Vote FOR the New York City Retirement Systems’ Clean Energy Investment Ratio Shareholder Proposals at This Year’s Bank Annual Meetings

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Resolved:

Shareholders request that each bank ("Company") disclose annually its Clean Energy Supply Financing Ratio ("Ratio"), defined as its total financing through equity and debt underwriting, and project finance, in low-carbon energy supply as a proportion of that in fossil-fuel energy supply. The disclosure, prepared at reasonable expense and excluding confidential information, shall describe the Company’s methodology, including what it classifies as “low carbon” or “fossil fuel.”

**Clean Energy Financing Ratio** = Financing of low-carbon energy supply relative to financing of fossil-fuel energy supply.
- Financing defined to include equity and debt underwriting, and project finance, consistent with BNEF methodology
- See Appendix A for definition of energy supply

Proposal’s supporting statement also recommends, at management’s discretion, Goldman Sachs:
- Set timebound ratio targets aligned with its net zero commitments
- Consult BloombergNEF’s (BNEF) “Financing the Transition: Energy Supply Investment and Bank Financing Activity” report when setting Ratio targets and defining “low carbon” and “fossil fuel” financing
- Work to establish standardized industrywide methodologies
- Address/Include lending

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6 focus companies

1. Royal Bank of Canada
2. Bank of America
3. Goldman Sachs
4. Morgan Stanley
5. JP Morgan – Withdrawn based on ratio disclosure commitment
6. Citigroup – Withdrawn based on ratio disclosure commitment

✓ Among the largest energy supply lenders and underwriters
✓ Net Zero Banking Alliance (NZBA) members and have thus committed to:
  • Achieve net zero greenhouse gas (GHG) emissions for financing activities by 2050
  • Set Intensity and/or absolute targets
  • Annually disclose absolute financed emissions
10 reasons to vote FOR the Proposal

1. As linchpins of the global economic system, large banks broadly exposed to financial stability risks posed by climate change
2. Enhances investors’ ability to assess the bank’s transition risks and opportunities, progress towards its net zero commitments and the pace and scale of its energy transition
3. Proposal seeks disclosure – it is not prescriptive as to methodology or definitions
4. Energy transition is a significant profit-generating opportunity that has been turbocharged in the U.S. by Inflation Reduction Act
5. Each bank has made robust commitments to sustainable finance, but investors need enhanced disclosure to track actual clean energy financing
6. Provides investors with a reliable, decision-useful clean energy financing ratio from the bank itself, not third-party estimates
7. Complements and supplements bank’s climate-related financial disclosures
8. Provides opportunity to demonstrate leadership in financing the energy transition
9. Citigroup’s and JPMorgan’s commitment to ratio disclosure demonstrates feasibility
10. Voluntary disclosure benefits investors in the near term and does not preclude standardization of ratio methodology
The Risks
Largest banks broadly exposed to climate and transition risk

Numerous (≥11) global government regulators and organizations identify climate change as emerging and increasing threat to financial stability (see Appendix B)

Forecasted financial impacts are extensive

- Marsh McLennan estimates that climate change will put 2% of global financial assets at risk by 2100, and up to 10% by 2100 in a worst-case scenario\(^2\)
- The U.S. economy could lose 1% - 4% of GDP annually by the end of the century through effects to mortality, labor and the energy sector alone under a high emissions scenario\(^3\) (Energy Policy Institute at the University of Chicago)

“Climate risk is highly concentrated in the largest U.S. financial institutions, which are major financiers of the industries driving climate change through either lending, underwriting, investing, or some combination of these activities.”\(^4\)

“Transition risk is about mismatches in resources. Indeed, the energy market’s underlying issue is a mismatch in investments. Capex in fossil fuels has slowed to levels consistent with a net-zero future, but investment in renewables has lagged.”\(^5\) (Blackrock Investment Institute)
The Science
Clean energy financing must TRIPLE by 2030

- Reaching net zero greenhouse gas (GHG) emissions by 2050 is necessary to avoid most devastating consequences of climate change (IPCC)\(^6\)
- IEA projects that reaching net zero by 2050 will require a tripling in global annual clean energy investment by 2030\(^7\)
- The pace at which low-carbon energy supply is scaled up will dictate the rate at which fossil fuels are phased down
- Ratio integrates trends in both clean and fossil fuel financing
- BNEF concluded that its Ratio estimate must reach 4:1 by 2030 to achieve net zero emissions by 2050\(^8\)
  - Aligned with most referenced 1.5C–aligned pathways, including the IEA Net Zero Emissions 2050 that informed Goldman Sachs’ target setting
  - BNEF report commissioned by Glasgow Financial Alliance for Net Zero (GFANZ)
The Opportunity
Banks’ ratio gaps signal value creation opportunity

Massive opportunity in U.S. as Inflation Reduction Act provides nearly $400 billion in spending and tax credits to bolster clean energy

2022 Average Ratios vs. 2030 Target
BNEF estimates

6 North American Banks
BNEF’s estimated 2022 Ratio

RBC
0.4

Morgan Stanley
1.3

JPMC
0.8

Goldman Sachs
1.2

Citi
0.6

Bank of America
1
BCG sees $7 trillion in banks’ value creation from energy transition

“To Seize a $7 Trillion Opportunity, Banks Need Bolder Strategies for Serving Customers and Society

January 2024

BCG, GS, and Mekins; Bojan Blažek and Andrea Riff; Alessandro Marchetti and Richard Daft; Alasdair Ogilvy; Sand Stranc; Stevens Pfeffer; Yogesh Mishra; Andy Moxon; Andy Webber; and Mark Whiteman

“Banks are not likely to return to the profitability levels and valuations that existed prior to the global financial crisis. Yet they have the opportunity to earn more than their cost of equity on a sustainable basis and increase valuations.

We estimate that at least $7 trillion in value can be created. This corresponds to roughly doubling current valuations in the coming five years by taking a fair share of expected growth and improving price-to-book ratios.

It is critical for banks to set their sights on this target. The goal is not only to create shareholder value but also to meet their obligations to drive economic growth and finance the climate transition. These aspirations can be reached if banks take a step back, get to the bottom of their performance issues, and set a bold agenda. This agenda needs to promote growth, significantly improve productivity, and make them more appealing to investors to enable additional capital infusion.”

Boston Consulting Group (BCG), January 2024

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Energy transition is underway – Banks expected to play key role

Global energy investment in clean energy and in fossil fuels
2015 - 2023

$US Billions (2022)

Source: IEA

“The transition is happening, and companies and investors need to have a view on how it’s evolving. Companies must decide how to revamp their business models, where to invest and what operations to phase out.”

(BlackRock Investment Institute, 2022)

“Governments will place high expectations on banks to be role models and catalysts for change on climate transition.”

(Boston Consulting Group, January 2024)
Banks earn more from financing clean energy

![Bar chart showing earnings from green fees and fossil fuel fees from 2020 to 2023.](chart)

Source: Bloomberg
Note: 2023 data is through Oct. 13.
Complimentary Disclosure
Benefits of Clean Energy Financing Ratio disclosure

- Complements and supplements current disclosures, especially financed emissions
  - Relies on internal dollar-based data rather than emissions that may present data availability and reliability challenges
    - Financed emissions disclosure and targets are essential, but often rely on voluntary client disclosure (e.g. for private companies and non-accelerated filers in U.S.)
  - Highlights real economy impacts of banks’ energy supply financing
- Focuses on pace and scale of investment in climate solutions
- Provides disclosure specific to relative financing of clean and fossil fuel energy supply, where decision-useful disclosure is currently limited
- Addresses debt & equity underwriting, which NZBA identifies as the most relevant off-balance sheet activity for banks to address for facilitating GHG emissions reductions and mitigating climate impact\(^\text{12}\)
  - Underwriting, not direct lending, accounts for the bulk of banking sector’s energy-related financing\(^\text{13}\)
  - Underwriting not captured by European Union disclosure rules (Green Asset Ratio)
Ratio enables investors to assess pace and scale of investment in clean energy relative to fossil fuels.

Fossil Fuel Strategy

• Third-parties estimated that RBC has financed approximately $250 billion to fossil fuels since the Paris Agreement, fourth largest in the world\textsuperscript{14}
• 2022 BNEF estimated ratio of 0.4:1 is the lowest of the focus bank

Low-Carbon Financing Commitment

• Committed in 2021 to $500 billion to “sustainable finance” by 2025, includes investments in low-carbon technology and projects\textsuperscript{15}
• Announced in March 2024 new goals to increase renewables lending by 3X and to allocate $1 billion to support the development and scaling of innovative climate solutions by 2030\textsuperscript{16}

Disclosure

• Reported $103 billion in “Sustainable Finance in 2023, approximately 8% of which deployed towards “renewable energy”
• Recently announced Transition Readiness Framework does not address relative amounts of clean energy and fossil fuel finance
Goldman Sachs Proposal 8
Upcoming Annual Meeting: April 24, 2024

Ratio enables investors to assess pace and scale of investment in clean energy relative to fossil fuels.

Fossil Fuel Strategy

• Third-parties estimate that Goldman Sachs has financed approximately $143 billion to fossil fuels since the Paris Agreement, based on Bloomberg league tables (include but not limited to company disclosures)¹⁷

• Fossil fuel financing declined to $9 billion in 2022 from $21 billion in 2021

• 2022 BNEF estimated ratio of 1.2, one of the highest among focus banks

Low-Carbon Financing Commitment

• 10-year $750 billion “sustainable financing, investing and advisory activity” target separated into two categories without targets: 1) climate transition and 2) inclusive growth¹⁸

Disclosure

• Financed emissions targets for power and energy sectors--which are based on emissions intensity, not absolute emissions -- do not allow investors to assess actual emissions reductions

• 2023 TCFD Report discloses $215 billion achieved toward “Climate Transition” commitment, includes clean energy, but lacks specificity with respect to low carbon energy supply¹⁹

• Contrary to implication in opposition statement, Green Asset Ratio does not render requested Ratio unnecessary (see slide 16)
Ratio enables investors to assess pace and scale of investment in clean energy relative to fossil fuels.

**Fossil Fuel Strategy**

- Third-parties estimate that Bank of America has financed approximately $280 billion to fossil fuels since the Paris Agreement, fourth largest in the world.\(^{20}\)
- Reversal of bank’s policy to not finance new coal mines, coal-fired power plants, and arctic drilling indicates potential change in strategy and risk exposure, warranting further disclosure.

**Low-Carbon Financing Commitment**

- $1.5 trillion “sustainable finance” goal across the firm by 2030 in alignment with the UN SDGs, of which $1 trillion dedicated to “Environmental Transition”

**Disclosure**

- Financed emissions targets -- which are based on emissions intensity, not absolute emissions -- do not allow investors to assess actual emissions reductions.
- Deployed $410 billion in “sustainable finance” in 2022, of which $235 billion was deployed to the “Environmental Transition,” which encompasses “low-carbon energy, energy efficiency, and sustainable transportation...water conservation, land use and waste”\(^{21}\)
- Reported investment in Environmental Transition lacks specificity with respect to energy supply financing.
Morgan Stanley Proposal

Ratio enables investors to assess pace and scale of investment in clean energy relative to fossil fuels.

Fossil Fuel Strategy
- Third-parties estimate that Morgan Stanley has financed approximately $153 billion to fossil fuels since the Paris Agreement, based on Bloomberg league tables (include but not limited to company’s SEC disclosures)\(^22\)
- Disclosure-only proposal does not request change in strategy, affect management’s discretion, nor conflict with financed emissions disclosures, contrary to implication in opposition statement

Low-Carbon Financing Commitment
- Announced $1 trillion, 10-year commitment to “sustainable finance,” which includes $750 billion towards “low-carbon and green solutions,” which includes clean energy, adaptation, clean mobility, and other environmental solutions

Disclosure
- Financed emissions targets -- which are based on emissions intensity not also absolute emissions -- and do not allow investors to assess actual emissions reductions
- Reported $550 billion deployed to “low-carbon and green solutions” lacks specificity with respect to energy supply\(^23\)
- Client Strategy Assessment Framework will not address energy supply financing activity

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Appendix A

What is energy supply?

<table>
<thead>
<tr>
<th>Production and supply</th>
<th>Manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low-carbon</strong></td>
<td><strong>Company revenue driven by the development of plants/facilities manufacturing low-carbon energy equipment. This includes equipment and services, such as modules, turbines and components. We include smart grid equipment due to the direct enablement of clean power on the grid.</strong></td>
</tr>
<tr>
<td><em>Solar</em></td>
<td><em>Plant development</em></td>
</tr>
<tr>
<td><em>Wind</em></td>
<td><em>Solar, biomass, wind</em></td>
</tr>
<tr>
<td><em>Geothermal</em></td>
<td><em>Smart grid equipment</em></td>
</tr>
<tr>
<td><em>Hydropower</em></td>
<td><em>Clean energy equipment</em></td>
</tr>
<tr>
<td><em>Storage</em></td>
<td><em>Solar cells/modules, inverters</em></td>
</tr>
<tr>
<td><em>Marine power</em></td>
<td><em>Wind turbines</em></td>
</tr>
<tr>
<td><em>Biofuels and biomass</em></td>
<td><em>Geothermal equipment</em></td>
</tr>
<tr>
<td><em>Nuclear</em></td>
<td><em>Hydro equipment</em></td>
</tr>
<tr>
<td><em>Electricity grid</em></td>
<td><em>Fuel cells</em></td>
</tr>
<tr>
<td><em>Hydrogen and CO2 transport/storage</em></td>
<td><em>Nuclear equipment</em></td>
</tr>
</tbody>
</table>

**Fossil Fuels**

*Company revenue driven by fossil-fuel-based sources of energy production. This includes coal, oil and gas, and utility fossil-fuel power generation for electricity and heating/cooling. This also includes the transportation and refining businesses.*

- **Utilities**
  - Fossil-fuel power generation
  - Heating and cooling
  - Coal
  - Mining
  - Rail/freight

- **Oil and gas**
  - Exploration and production
  - Transport
  - Refining
  - Marketing/trading
  - Filling stations

- **Equipment and infrastructure**
  - Generators
  - Power generation equipment, parts and services
  - Power boilers and heat exchangers
  - Oilfield chemicals

Source: BNEF
Appendix B

Global regulators identifying climate change as financial stability threat

Source Links
6. https://www.bis.org/bcbs/publ/d517.pdf
BloombergNEF’s Energy Supply Banking Ratios

A metric for financing the transition

Trina White
Co-authors: Ryan Loughead, Jak Linstaedt, Claudio Lubis, Jonas Rooze, William Young

March 20, 2024
What level of investment is required... 

*In both low-carbon energy* and fossil fuels?

Source: Bloomberg LP
A 1.5°C world requires huge investment in total energy supply to meet climate targets

Cumulative total energy supply investment from 2021, by climate scenario

Trillion $ (2022)

Source: BloombergNEF, IEA, IPCC, NGFS. Note: Total energy supply investment constitutes of low-carbon power supply, hydrogen infrastructures and uses, carbon capture and storage, upstream, midstream, and downstream for oil, gas, and coal and unabated fossil fuel power generation. For more on total energy supply investment, see: Counting Cash in Paris Aligned Pathways (web | terminal) and Investment Needs of a 1.5°C World (web | terminal)
Low-carbon energy supply investment far exceeds fossil fuels in all 1.5°C-consistent scenarios

Energy supply investment by scenario and type

Source: BloombergNEF, International Energy Agency (IEA), the Intergovernmental Panel on Climate Change (IPCC), the Network for Greening the Financial System (NGFS).

Note: NZE stands for Net Zero Emissions. IPCC P1 is a low-energy demand scenario. IPCC C1 are scenarios that limit warming to 1.5°C by 2100 with no or limited overshoot of the carbon budget. SP stands for shifting pathways, LD stands for low demand and REN stands for renewables.
Ratios allow us to normalize across scenarios

Source: BloombergNEF, IEA, IPCC, NGFS
Ratios allow us to normalize across scenarios

Source: BloombergNEF, IEA, IPCC, NGFS
Investment ratios are currently at about parity between low-carbon energy and fossil fuels...

Energy supply investment ratio

Historical ratio

0.47 0.47 0.45 0.74 0.96 1.00

Source: BloombergNEF, IEA, IPCC, NGFS
...but to achieve 1.5C, low-carbon energy supply investment would need to *rapidly* scale this decade

Source: BloombergNEF, IEA, IPCC, NGFS
How does current bank financing stack up?
How does current bank financing stack up?

Banks broadly reflect the underlying real economy, facilitating energy capital flows in a ratio of 0.7:1

Energy supply investment ratio

Real-economy capital investment
Bank-facilitated financing

Max (11.5)
Average (6.9)
Median (6.1)
Min (4.0)

Numbers in bracket represent ratio based on a linear trajectory in 2030

Source: BloombergNEF, IEA, IPCC, NGFS, Urgewald, Rainforest Action Network, IJGlobal
Energy financing declined slightly in 2022; ratio remained similar at 0.73:1

Energy supply underwriting by all banks, 2021-22, by financing type

<table>
<thead>
<tr>
<th>Financing Type</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt</td>
<td>$707</td>
<td>$836</td>
</tr>
<tr>
<td>Equity</td>
<td>$45</td>
<td>$32</td>
</tr>
<tr>
<td>Project Finance</td>
<td>$98</td>
<td>$96</td>
</tr>
<tr>
<td>Tax equity</td>
<td>$16</td>
<td></td>
</tr>
</tbody>
</table>

Low-carbon energy supply: $851bn
Fossil-fuel energy supply: $1,130bn

How does current bank financing stack up?

Source: Bloomberg LP, BloombergNEF, RAN, Urgewald, IJGlobal
North American banks make up the largest share of energy supply financing, with a ratio of 0.6:1

Energy supply facilitated financing by bank headquarters, 2021-22

$ billion (2022 real)

North America

<table>
<thead>
<tr>
<th>Year</th>
<th>Low-carbon energy supply</th>
<th>Fossil-fuel energy supply</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>253</td>
<td>191</td>
<td>0.6</td>
</tr>
<tr>
<td>2022</td>
<td>299</td>
<td>117</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Source: Bloomberg LP, BloombergNEF, RAN, Urgewald, IJGlobal
Institutional level data reveals differences within region

North American banks energy supply facilitated financing, 2022

<table>
<thead>
<tr>
<th>Bank</th>
<th>Low-carbon</th>
<th>Fossil fuels</th>
<th>Total</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>JPMorgan Chase</td>
<td>31.5</td>
<td>37.9</td>
<td>$69</td>
<td>0.8</td>
</tr>
<tr>
<td>Bank of America</td>
<td>32.3</td>
<td>32.0</td>
<td>$64</td>
<td>1.0</td>
</tr>
<tr>
<td>Citigroup Inc.</td>
<td>20.0</td>
<td>34.4</td>
<td>$54</td>
<td>0.6</td>
</tr>
<tr>
<td>Wells Fargo</td>
<td>14.3</td>
<td>35.7</td>
<td>$50</td>
<td>0.4</td>
</tr>
<tr>
<td>Royal Bank of Canada</td>
<td>11.5</td>
<td>31.2</td>
<td>$43</td>
<td>0.4</td>
</tr>
<tr>
<td>The Bank of Nova Scotia</td>
<td>8.7</td>
<td>27.2</td>
<td>$36</td>
<td>0.3</td>
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<tr>
<td>TD Bank Group</td>
<td>7.8</td>
<td>22.4</td>
<td>$30</td>
<td>0.4</td>
</tr>
<tr>
<td>Goldman Sachs</td>
<td>14.7</td>
<td>11.9</td>
<td>$27</td>
<td>1.2</td>
</tr>
<tr>
<td>Morgan Stanley</td>
<td>13.5</td>
<td>10.6</td>
<td>$24</td>
<td>1.3</td>
</tr>
<tr>
<td>BMO Financial Group</td>
<td>5.9</td>
<td>13.1</td>
<td>$19</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Source: Bloomberg LP, BloombergNEF, RAN, Urgewald, IJGlobal.

How does current bank financing stack up?
How does BNEF approach this metric?

Methodology overview
## How does BNEF approach this metric?

### BNEF’s analysis spans the energy value chain

<table>
<thead>
<tr>
<th>Focus of the ESBR</th>
<th>Energy Supply</th>
<th>Energy Demand</th>
<th>Excluded</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low-carbon</strong></td>
<td>Company revenue driven by the development, extraction, transportation or generation of energy.</td>
<td>Company revenue driven by the manufacture of clean technologies.</td>
<td><strong>Not included: Adjacent sectors</strong></td>
</tr>
<tr>
<td>Production and supply</td>
<td>• Solar</td>
<td>• Plant development</td>
<td>• Electric passenger vehicles</td>
</tr>
<tr>
<td></td>
<td>• Wind</td>
<td>• Solar, biomass, wind</td>
<td>• Electric trucks</td>
</tr>
<tr>
<td></td>
<td>• Geothermal</td>
<td>• Smart grid equipment</td>
<td>• Leasing electric vehicles</td>
</tr>
<tr>
<td></td>
<td>• Hydropower</td>
<td>• Clean energy equipment</td>
<td>• Electric-vehicle financing</td>
</tr>
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<td></td>
<td>• Storage</td>
<td>• Solar cells/modules, inverters</td>
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<td></td>
<td>• Marine power</td>
<td>• Wind turbines</td>
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<td></td>
<td>• Biofuels and biomass</td>
<td>• Geothermal equipment</td>
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<td></td>
<td>• Nuclear</td>
<td>• Hydro equipment</td>
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<td></td>
<td>• Electricity grid</td>
<td>• Fuel cells</td>
<td></td>
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<td></td>
<td>• Hydrogen and CCS</td>
<td>• Nuclear equipment</td>
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<table>
<thead>
<tr>
<th>Fossil Fuels</th>
<th>Energy Supply</th>
<th>Energy Demand</th>
<th>Excluded</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Utilities</td>
<td>• Oil and gas</td>
<td>• Equipment and infrastructure</td>
<td><strong>Not included: Adjacent sectors</strong></td>
</tr>
<tr>
<td>• Fossil-fuel power generation</td>
<td>• Exploration and production</td>
<td>• Generators</td>
<td>• Recycling and waste management</td>
</tr>
<tr>
<td>• Heating and cooling</td>
<td>• Transport</td>
<td>• Power generation equipment, parts and services</td>
<td>• Sustainable materials</td>
</tr>
<tr>
<td>• Coal</td>
<td>• Refining</td>
<td>• Power boilers and heat exchangers</td>
<td>• Pollution control equipment</td>
</tr>
<tr>
<td>• Mining</td>
<td>• Marketing/trading</td>
<td>• Oilfield chemicals</td>
<td>• Metals and mining</td>
</tr>
<tr>
<td>• Rail/freight</td>
<td>• Filling stations</td>
<td></td>
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<tr>
<td>• Oil and gas</td>
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<td>• Exploration and production</td>
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<td>• Generators</td>
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<td>• Oilfield chemicals</td>
<td></td>
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</tbody>
</table>

Company revenue driven by the manufacture and financing of transportation technologies.

| Consumption | • Electric passenger vehicles | • Electric trucks | • Leasing electric vehicles |
|            | • Electric-vehicle financing |  |  |

Company revenue driven by the manufacture and financing of transportation technologies.

| • Passenger/commercial vehicles | • Aircraft engines and parts |
| • Manufacturing and leasing | • Vehicle financing (passenger, commercial, railcar) |
| • Engines and parts | • Vehicle rental |
| • Trucks |  |
| • Shipbuilding |  |  |

**How does BNEF approach this metric?**

How does BNEF approach this metric?
BNEF’s methodology is built on transactions underwritten by banks for the energy sector

1. **Select company universe**
   - **Issuers**: ~16,000 companies with energy sector revenue

2. **Pull financing activity**
   - **Gather transaction data issued by relevant companies**
     - Loans
     - Bonds
     - Equity
     - Project finance and tax equity

3. **Adjust transactions**
   - **Adjust transaction data for general corporate financing, by multiplying by percentage exposure to fossil fuels or clean energy**
     - Sources: Bloomberg Industry Classification
     - Sources: Urgewald GCEL/GOGEL

   - **Sources:** Bloomberg LP, BNEF, IJGlobal

**Sources:**
- Fossil fuels
- Clean Energy
- Green debt

**Add full value of transactions for project finance and renewables tax equity**

**How does BNEF approach this metric?**
BNEF analysis spans four main bank financing activities and focuses on energy supply

<table>
<thead>
<tr>
<th>Type of financing</th>
<th>Recourse debt issuances</th>
<th>Equity issuances</th>
<th>Non-recourse project finance</th>
<th>Tax equity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset class or type</td>
<td>Bonds</td>
<td>Loans</td>
<td>Green debt</td>
<td>IPOs</td>
</tr>
<tr>
<td>Source</td>
<td>Bloomberg LP</td>
<td>Bloomberg LP</td>
<td>IJGlobal</td>
<td>BNEF</td>
</tr>
<tr>
<td>Role</td>
<td>Underwriting</td>
<td>Underwriting</td>
<td>Underwriting</td>
<td>Direct investment</td>
</tr>
<tr>
<td>Energy supply results</td>
<td>~$1.4 trillion total $584 billion low-carbon, $836 billion fossil fuels Energy Supply Banking Ratio = 0.7</td>
<td>~$0.07 trillion total $32 billion low-carbon, $35 billion fossil fuels Energy Supply Banking Ratio = 0.9</td>
<td>~$0.17 trillion total $76 billion low-carbon, $96 billion fossil fuels Energy Supply Banking Ratio = 0.8</td>
<td>~$0.02 trillion total $16 billion low-carbon</td>
</tr>
</tbody>
</table>

Source: Bloomberg LP, BloombergNEF, RAN, Urgewald, IJGlobal. Note: Banks serve their clients in the energy sector in numerous other roles that are not the focus of this report. These include but are not limited to serving as an arranger or agent on a debt issuance, direct lending as opposed to underwriting, tax equity investing, asset management, and retail banking (in other words, loans for electric vehicles). Most of these omissions are due to data limitations.
## How does the ESBR compare to other frameworks for assessing banks on climate progress?

<table>
<thead>
<tr>
<th>Description</th>
<th>Framework developer</th>
<th>What is included?</th>
<th>What is not included?</th>
<th>Limitations</th>
<th>What has it added to the conversation?</th>
<th>Green financing targets and progress</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Energy Supply Banking Ratios</strong></td>
<td>BloombergNEF</td>
<td>• Underwriting activity</td>
<td>• Corporate bilateral or otherwise private loans</td>
<td>• Relies on commercial databases and estimates, rather than company reporting</td>
<td>• Focused on new investment and finance facilitations required for the energy transition</td>
<td></td>
</tr>
<tr>
<td><strong>Green Asset Ratio (EU Taxonomy)</strong></td>
<td>European Banking Authority</td>
<td>• Corporate and project loans</td>
<td>• Facilitated financing (in other words, underwriting)</td>
<td>• Not tied to any benchmark rooted in science</td>
<td>• Focused on balance sheet exposure of institutions to particular asset types</td>
<td>• $ volume of finance and facilitation toward “green” companies and projects</td>
</tr>
<tr>
<td><strong>Financed emissions accounting and net-zero targets</strong></td>
<td>Partnership for Carbon Accounting Financials (PCAF)</td>
<td>• Equity holdings</td>
<td>• Exposure to governments, central banks</td>
<td>• Not growth-oriented; based on “stock” or balance sheet, rather than tracking new financial flows</td>
<td>• First mandatory reporting metric that focuses on the “green” side of the energy transition</td>
<td></td>
</tr>
<tr>
<td><strong>Green financing targets and progress</strong></td>
<td>Science-Based Targets initiative (SBTi)</td>
<td>• Household auto and mortgages</td>
<td>• Assets under management</td>
<td>• Broad “green” bucket not focused on specific goals (in other words, climate)</td>
<td>• Reporting increases transparency and data availability</td>
<td></td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>European Commission</td>
<td>• Project finance and tax equity</td>
<td>• Loans to small companies and non-EU corporates not subject to Non-Financial Reporting Directive (NFRD) (but included in denominator)</td>
<td>• Underwriting activity</td>
<td>• Not tied to a benchmark rooted in science</td>
<td></td>
</tr>
<tr>
<td><strong>Limitations</strong></td>
<td></td>
<td></td>
<td></td>
<td>• Retail (in other words, household) lending</td>
<td>• Broad “green” bucket not focused on one goal (in other words, climate)</td>
<td></td>
</tr>
<tr>
<td><strong>What is not included?</strong></td>
<td></td>
<td>• Corporate bonds and syndicated loans</td>
<td></td>
<td>• Relies on two of the GFANZ four financing strategies: “climate solutions” and “managed phase out”, partial coverage of aligned or aligning in other words, “transition” finance</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>What has it added to the conversation?</strong></td>
<td></td>
<td>• Equity issuances</td>
<td></td>
<td>• Focused exclusively on emissions rather than solutions/new investment in low-emission assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>How does BNEF approach this metric?</strong></td>
<td></td>
<td>• Project finance and tax equity</td>
<td></td>
<td>• Incentivizes divestment – can lead to emissions being shifted off balance sheet</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Green financing targets and progress</strong></td>
<td></td>
<td></td>
<td></td>
<td>• Anchored in sectoral emissions pathways</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>• Addresses the unique impact financials have, contrasted with real economy companies</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>• Backbone of many global sustainability reporting mandates, such as the CSRD (EU) and Securities and Exchange Commission proposals (US) for banks</td>
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<td></td>
</tr>
</tbody>
</table>

### BloombergNEF approach

- **Description**: Ratio of low-carbon to fossil-fuel energy supply banking activity
- **Framework developer**: BloombergNEF
- **What is included?**
  - Corporate and project loans
  - Equity holdings
  - Corporate bonds and syndicated loans
  - Equity issuances
  - Project finance and tax equity
- **What is not included?**
  - Ratio of low-carbon to fossil-fuel energy supply banking activity
  - Underwriting activity
  - Corporate bonds and syndicated loans
  - Equity issuances
  - Project finance and tax equity
- **Limitations**
  - Relies on commercial databases and estimates, rather than company reporting
  - Focused on two of the GFANZ four financing strategies: “climate solutions” and “managed phase out”, partial coverage of aligned or aligning in other words, “transition” finance
- **What has it added to the conversation?**
  - Focused on new investment and finance facilitations required for the energy transition
  - Rooted in 1.5C climate scenarios
BloombergNEF (BNEF) is a strategic research provider covering global commodity markets and the disruptive technologies driving the transition to a low-carbon economy.

Our expert coverage assesses pathways for the power, transport, industry, buildings and agriculture sectors to adapt to the energy transition.

We help commodity trading, corporate strategy, finance and policy professionals navigate change and generate opportunities.

Trina White, 
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Email: support.bnef@bloomberg.net

Learn more:
about.bnef.com | @BloombergNEF
3 Step Guide for Foundations / Family Offices New to Proxy Voting

Step 1  Figure out what you own and how by asking your investment advisor / CIO

   a. Separately Managed Account?
   b. Direct holdings in bank(s)?
   c. Mutual funds or ETFs?

Step 2  Ask your advisor if they have a proxy voting policy for you.

   a. If yes, how is the policy being applied to these resolutions?
   b. If no, are your shares being voted?
Directing your voting intentions

Step 3 Direct your vote, depending on how your investments are held.

a. Separately Managed Accounts:
   - Direct your CIO or manager to look out for the proxies for these banks.
   - Direct your manager how you want them to vote for you on these resolutions (often via Proxyvote.com, Broadridge)
   - You can also vote directly yourself, through Broadridge by selecting a policy that aligns with your values (eg. As You Vote is ESG-aligned) or, for higher fees, hire a proxy voting service (eg. ISS, Glass Lewis)

b. Direct Equity Holdings:
   - Direct your CIO or manager to look out for the proxies for these banks and direct them on how you want them to vote for you on the NYC resolutions

c. Mutual funds and ETFs:
   - Request to vote your fractional shares through your asset manager (e.g. Blackrock and Fidelity)

For more information and guidance after this webinar contact: flaviedesgagne@trottierfoundation.com

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