only loans but also bonds Covers the entire oil & gas value chain Approach by flows rather than stocks 	 "Low-carbon" includes technologies related to fossil fuels (fossil power plants with CCUS, fossil-based hydrogen) Covers energy demand sectors, such as EVs charging in "low-carbon" while the fossil counterpart (such as filling stations) is not covered in "high-carbon"
Royal Bank of Canada³¹	 Covers not only loans but also bonds Covers the entire oil & gas value chain 	 Resulting ratio is not disclosed Numerator includes companies that have "a sufficiently robust transition plan" in the "decarbonization finance" section, which leaves the door open to false solutions and activities that do not contribute to the energy transition "Stocks" approach for lending

First, the fossil part of the ratio (the denominator) can easily be artificially reduced:

- By omitting part of the fossil fuels value chain. This is especially visible for BNP Paribas and Crédit Agricole. Their denominators cover only extraction (Crédit Agricole) or extraction, production, and refining (BNP Paribas) for the oil & gas value chain, thus leaving outside of the ratio sectors such as LNG or gas power plants. This is also the case for Citi, which leaves LNG outside of the scope.
- By omitting some financing to fossil fuels. Again, this is blatant for French banks BNP Paribas and Crédit Agricole, who include only credit exposure in their calculation, thus leaving outside of the ratio financing provided to the fossil fuel industry through bond and share issuances, for instance. Yet, this financing represented a share of the two French banks' financing to fossil fuels (respectively 36% and 27% for BNP Paribas and Crédit Agricole over 2021-2024)³⁰ that cannot be ignored.

Secondly, the sustainable part of the ratio (the numerator) can easily be artificially inflated:

- By including false solutions. All banks refer to "low-carbon" energy, but definitions vary. French banks are quite opaque, BNP Paribas and Crédit Agricole only provide a short footnote, respectively referring to "renewables, biofuels and nuclear" and "renewables". Northern-American banks provide more detail but their scopes are heavily reliant on nuclear and cover problematic options. In particular, US banks include fossil-fuel related technologies in their "low carbon" scope, such as hydrogen
- from fossil fuels, or carbon capture and storage. JPMorgan Chase even goes as far as to include fossil-fuel power with carbon capture.
- By defining a scope that is either blurry or including sectors unrelated to energy supply. RBC includes "decarbonization finance" to its "low carbon" scope, which is problematic. This section covers a broad range of activities that are not related to energy supply, such as carbon capture for chemical production or cement factories, and end-use sectors, such as electrification of industrial operations³¹. JPMorgan Chase includes public EV chargers, which is also not related to energy supply but rather energy end-use.



CONCLUSION AND RECOMMENDATIONS

Numbers don't lie and they show that banks strategies. Addressing the transformation are nowhere near a net-zero trajectory. **Conti**nuously prioritizing fossil-based business as usual over sustainable alternatives, they are letting the opportunity to transform our economies, and reach carbon **neutrality**, **slip away**. When they do finance sustainable alternatives, they do so almost exclusively by financing companies and projects based in OECD countries and China.

Beyond the numbers, analyses show that public statements in favor of the energy transition rarely translate into credible climate

of a crucial sector such as the power supply sector requires robust policies and ambitious targets, which almost all banks lack.

Yet, a global, rapid and just energy transition is vital and banks should support the urgently needed shift, instead of perpetuating fossil-based business-as-usual. This shift requires the immediate end of all support to fossil fuel expansion, the shift of energy financing away from fossil fuels, and a drastic increase of financing to sustainable power supply, to reach a 6:1 ratio by 2030.

Banks should urgently align their support to the energy system with the needs of a net-zero trajectory. Consequently, they should adopt climate strategies that address the transformation of the power supply sector.

This requires in priority:

- Setting dedicated financial targets for **2030**, that chart a course toward both the reduction of financing to fossil fuels, with the immediate end to all support to their expansion, and the acceleration of financing for sustainable power supply.
- Basing those targets on a robust energy supply financing ratio that covers all fossil fuels financing products and services, over the entire value chain, and based on a sustainable scope of solutions.
- Adopting power sectoral policies that define a clear scope of sustainable alternatives to fossil fuels and restriction criteria to ensure the immediate end of all support to fossil fuel expansion.
- Demonstrating their progression toward a net-zero trajectory, by annually publishing their energy supply financing ratio backed by a transparent and robust methodology.

METHODOLOGY & FAQ

1 Report scope & methodology

BANKING INDUSTRY SCOPE

The report analyzes the world's 65 biggest banks by assets according to S&P Global's 2025³² ranking. The financing of bank subsidiaries is aggregated at the level of their banks' parent companies, based on majority ownership as of January 2025.

FOSSIL FUEL SCOPE

All the data concerning the financing of fossil fuels used in this report comes from the Banking on Climate Chaos 2025 report. This report estimates the financing commitments from financial institutions to companies active across the fossil fuel industry.

The Banking on Climate Chaos 2025 primary dataset is based on analysis of bank financing for approximately 2,730 subsidiary-level companies that are either independent or a parent company active across the fossil fuel life cycle. This includes companies that are involved in the extraction, transportation, distribution, combustion, trade, or storage of any fossil fuels as a business segment or in the generation of fossil-based electricity, globally, according to the Bloomberg Industry Classification Standard; or are on the Global Coal Exit List; or are on the Global Oil and Gas Exit List; or are listed on Global Energy Monitor or Enerdata as significant fossil fuel companies. Further details on the scope of fossil fuels can be found in the Banking on Climate Chaos report³³.

SUSTAINABLE POWER SUPPLY /TECHNOLOGY SCOPE

Sustainable power supply encompasses the following sectors:

- Power generation from sustainable sources, such as wind (offshore and onshore), solar (PV and thermal), hydropower, geothermal, ocean power and green hydrogen.
- Power transmission and distribution: upgrade, expansion, modernization, and flexibilization of electricity transmission & distribution grids, power storage, local/mini power grids, off-grid and standalone systems based on sustainable power sources.
- Manufacturing of sustainable power components & equipment: e.g. development of plants/facilities manufacturing sustainable power equipment, smart grid equipment, sustainable energy equipment (solar cells/modules & inverters, wind turbines, geothermal equipment, hydro equipment, electrolysers).

Contrary to some definitions of "clean" or "low carbon" energy, this report does not consider several energy sources and technologies that are incompatible with a rapid and just transition of our energy system to be sustainable.

- As a rapid and progressive phase out of fossil fuels is necessary, technologies that extend their use and delay their phase out
 such as hydrogen produced from fossil fuels³⁴ or fossil fuels equipped with carbon capture and storage (CCUS) systems - are excluded from the scope.
- Nuclear energy and CCUS in the power sector³⁵ are also excluded. These technologies, whose development is uncertain due to their lack of maturity or that are nonexistent at commercial scale, are not temporally compatible with 2030 needs.
- Energy sources and technologies associated with damaging social, environmental and climate impacts are excluded. Namely, bioenergy³⁶ (i.e. solid biomass, biogas and biofuels) is far from climate-neutral and has severe impacts on ecosystems and human health.

These technologies pose too great a risk to our ability to meet the 1.5°C objective and global biodiversity protection targets. Therefore, they should not be included in banks' sustainable energy finance targets and ratios. As the IEA's NZE scenario gives only a 50% chance of limiting global warming to 1.5°C, removing these technologies increases the chances of success and does not detract from the relevance of aligning with the investment targets and ratios set out in this scenario.

This report does not cover the extraction of minerals used in components & equipment of sustainable power supply. These minerals are essential, but their extraction and processing still involve high-risk, environmentally destructive and socially harmful practices, hence cannot be considered sustainable under current practices. Recent publication explores the role of private banks and puts forward recommendations for this sector³⁷.

SUSTAINABLE POWER SUPPLY /COMPANY SCOPE

The dataset is based on an analysis of bank financing for around 2,322 subsidiary-level companies active in the sectors covered by the sustainable power supply scope. The companies were identified through a combination of sources, including sector screening from reputable financial data providers, Global Energy Monitor (GEM) datasets, trade journals and market reports. Additional research was performed to cross-check with major players in each sector and sub-sector, using off-theshelf data sets from third-party data providers. Only companies that received financing by at least one of the 65 banks in scope are analyzed, meaning that some sustainable power supply companies are not included.

SUSTAINABLE POWER ADJUSTERS

To account for the fact that some companies operate in multiple sectors and/or energy sources, adjustment factors (from 0% to 100%) are applied. These adjusters reflect the estimated proportion of a company's business devoted to sustainable sectors within the scope of this analysis.

Sustainable power adjusters were developed using segment reporting from annual reports wherever possible, supplemented by additional information from company publications, websites, and estimates where necessary. The following financial indicators were used in order of priority: capital expenditure, revenue, assets and income. Where data on a company is not readily available, it is adjusted using information on the parent company and, in selected cases, sector averages derived from reputable financial data providers and industry classifications.

The following cases were treated separately:

- Project finance transactions: financing for projects within the scope of sustainable power supply received a 100% adjuster.
- Green-labelled transactions: use-of-proceeds green bonds and loans issued by power utilities received a 100% adjuster, based on the assumption that all proceeds from each transaction align with the sustainable power supply scope used in this report. This means the financing amounts may be overestimated in cases where some proceeds were directed to energy sources and technologies outside the scope of this definition.
- Power transmission and distribution companies: companies operating solely in the power transmission and distribution sector received a 100% adjuster due to the fundamental role that power grids have in the energy transition. However, more precise adjusters could be applied depending on the specific practices of each company³⁸.

• Hydropower sector: hydropower activities of companies were fully included within the scope of this research, though hydropower does not always qualify as sustainable power. Due to a lack of granular data, we were not able to assess the proportion of hydropower financing that would comply with robust standards, guaranteeing minimised negative impacts on biodiversity and human rights³⁹.

Fossil fuel financing amounts are also adjusted. Further details on the adjusters applied to fossil fuel companies can be found in the Banking on Climate Chaos report⁴⁰.

FINANCE DATA

The financing types covered are lending, including loan and revolving credit facilities, and the underwriting of primary and secondary bond and share issuances. Both syndicated and bilateral financing are included; however, our underlying datasets provide limited insight into bilateral lending, meaning it accounts for a much smaller percentage of the report. Project and corporate finance are also covered.

The research is based on data collected by Profundo from reputable financial data providers, as well as on additional research and analysis in company reports and media archives. All transactions were sourced between December 2024 and May 2025. These transactions covered the period from 2021 to 2024.

Banks are credited for their participation in financing, using the same approach as in the Banking on Climate Chaos 2025 report, which makes fossil fuel and sustainable power supply financing amounts comparable.

As such, the amount of credit that each bank is allocated for each deal is determined in one of three ways. In cases where the actual bank contribution is known, that value is used. If the percentage of fees earned by each bank is reported, that percentage is applied to represent the percentage of their participation. Otherwise, the value of the deal is divided among all known participants, with a greater total share allocated to the banks in leading roles (bookrunners), using the bookratio methodology, an approach developed by the research consultancy Profundo. This methodology enables all banks that make financial contributions to a deal to be credited, rather than only those in leading roles. Roles that do not involve financial contributions are excluded.

The algorithm used for determining the bookratio is as follows:

1

The bookratio, or the ratio of non-leading to leading participants on the deal is calculated:

total number of participants - number of bookrunners

number of bookrunners

2

Taking the bookratio and the type of financing, a percentage is chosen from the table below.

bookratio

BOOKRATIO	LENDING	UNDERWRITING
< 1/3	No differentiation*	No differentiation*
> 1/3	75%	75%
> 2/3	60%	75%
> 1.5	40%	75%
> 3.0	< 40% **	< 75% **

** In cases where the bookratio is over 3.0, a formula is used which gradually lowers the commitment assigned to the bookrunners. For loans, this formula is $(0.69282032301) / \sqrt{(bookratio)}$. For share issuances this formula is $(1.29903810723) / \sqrt{(bookratio)}$



The percentage from step 2 is split among the bookrunners to find the value for each bookrunning bank in the deal. This percentage is multiplied by the tranche value of the deal to arrive at the per bank value.

The same is done for the non-bookrunning banks, using the percentage out of 100% remaining from step 2. The result is the per-bank value for non-bookrunners.

2 Limits of the report

This research does not aim to provide a comprehensive assessment of global financing for sustainable power supply. Instead, it focuses specifically on loans and underwriting by the world's 65 biggest banks to companies operating within the energy sector.

As a result, some relevant financial instruments fall outside the scope of this analysis—for example, tax equity investments and tax credit transfers commonly used in the United States, as well as other facilitation products in which banks may participate. In addition, because the analysis centers on corporate issuers, this first edition does not capture other key actors & enabling mechanisms in the energy transition, such as sovereign issuers and development banks, securitization for PVs, structured finance, retail banking and bilateral lending.

We have made every effort to compile a comprehensive list of the most relevant sustainable power supply companies within our scope. However, we recognize that the list may not be exhaustive. Our methodology relies heavily on sector screening, and as result some relevant companies may have been omitted if they are not classified by the data sources used as belonging to the sectors covered by our research.

We acknowledge that adjusters are not perfect, as they rely on the public data companies make available. Our primary reference is capital expenditure (capex), which we consider the most reliable indicator of how companies actually use bank financing. However, the absence of comprehensive, cross-industry databases on capex makes it challenging to apply this metric consistently and with sufficient granularity. In such cases, alternative metrics such as revenue, assets, or income are sometimes used to fill the gap. When no company-specific data was available, we relied on proxy indicators—for example, the energy mix of a utility's headquarters country—or, in situations with very limited documentation, applied a conservative 5% adjuster.

Our geographic analysis of financial flows does not include intra-group money flows, which could have an influence on the resulting geographical repartition of financings.

The Chinese market suffers from a significant lack of transparency. Chinese firms tended to shift from bonds to loans in 2023 as the central bank reduced deposit reserves and prime rates. We rely on public and accessible data, and loans are less well reported, so we acknowledge that Chinese firms probably borrowed more than our numbers suggest.

3 FAQ

What are the similarities and differences with BNEF's work?

Our work shares common features with BNEF's work, such as the flow-based approach, the use of adjusters to account for company diversifications, and the inclusion of a broad range of financial transactions. We also have differences, listed in the following table.

The main difference, the benchmark, is critical. In its communication, BNEF emphasizes the need to reach a ratio of 4:1 by 2030, based on an aggregation of several scenarios. However, it is worth noting the 4:1 ratio is framed by BNEF itself as a bare minimum. This conservative approach could lead financial institutions into underestimating the financing needs for sustainable power supply, hence failing to support the energy transition adequately. BNEF should communicate on a ratio of at least 7.2:1 (average) or 6.9:1 (median).

	RECLAIM FINANCE - ESFR	BNEF - ESBR
Scope of the ratio's numerator	"Sustainable power" scope that excludes fossil-fuel related technologies and other technologies that pose too great a risk to the urgency of the transition, or have significant negative impacts on climate, biodiversity and human rights	"Low carbon" scope that includes clean electricity marketing & trading, and problematic energy sources and technologies: Fossil-based hydrogen CCUS Bioenergy Nuclear
Scope of companies	5227 subsidiary-level companies whose main business is in the energy sector, financed by 65 banks	~110,000 companies with energy sector revenue, financed by 1,372 banks
Scope of financing	Loan + bond/share underwriting + project finance	Loan + bond/share underwriting + project finance + tax equity & credit transfers
Adjusters	Based on CAPEX in priority	Revenue-based adjusters
Allocation	Bookratio methodology (see Methodology for more details)	Bloomberg LEAG credit methodology
Benchmark	6:1, based on the IEA NZE scenario	4:1, based on multiple scenarios
Data accessibility	Ratios and financing data are publicly available at bank level	Public version of the reports do not disclose ratio for individual banks

Why is tax credit investment not included in the scope?

While we recognise that tax equity and tax credit transfers are important mechanisms for financing sustainable energy projects in the US, banks mostly act as investors in them. This research focuses on loans and underwriting rather than investments. Including them would therefore be inconsistent with the overall methodology.

How do you treat revolving credit facilities and transactions with a maturity date that has already passed? Financing is included if it was issued between 1 January 2021 and 31 December 2024, regardless of its maturity date or whether it was prepaid or cancelled. Banks are assigned league credit when financing is initially issued, and again when it is renewed. Consequently, we report on commitments rather than disbursements. Our reporting focuses on banks' decisions to finance issuers within our scope rather than on how much those issuers draw from their issuances.

Are financial institutions that are issuers considered in the research?

Yes, as long as the Global Energy Monitor identifies them as asset owners of sustainable power supply infrastructure.

How do you treat transactions labelled as "sustainable" (e.g. SLL and SLB)

Transactions labelled as "sustainable"—whether use-of-proceeds instruments or those for general corporate purposes—receive the same adjuster as the issuer. This is because definitions of "sustainability" vary significantly across the market and typically encompass a broad range of sectors unrelated to sustainable power supply. Therefore, we have decided to take a conservative approach and assume that the proportion of financing dedicated to our sustainable power supply scope will be the same as that of the issuer.

How are the relative trends in sustainable power supply and fossil fuel financing estimated?

Relative trends in sustainable power supply and fossil fuel financing are estimated based on the assumption of linear evolution between 2021 and 2024. However, a linear trajectory does not necessarily reflect real-world changes, nor does it consider all the nuances of a net-zero trajectory. Such a trajectory, like the NZE scenario, requires an immediate halt to fossil fuel expansion and a sharp, accelerated increase in sustainable power supply financing.

Why are you just focusing on power supply and not broader energy?

In the NZE scenario, "clean power supply" represents the vast majority of investments in clean energy supply by 2030⁴¹. It covers grids, batteries, nuclear and renewable power. The remaining portion, "low emission fuels" covers technologies such as fossil fuel with CCUS, hydrogen, and ammonia. It represents a very small portion and includes technologies that we do not consider as solutions for the energy transition.

How does the 6:1 ratio relate to the IEA's 10:1 ratio, also present in the NZE?

The IEA's 10:1 ratio breaks down into two pillars: "energy supply" and "energy efficiency and end-uses". In 2030, "around USD 2.5 trillion is invested in clean electricity and low-emissions fuels and around USD 1.8 trillion in energy efficiency and end-uses, while investment in fossil fuel supply falls to around USD 0.4 trillion"⁴². This means that by 2030, for every dollar invested annually in fossil fuels, ten dollars must be invested in "clean energy", of which six dollars for "clean energy supply" – mostly clean electricity –, and four dollars for energy efficiency and end-uses. The former results in the 6:1 ratio that we are considering in this report for sustainable power supply against fossil fuels.

Why is grid financing counted as 100% sustainable power supply?

Massive upgrades and extensions of power grids are needed globally, to allow the integration of decentralized sustainable power sources and avoid gridlock effect⁴³. Hence, we consider financing to that sector as sustainable in full, even though we inevitably overestimate the volume of financing actually allocated to grids related to sustainable power supply, by including extension or maintenance of grids used to connect fossil fuels.

How do you treat green bonds from companies that are not power utilities?

Green bonds for companies that are not power utilities receive the same adjuster as the issuer. This is because definitions of "green" encompass a broad range of sectors unrelated to sustainable power supply. Therefore, we have decided to take a conservative approach and assume that the proportion of financing dedicated to our sustainable power supply scope will be the same as that of the issuer.

Why are you not including technologies such as bioenergy, nuclear, or CCUS?

The development of those technologies is either quite lengthy and/or uncertain (nuclear, CCUS) or associated with damaging social, environmental and climate impacts or risks (bioenergy⁴⁴). They are incompatible with the urgency of the situation and pose too great a risk to our ability to meet carbon neutrality and global biodiversity protection targets. Therefore, they are not considered as solutions for the energy transition in this report and should not be included in banks' energy transition scopes and finance targets.

How do you treat hydrogen?

Hydrogen production using fossil fuels, with or without CCUS, is not considered sustainable, as it is highly carbon intensive and CCUS has no positive impact on the climate. Electrolytic hydrogen is the only form of hydrogen compatible with a fossil fuel-free energy system, and the only hydrogen that can be labelled "sustainable", provided it is produced using sustainable power.

Such hydrogen (or "green hydrogen") is included in the definition of "sustainable power supply" even if evidence⁴⁷ shows that, contrary to some claims from the gas industry⁴⁸, it will not replace fossil gas for residential heating or power generation, nor become a major storage technology. Rather, it will have a limited role in a sustainable power system and its use should be dedicated in priority to the decarbonization of specific sectors (such as steel and maritime transport). Nevertheless, sustainable hydrogen has a role to play in a more broad energy transition and its deployment is directly relying on the rollout of sustainable power supply. Given that, electrolyser manufacturing is included in the scope of the research.

ENDNOTES

- **1.** "Clean power supply" covers grids, batteries, nuclear and renewable power. By 2030, it represents the vast majority (US\$2.2 trillion) of the US\$2.5 trillion for clean energy supply. See **World Energy Outlook 2023**.
- **2.** Find out more about the definition of sustainable in **this article** and in the Methodology section.
- **3.** IEA, World Energy Investment 2024, June 2024.
- 4. Solar, wind, power grids, and batteries form the common basis for both "clean" and "sustainable" power supply. However, nuclear and bioenergy, although considered "clean", are excluded from our definition of "sustainable".
- **5.** IEA, <u>The Oil & Gas Industry in Net Zero</u> <u>Transitions</u>, November 2023.
- 6. NYCC, Public Statement, April 2024.
- **7.** BNEF, <u>Energy Supply Banking Ratios</u> <u>report</u>, September 2025.
- **8.** Ibid.
- 9. EBA, ESG risk quidelines, January 2025.
- **10.** SBTi, <u>Financial Institutions Net-Zero</u> <u>Standard</u>, July 2025.
- **11.** WRI, <u>Financial Institutions Net Zero</u> <u>Tracker</u>, August 2024.

- **12.** ILB, **Zoom on the Energy Supply Ratio**, April 2025.
- **13.** IEA, Net Zero Roadmap (update), November 2023.
- **14.** IEA, <u>Tracking Clean Energy Progress</u>, July 2023.
- **15.** ETC, **Global Power Report**, April 2021.
- **16.** IEA, World Energy Outlook 2024, October 2024.
- **17.** Based on the repartition among financing of the top 300 most financed companies representing 73% of all financing tracked in this report.
- **18.** See <u>Reclaim Finance's reaction</u>, May 2024.
- **19.** IEA, World Energy Investment 2024, June 2024.
- **20.** IEA, <u>Financing Clean Energy Transitions</u> in <u>Emerging and Developing Economies</u>, June 2021.
- **21.** Ember, <u>Electricity Data Explorer</u>, data extracted in August 2025.
- **22.** BankTrack, **EACOP project**, July 2025 (last update).
- 23. REPower Afrika Campaign.

- **24.** CEPR, <u>Business as usual: Bank net zero</u> commitments, lending, and engagement, May 2024.
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- **26.** Reclaim Finance, <u>Why sustainable</u> <u>finance targets could mask climate inaction?</u>, March 2025.
- **27.** BNP Paribas, <u>Climate Report 2023</u>, May 2024.
- **28.** Crédit Agricole, <u>RÉSULTATS DU 4EME</u> TRIMESTRE ET DE L'ANNÉE 2024, 2025.
- **29.** Citi, <u>Energy Supply Financing Ratio</u> <u>White Paper</u>, August 2025.
- **30.** JPMorgan Chase, <u>ESFR Methodology</u>, November 2024.
- **31.** RBC, <u>Energy Supply Ratio Methodology</u>, April 2025.
- **32.** Rainforest Action Network et al., **Banking** on Climate Chaos 2025, June 2025.
- 33. RBC, Sustainability Report 2024.
- 34. S&P Global's 2025.
- **35.** Rainforest Action Network et al., **Banking** on Climate Chaos 2025, June 2025.
- **36.** See Reclaim Finance's <u>factsheet on hydrogen</u>.
- **37.** See Reclaim Finance's <u>factsheet on</u> CCUS.

- **38.** See Reclaim Finance's <u>factsheet on</u> <u>bioenergy</u>.
- **39.** Forest & Finance, Mining and Money:
 Financial Fault Lines in the Energy
 Transition, September 2025.
- **40.** BFF, <u>How Europe's grid operators are</u> <u>preparing for the energy transition</u>, May 2025.
- **41.** See Reclaim Finance's <u>factsheet on hydropower</u>.
- **42.** Rainforest Action Network et al., **Banking** on Climate Chaos 2025, June 2025.
- **43.** IEA, <u>The Oil & Gas Industry in Net Zero Transitions</u>, Figure 3.17, November 2023.
- **44.** IEA, <u>Net-Zero Roadmap</u>, September 2023.
- **45.** RystadEnergy, <u>Gridlock: Europe's power</u> network needs fast-track investment for decarbonization targets to be met, July 2023; FT, <u>Gridlock in China: huge spending on network in shift to green energy</u>, July 2024.
- **46.** Bioenergy covers solid biomass, biogas, and biofuels.
- **47.** See Reclaim Finance's <u>factsheet on hydrogen</u>.
- **48.** Influence Map, <u>The International Gas</u>
 <u>Union's Climate Strategy</u>, December 2022.

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Lead author:

Rémi Hermant, Reclaim Finance

Co-authors:

Andréa Hernandez, Reclaim Finance **Léa Miomandre**, Reclaim Finance

Contributors & reviewers:

Quentin Aubineau, BankTrack **Diogo Silva**, BankTrack

Brigitte Alarcon, Beyond Fossil Fuels
Cyrille Cormier, Beyond Fossil Fuels
Margherita Gagliardi, Beyond Fossil Fuels

Allison Fajans-Turner, Rainforest Action Network **Caleb Schwartz**, Rainforest Action Network

Zaki Mamdoo, StopEACOP Campaign

Kathrin Petz, Urgewald

Sarah Bakaloglou, Reclaim Finance
Ulysse Bex, Reclaim Finance
Achille Bogaert, Reclaim Finance
Helen Burley, Reclaim Finance
Alexine Cordelle
Aurélien Dubois, Reclaim Finance
Florence Gherardi, Reclaim Finance
Henri Her
Anaïs Lehnert, Reclaim Finance
Aurore Mathieu, Reclaim Finance
Lucie Pinson, Reclaim Finance
Louise Wagner, Reclaim Finance
Clara Williams, Reclaim Finance
Hélène Drouet, Reclaim Finance

Report design:

Camille Hermant

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Aatiraï Manickawasagar, Reclaim Finance **Léo Martin**, Reclaim Finance **Profundo** contributed to the research with data collection, processing and cleaning, data verification, and the development of segment adjusters.



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