

RLC Biomass-Based Diesel Intelligence

Report Design & Content Outlines

PART I: DESIGN PHILOSOPHY

Competitive Positioning

RLC's reports should land between the density of an OPIS daily report and the strategic depth of a Goldman Sachs commodity outlook — but optimized for **busy decision-makers** who need to know what matters, what changed, and what to do about it.

Design inspiration to draw from:

- **Goldman Sachs / J.P. Morgan commodity research:** Clean layouts, heavy use of annotated charts, bold conviction statements up front, detail underneath. Every chart has a punchline in its title.
- **Argus Media / OPIS biofuels reports:** Comprehensive price tables, market structure data, credit pricing grids. The gold standard for data completeness in this space.
- **The Jacobsen (Fastmarkets Agriculture):** IOSCO-compliant feedstock price assessments, daily/weekly commentary tight on word count, heavy on price movement.
- **Aegis Hedging LCFS/RIN reports:** Excellent format — lead with credit price charts, follow with regulatory context, close with forward structure. Clean two-figure layout per section.
- **EcoEngineers CA-LCFS and RFS Credit Pricing Analysis:** Good model for multi-program credit tracking with scenario analysis.

Core Design Principles

1. **Chart-title-as-thesis:** Every chart title should be an analytical statement, not a label. Instead of "D4 RIN Prices, 2023-2025" → "D4 RINs Surge on Tightening Supply as Domestic Production Falls Short of New RVO Trajectory"
2. **Traffic-light system:** Use color-coded directional indicators (▲ green, ▼ red, ◆ amber) on key metrics so readers can scan the dashboard page and understand the week/month in 10 seconds.
3. **Minimal commentary, maximum annotation:** Charts should carry annotated callouts for key events (regulatory announcements, plant shutdowns, tariff changes) directly on the visual. Surrounding text should add analytical depth, not describe what the chart already shows.
4. **Layered depth:** Each section opens with a one-line tagline (the headline takeaway), followed by a key metrics dashboard, then 1-3 annotated charts, then analytical commentary for those who want to go

deeper.

5. **Consistent cadence:** Readers should know exactly where to find what they need, week after week, month after month. Standardized sections in standardized order.

BioTrack AI Integration

RLC's proprietary rail car monitoring system (BioTrack AI) provides a unique near-real-time edge. Every report should feature at least one BioTrack-derived insight (e.g., "BioTrack rail monitoring shows feedstock car loadings to Gulf Coast renewable diesel facilities up 12% w/w, suggesting production ramp ahead of Q4 RVO compliance push"). This is RLC's competitive moat — make it visible and branded.

PART II: WEEKLY UPDATE — "RLC Biomass-Based Diesel Weekly"

Format: 8-12 pages (PDF export from automated generation pipeline) **Production:** Fully automated via desktop LLM pipeline, released Monday AM for prior week **Audience:** Traders, procurement managers, plant operators, compliance teams

WEEKLY REPORT STRUCTURE

Page 1 — Cover / Dashboard

Title block: "RLC Biomass-Based Diesel Weekly" with issue date, issue number, and week ending date

GRAPHIC 1: "The Week at a Glance" — Full-page dashboard table

A single, dense, color-coded summary table with the following structure. This is the single most important graphic in the report — a reader should be able to assess the entire complex in under 30 seconds.

Category	Metric	Current	Prior Wk	Δ W/W	Δ Y/Y	Direction	Signal
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Rows should include:

Fuel Prices

- ULSD (NYMEX front-month, \$/gal)
- Soybean oil (CBOT front-month, ¢/lb)
- B100 biodiesel (FOB Midwest, \$/gal)
- Renewable diesel (FOB Gulf Coast, \$/gal)
- SAF (Delivered West Coast, \$/gal)
- BOHO Spread (Soybean Oil minus Heating Oil, ¢/lb)

Feedstock Prices (USDA AMS + Jacobsen/Fastmarkets benchmarks)

- Yellow grease (FOB Central, ¢/lb)
- UCO (Delivered Gulf, ¢/lb)
- Beef tallow — packer bleachable (CAF Gulf, ¢/lb)
- Beef tallow — renderer bleachable (CAF Gulf, ¢/lb)
- Choice white grease (CAF Chicago, ¢/lb)
- Poultry fat (stabilized, ¢/lb)
- Distillers corn oil (FOB Midwest, ¢/lb)
- Canola oil (Delivered PNW, ¢/lb)

Credit Markets

- D4 RIN — current vintage (\$/RIN)
- D4 RIN — prior vintage (\$/RIN)
- D6 RIN — current vintage (\$/RIN)
- D3 RIN — current vintage (\$/RIN)
- CA LCFS credit (\$/MT CO₂e)
- Oregon CFP credit (\$/MT)
- Washington CFS credit (\$/MT)
- Canada CFR credit (CAD/MT)
- EU HVO Class II premium (\$/m³ over gasoil)
- UK waste RTFC (pence per certificate)

Margins (Estimated)

- RD margin — tallow-based, CA delivered (\$/gal, including LCFS + RIN + 45Z)
- RD margin — UCO-based, CA delivered (\$/gal)
- BD margin — soybean oil, Midwest (\$/gal)
- SAF margin — UCO-based (\$/gal, including 45Z)

Production & Supply (where weekly data available)

- EIA weekly renewable diesel + biodiesel implied production (kbd)
- BioTrack feedstock rail car loadings index (proprietary, indexed to base period)

The "Signal" column uses a proprietary 5-tier system: Strong Bullish / Bullish / Neutral / Bearish / Strong Bearish, based on RLC's composite scoring of the metric relative to trend, seasonality, and policy backdrop.

Page 2 — Market Narrative

One-paragraph executive summary (3-5 sentences) written in the style of a Wall Street morning note. Bold, direct, conviction-driven. Example:

"Biomass-based diesel margins deteriorated further this week as feedstock costs outpaced credit value gains. D4 RINs climbed \$0.04/RIN on rumors of an aggressive 2027 RVO, but the move was more than offset by a \$0.02/lb jump in UCO delivered Gulf. West Coast renewable diesel producers remain underwater on a spot basis before 45Z, and we see limited near-term relief absent clarity on the production tax credit. BioTrack rail data shows feedstock car loadings to the Gulf declining for the third consecutive week, consistent with our view that production will fall short of RVO-implied demand in H1."

GRAPHIC 2: "Price Action Heatmap" A visual heatmap showing percentage changes across all tracked commodities and credits for the week, organized by category. Green = price increase, red = decrease, intensity proportional to magnitude. Think of a Bloomberg terminal sector heatmap applied to the BBD complex.

Pages 3-4 — Fuel & Feedstock Markets

Section A: Fuel Prices & Spreads

Tagline: One-sentence analytical summary (e.g., "BOHO spread widens to 7-month high as soybean oil rallies on USDA export revisions")

GRAPHIC 3: "BOHO Spread & D4 RIN Price" — Dual-axis time series

- Left axis: BOHO spread (\$/lb)
- Right axis: D4 RIN price (\$/RIN)
- Time frame: 52-week rolling
- Annotations: Key regulatory events, SRE decisions, RVO announcements

GRAPHIC 4: "Fuel Price Comparison" — Grouped bar chart or line chart

- ULSD, B100 biodiesel, renewable diesel (FOB Gulf), and SAF
- Display as \$/gallon on energy-equivalent basis
- 13-week trend

Section B: Feedstock Prices

Tagline: (e.g., "Tallow premiums widen as 45Z eligibility shift redirects import demand away from UCO")

GRAPHIC 5: "Feedstock Price Stack" — Multi-line time series

- Yellow grease, UCO, tallow (packer bleachable), choice white grease, poultry fat, DCO
- All in ¢/lb, 26-week rolling
- Regional annotations where relevant (e.g., "CAF Gulf" vs "FOB Central")

GRAPHIC 6: "Feedstock-to-Fuel Spread" — Calculated margin chart

- RD production margin proxy: (RD price + RIN value + LCFS value + estimated 45Z) minus (feedstock cost × conversion factor)
- Show for: tallow-based RD, UCO-based RD, SBO-based BD
- 13-week rolling

Brief analytical commentary: 2-3 paragraphs on key movements, drivers, and forward-looking signals.

Pages 5-6 — Credit Markets

Section A: Federal Credits (RFS)

Tagline: (e.g., "D4 RINs breach \$0.90 as market prices in 5.25B gallon 2026 RVO")

GRAPHIC 7: "RIN Price Dashboard" — Multi-line chart

- D3, D4, D5, D6 RINs — current vintage
- 52-week rolling
- Shaded bands for RVO announcement periods

GRAPHIC 8: "RIN Generation vs. RVO Requirement" — Stacked area chart (monthly)

- Cumulative D4 RIN generation YTD vs. annual RVO requirement
- Include prior year comparison
- Source: EPA EMTS data (monthly lag)

Section B: State & International Credits

GRAPHIC 9: "Clean Fuel Credit Comparison" — Multi-panel or multi-line chart

- CA LCFS, OR CFP, WA CFS, Canada CFR credits
- All converted to \$/MT CO₂e for comparability
- 26-week rolling

- Annotation: Regulatory milestones, rulemaking deadlines

GRAPHIC 10: "European HVO Premium & EU Credit Context" — Dual axis

- HVO Class II fob ARA premium (\$/m³, left axis)
- EU RED compliance cost proxy (right axis)
- 13-week rolling

Brief analytical commentary on credit market movements, regulatory pipeline, and arbitrage dynamics between programs.

Pages 7-8 — Supply & Demand Fundamentals

Tagline: (e.g., "Implied RD consumption falls to 18-month low as margins compress")

GRAPHIC 11: "U.S. Biomass-Based Diesel Production" — Stacked bar chart (monthly, with weekly proxy where available)

- Biodiesel production (kbd)
- Renewable diesel production (kbd)
- Other biofuels / SAF (kbd)
- Capacity utilization line overlay (%)
- Source: EIA Monthly Energy Review / EIA-819 survey data

GRAPHIC 12: "Feedstock Consumption by Type" — 100% stacked area chart (monthly)

- Soybean oil, canola oil, corn oil, tallow, UCO/yellow grease, poultry fat, other
- Source: EIA Monthly Biofuels Capacity and Feedstocks Update
- Shows shifting feedstock mix over time

GRAPHIC 13: "BioTrack Rail Monitor" — Proprietary indexed chart

- Weekly feedstock rail car loadings index, broken out by:
 - Gulf Coast destinations (Houston/Beaumont corridor)
 - West Coast destinations (CA/PNW)
 - Midwest destinations
- 13-week rolling, indexed to 52-week average = 100
- This is the proprietary differentiator — branded prominently

GRAPHIC 14: "Feedstock Trade Flows" — Import/export summary

- UCO imports by origin (China, SE Asia, other)
- Tallow imports by origin
- RD/BD imports (Neste/other)
- Source: Census Bureau trade data via RLC's API pipeline
- 4-week moving average, monthly data as available

Brief analytical commentary.

Page 9 — Policy & Regulatory Tracker

GRAPHIC 15: "Regulatory Calendar" — Gantt-style timeline or table

A compact, recurring table showing:

Item	Status	Next Action	Expected Date	Market Impact
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Tracked items:

- EPA RVO rulemaking (2026-2027)
- 45Z Clean Fuel Production Credit — final guidance / IRS rules
- Half-RIN proposal for imported feedstock/fuel
- Small Refinery Exemption decisions
- CA LCFS amendment (CARB rulemaking, step-down schedule)
- Oregon CFP target adjustments
- Washington CFS implementation milestones
- Canada Clean Fuel Regulations updates
- EU RED III member state transposition deadlines
- ReFuelEU Aviation SAF mandates
- Germany THG-Quote reform
- Anti-dumping duties (EU on Chinese HVO, UK on US HVO)

2-3 paragraph commentary on the most market-relevant regulatory developments of the week.

Page 10 — Data Appendix

GRAPHIC 16: "Complete Price Table" Comprehensive table with daily or weekly close prices for all tracked

metrics across the full set of commodities, feedstocks, and credits. This is the reference data appendix — no commentary, just clean numbers with sources noted.

GRAPHIC 17: "Key Data Releases This Week" Calendar of upcoming data releases relevant to the BBD complex:

- EIA Weekly Petroleum Status Report
 - EIA Monthly Energy Review
 - EIA Monthly Biofuels Capacity and Feedstocks Update
 - USDA WASDE (when scheduled)
 - USDA AMS Tallow and Protein Report (weekly)
 - EPA EMTS data releases
 - CARB quarterly LCFS data
 - Oregon DEQ monthly credit transaction report
 - CBOT/NYMEX futures expiration dates
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PART III: MONTHLY REPORT — "RLC Biomass-Based Diesel Monthly"

Format: 25-40 pages (designed PDF + Word companion) **Production:** Hybrid — automated data pipeline + editor-written feature + LLM analytical sections **Release:** First week of each month, covering the prior calendar month **Audience:** Senior management, investors, strategy teams, procurement leadership, policy analysts

MONTHLY REPORT STRUCTURE

Cover Page

Professional branded cover with:

- Report title: "RLC Biomass-Based Diesel Monthly"
 - Subtitle with month/year
 - Hero statistic or quote (e.g., "D4 RINs +47% M/M as Market Reprices 2026-2027 RVO Trajectory")
 - Table of contents
-

Section 1: Editor's Letter (1-2 pages) — HUMAN-WRITTEN

This is Tore's signature piece. A thoughtful, analytical essay on the most important theme of the month. This is

what distinguishes RLC from automated data services. Examples of topics:

- "The Half-RIN Proposal: How EPA's Domestic Sourcing Push Will Reshape Global Feedstock Flows"
- "California's LCFS Reset: What the New Step-Down Schedule Means for West Coast Renewable Diesel Economics"
- "The Tallow Pivot: Why 45Z Is Creating a Two-Tier Feedstock Market"
- "Rail Car Data Don't Lie: What BioTrack Is Telling Us About H2 Production Plans"
- "The Coming SAF Crunch: Aviation Mandates Meet Feedstock Reality"
- "When Policy Collides: The Impossible Triangle of RVO Compliance, 45Z Economics, and Imported UCO"
- "Capacity Utilization Is the Wrong Metric — Why Effective Throughput Matters More"
- "Rendering Industry Dynamics: The Supply Ceiling Nobody Talks About"

The editor's letter should be opinionated, well-sourced, and forward-looking. It positions RLC as having a differentiated view, not just data.

Section 2: Monthly Dashboard (2-3 pages)

GRAPHIC M1: "Month in Review" — Enhanced version of the weekly dashboard

Same structure as the weekly "Week at a Glance" but with:

- Monthly average, high, low, close for each metric
- Month-over-month change
- Year-over-year change
- 3-month trend direction
- 12-month percentile rank (where does this month fall relative to the trailing year?)

GRAPHIC M2: "Monthly Performance Heatmap" Full-month heatmap showing daily price movements across the entire complex. Each row is a commodity/credit, each column is a trading day, cell color = daily % change. This provides a powerful visual narrative of how the month unfolded.

GRAPHIC M3: "Correlation Matrix" — Monthly update Correlation heatmap across key variables:

- D4 RIN, LCFS credit, BOHO spread, SBO price, tallow price, UCO price, ULSD, crude oil
 - Rolling 60-day correlation
 - Highlights where correlations are breaking down (potential trading signals)
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Section 3: Fuel Markets Deep Dive (3-4 pages)

3A: Renewable Diesel

GRAPHIC M4: "U.S. Renewable Diesel Supply & Disposition" — Comprehensive S&D table

Item	Prior Month	Current Month	Δ	Year Ago	Δ Y/Y
Production (kbd)					
Imports (kbd)					
Exports (kbd)					
Implied Consumption (kbd)					
Ending Stocks (million bbl)					
Capacity Utilization (%)					
Days of Supply					

Source: EIA MER, EIA-819, EIA Petroleum Supply Monthly

GRAPHIC M5: "Renewable Diesel Production by PADD" — Stacked bar chart

- PADD 3 (Gulf Coast)
- PADD 5 (West Coast — primarily California)
- PADD 2 (Midwest)
- Other
- Monthly, trailing 24 months

GRAPHIC M6: "Renewable Diesel Capacity vs. Production" — Dual axis

- Nameplate capacity (left axis, kbd)
- Actual production (left axis, kbd)
- Utilization rate (right axis, %)
- Monthly, trailing 24 months
- Annotations for plant openings, closings, conversions back to petroleum

GRAPHIC M7: "Regional RD Economics — Cost of Production" — Waterfall chart

This is a KEY differentiating graphic. Show the fully loaded cost of producing 1 gallon of renewable diesel, built up from:

- Feedstock cost (by type: tallow, UCO, SBO)
- Processing cost (opex estimate)
- Hydrogen cost
- Logistics/freight
- = Gross production cost
- Less: 45Z credit (by feedstock CI)
- Less: D4 RIN value
- Less: LCFS/CFP/CFS credit value (by destination)
- = Net cost to producer
- vs. ULSD reference price
- = Implied margin

Show this waterfall for 3-4 scenarios:

1. Tallow-based RD delivered to California
2. UCO-based RD delivered to California
3. SBO-based RD delivered to Midwest/Gulf
4. Tallow-based SAF delivered to West Coast

This chart alone is worth the subscription.

3B: Biodiesel

GRAPHIC M8: "U.S. Biodiesel Production, Consumption, Stocks" — Similar S&D table as M4

GRAPHIC M9: "Biodiesel vs. Renewable Diesel: The Competitive Dynamic" — Dual line chart

- BD production (kbd) vs. RD production (kbd)
- BD share of total BBD (%, right axis)
- Monthly, trailing 36 months
- Narrative on the structural shift from BD to RD

3C: Sustainable Aviation Fuel

GRAPHIC M10: "SAF Production & Estimated Consumption" — Bar chart

- Monthly SAF production (EIA other biofuels proxy)
- Announced offtake agreements (cumulative tracker)
- Mandated volumes (EU ReFuelEU, UK, etc.)

- Production cost range by pathway (HEFA, ATJ, FT, PtL)
-

Section 4: Feedstock Markets Deep Dive (4-5 pages)

4A: Domestic Feedstock Supply

GRAPHIC M11: "U.S. Rendering Industry Output" — Stacked area chart

- Tallow production (estimated from cattle slaughter × yield)
- Yellow grease / UCO collection (estimated)
- Poultry fat production (estimated from poultry slaughter × yield)
- Choice white grease production
- Distillers corn oil (estimated from ethanol production × extraction rate)
- Monthly, trailing 24 months
- Note: Some of these require estimation models based on USDA NASS slaughter data, EIA ethanol production data, and industry yield assumptions

GRAPHIC M12: "Feedstock Price Trends" — Multi-line chart

- All tracked feedstocks on a single chart
- Monthly average, ¢/lb
- 36-month trailing
- Sources: USDA AMS, Jacobsen/Fastmarkets, RLC estimates

GRAPHIC M13: "Feedstock Carbon Intensity Ranking" — Horizontal bar chart

- Each feedstock ranked by typical CI score (gCO2e/MJ)
- Overlaid with: current price per pound, calculated CI-adjusted cost (\$/gCO2e saved)
- This shows which feedstocks offer the best "bang for the CI buck" — critical for producers optimizing 45Z and LCFS economics

4B: Feedstock Trade

GRAPHIC M14: "Feedstock Import Volumes & Origins" — Stacked bar chart with map inset

- Monthly imports of: UCO, tallow, canola oil, palm oil, other fats/oils
- By origin country/region
- Source: Census Bureau foreign trade data (HTS codes)
- Map inset showing flow arrows

GRAPHIC M15: "UCO Import Tracker" — Line chart with annotations

- Monthly UCO imports from top 5 origins
- Trailing 24 months
- Annotated with policy events: Chinese UCO export restrictions, EU anti-fraud measures, 45Z domestic feedstock requirements, tariff announcements

GRAPHIC M16: "Feedstock Price Spreads vs. Petroleum Equivalents" — Spread chart

- Tallow vs. ULSD (\$/gallon energy-equivalent basis)
- UCO vs. ULSD
- SBO vs. ULSD
- Shows the "green premium" for renewable feedstocks over time

4C: BioTrack Proprietary Analysis

GRAPHIC M17: "BioTrack Monthly Summary" — Multi-panel proprietary chart

- Feedstock rail car loadings by destination region (monthly aggregate)
- Finished product (RD/BD) rail car movements
- Anomaly detection: Facilities showing unusual loading/unloading patterns
- Forward indicator: Loading trends that lead production data by 2-4 weeks

This section is 1-2 pages of pure proprietary content with analytical narrative. It's the reason a subscriber pays for RLC over reading the EIA for free.

Section 5: Credit Markets Deep Dive (3-4 pages)

5A: Federal — RFS and RINs

GRAPHIC M18: "RIN Price Evolution" — Multi-vintage chart

- D4 RIN prices: current year, prior year, two-year-prior vintage
- Monthly averages with intra-month high/low range
- 36-month trailing
- Source: EPA EMTS, OPIS

GRAPHIC M19: "D4 RIN Generation & Retirement Tracker" — Cumulative area chart

- YTD cumulative D4 RIN generation (domestic + import)

- YTD cumulative D4 RIN retirements
- Overlay: Annual RVO requirement
- Source: EPA EMTS (monthly lag)
- Annotated with SRE decisions, RVO announcements

GRAPHIC M20: "RIN Supply-Demand Balance" — Table + commentary

Component	YTD Actual	Annualized	RLC Forecast	RVO Requirement
D4 Generation — Domestic RD				
D4 Generation — Domestic BD				
D4 Generation — Imported				
D4 Generation — SAF				
Total D4 Generation				
D4 Retirements				
D4 Bank (Carry-in)				
Net D4 Position				

Include RLC's proprietary forward estimate for where the D4 balance ends up, and what that implies for RIN pricing.

5B: State Programs

GRAPHIC M21: "CA LCFS Credit Balance Tracker" — Area chart

- Quarterly credit generation vs. deficit generation
- Cumulative credit bank
- Source: CARB quarterly data
- Annotated with: step-down schedule changes, auto-acceleration mechanism triggers

GRAPHIC M22: "State Program Credit Price Comparison" — Multi-line chart

- CA LCFS, OR CFP, WA CFS (all in \$/MT CO2e)
- Monthly averages, 24-month trailing
- Include: Credit clearance market (CCM) price caps for OR/WA

GRAPHIC M23: "Cross-Program Arbitrage Monitor" — Table

- For a standard gallon of tallow-based RD or UCO-based RD:
 - What is the total credit value if sold into CA? OR? WA?
 - What is the total stacking value (federal + state)?
 - Where is the marginal gallon most profitably directed?

5C: International

GRAPHIC M24: "Global Credit Market Dashboard" — Summary table

- Canada CFR credit (CAD/MT and USD equivalent)
- EU RED compliance cost proxy
- UK RTFC (waste, pence/cert)
- Germany THG-Quote certificate pricing
- Netherlands HBE credits
- Monthly, with trend direction

Brief commentary on international dynamics — especially US RD export economics to Canada/EU and the impact of tariffs/anti-dumping duties.

Section 6: Economics & Margins (2-3 pages)

GRAPHIC M25: "Full-Cycle Margin Tracker" — Multi-line chart The comprehensive margin calculation for representative production pathways:

1. Tallow → RD → delivered CA (RIN + LCFS + 45Z)
 2. UCO → RD → delivered CA
 3. SBO → BD → Midwest
 4. Tallow → SAF → delivered (45Z + voluntary credit)
 5. UCO → HVO → delivered EU (RED credit)
- Monthly, trailing 24 months

GRAPHIC M26: "Margin Decomposition" — Expanded monthly waterfall (full-page) The detailed version of M7 with monthly granularity. Show how each margin component (feedstock, processing, credits, tax credits) has moved month-over-month. This is the "brain melting" graphic — visually powerful, immediately actionable.

GRAPHIC M27: "Breakeven Feedstock Price Calculator" — **Table** For each production pathway, calculate: At current credit values and fuel prices, what is the maximum feedstock price that still yields a positive margin? Compare to current feedstock spot prices. This immediately tells readers which pathways are economic and which are not.

Section 7: Capacity & Industry Tracker (1-2 pages)

GRAPHIC M28: "U.S. BBD Production Capacity Map" — Geographic visualization

- All operating, idled, under construction, and announced BBD production facilities
- Sized by capacity (kbd or million gal/yr)
- Color-coded by type: FAME biodiesel, renewable diesel, SAF-capable, co-processing
- Quarterly update (not every month — flag when changes occur)
- Source: EIA plant capacity reports + trade press monitoring

GRAPHIC M29: "Capacity Tracker Table" — Comprehensive facility list

Facility	Owner	Location	Type	Capacity (mgpy)	Status	Feedstock	Notes
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Track: Diamond Green Diesel, Phillips 66 Rodeo, Marathon Martinez, Calumet Montana, CVR (Wynnewood), HF Sinclair (Artesia/Cheyenne), World Energy (Paramount), Vertex, New Fortress/Grön, Bakersfield Renewable Fuels, P66 Humber (UK), Neste Singapore/Rotterdam, Preem, Repsol, Eni Venice, TotalEnergies La Mède, and all others.

GRAPHIC M30: "Industry News Tracker" — **Table** Monthly summary of plant announcements, earnings disclosures, M&A, partnership announcements relevant to BBD/SAF production.

Section 8: Macroeconomic & Policy Context (1-2 pages)

GRAPHIC M31: "Macro Dashboard" Key macro variables that influence the BBD complex:

- Crude oil / ULSD pricing and futures curve (backwardation/contango)
- Soybean complex (SBO, meal, crush margins)
- USD index (impacts import economics)
- Interest rates (impacts project economics and inventory carrying costs)
- Cattle/hog/poultry slaughter trends (drives tallow/fat/grease supply)
- Ethanol production (drives DCO supply)
- Inflation / PPI data (impacts opex)

GRAPHIC M32: "Policy Impact Scenario Analysis" — Table or decision tree Monthly rotating feature: model 2-3 policy scenarios and their expected impact on BBD markets. Example: "If EPA finalizes 5.25B gallon BBD RVO for 2026, AND half-RIN on imports, THEN..." → Impact on D4 price: +\$0.XX → Impact on domestic feedstock demand: +XX million lbs → Impact on capacity utilization: +XX% → Winners/losers by facility type

Section 9: Data Appendix (2-3 pages)

Comprehensive reference tables — all the raw data behind the charts:

Table A1: Daily/weekly feedstock prices for the month (all tracked commodities) **Table A2:** Daily/weekly credit prices for the month (all tracked credits) **Table A3:** Monthly S&D tables (RD, BD, SAF, other biofuels) **Table A4:** Monthly import/export data (feedstocks and fuels) **Table A5:** EIA production data by PADD **Table A6:** Key futures curves (ULSD, SBO, crude) — front-month plus curve structure **Table A7:** Upcoming regulatory calendar (next 90 days)

PART IV: DATA SOURCES & AUTOMATION MAPPING

Data Sources by Category

Freely Available / API-Accessible (for LLM automation)

Source	Data	Frequency	Access Method
EIA Monthly Energy Review	RD/BD production, consumption, stocks, imports	Monthly	API / bulk download
EIA Monthly Biofuels Capacity & Feedstocks Update	Feedstock consumption by type, capacity	Monthly	API / bulk download
EIA Petroleum Supply Monthly	Regional supply/disposition	Monthly	API
EIA STEO	Forecasts for RD/BD production, consumption	Monthly	API
EIA Plant Capacity Reports	Facility-level capacity data	Annual	Excel download
EPA EMITS	RIN generation, retirement, transactions, prices	Weekly/Monthly	Public data portal
USDA AMS Tallow & Protein Report	Tallow, grease, lard prices (Central, Chicago, Gulf)	Weekly (Tue/Thu)	Public text reports

Source	Data	Frequency	Access Method
USDA ERS U.S. Bioenergy Statistics	Comprehensive biofuels data compilation	Quarterly	Excel/CSV download
USDA FAS GATS	Feedstock trade data (imports/exports)	Monthly	API
Census Bureau Trade Data	HTS-level import/export volumes and values	Monthly	API (already built)
CARB LCFS Quarterly Data	Credit generation, deficits, bank, transactions	Quarterly	Public downloads
Oregon DEQ Monthly Credit Transaction Report	CFP credit prices and volumes	Monthly	Public downloads
Washington Ecology CFS Data	CFS credit data	Quarterly	Public downloads
Neste Market Data Dashboard	D4 RIN, LCFS, ULSD daily prices	Daily	Free public page
CBOT/NYMEX futures	SBO, ULSD, crude via delayed data	Daily	Various free sources
USDA NASS	Slaughter data (cattle, hog, poultry) for fat supply estimates	Weekly/Monthly	API (already built)

Subscription / Commercial Data (reference benchmarks)

Source	Data	Notes
OPIS (Dow Jones)	Comprehensive RIN, LCFS, biofuel spot pricing, deal logs	Gold standard — expensive but industry reference
The Jacobsen (Fastmarkets)	Animal fats & oils price assessments (UCO, tallow, CWG, DCO, poultry fat)	IOSCO-compliant benchmarks
Fastmarkets Agriculture	European biofuel feedstock pricing (UCO CIF ARA, Cat 3 fats, UCOME)	For EU section
Argus Media	European biofuels (HVO, FAME, SAF, EU tickets), global feedstock	Comprehensive EU coverage
S&P Global Platts	ULSD, crude, biofuel assessments	Broad commodity coverage

Source	Data	Notes
EcoEngineers	CA-LCFS and RFS credit pricing analysis with scenarios	Niche but high quality
cCarbon	CFP, LCFS, CFS modeling and forecasting	Emerging analytics platform

Proprietary / RLC-Generated

Source	Data	Notes
BioTrack AI	Rail car loadings, feedstock/fuel movements	Computer vision + rail monitoring system
RLC margin models	Production economics calculations	Built in LLM pipeline
RLC S&D models	Supply/demand balance estimates	Combining EIA + Census + USDA
RLC price estimates	Where no free benchmark exists, triangulated from public data	Document methodology

Automation Notes for Desktop LLM Pipeline

Weekly report — fully automated:

- All data ingestion via API or web scrape on Saturday/Sunday
- LLM generates: dashboard table, all chart data series, market narrative, regulatory tracker
- Charts generated via Python (matplotlib/plotly) or Power BI export
- PDF composed automatically
- Human review: Tore reviews Monday morning before release — 30 min max

Monthly report — hybrid:

- Sections 2-9: Automated data pipeline + LLM analytical text
- Section 1 (Editor's Letter): Tore writes, with LLM draft as starting point
- Charts: Automated generation with manual quality check
- PDF/DOCX layout: Template-driven automated composition
- Human review: 2-4 hours for full review and editor's letter

PART V: GRAPHIC SPECIFICATIONS

Standard Chart Types & When to Use

Chart Type	Use For	Examples in Report
Multi-line time series	Price trends, credit evolution	M5, M12, M18, M22
Stacked bar	Production by type/region, imports by origin	M5, M11, M14
Stacked area	Cumulative tracking (RINs, credits)	M19, M21
Waterfall	Margin decomposition, cost buildup	M7, M26
Heatmap	Correlation, performance overview	M2, M3, Dashboard
Horizontal bar	Rankings, comparisons	M13
Dual-axis	Related but different-unit metrics	M4, M6, M10
Table with conditional formatting	Dashboards, data appendix	M1, M20, M27
Geographic map	Facility locations, trade flows	M28, M14 inset
Gantt/timeline	Regulatory calendar	G15

Visual Style Guide

- **Color palette:** Use a consistent, colorblind-friendly palette. Suggestion: Dark blue (primary), teal, amber, coral, slate gray. Avoid pure red/green — use blue/orange for directional signals where possible.
 - **Font:** Clean sans-serif (Calibri, Inter, or Source Sans Pro). Data-heavy tables can use a monospaced or tabular-lining font for numeric alignment.
 - **Chart titles:** Always analytical, not descriptive. Bold, 11-12pt.
 - **Source citations:** Small text below every chart: "Source: EIA, USDA AMS, RLC estimates" etc.
 - **RLC branding:** Subtle logo watermark on charts. "© RLC Consulting" footer on every page.
 - **BioTrack branding:** Distinctive treatment (icon + colored border) for any chart using proprietary BioTrack data. This signals unique value to the reader.
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PART VI: COMPETITIVE LANDSCAPE & PRICING CONTEXT

Existing Market Intelligence Products RLC Competes With

Product	Publisher	Approx. Cost	Frequency	Strengths	RLC Advantage
OPIS Biofuels Daily + Weekly	Dow Jones	\$10K-25K/yr	Daily/Weekly	Price benchmarks, deal logs	RLC offers supply-side intelligence + BioTrack
The Jacobsen Animal Fats & Oils	Fastmarkets	\$5K-15K/yr	Daily	IOSCO-certified fat prices	RLC provides downstream demand context
Argus Biofuels	Argus Media	\$10K-20K/yr	Daily	EU comprehensive coverage	RLC is US-focused with better domestic granularity
EcoEngineers Credit Analysis	EcoEngineers	\$3K-8K/yr	Periodic	Credit scenario modeling	RLC integrates credits with physical markets
Farmdoc daily (U of I)	Free/Academic	Free	Irregular	Deep RFS analytical research	RLC is timely and commercially actionable
S&P Global Platts Biofuels	S&P Global	\$15K-30K/yr	Daily	Broad coverage, assessments	RLC offers independent voice + proprietary data

RLC's target positioning: Provide the analytical depth of farmdoc daily + the data completeness of OPIS + the strategic framing of Goldman Sachs commodity research + the unique real-time edge of BioTrack — at a price point significantly below the combined cost of incumbent services. The weekly can be priced competitively (\$2,000-5,000/yr) as a gateway product. The monthly, with the editor's letter and deep analysis, commands a premium (\$5,000-15,000/yr or bundled).

Document prepared by Claude for RLC Consulting — February 2026 This outline is a working document. Content coverage, graphic counts, and section lengths should be refined based on subscriber feedback and data availability.