RBC Energy Supply Ratio Methodology

April 2025

About Royal Bank of Canada

Royal Bank of Canada (RY on TSX and NYSE) (RBC, we, us, or our) is a global financial institution with a purpose-driven, principles-led approach to delivering leading performance. Our success comes from the 98,000+ employees who bring our vision, values and strategy to life so we can help our clients thrive and communities prosper. As Canada's biggest bank and one of the largest in the world, based on market capitalization, we have a diversified business model with a focus on innovation and providing exceptional experiences to our more than 19 million clients in Canada, the U.S. and 27 other countries.

About this document

The RBC Energy Supply Ratio Methodology (the Document) describes our approach and methodology to calculate our Energy Supply Ratio (ESR). The ESR measures our *low-carbon energy* and *decarbonization financing* compared to our *high-carbon energy* financing and is intended to help depict the evolution of our energy financing over time. This metric is being tracked and reported internally.

We recognize that transparency on our ESR and our methodology may be important to certain investors and other stakeholders. We were one of the first banks to develop an ESR methodology and we believe that providing transparency on our design choices will help inform the advancement and adoption of this metric by other banks. In this document, we have provided the details in a manner consistent with the approach outlined in the White Paper on an ESR for Bank Disclosures, published by the Institute for International Finance (IIF). See Table 1 on page 7 for the design choice details.

Approach

Our climate strategy,[1] as outlined in The RBC Climate Blueprint, is anchored in our goal to be the bank of choice for the *transition* to a *low-carbon* and *resilient* economy.

As part of our climate strategy and consistent with our role as a bank, we focus on advising and financing client actions that support the transition to a low-carbon and resilient economy in two main ways:

- **Engage and support clients** – we work with clients on their plans for the transition and develop capabilities to provide advice and financing to support clients in the transition; and
- **Portfolio actions** – we work to increase our lending to low-carbon activities as a proportion of our portfolio mix over time. We also measure and manage our high-carbon activity lending.

We have initially focused on sectors that we believe present the greatest opportunities to support and engage with our clients through the transition, including but not limited to the oil and gas and power generation sectors (referred to collectively as the energy sector in this Document). In the energy sector, RBC provides financing to support the growth of low-carbon energy, while also providing financing to meet current energy needs, including traditional sources of energy such as oil and gas. We believe RBC has a role to play in supporting clients achieve their objectives for the transition, while continuing to provide financing to meet current energy needs, including from traditional sources of energy.

To support and measure the progress of our actions in our energy portfolio, we produce various metrics including the ESR (refer to *Climate* in our 2024 Sustainability Report). The ESR is intended to help depict the evolution of energy financing over time. For details about how the ESR connects to our broader climate strategy for the energy sector, refer to *Energy: Portfolio actions* in our 2024 Sustainability Report.

(1) RBC's climate strategy applies to all of its business segments and subsidiaries but does not apply to the investment advisory activities and recommendations of as well as the assets under management or administration by RBC Global Asset Management (RBC GAM) and RBC Wealth Management (RBC WM).

Energy Supply Ratio Methodology

This section describes the methodology that we have developed to calculate our ESR, which is a measure of RBC's financing of low-carbon relative to high-carbon energy supply.

ESR formula (1), (2)

$$\frac{\text{Low-carbon energy financing + decarbonization financing}^{(3)}}{\text{High-carbon energy financing}}$$

(1) Financing refers to lending, facilitation, and renewable energy tax credits (RETCs).
(2) Refer to the Glossary for definitions of *low-carbon energy*, *decarbonization* and *high-carbon energy*.
(3) Only includes activities undertaken by clients in the energy sector, refer to *Appendix 5: Methodology and data challenges for relevant metrics* in our 2024 Sustainability Report for further information.

To develop our ESR, we used a decisioning approach that aligns with the approach outlined in the White Paper on an ESR for Bank Disclosures published by the IIF, anchored to three guiding principles:

1. Strive for consistency with definitions and methodologies used across our existing climate-related disclosures, frameworks, and commitments;
2. Maintain credibility and transparency in key design decisions by considering applicable external frameworks, standards, or guidelines published by credible industry and legislative bodies where available; and
3. Continue to refine as data sources and methodologies improve over time.

As a result of our design decisions, our ESR is not directly comparable to other banks' or third-party ratios and differs in certain key areas, as outlined below:

- We use authorized lending balances at a point in time (instead of newly originated/refinanced amounts only), reflecting the total authorized lending amounts rather than the amount drawn. We made this choice because we believe it is a more conservative and stable measure. It is also consistent with our existing measurement approaches for other reported climate-related metrics, such as our interim emissions reduction targets and our low-carbon energy lending. For clarity, authorized lending includes syndicated lending, bilateral lending and project finance.
- We take into account all financing activity, including lending, facilitation and RETC activity, with the exceptions noted in our methodology.
- For clients that engage in both low- and high-carbon activity, we split our financing based on the share of total revenue reported, not projections or forward-looking models of the use of proceeds. Where we do not have total revenue information, we use other metrics as appropriate, in line with RBC's enterprise standards for the allocation of industry codes to business clients. Some clients, particularly those in the power generation sector, produce energy from a mix of low-carbon and high-carbon sources (e.g., renewables and unabated fossil fuels). Our process is governed with second line of defence oversight. This approach is also used to measure our low-carbon and renewables lending, and our financed emissions.

The following provides a detailed description of our ESR design decisions grouped into four categories: (1) Energy sector scope and definition, (2) Scope of products, services, investments, and data sources, (3) Measurement approach, and (4) Adjustment approach.

Decision category 1: Energy sector scope and definition

Decision category 2: Scope of products, services, investments and data sources

Decision category 3: Measurement approach

Decision category 4: Adjustment approach

Decision category 1: Energy sector scope and definition

The numerator measures the sum of *low-carbon energy* and *decarbonization financing* (associated with energy financing) as defined in the 2024 Sustainability Report, refer to *Appendix 5: Methodology and data challenges for relevant metrics*.

The denominator measures RBC's oil and gas and high-carbon power generation financing, and the sub-sector boundaries are aligned with those used for our Partnership for Carbon Accounting Financials (PCAF) financed emissions. For oil and gas, this includes the upstream, downstream, midstream and integrated sub-sectors.

Decision category 2: Scope of products, services, investments, and data sources

For the purpose of the ESR, we define financing as follows:

Lending	Authorized loan balances for Capital Markets, Commercial Banking, and City National Bank clients in relevant sectors, including syndicated and bilateral lending, and project finance. • Certain product types that do not represent incremental lending exposure, such as letters of credit fronting and swing lines are not included. Other product types such as lease receivables, credit cards and bullion loans are also not included. • Capital Markets bridge loans are not included as they are non-permanent additions to companies' capital structures and often convert to facilitation activity (which is counted) over time. • We do not include any lending exposure held by RBC Insurance.
Facilitation	Capital Markets' share of facilitation activity, specifically debt capital markets (DCM) and ECM (equity capital markets) transactions where Capital Markets held a bookrunner role, for a given period (fiscal 2024) • Certain facilitation activities are not included: securitized products (such as asset-backed securities and utility securitizations), covered bonds, derivatives, advisory services including M&A, and secondary ECM issuances where the issuer does not receive any of the proceeds. • Facilitation of syndicated lending is not included as RBC's authorized loan balances to clients are already captured in the ESR under lending. • Debt and equity placement activity for private companies is included to the extent that these transactions are captured in the data sets sourced from third-party data providers. • Where feasible, data is sourced from multiple third-party sources, and various data attributes are compared to validate data accuracy and completeness.
RETCs	Investment in, and capital raising for RETCs for a given period (fiscal 2024).

Data for lending and RETC investments is sourced from internal systems. Data for facilitation is sourced externally from various third-party data providers.

Decision category 3: Measurement approach

Lending	Authorized lending balances at a point in time. This is aligned to existing measurement approaches, such as our interim financed emissions targets and our low-carbon and renewable lending commitments.
Facilitation	RBC's share of ECM and DCM deal credit for a given period, which is determined by dividing the total deal credit by the total number of bookrunners on the deal (commonly referred to as "league table credit").
RETCs	Total amount invested by RBC in the current year plus the value of RETC investments facilitated for clients in the current year.

Decision category 4: Adjustment approach

All financing is treated as general corporate purpose, including labelled issuances (e.g., green bonds) and known use of proceeds transactions. Financing is then allocated to low-carbon and/or high-carbon based on adjustment factors.

Company-level adjustment factors are determined based on business mix. Companies may be internally coded to multiple sub-sectors based on the split of their operations across sub-sectors (e.g., wind vs. solar vs. natural gas power generation). This split is performed using share of total revenue or other available proxy.

Sub-sectors are then mapped to low-carbon, decarbonization and high-carbon (as described above under *Decision category 1: Energy sector scope and definition*) to calculate adjustment factors for each company. The financing amount is then apportioned to low-carbon, decarbonization and/or high-carbon using adjustment factors, and then allocated to the numerator and/or denominator. Note that only financing related to the scope of energy supply sub-sectors is included.

Limitations

The ESR encompasses energy supply activities only and does not include energy demand sectors such as automotive.

We have developed our methodology and measurement framework on a best-efforts basis. Going forward, we will continue to enhance our ESR calculation, and may make changes to our methodology, approach and/or data sources.

Table 1: ESR Disclosure (IIF) Template

While there is no IRM for the ESR, the IIF has provided an illustrative disclosure approach in its *White Paper* to summarize design choices made by individual banks and promote transparency for investors and other stakeholders.

Category	Design decision	ESR selection
Sector scoping	Determine whether the ratio will encompass energy supply only, or both supply and demand.	✓ Energy supply only
	Define the numerator and denominator of the ratio.	**Numerator:** Measures the sum of low-carbon and decarbonization financing, defined as follows: • *Low-carbon* as described in the *Glossary* • *Decarbonization* as described in the *Glossary* **Denominator:** Measures RBC's oil and gas and high-carbon power generation financing, and the sub-sector boundaries are aligned with those used for our PCAF financed emissions. For oil and gas, this includes the upstream, downstream, midstream and integrated sub-sectors
	Decide how to treat conglomerates and holding companies with subsidiaries engaged in energy supply.	✓ Energy-focused companies and conglomerates
Scope of products, services, investments, and data sources	Select lending products for inclusion (e.g., syndicated lending, bilateral lending, project finance, etc.).	✓ Syndicated lending (authorized committed amounts) ✓ Bilateral lending (authorized amounts) ✓ Project finance (authorized amounts)
	Select facilitation activities for inclusion (e.g., debt underwriting, equity underwriting, M&A advisory, etc.).	✓ ECM activity (public and private where available via third-party) ✓ DCM activity (public and private where available via third-party) x Not included: securitized products (such as asset-backed securities and utility securitizations), covered bonds, derivatives, advisory services including M&A, and secondary ECM issuances where the issuer does not receive any of the proceeds.
	Select investment types for inclusion (e.g., RETCs).	✓ Investment in, and facilitation of RETCs x Not included: climate fund and direct investments (made towards our $1 billion commitment); investments made, managed or administered by Insurance, Corporate treasury, and RBC WM, including RBC GAM
	Decide on data sources to be used for measurement of lending, facilitation, and investment.	• Internal data used for lending and RETCs • External data used for facilitation
Measurement approach	For lending, determine the measurement approach required based on the data source.	Authorized balances (stocks)
	For facilitation (including syndicated lending), determine the attribution method to calculate bank credit (League Table Credit vs. Fee Wallet methods).	Annual flows using League Table Credit method (deal size divided by number of bookrunners)
	For investment, determine any measurement considerations as required.	Annual flows of RETC volume
Adjustment approach	Allocate all in-scope lending, facilitation, and investments with known use of proceeds into the numerator or denominator.	Split financing between numerator and denominator using company-level adjustment factors (based on share of total revenue or other available proxy)
	For all other in-scope lending, facilitation, and investments (e.g., general corporate purpose), determine adjustment approach (i.e., whether bank credit will be allocated using a binary approach or an adjustment factor - split and apportionment of business activities).	

Glossary

Decarbonization finance/financing - we define decarbonization finance as including two elements: 1) the decarbonization activity and 2) the client having a sufficiently robust transition plan. Decarbonization activities are those that help reduce emissions from high-emitting, hard-to-abate sectors. Refer to *Appendix 5: Methodology and data challenges for relevant metrics* in the 2024 Sustainability Report for details.

Greenhouse gas emissions - GHGs are gases released into the atmosphere due to natural and anthropogenic (human-caused) activities that absorb and re-emit infrared radiation. The primary GHGs in the Earth's atmosphere are carbon dioxide, water vapour, methane, nitrous oxide, and ozone.

High-carbon energy - high-carbon energy measures RBC's oil and gas and high-carbon power generation financing, and the sub-sector boundaries are aligned with those used for our PCAF financed emissions. For oil and gas, this includes the upstream, downstream, midstream and integrated sub-sectors.

Low-carbon economy - an economy with minimal output of GHG emissions.

Low-carbon energy - low-carbon energy activities include the construction, development, operation, acquisition, maintenance and connection of: renewable energy sources (e.g., solar, wind, tidal, geothermal, waste biomass and renewable biofuels and hydroelectricity), other low-carbon energy sources (e.g., nuclear and green hydrogen), as well as electricity transmission and distribution systems, energy storage (e.g., battery technology) and efficiency improvements (e.g., smart grids). Refer to *Appendix 5: Methodology and data challenges for relevant metrics* in the 2024 Sustainability Report for details.

PCAF - Partnership for Carbon Accounting Financials is a global partnership of financial institutions that work together to develop and implement a harmonized approach to assess and disclose the GHG emissions associated with their loans and investments.

Resilient or resilience - the capacity to anticipate, cope with, recover from, or adapt to shock, disruption, stress or changing factors in the external environment. In the context of climate, this refers to the resilience of the economy to the effects of climate change. In the context of skills, this refers to the capacity of an individual to adapt to industry shifts, technological advancements in the workplace, organizational changes, and career pivots. In the context of communities, this refers to communities being resilient to a wide range of risks while maintaining an acceptable level of functioning without compromising long-term prospects of sustainability development, peace and security, human rights, and wellbeing for all.

Transition - refers to the economic, energy, technological, and societal transformation that is required to achieve the significant GHG emissions reductions necessary for a low-carbon or net-zero world. This will impact all sectors, and is highly dependent on substantial GHG emissions reductions in high-emitting sectors.

Caution regarding forward-looking statements and important notice regarding this document

This Document is provided solely to provide information on our approach and methodology to calculate our Energy Supply Ratio (ESR). This Document does not constitute an offer or a solicitation to buy or sell any security, product or service in any jurisdiction; nor is it intended to provide investment, financial, legal, accounting, tax or other advice, and such information should not be relied or acted upon for providing such advice. Nothing in this Document shall form the basis of or be relied upon in connection with any contract, commitment or investment decision whatsoever. The recipient is solely liable for any use of the information contained in this Document, and neither RBC nor any of its affiliates nor any of their respective directors, officers, employees or agents shall be held responsible for any direct or indirect damages arising from the use of this Document by the recipient.

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This Document reflects our sustainability-related strategies, positions, approaches, policies, procedures, criteria, objectives, visions, commitments and goals as of the date of this Document, which are subject to change at any time in our sole discretion without notice. We have no obligation to update any information in this Document.

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