



May 3, 2022

## Global Energy Best Ideas

**Our view:** In April, the RBC Global Energy Best Ideas List was up 1.2% compared to the iShares S&P Global Energy Sector ETF (IXC) down 1.9% and a hybrid benchmark (75% IXC, 25% JXI – iShares Global Utilities ETF) down 2.5%. Since its inception in February 2013, the RBC Global Energy Best Ideas List is up 117.6% compared to the S&P Global Energy Sector ETF up 13.3%.

Total Return Comparison	April	YTD	Inception
iShares S&P Global Energy (IXC)	-1.9%	29.0%	13.3%
Hybrid Benchmark (75% IXC, 25% JXI)	-2.5%	21.1%	32.1%
RBC Global Energy Best Ideas	1.2%	29.6%	117.6%

**April List Changes:**

Additions: N/A  
Removals: N/A

RBC GLOBAL ENERGY BEST IDEAS LIST								
	Ticker	Rating <sup>1</sup>	Analyst	Mkt Cap (mn)	Date Added	Add Price	Current Price	Price Target
<b>Integrated Energy</b>								
Shell	SHEL-LON	OP	Borkhataria	£163,120	7/1/20	1,224p	2,173p	2,750p
BP	BP-LON	OP	Borkhataria	£76,466	3/1/22	364p	392p	450p
Cenovus Energy	CVE-CA	OP	Pardy	C\$47,072	6/1/21	C\$10.09	C\$23.74	C\$28.00
<b>Exploration &amp; Production</b>								
ConocoPhillips	COP-US	OP	Hanold	\$124,317	12/1/20	\$39.56	\$95.92	\$127.00
Canadian Natural Resources	CNQ-CA	OP	Pardy	C\$91,608	4/1/22	C\$77.41	C\$78.80	C\$85.00
Santos Limited	STO-AU	OP	Ramsay	A\$27,129	6/1/19	A\$6.74	A\$8.01	A\$9.00
Tourmaline Oil	TOU-CA	OP	Harvey	C\$21,955	1/1/20	C\$15.08	C\$66.07	C\$75.00
ARC Resources	ARX-CA	OP	Harvey	C\$11,817	5/1/21	C\$7.73	C\$17.33	C\$23.00
Range Resources	RRC-US	OP	Hanold	\$7,844	7/6/21	\$16.76	\$29.85	\$42.00
California Resources Corporation	CRC-US	OP	Hanold	\$3,102	6/1/21	\$29.01	\$39.75	\$70.00
Tamarack Valley Energy	TVE-CA	OP	Davis	C\$2,139	7/6/21	C\$2.57	C\$4.96	C\$7.50
<b>Oilfield Services</b>								
Schlumberger Ltd.	SLB-US	OP	Mackey	\$55,268	1/4/22	\$29.95	\$39.11	\$52.00
Secure Energy Services	SES-CA	OP	Mackey	C\$1,933	8/4/21	C\$4.22	C\$6.26	C\$9.00
<b>Midstream</b>								
Cheniere Energy Inc	LNG-US	OP	Scotto	\$34,635	5/1/20	\$46.69	\$136.15	\$151.00
AltaGas Ltd.	ALA-CA	OP	Kwan	C\$8,105	7/6/21	C\$26.02	C\$28.88	C\$33.00
Energy Transfer LP	ET-US	OP	Scotto	\$34,774	2/1/22	\$9.57	\$11.28	\$14.00
Rattler Midstream LP	RTL-R-US	OP	Schultz	\$515	12/1/21	\$10.65	\$13.50	\$15.00
Targa Resources Corp.	TRGP-US	OP	Schultz	\$16,951	12/1/21	\$51.63	\$74.26	\$80.00
<b>Utilities, Infrastructure &amp; Renewables</b>								
The AES Corp.	AES-US	OP	Tucker	\$13,748	12/1/21	\$23.38	\$20.60	\$30.00
Algonquin Power & Utilities	AQN-US	OP	Ng	\$9,569	6/1/21	\$15.28	\$14.26	\$17.00
Drax Group plc	DRX-LON	OP	Musk	\$3,235	5/1/21	409p	808p	1,150p

1-OP = Outperform, R = Restricted. 2-Indicates Speculative Risk. 3-Opening price given is the closing price of the trading day prior to which the stock was added. 4-Return assumes all dividends and distributions are reinvested. 5-This security is restricted pursuant to RBC Capital Markets policy and, as a result, its continued inclusion in the Global Energy Best Ideas list has not been reviewed or confirmed as of the date hereof.

Note: Performance returns do not take into account relevant costs, including commissions and interest charges or other applicable expenses that may be associated with transactions in this Equity Best Ideas list. Past performance is not, and should not be viewed as, an indicator of future performance.

Source: RBC Capital Markets estimates, FactSet

RBC Dominion Securities  
Inc.  
Greg Pardy (Head of Global  
Energy Research)  
Robert Kwan (Analyst)  
Michael Harvey (Analyst)  
Nelson Ng (Analyst)  
Luke Davis (Analyst)  
Keith Mackey (Analyst)

RBC Europe Limited  
Biraj Borkhataria (Associate  
Director of European  
Research)  
John Musk (Analyst)

RBC Capital Markets, LLC  
Scott Hanold (Analyst)  
Elvira Scotto (Analyst)  
TJ Schultz (Analyst)  
Shelby Tucker (Analyst)

Royal Bank of Canada,  
Sydney Branch  
Gordon Ramsay (Analyst)



## Investment Highlights

Below, we provide a summary of our analysts' views on each *Best Idea*.

### The AES Corp. (AES)

Shelby G. Tucker, Analyst  
(212) 428-6462  
shelby.tucker@rbccm.com

- **Transformational profile could lead to ESG premium.** AES has become one of the largest solar developers in the world, with a current backlog of 9.2 GW and 38 GW pipeline. It has been reducing its coal-fired generation exposure from 45% at the end of 2019 to 20% in July 2021. By 2025, its coal exposure should be less than 10%. Its investments in ways to integrate energy technologies should enhance the stock value. As an example, the recent IPO of Fluence Energy (FLNC, Outperform) values AES' ownership at ~\$2 billion, though the company invested less than \$150 million into the business.
- **Stable core business.** AES' earnings and cash flows are very predictable, as 85% of pre-tax earnings contribution is highly contracted or regulated. The vast majority of new generation projects are contracted through long-term purchased power agreements (PPAs). The average life of PPAs are 13 years. AES also generates a large amount of cash flows, with 2020 parent free cash flow being at \$777 million. We expect free cash flow to grow at 7%-9%, in line with earnings per share. This provides management growing funds to redeploy in its pipeline of projects. It will also allow the company to grow its dividend at least 5% a year.
- **Valuation attractive.** As of April 29, AES trades at a discount to the utilities and to the market. On 2023 estimates, its P/E multiple is 11.5x versus the utility peer group at 19.8x with NEE and 19.1x without; the S&P 500 2023 P/E stands at 17x. The same applies on an EV/EBITDA basis, as AES trades at an 8x 2023E multiple versus the utility comp group at 12.6x. We believe that the stock will benefit from a re-rating as the profile shifts increasingly toward renewables. Our \$30 price target assumes a 17x 2023E P/E multiple and 9.7x 2023E EV/EBITDA multiple, though it is based on a sum-of-the-parts methodology.

### Algonquin Power & Utilities (AQN)

Nelson Ng, Analyst  
(604) 257-7617  
nelson.ng@rbccm.com

- **Strong growth profile.** Algonquin has a \$12.4 billion 5-year capital investment program focused on growing its regulated utility rate base and renewable energy generation capacity, supporting management's forecast 7-9% EPS growth profile. The company has been successful in growing its regulated utility business organically and through M&A, and the company also has a large renewable energy development pipeline. Management has a good track record of adding renewable energy capacity inside (greening the grid) and outside (on a contracted basis) of its regulated utility footprint. We believe the pending acquisition (fully funded) of Kentucky Power provides significant opportunities to green the grid.
- **Very supportive greening initiatives in the U.S. can drive upside.** Algonquin has a large regulated utility and renewable energy footprint in the U.S. that should benefit from the Biden Administration's decarbonization objectives. Biden has a 2050 carbon net zero target, and a very ambitious target of a carbon-free electricity grid by 2035. The company has signed power purchase agreements with corporations to green its energy consumption, and has partnered with Chevron to jointly develop some renewable projects.
- **A good balance of regulated utility and renewable energy operations.** Algonquin operates a diversified regulated utility business providing electric/gas/water services to over 1 million customers primarily in the U.S. In addition, Algonquin has a renewable energy division with ~2.3 GW of generation capacity in North America with ~80% of the electricity generated contracted over an average term of 13 years. We estimate that the regulated utility division will contribute about two-thirds of the company's EBITDA in 2022.

### AltaGas Ltd. (ALA)

Robert Kwan, Analyst  
(604) 257-7611  
robert.kwan@rbccm.com

- **Is AltaGas a utility or a midstreamer? The market seems to be saying “neither”.** AltaGas’s guidance is for 55% of 2022E EBITDA to come from the U.S. regulated gas distribution utilities (Maryland, Virginia, Michigan, Alaska, and Washington, D.C.) and the remainder from midstream assets (net of corporate costs). With relative balance, we find that utility investors, particularly those looking to play defence, are not enamoured with the higher-risk midstream business, while we find that WCSB-focused midstream investors have historically looked to pure-play stocks levered to industry trends.
- **We believe asset monetizations could drive material upside in the stock.** While MVP was an obvious asset sale candidate given it was a non-operated minority interest that also benefitted from an ability to greatly reduce debt/ EBITDA (given AltaGas would only book equity earnings), we still believe that the company has options to monetize an asset, or assets, that could reduce leverage and eliminate various risks for MVP (e.g., whether it happens at all, timing of a sale and/or asset sale valuations changing).

### ARC Resources (ARX)

Michael Harvey, Analyst  
(403) 299-6998  
michael.harvey@rbccm.com

- **FCF generation - ample.** ARC is set to generate ~\$2bn FCF in 2022 on our numbers. With a strong balance sheet and large M&A on hold (for now), the focus remains on Attachie development and RoC initiatives. ARC targets return of capital in the range of 50-80% of FCF via base dividend tied to earnings growth (now at \$0.40/share), and share buyback (could easily buy back 10% of float annually). Production growth is not a specific target but rather an outcome of the most efficient way to execute projects (Sunrise, Attachie) paired with the Basin's capacity to absorb new product, and is unlikely to exceed 5%.
- **Western Canada's largest Montney player.** ARC's production base of circa 340,000 boe/d, makes it what we view as a Montney Champion with top decile supply costs and deep project inventory. This benchmarks ARC as the largest Montney producer, 3rd largest outright gas producer and 6th largest E&P by volume amid the WCSB producer landscape, with operated facilities network of ~1.5bcf/d - second only to CNQ and TOU. See our notes [here](#) and [here](#).
- **Facility portfolio adds scale and optionality.** Following the absorption of 7G assets, ARC's owned and operated facility portfolio roughly doubles to about 1.5 bcf/d—now third in the basin behind CNQ and TOU. This larger strategic footprint allows for continued top-quartile operating metrics and optimized marketing, and it establishes critical mass, opening the door for other potential strategic options in the future. See our note [here](#).
- **Improved scale and history of consistently delivering on quarterly numbers.** Comparative metrics of ARX relative to other Montney players (especially Tourmaline) and US peers remain in focus. We argue that ARC's liquids, FCF outlook and strategic position/scale makes it comparable to US peers. Throughout the time we have covered ARC, the company's ability to meet or exceed guidance figures is amongst the most favorable in the group – see our recent note [here](#). This is all backstopped by the company's high quality acreage and a conservative mindset - ingredients we see continuing amid the combined entity.



---

**BP PLC (BP)**

Biraj Borkhataria, Analyst  
(+44) 20-7029-7556  
biraj.borkhataria@rbccm.com

- **Sector leading shareholder returns.** BP intends to return at least 60% of its surplus free cash flow to shareholders via buybacks over time, in addition to its dividend, and we expect to see surplus cash generation improve through the year. We see BP returning ~13% to shareholders in 2022 via dividends and buybacks, the highest in the sector. Over the next five years, we see potential for investors to receive a significant portion of BP's market cap back via dividends and buybacks, again the highest in the sector.
- **Buybacks to support stock over the coming months.** On our assumed buyback of \$8bn in 2022, BP could be purchasing >10% of its ADV through the year on average, providing an extra layer of support to the shares in addition to the current strong commodity price environment.

---

**California Resources Corp. (CRC)**

Scott Hanold, Analyst  
(512) 708-6354  
scott.hanold@rbccm.com

- **Attractive value proposition.** CRC shares offer an attractive entry valuation point, strong balance sheet and robust FCF outlook. The company's low break-even point, which we estimate at \$38-39/bbl (WTI), and 50% reinvestment framework positions the company to generate nearly \$1.5 billion of FCF from 2022-2025. FCF priorities include returning large portions of cash to shareholders, maintaining its already strong balance sheet and starting to fund its developing carbon management business. The company has an active buyback program and instituted a fixed dividend at 3Q21 earnings which we expect grows over time. CRC plans to return 50% of FCF back to shareholders providing upside to returns longer term.
  - **ESG exposure in a U.S. E&P.** The company's large surface rights ownership, premium reservoir geology in close proximity to emitting parties, and being located in 'green energy' friendly California provide CRC the unique opportunity to economically participate in energy transition opportunities. We think signing up its first LCFS eligible third-party emitter is a catalyst to derisking value from its carbon management projects and should come in the back half of 2022. The State of California has established attractive credit programs to incentivize green energy development in order to meet the state's ambitious climate targets. Accordingly, these credits enhance project economics for CRC as it expands into renewable/carbon management projects being able to take advantage of both in-state and federal credit programs. We think the value of these projects could eclipse the value of the upstream business over time.
  - **Progressing on the carbon management business.** CRC filed its first two CCS permits in 2021 that comprise its Carbon TerraVault I project, and plans to have filed by 2022YE the remaining permits to cover the initially identified 200 MMT of storage capacity. Signing up its first third-party emitter remains a key focus and should come sometime in 2H22. CRC is beginning to spend capital to build a backlog of prepared injection sites that can become operational once permits are approved. Targeted FID for CTV I remains mid/late-2023 with first injection planned for late 2025. CRC targets injecting 5 MMT/annually starting in 2027. We think these initially identified CCS projects represent \$30-40/share of value that's largely not reflected in the stock price today.
  - **Conventional asset base provides consistency.** The company's conventional asset base has a low capital intensity with base decline rates at ~15%, far lower than shale E&P peers at 35-40%. Its conventional low-risk, low-decline asset development strategy drives more stable production and cash flow generation which help underpin our FCF outlook. We estimate CRC has over a decade of remaining core drilling opportunities in its core fields which should position the company for repeatable, robust FCF generation for years to come.
-



---

**Canadian Natural Resources (CNQ)**

Greg Pardy, Head of Global Energy  
Research

(416) 842-7848

greg.pardy@rbccm.com

- **Globally distinguished.** Canadian Natural Resources' management committee structure and shareholder alignment are unique factors which distinguish the company globally. CNQ's long-life, low-decline portfolio—anchored by low sustaining capital—affords the company with superior free cash flow generation throughout the cycle.
  - **FCF & buybacks.** We peg CNQ's free cash flow (before dividends of \$3.4 billion) at \$15.6 billion in 2022 under our base outlook (US\$100 WTI). The company plans to allocate one-half of its free cash flow (post dividends and sustaining capital) to share repurchases, with the balance (less strategic growth capital/acquisitions) allocated to net debt reduction. Our 2022 outlook incorporates share repurchases of approximately \$5.9 billion with net debt reduction of \$6.3 billion. In conjunction with 4Q21 results, CNQ raised its common share dividend by 28% to an annualized rate of \$3.00 (3.8% yield) per share. We think it is important to point out that CNQ has never cut its dividend—which has grown at a CAGR of 22% over the past 22 years.
  - **Strong alignment.** CNQ has no CEO. Instead, the company is stewarded by a management committee. This group meets weekly, and oversees all matters ranging from marketing, finance, ESG, operations and technology amongst others.
  - **ESG—lots of progress.** CNQ continues to work through details with respect to the Oil Sands Pathways to Net Zero initiative to advance key milestones to be achieved over the next decade as they accelerate related projects, targeting net zero emissions in its oil sands operations by 2050. CNQ continues to target a 50% reduction in North American E&P (including thermal in-situ) methane emissions by 2030 (vs. 2016), and a 40% reduction in both thermal in-situ fresh water usage intensity and mining fresh river water usage intensity by 2026 (from a 2017 baseline). From 2016 to 2020, the company's corporate GHG emissions intensity fell 18%.
-

### Cenovus Energy (CVE)

Greg Pardy, Head of Global Energy  
Research

(416) 842-7848

greg.pardy@rbccm.com

- **Integration on track.** The company's merger with Husky Energy was strategically sound in our eyes, fusing Husky's diverse upstream/mid-stream/downstream operations with Cenovus' bitumen-weighted upstream portfolio. Under one roof, Cenovus-Husky has become a more balanced integrated oil company with increased cash flow diversification. Our bullish stance towards Cenovus reflects its strong leadership and favourable rate of operational/financial improvement which is already underway—and set to continue.
- **Balance Sheet Deleveraging and Shareholder Returns.** In conjunction with Cenovus' [first-quarter results](#), the company affirmed its commitment to growing shareholder returns commensurate with increasing balance sheet strength. The company's net debt dropped to \$8.4 billion as of March 31, and Cenovus announced a new ultimate net debt target of \$4 billion (1.0x net debt/cash flow at \$45 WTI). Cenovus tripled its common share dividend to an annualized rate of \$0.42 per share (1.8% yield) effective in the second quarter, and further refined its shareholder returns policy. The company plans to allocate 50% of quarterly excess free cash flow when its reported net debt is under \$9 billion via share buybacks and/or variable dividends and will target to return 100% of that quarter's excess free cash flow to shareholders via buybacks and/or variable dividends when its reported net debt is at its \$4 billion floor. Cenovus continues to execute its NCIB (10% of public float, or 146.5 million shares) which expires November 8, 2022. As of April 26, Cenovus had repurchased about 58 million shares. Our outlook factors in 100% execution of the issuer bid by the end of 2022.
- **Downstream portfolio reshaping an opportunity.** Cenovus will continue to seek fruitful opportunities to reshape its US Manufacturing operations over time, where only two of its five refineries align with its preference for an operated 100% interest. From where we sit, one potential path for the company to pursue would be to acquire BP's 50% operated interest in its 160,000 bbl/d (gross) Toledo, Ohio refinery along with BP's 50% non-operated interest in the Sunrise oil sands project which Cenovus operates. The company would then be in a position to pipeline connect Lima-Toledo, enabling feedstock/refined product movements aimed at optimization between the two facilities. For our recent update on Cenovus, please see [Update with Jon McKenzie](#).

### Cheniere Inc. (LNG)

Elvira Scotto, Analyst

(212) 905-5957

elvira.scotto@rbccm.com

- **Highly contracted cash flow with strong counterparties.** Cheniere has a weighted average contract duration of 17 years on its long-term take-or-pay contracts and is 90% contracted on its nine-train portfolio including mid-term and short-term SPA and IPM agreements. All of Cheniere's Sale and Purchase Agreement customers are investment grade rated or have investment grade credit metrics. Importantly, utilities or state-owned utilities/oil and gas companies represent 68% of Cheniere's contracted capacity.
- **Liquefaction fees represent most of Cheniere's EBITDA.** Cheniere's customers have the contractual right to cancel cargoes but must still pay fixed liquefaction fees. In our 2024 run-rate scenario, on a consolidated basis, liquefaction fees represent ~90% of Cheniere's total EBITDA while lift represents ~5% and marketing ~5%.
- **Long-term FCF and capital return story.** We believe long-term take-or-pay contracts with high credit quality counterparties provide cash flow visibility. The four pillars of Cheniere's capital allocation strategy include (1) annual debt pay down of \$1 billion through 2024 to achieve investment grade ratings; (2) dividend declaration of \$0.33/share (\$1.32/share annualized) with mid-single-digit annual growth; (3) \$1 billion share repurchase program; and (4) invest in accretive growth with a potential FID of Corpus Christi Stage 3 in 2022.



---

**ConocoPhillips (COP)**

Scott Hanold, Analyst

(512) 708-6354

scott.hanold@rbccm.com

- **COP offers a returns-focused value proposition, a strong balance sheet, and peer-leading distributions.** The company is well positioned to maintain competitive FCF generation through various commodity price cycles with a sub-\$30/bbl (WTI) average cost of supply.
  - **RDS Permian acquisition enhances returns proposition.** The \$9.5 billion cash acquisition which closed late 2021 lowered the corporate cost of supply, increased the resource base, and improves go forward FCF generation.
  - **A well-defined and attractive investment proposition.** COP was an early leader in committing and demonstrating high returns of capital back to shareholders. The priorities are: (1) sustain production and pay its fixed dividend; (2) annual dividend growth; (3) maintain an A-rated balance sheet; (4) 30+% CFO total shareholder payout; and (5) disciplined investment for CFO expansion. Management has demonstrated its commitment to industry-leading returns of capital to shareholders that includes a minimum cash flow payout of 30%. We think this could translate to returning 80+% of the current market cap back to shareholders over the next decade through fixed dividends, variable dividends, and stock buybacks. We think the total returns payout trends to 40% of CFO in 2022 at current commodity prices.
  - **A global and diverse footprint across the commodity spectrum mitigates unsystematic risk.** This also allows capital to shift toward projects that can deliver high returns through commodity price and economic cycles.
  - **COP is the fifth-largest natural gas marketer in the U.S.** This creates opportunities to enhance transportation and sales mechanisms for margin improvement.
  - **Energy transition opportunities.** We think there is a growing effort to evaluate energy transition options. COP has a low carbon team that is focused on emission reduction initiatives and opportunities relevant to its core business and competencies. This could include CCS/CCUS and blue/green hydrogen.
-



---

**Drax Group plc (DRX)**

John Musk, Analyst

+44 (0) 207 029 0856

john.musk@rbccm.com

- **Conservative adoption of forward curves drives meaningful upside.** UK power prices have moved up sharply this year and we have conservatively included power price assumptions that sit at 30-50% discounts to forward curves over 2023-27. Cumulatively, our estimates show EBITDA over 2022-27E of £5.8bn vs £4.5bn previously. On mark to market basis, cumulative EBITDA would be £7.6bn versus the £5.8bn in RBCe and £4.7bn in consensus. We also calculate that consensus EBITDA for Drax is using power prices that are on average less than half of forward curves.
  - **Balance sheet strength offers optionality.** We estimate FCF, pre dividends and capex, of £4.7bn from £5.8bn of EBITDA over 2022-27. Thus, Drax can easily fund £2.5bn of capex we expect over this period from the overall £3bn 2030 capex plan. With dividends increasing 10% p.a. this utilises £0.6bn, meaning £1.6bn of 'spare' net cashflows. Therefore, we see Drax as cash positive from 2024 with potential for enhanced shareholder returns and/or growth capex.
  - **Growth ambitions progressing well.** We see Drax increasingly well-placed longer-term with its £3bn growth ambitions aligned with UK security of supply and net zero ambitions. We expect further clarity on the £2bn BECCS project following the government's bioenergy strategy review anticipated in 2H22. We also give Drax credit for a 600MW extension at the existing 440MW Cruachan pumped storage facility, and for ambitions to expand pellet production from 5mtpa to 8mtpa.
  - **Is Drax a take-out candidate?** This has to be considered in our view. Our estimates show net cash on balance sheet in 2027 of £1.1bn if no dividends are paid out. At assumed debt levels of ~2x EBITDA and long term EBITDA forecasts of £0.75-1.0bn into the next decade this net cash position could likely be converted into net debt of ~£1.5bn. Hence, a buyer would be able to extract ~£2.6bn of net cash by 2027 vs the current market cap of £3.3bn. This implies a low price for optionality on all post 2027 cashflows whilst also already funding the £3bn capex plans to ensure operations post 2027. On a mark to market basis, numbers are even more compelling and ~£1.8bn higher, implying ~£4.5bn of cash available to a buyer. Coincidentally equivalent to the implied market cap at our 1150p/sh PT.
-





---

### Energy Transfer (ET)

Elvira Scotto, Analyst  
(212) 905-5957  
elvira.scotto@rbccm.com

- **Energy Transfer is a publicly traded partnership that owns and operates a portfolio of assets across the natural gas, natural gas liquids, and crude oil value chain.** We believe ET is well positioned to generate meaningful cash flow growth as large-scale growth projects come online and as we expect growth capex to slow. With a stronger balance sheet, ET should be in position to return more cash to unit-holders via distribution increases and/or unit repurchase.
- **Significant synergy potential from recent Enable Midstream acquisition:** (1) Enable brings additional demand pull transportation and storage assets in the Mid-Con and ArkLaTex regions. (2) Enable's Gathering and Processing assets in the Mid-Con complements ET's Gulf Coast fractionation and export assets. (3) Enable's Haynesville Gathering and Processing assets and its Gulf Run pipeline increase exposure to the global liquefied natural gas markets. (4) In the Bakken, Enable provides crude gathering that connects into DAPL. ET expects the Enable acquisition to generate \$100MM of cost and efficiency synergies, which we view as achievable given the complementary asset bases.
- **Strong balance sheet FCF generation potential positions the company for capital return.** ET lowered its outstanding debt by ~\$6BN in 2021, and exited 2021 with leverage of 3.9x (credit facility calculation) while targeting leverage of 4.0-4.5x. We forecast ET exits 2022/2023 with Net Debt/TTM Adjusted EBITDA of 4.0x/3.7x while paying \$6.6BN in distributions.

---

### Range Resources (RRC)

Scott Hanold, Analyst  
(512) 708-6354  
scott.hanold@rbccm.com

- **Strong upside to historically tight NGL/natural gas markets.** RRC is our preferred equity to express bullishness in NGL and natural gas prices with NGLs representing ~30% of total production volumes. The company exports a large portion of its NGL production which translates to premium realizations above peers and allows RRC take advantage of both strong international and domestic demand trends.
  - **Rapid organic deleveraging.** The near-term focus remains on running the business for FCF to use for debt reduction though heightened current commodity prices provide a path toward reaching leverage/debt targets in conjunction with shareholder returns. Leverage currently sits at 1.6x, we forecast leverage further improving to sub-1.0x by year-end and management expects to reach its \$1.0-1.5 billion aggregate debt target in early 2023.
  - **Shareholder returns getting underway.** RRC started the shareholder return strategy buying back \$16 million worth of shares in March, we expect the buyback paces picks up in the coming quarters and we think RRC could exhaust the remaining \$484 million of authorization by YE22 if strip prices hold. The company will start paying a \$0.32/share (annualized) dividend in 2H22 further improving the shareholder return proposition. We think RRC can generate an average a total return of 6% over the next four years.
  - **Defining low cost operator.** RRC has one of the largest tier-1 inventories remaining in the Appalachian Basin which coupled with its strong technical expertise and low base decline supports a highly efficient maintenance capital program that can be sustained for years to come. This provides a durable and resilient FCF outlook over the next several years which we estimate RRC generating \$4.0-4.5 billion of cumulative FCF from 2022-2025, over 50% of its current market cap.
-



---

**Rattler Midstream LP (RTL)**

TJ Schultz, Analyst  
(512)-708-6385  
tj.schultz@rbccm.com

- **Acquisitions/divestiture.** RTL has completed multiple strategic transactions that increase its asset mix to the Northern Midland Basin and further deepens line of sight to FANG production. Acquisitions consisted of a G&P JV with 925 mmcf/d processing capacity and a PSA with FANG in a drop-down transaction for water midstream assets. Additionally, RTL increased financial flexibility with a divestiture of non-core assets in Pecos County.
- **Unmatched line of sight.** The relationship with FANG provides an unmatched line of site to RTL operations. This relationship allows for easier planning of operations going forward and less risky capital investments. RTL further deepened this relationship via its acquisitions in 4Q21. We believe this relationship validates our higher assumed EBITDA multiples in our valuation than current trading levels.
- **Capital allocation.** RTL has continually repurchased common units under its repurchase authorization. The BOD increased the repurchase authorization to \$150 million with an indefinite term, which leaves a significant amount remaining available under the program.

---

**Shell PLC (SHEL)**

Biraj Borkhataria, Analyst  
(+44) 20-7029-7556  
biraj.borkhataria@rbccm.com

- **Advantaged portfolio.** In our minds, Shell has three franchise businesses within the group, all of which are #1 in their respective areas. Global deepwater, integrated gas and marketing form Shell's key competitive advantages, in our view. Shell's marketing business in particular generates >20% ROACEs consistently and is the highest return business within the group. While we understand the company values integration highly in its strategy, we believe there are some valuable parts of Shell's business that are not reflected in the share price today—something that has not escaped the eye of some in the market (see “[talk to me](#)”). A look at Shell's SOTPs would suggest a valuation closer to \$250 billion (>3,000p share price).
  - **Free cash flow giant.** On our bullish commodity price deck, Shell's advantaged portfolio generates significant amounts of cash, supported by the company's oil leverage and #1 LNG presence. This leaves it well positioned to deleverage meaningfully over the coming years with cash to spare for higher shareholder returns.
  - **Closing the gap.** On our estimates, Shell generates an FCF yield ahead of the sector average on average over 2022-25E but trades at a discount to peers on a DACF multiple basis. We think increasing shareholder returns should help drive a re-rating versus peers, while continued de-leveraging sets up Shell to become a more stable business through the cycle.
-

## Santos Limited (STO)

Gordon Ramsay, Analyst

+61 3 8688 6578

[gordon.ramsay@rbccm.com](mailto:gordon.ramsay@rbccm.com)

- **Santos merger with Oil Search** creates a top 20 global energy company with 2P reserves of 1.378 billion boe and 2021 production of ~116 mmbbl. The combined company will have a more diversified production base (47% LNG, 35% gas and 18% liquids) and a stronger and longer growth profile (Dorado, Papua LNG, Pikka Alaska oil). This will create one of the largest Asian LNG suppliers and aligns partners in PNG LNG and Papua LNG. The larger combined balance sheet provides increased flexibility from >US\$5.5 billion of liquidity and an investment grade credit rating that enables self-funding of development projects. Initial pre-tax synergies of US\$90-115 million pa (excluding integration and other one-off costs) looks conservative with potential to unlock additional value.
- **Barossa final investment decision** achieved in March 2021, with a first production target of 2025. Santos Barossa project rates as the most attractive Australian brownfield LNG development as back fill for Darwin LNG based on a cash cost of production of ~US\$2.00/mmBtu and breakeven cost of LNG supply at ~US\$5.50/mmBtu.
- **Dorado** consists of a relatively simple, shallow-water Western Australian oil field development. Santos is forecasting initial production of ~100,000 bopd (gross) and operating costs of <US\$5/bbl. Dorado Phase 1 oil project FEED entry has been achieved, with project FID targeted in 1H 2022 after drilling the nearby Apus and Pavo exploration prospects that offer low cost and production extending tie-back potential.
- **Papua LNG** has obtained fiscal stability with its goal to enter project FEED in 2022 for potential production startup in 2027.
- **Alaska Pikka Oil** achieved FEED entry in 2021 with plans to commence production from Phase 1 at 80,000 bopd (gross) of oil from 2025. Further phases of this Oil Search project have potential to deliver two additional 40,000 bopd (gross) projects. The Alaskan gross 2C oil resource is 936 mmbbls.
- **Moomba CCS Phase 1** is a low-cost 1.7 mmtpa CO<sub>2</sub> storage project in the Cooper Basin with capex estimated at ~US\$165 million gross and a full life cycle cost <A\$30/t CO<sub>2</sub>. This Santos operated project is expected to start-up in 2024, following receipt of an approved methodology for Australian CCS projects to generate Australian Carbon Credit Units.



---

**Schlumberger Ltd. (SLB)**

Keith Mackey, Analyst  
(403) 299-6958  
keith.mackey@rbccm.com

- **Leading size, scale, geographic reach.** Schlumberger's size, scale, geographic diversification, and exposure to new energy sources leave it favorably positioned under prevailing industry trends, in our view. We see the company's strong International footprint as an advantage as the global commodity supply/demand dynamic becomes increasingly intertwined. Recent awards in the Middle East increase visibility to a multi-year upcycle, in our view.
- **Digital evolution to drive financial results.** Growing contribution from the Digital and Integration business line should drive margin accretion over time. Integrated digital platform adoption also improves revenue stability and provides competitive advantage as the E&P industry increasingly embraces efficiencies. Over time, we believe the reduced capital intensity should drive improvement in the company's financial metrics.
- **Free cash flow profile improving; dispositions may accelerate de-leveraging.** We believe strong free cash flow generation in 2022 (>\$2bn) should allow the company to reduce its net debt/EBITDA leverage below its 2.0x target, paving the way for larger shareholder distributions, such as the company's recent 40% dividend increase. Dispositions could also accelerate de-leveraging.
- **Energy transition leader.** Schlumberger New Energy is on the leading edge of CCUS, hydrogen, and other potential growth avenues. Schlumberger estimates its total addressable market at \$50-75 billion by 2030. Its approach to creating partnerships with oil & gas customers as well as adjacent industries reduces implementation risk and capital requirements as the revenue opportunity becomes clearer, in our minds.
- See our latest Schlumberger note [here](#).

---

**Secure Energy Services (SES)**

Keith Mackey, Analyst  
(403) 299-6958  
keith.mackey@rbccm.com

- **Consolidated footprint unlocks asset and valuation re-rating potential.** We believe Secure remains primed for revaluation due to: 1) Favorable free cash flow margin profile; 2) Improving balance sheet which should enable higher shareholder returns; and 3) Eventual removal of Competition Tribunal overhang.
  - **Targeting debt reduction in the near term.** Secure is targeting leverage of sub-2.5x within the next 1.5-2 years of closing its mid-2021 acquisition of Tervita. We see this as achievable based on our FCF estimates. FCF generation should be buoyed by increasing activity levels in the Western Canadian Sedimentary Basin, cost efficiencies, and a largely maintenance capital spending profile as the company re-assesses its expanded opportunity set.
  - **Merger cost-reduction initiatives on track.** Secure has achieved approximately 71% of its targeted \$75 million annual cost savings. The company remains on track to hit its overall target by YE22.
  - See our latest Secure note [here](#).
-



---

### Tamarack Valley Energy (TVE)

Luke Davis, Analyst

(403) 299-5042

luke.davis@rbccm.com

- **Clearwater development provides drilling catalysts.** Tamarack previously guided for \$250-\$270 million in capital spend with development (\$105-\$110 million) with management now anticipating Clearwater volumes to average 13,500 bbl/d in 2022 following the latest Rolling Hills acquisition (note [here](#)). Tamarack has also added a second land arrangement in Peavine, totalling 44.5 net sections in arrangements with the Peavine Metis Settlement with exploration set to commence in Q3/22. Tamarack initially guided for 92 (82.6 net) additional Clearwater wells to be drilled in 2022, including 12 additional waterflood wells planned at West Nipisi, though management plans to provide updated guidance with Q1/22 results on May 3, 2022.
  - **Return of capital framework well defined.** Tamarack increased its monthly dividend by 20% to \$0.01/share following its recent Rolling Hills Energy acquisition. Management has lifted its long-term leverage target to \$350-\$400 million, with management now planning to implement an enhanced return to shareholders in Q3/22, with details to come following Q2/22 results. Tamarack remains committed to returning 50% of free funds flow to shareholders (trailing quarterly basis) upon reaching this net debt target (RBCe: early Q3/22) through buybacks (see our note on management's recent NCIB application [here](#)) and/or special dividends.
  - **Five-year plan underscores robust FCF profile.** Prior to the Rolling Hills acquisition, Tamarack mapped out \$1.1-\$1.2B in FCF generation over the next 5 years at US\$55/bbl WTI and C\$2.50/GJ AECO, with annual capital spend of \$240-\$270 million supporting volumes of 46-49 kboe/d, representing 2-3% annual growth. The plan showed Clearwater production rates reaching 18-19 kboe/d through 2025/26 prior to the Rolling Hills transaction. Additionally, recent M&A activity has shifted the corporate break-even to roughly US\$35/bbl range (inclusive of the base dividend), providing flexibility and material FCF generation potential to enhance total shareholder returns.
  - **Strong balance sheet able to support further M&A.** Based on our updated estimates, we forecast Tamarack to carry approximately \$247/\$52 million in net debt/(cash) at year-end 2022E/23E, representing a 2022E D/CF ratio of 0.2x compared to oil-weighted peers at 0.4x with the broader coverage group reaching net cash by 2023E. We currently model full NCIB utilization beginning in Q4/22 and a 25% dividend increase in 2023 along with \$30 million in quarterly special dividends through 2023. We do not model incremental M&A, though we view this as likely given material FCF generation.
  - **RBC Capital Markets is acting as financial advisor to Tamarack Valley Energy Ltd. with respect to the transaction with Rolling Hills Energy Ltd. as press released April 21, 2022.**
-



---

**Targa Resources Corp. (TRGP)**

TJ Schultz, Analyst

(512)-708-6385

tj.schultz@rbccm.com

- **Volumes and FCF.** We recently increased our 2022+ cash flow estimates largely on a more constructive view on volume outlook within TRGP's Permian footprint and our commodity outlook. Our estimates assume ~12% Permian inlet growth in 2021 and 2022 and our 2022 FCF outlook after growth capex and dividends is >\$1 billion. FCF generation is being utilized to drive balance sheet improvements, by utilizing capital to start buying back preferred equity outstanding.
- **Structure simplification.** TRGP plans to simplify its corporate structure through devco buy-ins in 2022. Although leverage will move up at the time of buy-in, TRGP will benefit from the increased EBITDA the devcos provide, followed by reducing leverage thereafter.
- **Dividend.** TRGP re-based its dividend higher to \$1.40/share annually beginning with the 4Q21 distribution, which implies a ~2.5% yield. The distribution accounts for ~30% of 2021E FCF, and allows for modest annual increases post 2022. We now model a \$2/share dividend in 2023, which would imply a 2.9% yield at our price target.

---

**Tourmaline Oil (TOU)**

Michael Harvey, Analyst

(403) 299-6998

michael.harvey@rbccm.com

- **Key beneficiary of an improved natural gas outlook.** Strong commodity prices provide the firepower for [Western Canada Sedimentary Basin \(WCSB\) natural gas](#) producers to return meaningful capital to shareholders plus still grow modestly (+3-5%), while being mindful that basin growth much beyond this figure could start to drive egress constraints. See our deep dive report [here](#) and recent gas price sensitivities [here](#).
  - **Return of capital accelerates, with the vast majority of FCF to be returned.** Tourmaline recently increased its base dividend to \$0.20/quarter, an increase which comes several months earlier than we had modeled. Additionally, a \$1.25/share was paid out on February 1st. Our outlook now calls for two additional base increases this year (to \$1.04/share annualized) and special dividends of \$1/share for each of the remaining 3 quarters. Incrementally, our outlook incorporates buybacks totaling ~\$660 million. See our recent [From the Well to the Wallet](#) note.
  - **High quality asset base, with North Montney driving the growth.** With Gundy P2 on stream, we would anticipate future development dollars targeted at Conroy - both as it relates to bolt-ons and organic development. We've explored Tourmaline's North Montney area in our recent work [here](#), [here](#) and [here](#). Tourmaline has a top-decile cost structure and industry-leading capital efficiencies. We now model Tourmaline's 2022 capital efficiencies at approximately \$7,500/boe/d. Ownership of facilities remains a key ingredient to the story, and could represent an additional avenue to surface value in the future.
-



## Portfolio tracking

The RBC Capital Markets Global Energy Best Ideas List highlights our Research Analysts' highest conviction names across the global energy sector at the time of their addition into the list. Our objective is to highlight individual stocks that are expected to outperform the iShares Global Energy ETF (IXC) and a hybrid benchmark with a weighting towards the iShares Global Utilities ETF (JXI).

A long-only portfolio, the RBC Capital Markets Global Energy Best Ideas List is set up as follows:

- There is no limit to the number of names included in the RBC Capital Markets Global Energy Best Ideas List.
- Individual holdings are deemed to be weighted equally, with weights reset every month or any time that there is a change to the list.
- Names added to the list will remain on the list for at least one full month, i.e., there will be no mid-month additions/deletions. If we discontinue research coverage of a company included on the RBC Global Energy Best Ideas List, the stock will be removed from the list as of the next monthly publication.
- The RBC Global Energy Best Ideas has a mandatory stop loss mechanism as follows: a stock will be removed from the list if it is down 20% in the current year or down 20% since being added to the list.
- We will use the most recent closing price prior to the list being published, unless noted otherwise, as the price used for performance calculations. Therefore, any additions to or deletions from the list are recorded as have being made at their most recent closing price.
- Dividends will be added to returns from stock price movements on the day that stocks go ex. dividend.
- We will provide a monthly update on the constituent names of the list as well as past performance on or around the start of each month.
- We will include only stocks on which we have research coverage.
- We do not make provisions for taxes and/or trading commissions when adding or removing stocks from the portfolio.

**Note:** Total return data for the list as well as relevant indices are from Bloomberg and FactSet.





## Contributing Authors

### RBC Dominion Securities Inc.

Greg Pardy (Head of Global Energy Research)	(416) 842-7848	greg.pardy@rbccm.com
Robert Kwan (Analyst)	(604) 257-7611	robert.kwan@rbccm.com
Michael Harvey (Analyst)	(403) 299-6998	michael.harvey@rbccm.com
Nelson Ng (Analyst)	(604) 257-7617	nelson.ng@rbccm.com
Luke Davis (Analyst)	(403) 299-5042	luke.davis@rbccm.com
Keith Mackey (Analyst)	(403) 299-6958	keith.mackey@rbccm.com

### RBC Europe Limited

Biraj Borkhataria (Associate Director of European Research)	+44 20 7029 7556	biraj.borkhataria@rbccm.com
John Musk (Analyst)	+44 20 7029 0856	john.musk@rbccm.com

### RBC Capital Markets, LLC

Scott Hanold (Analyst)	(512) 708-6354	scott.hanold@rbccm.com
Elvira Scotto (Analyst)	(212) 905-5957	elvira.scotto@rbccm.com
TJ Schultz (Analyst)	(512) 708-6385	tj.schultz@rbccm.com
Shelby Tucker (Analyst)	(212) 428-6462	shelby.tucker@rbccm.com

### Royal Bank of Canada, Sydney Branch

Gordon Ramsay (Analyst)	+61 3 8688 6578	gordon.ramsay@rbccm.com
-------------------------	-----------------	-------------------------



## Required disclosures

### Non-U.S. analyst disclosure

One or more research analysts involved in the preparation of this report (i) may not be registered/qualified as research analysts with the NYSE and/or FINRA and (ii) may not be associated persons of the RBC Capital Markets, LLC and therefore may not be subject to FINRA Rule 2241 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

### Conflicts disclosures

This product constitutes a compendium report (covers six or more subject companies). As such, RBC Capital Markets chooses to provide specific disclosures for the subject companies by reference. To access conflict of interest and other disclosures for the subject companies, clients should refer to <https://www.rbccm.com/GLDisclosure/PublicWeb/DisclosureLookup.aspx?entityId=1>. These disclosures are also available by sending a written request to RBC Capital Markets Research Publishing, P.O. Box 50, 200 Bay Street, Royal Bank Plaza, 29th Floor, South Tower, Toronto, Ontario M5J 2W7 or an email to [rbcinsight@rbccm.com](mailto:rbcinsight@rbccm.com).

The analyst(s) responsible for preparing this research report received compensation that is based upon various factors, including total revenues of the member companies of RBC Capital Markets and its affiliates, a portion of which are or have been generated by investment banking activities of the member companies of RBC Capital Markets and its affiliates.

With regard to the MAR investment recommendation requirements in relation to relevant securities, a member company of Royal Bank of Canada, together with its affiliates, may have a net long or short financial interest in excess of 0.5% of the total issued share capital of the entities mentioned in the investment recommendation. Information relating to this is available upon request from your RBC investment advisor or institutional salesperson.

### Distribution of ratings

For the purpose of ratings distributions, regulatory rules require member firms to assign ratings to one of three rating categories - Buy, Hold/Neutral, or Sell - regardless of a firm's own rating categories. Although RBC Capital Markets' ratings of Outperform (O), Sector Perform (SP), and Underperform (U) most closely correspond to Buy, Hold/Neutral and Sell, respectively, the meanings are not the same because our ratings are determined on a relative basis.

Distribution of ratings				
RBC Capital Markets, Equity Research				
As of 31-Mar-2022				
Rating	Count	Percent	Investment Banking	
			Serv./Past 12 Mos.	
			Count	Percent
BUY [Outperform]	841	57.68	330	39.24
HOLD [Sector Perform]	569	39.03	172	30.23
SELL [Underperform]	48	3.29	3	6.25

### Conflicts policy

RBC Capital Markets Policy for Managing Conflicts of Interest in Relation to Investment Research is available from us on request. To access our current policy, clients should refer to

<https://www.rbccm.com/global/file-414164.pdf>

or send a request to RBC Capital Markets Research Publishing, P.O. Box 50, 200 Bay Street, Royal Bank Plaza, 29th Floor, South Tower, Toronto, Ontario M5J 2W7. We reserve the right to amend or supplement this policy at any time.

### Dissemination of research and short-term trade ideas

RBC Capital Markets endeavors to make all reasonable efforts to provide research content simultaneously to all eligible clients, having regard to local time zones in overseas jurisdictions. RBC Capital Markets provides eligible clients with access to Equity Research Reports and to SPARC on the Firm's proprietary INSIGHT website, via email and via third-party vendors. SPARC contains market color and commentary regarding subject companies on which the Firm currently provides equity research coverage. Research Analysts may, from time to time, include short-term trade ideas in Research Reports and / or in SPARC. A short-term



trade idea offers a short-term view on how a security may trade, based on market and trading events, and the resulting trading opportunity that may be available. A short-term trade idea may differ from the price targets and recommendations in our published Research Reports reflecting the Research Analyst's views of the longer-term (one year) prospects of the subject company, as a result of the differing time horizons, methodologies and/or other factors. Thus, it is possible that a subject company's common equity that is considered a long-term 'Sector Perform' or even an 'Underperform' might present a short-term buying opportunity as a result of temporary selling pressure in the market; conversely, a subject company's common equity rated a long-term 'Outperform' could be considered susceptible to a short-term downward price correction. Short-term trade ideas are not ratings, nor are they part of any ratings system, and the firm generally does not intend, nor undertakes any obligation, to maintain or update short-term trade ideas. Short-term trade ideas may not be suitable for all investors and have not been tailored to individual investor circumstances and objectives, and investors should make their own independent decisions regarding any securities or strategies discussed herein. Please contact your investment advisor or institutional salesperson for more information regarding RBC Capital Markets' research.

For a list of all recommendations on the company that were disseminated during the prior 12-month period, please click on the following link: <https://rbcnw.bluematrix.com/sellside/MAR.action>

The 12 month history of SPARCs can be viewed at <https://www.rbcinsightresearch.com>.

## Analyst certification

All of the views expressed in this report accurately reflect the personal views of the responsible analyst(s) about any and all of the subject securities or issuers. No part of the compensation of the responsible analyst(s) named herein is, or will be, directly or indirectly, related to the specific recommendations or views expressed by the responsible analyst(s) in this report.

## Third-party-disclaimers

The Global Industry Classification Standard ("GICS") was developed by and is the exclusive property and a service mark of MSCI Inc. ("MSCI") and Standard & Poor's Financial Services LLC ("S&P") and is licensed for use by RBC. Neither MSCI, S&P, nor any other party involved in making or compiling the GICS or any GICS classifications makes any express or implied warranties or representations with respect to such standard or classification (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability and fitness for a particular purpose with respect to any of such standard or classification. Without limiting any of the foregoing, in no event shall MSCI, S&P, any of their affiliates or any third party involved in making or compiling the GICS or any GICS classifications have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

RBC Capital Markets disclaims all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any statements made to the media or via social media that are in turn quoted in this report, or otherwise reproduced graphically for informational purposes.

References herein to "LIBOR", "LIBO Rate", "L" or other LIBOR abbreviations means the London interbank offered rate as administered by ICE Benchmark Administration (or any other person that takes over the administration of such rate).

## Disclaimer

RBC Capital Markets is the business name used by certain branches and subsidiaries of the Royal Bank of Canada, including RBC Dominion Securities Inc., RBC Capital Markets, LLC, RBC Europe Limited, RBC Capital Markets (Europe) GmbH, Royal Bank of Canada, Hong Kong Branch and Royal Bank of Canada, Sydney Branch. The information contained in this report has been compiled by RBC Capital Markets from sources believed to be reliable, but no representation or warranty, express or implied, is made by Royal Bank of Canada, RBC Capital Markets, its affiliates or any other person as to its accuracy, completeness or correctness. All opinions and estimates contained in this report constitute RBC Capital Markets' judgement as of the date of this report, are subject to change without notice and are provided in good faith but without legal responsibility. Nothing in this report constitutes legal, accounting or tax advice or individually tailored investment advice. This material is prepared for general circulation to clients and has been prepared without regard to the individual financial circumstances and objectives of persons who receive it. The investments or services contained in this report may not be suitable for you and it is recommended that you consult an independent investment advisor if you are in doubt about the suitability of such investments or services. This report is not an offer to sell or a solicitation of an offer to buy any securities. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. RBC Capital Markets research analyst compensation is based in part on the overall profitability of RBC Capital Markets, which includes profits attributable to investment banking revenues. Every province in Canada, state in the U.S., and most countries throughout the world have their own laws regulating the types of securities and other investment products which may be offered to their residents, as well as the process for doing so. As a result, the securities discussed in this report may not be eligible for sale in some jurisdictions. RBC Capital Markets may be restricted from publishing research reports, from time to time, due to regulatory restrictions and/or internal compliance policies. If this is the case, the latest published research reports available to clients may not reflect recent material changes in the applicable industry and/or applicable subject companies. RBC Capital Markets research reports are current only as of the date set forth on the research reports. This report is not, and under no circumstances should be construed as, a solicitation to act as securities broker or dealer in any jurisdiction by any person or company that is not legally permitted to carry on the business of a securities broker or dealer in that jurisdiction. To the full extent permitted by law neither RBC Capital Markets nor any of its affiliates, nor any other person, accepts any liability whatsoever for any direct, indirect or consequential loss arising from, or in connection with, any use of this report or the information contained herein. No matter contained in this document may be reproduced or copied by any means without the prior written consent of RBC Capital Markets in each instance.

Additional information is available on request.

### To U.S. Residents:

This publication has been approved by RBC Capital Markets, LLC (member FINRA, NYSE, SIPC), which is a U.S. registered broker-dealer and which accepts responsibility for this report and its dissemination in the United States. Any U.S. recipient of this report that is not a registered broker-dealer or a bank acting in



a broker or dealer capacity and that wishes further information regarding, or to effect any transaction in, any of the securities discussed in this report, should contact and place orders with RBC Capital Markets, LLC.

**To Canadian Residents:**

This publication has been approved by RBC Dominion Securities Inc. (member IIROC). Any Canadian recipient of this report that is not a Designated Institution in Ontario, an Accredited Investor in British Columbia or Alberta or a Sophisticated Purchaser in Quebec (or similar permitted purchaser in any other province) and that wishes further information regarding, or to effect any transaction in, any of the securities discussed in this report should contact and place orders with RBC Dominion Securities Inc., which, without in any way limiting the foregoing, accepts responsibility for this report and its dissemination in Canada.

**To U.K. Residents:**

This publication has been approved by RBC Europe Limited ('RBCEL') which is authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority ('FCA') and the Prudential Regulation Authority, in connection with its distribution in the United Kingdom. This material is not for general distribution in the United Kingdom to retail clients, as defined under the rules of the FCA. RBCEL accepts responsibility for this report and its dissemination in the United Kingdom.

**To EEA Residents:**

This material is distributed in the EU by either RBCEL on an authorised cross-border basis, or by RBC Capital Markets (Europe) GmbH (RBC EG) which is authorised and regulated in Germany by the Bundesanstalt für Finanzdienstleistungsaufsicht (German Federal Financial Supervisory Authority) (BaFin).

**To Persons Receiving This Advice in Australia:**

This material has been distributed in Australia by Royal Bank of Canada, Sydney Branch (ABN 86 076 940 880, AFSL No. 246521). This material has been prepared for general circulation and does not take into account the objectives, financial situation or needs of any recipient. Accordingly, any recipient should, before acting on this material, consider the appropriateness of this material having regard to their objectives, financial situation and needs. If this material relates to the acquisition or possible acquisition of a particular financial product, a recipient in Australia should obtain any relevant disclosure document prepared in respect of that product and consider that document before making any decision about whether to acquire the product. This research report is not for retail investors as defined in section 761G of the Corporations Act.

**To Hong Kong Residents:**

This publication is distributed in Hong Kong by Royal Bank of Canada, Hong Kong Branch, which is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission (SFC) in Hong Kong, RBC Investment Services (Asia) Limited and RBC Global Asset Management (Asia) Limited, both entities are regulated by the SFC. This material is not for general distribution in Hong Kong to persons who are not professional investors (as defined in the Securities and Futures Ordinance of Hong Kong (Cap. 571) and any rules made thereunder.

**To Singapore Residents:**

This publication is distributed in Singapore by the Royal Bank of Canada, Singapore Branch, a registered entity licensed by the Monetary Authority of Singapore. This material has been prepared for general circulation and does not take into account the objectives, financial situation, or needs of any recipient. You are advised to seek independent advice from a financial adviser before purchasing any product. If you do not obtain independent advice, you should consider whether the product is suitable for you. Past performance is not indicative of future performance. If you have any questions related to this publication, please contact the Royal Bank of Canada, Singapore Branch. Royal Bank of Canada, Singapore Branch accepts responsibility for this report and its dissemination in Singapore.

**To Japanese Residents:**

Unless otherwise exempted by Japanese law, this publication is distributed in Japan by or through RBC Capital Markets (Japan) Ltd. which is a Financial Instruments Firm registered with the Kanto Local Financial Bureau (Registered number 203) and a member of the Japan Securities Dealers Association (JSDA) and the Financial Futures Association of Japan (FFAJ).

® Registered trademark of Royal Bank of Canada. RBC Capital Markets is a trademark of Royal Bank of Canada. Used under license.

Copyright © RBC Capital Markets, LLC 2022 - Member SIPC

Copyright © RBC Dominion Securities Inc. 2022 - Member Canadian Investor Protection Fund

Copyright © RBC Europe Limited 2022

Copyright © Royal Bank of Canada 2022

All rights reserved