

Calumet Inc.: How Far, How Fast on SAF?

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A conditional opening

On October 16, 2024, the U.S. Department of Energy's Loan Programs Office (DOE LPO) issued a conditional commitment for a loan guarantee of up to \$1.44 billion to Montana Renewables, LLC (MRL), a Calumet subsidiary. The commitment could help refinance project spending already incurred and fund a large expansion of sustainable aviation fuel (SAF) capacity at MRL's Great Falls, Montana site. It also left critical questions open: definitive loan documents had not been signed, a \$150 million equity investment was still required for the first closing, and later funding depended on additional conditions.

Six days later, Calumet and MRL described the project as a sequence of modules. The first step was installation of a previously acquired second renewable-fuels reactor, intended to bring SAF capacity to roughly 150 million gallons per year. Further modules could take capacity to approximately 300 million gallons per year, while combined SAF and renewable diesel capacity could reach 330 million gallons per year. Management estimated \$150 million to \$250 million of capital for the second-reactor step, but did not specify whether this covered all costs of the first 150-million-gallon stage.

The commitment arrived while MRL was moving from start-up toward full production. Calumet had also converted from a master limited partnership to a C corporation in July and was managing substantial debt and working-capital needs across a portfolio of refining, specialty-products, performance-brands and renewable-fuels activities. Capacity and federal financing created an opportunity. They did not resolve whether the company should move quickly, stage its investment or wait for more information.

This case asks students to advise Calumet's leadership as of October 22, 2024. It does not reconstruct a private board meeting. **The three alternatives below are constructed teaching options; Calumet's public materials disclosed a modular plan, not these competing board proposals.**

Calumet and Montana Renewables

Calumet manufactures, formulates and markets specialty branded products and renewable fuels. Its operations include specialty products and solutions, performance brands, and a combined Montana/Renewables reporting segment. At Great Falls, Montana, the company operates both MRL's renewable-fuels facility and a separate specialty-asphalt refinery. MRL is an unrestricted subsidiary; the October DOE commitment named MRL as borrower and DOE as guarantor and senior secured lender.

The second quarter of 2024 offered evidence of operating progress alongside uneven segment results. The company reported that MRL reached full production levels and produced about 7 million gallons of SAF in the quarter. Calumet's combined Montana/Renewables segment recorded \$7.6 million of Adjusted EBITDA, compared with \$13.0 million in Q2 2023, and a gross loss of \$0.4 million, compared with gross profit of \$4.8 million in the prior-year quarter. The segment combines MRL with Great Falls specialty asphalt, so these numbers are not MRL-only results. Segment gross profit and Adjusted EBITDA are different measures.

For the first half of 2024, Montana/Renewables reported a gross loss of \$29.5 million compared with a \$32.1 million loss in the first half of 2023; segment Adjusted EBITDA was negative \$6.9 million compared with positive \$17.8 million. Calumet attributed Q2 improvements at MRL to higher renewable volumes and operating results, while reporting weaker Great Falls asphalt results as commodity spreads tightened. One full-rate quarter established progress, not long-run reliability or the economics of a second reactor.

The proposed MaxSAF sequence

The October 16 conditional commitment described two financing tranches. Tranche 1, up to approximately \$778 million, was expected to close in Q4 2024 and fund eligible MRL expenses already incurred. The October 22 presentation said it would consolidate collateral for DOE and replace existing third-party project lenders. Tranche 2, up to approximately \$662 million, was designed as delayed-draw construction financing for the planned MaxSAF modules from roughly 2025 to 2028. The two maximum tranches sum to the announced \$1.44 billion commitment; neither amount was funded at the case date.

If finalized, the loan was described as having a 15-year term and an interest rate based on a U.S. Treasury rate plus a 0.375% Federal Financing Bank spread. Calumet said principal and interest servicing would be deferred until MaxSAF was commissioned; the presentation described interest as paid in kind during construction. These were conditional terms, not a signed loan agreement. The presentation estimated that replacing MRL's existing third-party financing could reduce annual servicing costs by \$79 million. That was an issuer estimate, not a guaranteed consolidated cash-flow increase.

Initial closing still required a \$150 million new equity investment, execution of a final Loan Guarantee Agreement, and other technical, legal, environmental and financial conditions. The release said retained MRL earnings would supplement DOE funds to maintain a "55/45 debt to equity ratio." Separately, the October 22 presentation said later draws were subject to MRL "maintaining DOE at 55% debt to total capitalization." The final agreement and a detailed definition of the capitalization calculation were not public.

The first module was centered on installation of the second reactor. MRL expected it could bring SAF capacity to approximately 150 million gallons per year within about two years. The second-reactor step had an early capital estimate of \$150 million to \$250 million, but MRL did not state whether this covered every cost of the 150-million-gallon stage. A longer sequence of projects-renewable hydrogen, expansion of renewable-fuels and feedstock-pretreatment units, water treatment, cogeneration, blending and logistics, and efficiency work-was expected to support a roughly 300-million-gallon SAF target within three to four years. Combined SAF and renewable diesel capacity was projected at approximately 330 million gallons per year.

The 150-million-gallon and 300-million-gallon figures were management targets, not contracted sales volumes. The first step would depend on a second reactor and continued operation of existing equipment; the full build required several additional projects and Tranche 2 funding. The October materials did not provide a project-level cash-flow model, guaranteed completion date, sensitivity analysis or risk-adjusted return estimate.

Capital and operating context

At June 30, 2024, Calumet reported \$2.016 billion of total debt at carrying value. This already included \$376.6 million of MRL asset-financing arrangements and \$74.1 million under an MRL term loan. The company's short-term liquidity was \$218.5 million: \$7.0 million of unrestricted cash and \$211.5 million of availability under credit facilities. Management stated it believed liquidity was adequate for the next 12 months. First-half operating cash flow used \$27.5 million; first-half capital expenditures were \$50.2 million. The Q2 filing forecast 2024 capital expenditures of \$110 million to \$140 million.

Those numbers are consolidated and predate the DOE commitment. They do not establish how much cash was available at MRL or how the owners would fund its \$150 million equity requirement. They also do not indicate imminent distress. A project-level equity condition coexisted with limited consolidated cash and substantial credit availability, while Calumet expected to generate further cash through operating activities and existing businesses.

On October 3, Calumet disclosed a separate sale and leaseback of specialty-asphalt refinery equipment at Great Falls through its restricted subsidiary, Calumet Montana Refining (CMR). CMR received \$110 million, which Calumet intended to use to repay revolving borrowings. Up to \$40 million more was payable at closing of MRL financing, with no assurance that financing would close. The CMR transaction was separate from the MRL \$150 million equity condition; public disclosures did not identify the sale-and-leaseback proceeds as the equity source. Calumet reported monthly lease payments of about \$1.9 million over nine years if the full \$150 million purchase price was drawn. MRL also amended its Stonebriar agreements to allow an additional early termination option contingent on successful financing.

Policy, feedstock and commercial exposure

Federal incentives supported renewable-fuel markets, but the amount available to MRL depended on rules, product qualification and operating conditions. EPA had finalized the Renewable Fuel Standard volume targets through 2025; the 2024 biomass-based diesel target was 3.04 billion gallons. Federal SAF tax rules were changing across tax years: the Section 40B credit applied to qualifying SAF mixtures through December 31, 2024, while Section 45Z was scheduled to apply to qualifying domestic clean-fuel production after 2024, subject to statutory requirements and registration. These rules did not guarantee MRL's eligibility, credit value per gallon or realized product margin.

MRL identified renewable-fuel demand and margins, feedstock supply and prices, product specifications, competition, counterparties, access to capital, power and material costs, regulation and unscheduled shutdowns among its material risks. Its public release identified potential feedstocks including tallow, distillers corn oil, canola oil, used cooking oil and camelina. The October 22 deck said initial funding conditions included satisfactory feedstock-supply and offtake contracts and updates to DOE adviser reports. It did not publish contracted volumes, prices, durations or the returns expected from either module.

The decision exercise

Advise Calumet's leadership on how to sequence the proposed MaxSAF investment. Choose among the following **constructed teaching alternatives**, or propose a clearly defined variation:

1. **Stage the first module.** Proceed with the second-reactor step toward roughly 150 million gallons per year. Keep later modules subject to operating, commercial and financing gates.

2. **Accelerate the full build.** Commit to the sequence targeting roughly 300 million gallons per year of SAF, using the conditional Tranche 2 facility as it becomes available.
3. **Defer or condition additional commitments.** Preserve the option to proceed, but delay irreversible spending beyond necessary preservation or diligence work until final financing and specified commercial or operating conditions are met.

Your recommendation should identify the assumptions that matter most, the gates for releasing capital, and the evidence that would change your decision. Consider Calumet's financial flexibility, MRL's start-up progress, module scope and costs, financing conditions, feedstock/offtake, product economics and policy exposure. The case does not provide enough project cash-flow data to calculate a defensible NPV for any alternative.

Exhibits

Exhibit 1. MaxSAF capacity and capital sequence

Stage	Management's October 2024 description	Financing and conditions	Status at cutoff
Initial DOE financing	Up to ~\$778m; eligible historical MRL expenses; consolidate collateral and replace third-party MRL lenders	Final Loan Guarantee Agreement, \$150m new equity and other conditions	Conditional; not closed
Second-reactor step	Target ~150m gallons/year SAF in about two years; early capex estimate \$150m-\$250m for this step	Commercial / operating readiness and identified construction funding, subject to applicable Tranche 2 draw conditions	Planned; estimate scope does not expressly cover all first-stage costs
Further MaxSAF modules	Target ~300m gallons/year SAF in three to four years; combined SAF and renewable diesel target ~330m gallons/year	Up to ~\$662m delayed draws; MRL expected to meet the stated capital-ratio and other draw conditions	Conditional; future modules not completed

Sources: October 16 release and October 22 MRL presentation. All targets and estimates are management statements. The stages and figures are not a contracted volume forecast.

Exhibit 2. Financing structure described by the company

Term	October 2024 disclosure
Maximum DOE commitment	Up to \$1.44bn, conditional
Tranche 1	Up to ~\$778m; expected Q4 2024; eligible past expenses and replacement of third-party MRL project financing
Tranche 2	Up to ~\$662m in delayed draws during construction, expected 2025-28
Proposed tenor / pricing	15 years; matching Treasury rate + 0.375% FFB spread, if finalized
Payment timing	Release: servicing deferred until MaxSAF is commissioned; deck: interest paid in kind during construction availability period
Equity	\$150m new equity at initial closing; final owner-by-owner contribution not disclosed
Ratio language	Release: “55/45 debt to equity ratio”; deck: later draws subject to MRL “maintaining DOE at 55% debt to total capitalization”
Remaining conditions	Final loan agreement, equity, technical/legal/environmental/financial conditions; deck specifies satisfactory feedstock and offtake contracts and DOE-adviser report bring-downs

Sources: Calumet Oct. 16 release and MRL Oct. 22 investor presentation. The loan was not signed or funded by the case date.

Exhibit 3. Selected operating and financial context

Measure	Latest publicly reported at cutoff	Scope / note
Q2 2024 consolidated net loss	\$(39.1)m	Calumet consolidated
Q2 2024 consolidated Adjusted EBITDA	\$66.8m	Non-GAAP company measure
Q2 Montana/Renewables Adjusted EBITDA	\$7.6m; \$13.0m in Q2 2023	Combined segment; includes MRL renewables and Great Falls specialty asphalt
Q2 Montana/Renewables gross profit (loss)	\$(0.4)m; \$4.8m in Q2 2023	Combined segment; not the same as Adjusted EBITDA
Q2 MRL SAF production	~7m gallons	Company-reported operating result
June 30 total debt, carrying value	\$2,015.5m	Includes \$376.6m of MRL asset-financing arrangements and \$74.1m MRL term loan
June 30 short-term liquidity	\$218.5m	\$7.0m unrestricted cash + \$211.5m credit-facility availability
H1 2024 operating cash flow	\$(27.5)m	Consolidated use of cash
H1 2024 capital expenditures	\$50.2m	Consolidated
2024 capex forecast at Q2 filing	\$110m-\$140m	Company forecast; not the full MaxSAF cost

Sources: Calumet Q2 2024 10-Q and Aug. 9 earnings release. Figures are not project-level MRL cash flows.

Exhibit 4. Public policy points available at cutoff

Policy	What the public rule established	What it did not establish for MRL
RFS 2024 biomass-based diesel target	3.04bn gallons under EPA's final 2023-25 rule	A fixed producer margin, RIN price or market share
Section 40B SAF credit	Applicable through Dec. 31, 2024 to qualifying SAF mixtures under the stated rules	MRL eligibility or any MRL credit amount
Section 45Z clean-fuel credit	Scheduled to apply to qualifying domestic production after 2024, with registration and other requirements	Future credit value, eligibility or continuing statutory terms

Sources and date boundary

The information cutoff is October 22, 2024, 17:07:30 ET, the SEC acceptance time for Calumet's 8-K, accession [0001193125-24-241131](#). Company materials included in the filing are furnished, forward-looking disclosures; conditional financing terms and capacity targets are not realized outcomes.

- Calumet, Oct. 16, 2024, DOE conditional-commitment release, [SEC Exhibit 99.1](#).
- Montana Renewables, Oct. 22, 2024, DOE commitment presentation, [SEC Exhibit 99.2](#).
- Calumet, Q2 2024 Form 10-Q, [SEC filing](#); and Aug. 9 earnings release, [SEC exhibit](#).
- Calumet, Oct. 3, 2024 Form 8-K on CMR sale-and-leaseback and MRL financing amendments, [SEC filing](#).
- EPA, [Final Renewable Fuels Standards for 2023, 2024 and 2025](#); IRS [Notice 2024-37](#) and [Notice 2024-49](#).

All cited figures and terms were public by the cutoff. Post-cutoff disclosures are excluded; no subsequent outcome is used to score a recommendation.