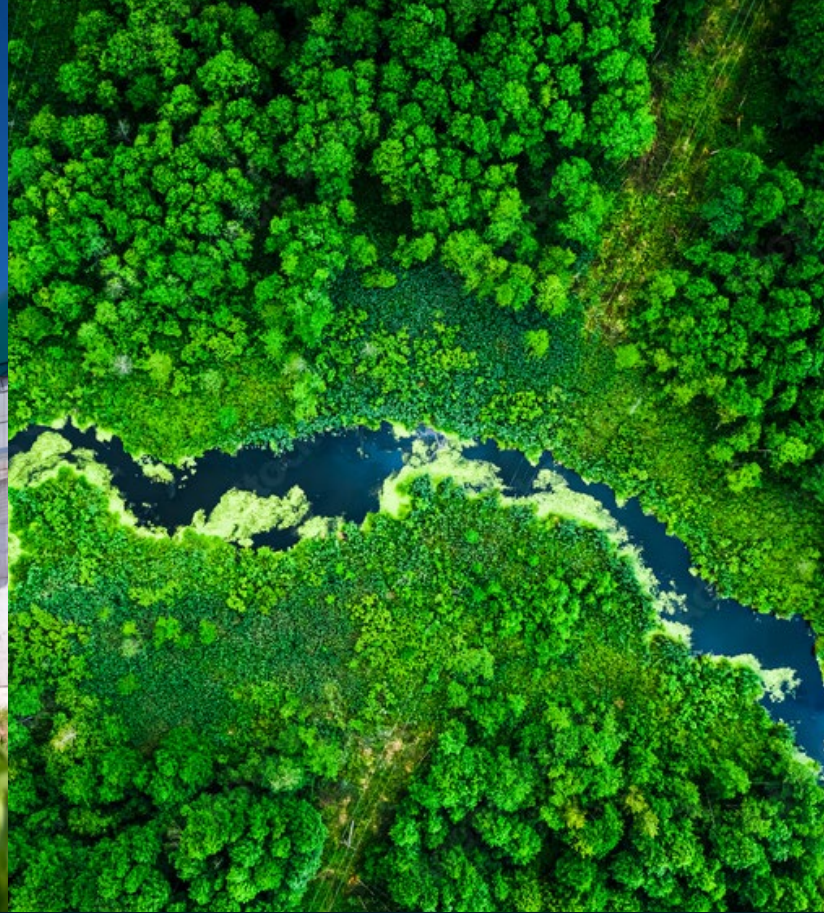


OPIS

A DOW JONES COMPANY



Discover new opportunities with the ENERGY TRANSITION



*Anticipate sustainability
trends and manage costs,
compliance and risks*





A DOW JONES COMPANY

Product Summaries

CARBON MARKET REPORT

assesses the largest compliance carbon markets in the world with reliable and transparent trade-day data.

GLOBAL CARBON OFFSETS REPORT

helps sellers unlock investment potential and allows buyers to purchase with confidence knowing the market's fair price.

ETHANOL & BIODIESEL

INFORMATION SERVICE provides a single source for current news and unbiased pricing on renewable markets essential to the fuel supply chain.

BIOFUELS NEWS ALERTS deliver market-moving news essential to buying and selling in the renewable fuels marketplace.

BIODIESEL RACK PRICE REPORT

allows visibility into thousands of biodiesel prices from suppliers at more than 200 wholesale rack locations.

APAC SOLAR WEEKLY provides reliable pricing and market news on solar materials production in the Asia-Pacific region.

RECYCLED PLASTICS WEEKLY

contains more than 40 unbiased price assessments that provide players in this growth market with an accurate frame of reference.

CIRCULAR PLASTICS SERVICE

enables greater understanding of the plastic value chain's transition from a linear to a circular economic model with comprehensive analytics and insights.

As energy demand transitions from fossil fuels to low-carbon sources, understanding and anticipating trends provides a strategic advantage.

OPIS, a Dow Jones company, offers a range of innovative reports and services that bring much-needed clarity to the energy market's evolution toward low-carbon or sustainable fuels. From renewable feedstocks and carbon capture to recycled plastics and solar panels, we provide price transparency, real-time news and expert insight.

We also keep you informed about environmental policies and regulatory changes to help you manage business risks and adjust compliance strategy. Most importantly, we help you recognize profitable new opportunities as the unpredictable future unfolds.





CARBON MARKET REPORT

Track compliance carbon costs and strategically manage risks.

The growing number of programs for reducing carbon emissions are exerting greater influence on pricing in traditional energy markets. Managing compliance with these programs can be costly without a clear view of the decentralized trading market. To remain profitable, buyers and sellers need daily assessments of fair market value.

OPIS
A SOW JONES COMPANY

Carbon Market Report
Daily Prices, News and Insights on Emissions Market and Clean Air Initiatives

Insights

SPNEC Solicits Funds For 10GW Solar Plans But Projects' Timeline Uncertain

Solar Philippines Nueva Ecija Corporation (SPNEC), a unit of Solar Philippines that has over-100 megawatt (MW) of solar capacity in operation, is conducting a stock rights offering (SRO), which allows existing shareholders to buy more of its stocks. The targeted P2.8 billion (\$50 million) from the SRO "will be a catalyst for its goal of expanding into a P400-billion renewable energy company with a total capacity of 10 gigawatts (GW)", Solar Philippines said on its website. See page 2.

Chevron REG Breaks Ground on Expansion Project in Germany

Chevron Renewable Energy Group (REG) broke ground on its biorefinery expansion project in Emden, Germany, on Saturday. The expansion includes the addition of a pretreatment system at the facility designed to enable Chevron REG to use a more expansive array of feedstocks for biodiesel production. See page 2.

Global Compliance Carbon Markets

CCA: \$27.750	PJM REC: \$23.435	EU: €86.66
CCO: \$18.250	NEPOOL: \$36.750	RGGI: \$13.425

Key Benchmarks

CALIFORNIA CARBON ALLOWANCES (US\$/MT)

Product	Vintage	Timing	Price	Change
Current Yr. CCA	V22	Sep'22	27.750	-0.270
Current Yr. CCA	V22	Dec'22	28.150	-0.300

CALIFORNIA CARBON OFFSETS (US\$/MT)

Product	Timing	Price	Change
Golden CCO	2022	18.250	0.000
DEBS Golden CCO	2022	20.250	0.000
Zero CCO	Sep'22	19.050	0.050

CALIFORNIA LOW CARBON FUEL STANDARD (CTS/GAL)

Product	Price	Change
Carbon Credit (\$/mt)	87.0000	-0.5000
Gasoline LCFS/Crude CI Deficit 90%	11.4585	-0.0635
Diesel LCFS/Crude CI Deficit 95%	12.1805	-0.0725

OREGON CLEAN FUELS PROGRAM (CTS/GAL)

Product	Price	Change
Carbon Credit (\$/mt)	113.0000	0.0000
Carbon CPG Gasoline 90%	8.705	0.000
Carbon CPG Diesel 95%	10.005	0.000

REGIONAL GREENHOUSE GAS INITIATIVE ALLOWANCES (US\$/ST)

Product	Vintage	Timing	Price	Change
RGGI	V21-V22	Sep'22	13.425	-0.165
RGGI	V21-V22	Dec'22	13.575	-0.150

EUROPEAN CARBON FUTURES

ICE Exchange	Timing	Settle	Change
EU: €/mt	Dec'22	86.66	-3.65
UK: £/mt	Dec'22	97.30	0.00

RENEWABLE ENERGY CERTIFICATES (US\$/MWH)

Product	Vintage	Price	Change
New Jersey Class I	2022	23.835	-0.385
PJM Tri-Qualified	2022	23.435	-0.440
NEPOOL Dual Qualified	2022	36.750	0.000

OPIS Carbon Market Report meets the need for benchmark carbon pricing with comprehensive market coverage. In a single daily report, you gain access to more than 100 carbon and emissions market assessments, and insight into 16 environmental programs including California Carbon Allowances, California Carbon Offsets, Regional Greenhouse Gas Initiative Allowances and U.S. Renewable Energy Certificates.

How We Help:

- Maximize value by referencing OPIS carbon prices in supply contracts
- Obtain fair-market value for carbon allowances, credits, offsets and renewable certificates acquired in the OTC market
- Use OPIS carbon indices as a basis for price forecasting
- Keep up with compliance requirements and fundamentals via breaking news updates
- Assess future compliance costs with extensive forward-market discovery
- Track historical prices to identify trends and mitigate risks

Manage commitments to carbon neutrality and gain visibility into voluntary carbon markets and net-zero strategies with a fair-price index.

The commitment to carbon neutrality continues to grow as corporations and jurisdictions chart a course for net-zero and airlines prepare for CORSIA compliance. A lack of price visibility hinders market players in trading carbon offset credits fairly and makes securing future project finance more difficult.

OPIS
A DOW JONES COMPANY

Global Carbon Offsets Report
Daily Prices, News and Analysis on Offsetting Emissions

Insights

ECB Sets Deadlines for Euro Zone Banks to Deal With Climate Risks
The European Central Bank on Wednesday set staggered deadlines for euro zone banks to meet its climate disclosure and management expectations by 2024. See page 8.

International Maritime Organization's Carbon Intensity Measures in Effect
The International Maritime Organization's latest emissions-reduction measures came into effect Tuesday, officially introducing the agency's newest regulatory move granting an efficiency rating to ships. See page 8.

Almost All Large Companies Are on Track to Miss Climate Goals, Report Says
More than 90% of the world's largest companies will fail to achieve their net zero goals if they do not at least double the pace of emissions reduction by 2030, a new study has warned. See page 8.

Key Benchmarks

FORESTRY CREDITS AVERAGES (US\$/MT)

Product	Price	+/-	MTD	30-Day
REDD+ V22	15.533	-0.230	15.648	15.231
Blue V22	28.533	-0.230	28.648	28.232
ARR V22	17.658	-0.230	17.773	17.431

CO-BENEFITS STANDARDS (US\$/MT)

Product	Price	+/-	MTD	Wk. Avg
CCB	3.500	0.000	3.500	3.500
CCB Gold	3.700	0.000	3.700	3.700
SD ViSta	3.000	0.000	3.000	3.000

CORSIA ELIGIBLE OFFSETS (US\$/MT)

Product	Price	+/-	MTD	Wk. Avg
CEO	3.370	-0.125	3.433	3.433

CORE CARBON CREDITS (US\$/MT)

Product	Price	+/-	MTD	Wk. Avg
CCP	9.970	-0.250	10.095	10.466

CARBON NEUTRAL FUELS INDEX

Product	\$/Gal	+/-	\$/Bbl	+/-	\$/MT	+/-
CNFI Butane	0.065	0.000	2.805	-0.070	30.240	-0.755
CNFI Diesel No 2	0.100	-0.005	4.290	-0.105	31.945	-0.800
CNFI Gasoline	0.090	0.000	3.690	-0.090	30.725	-0.770
CNFI Heavy Fuel Oil	0.120	0.000	5.035	-0.125	32.190	-0.810
CNFI Jet Fuel	0.095	0.000	4.030	-0.105	31.710	-0.800
CNFI Light Fuel Oil	0.115	0.000	4.690	-0.120	31.415	-0.790
CNFI Propane	0.060	0.000	2.410	-0.060	29.890	-0.750

Forestry Credits Average Prices (US\$/mt)

TABLE OF CONTENTS

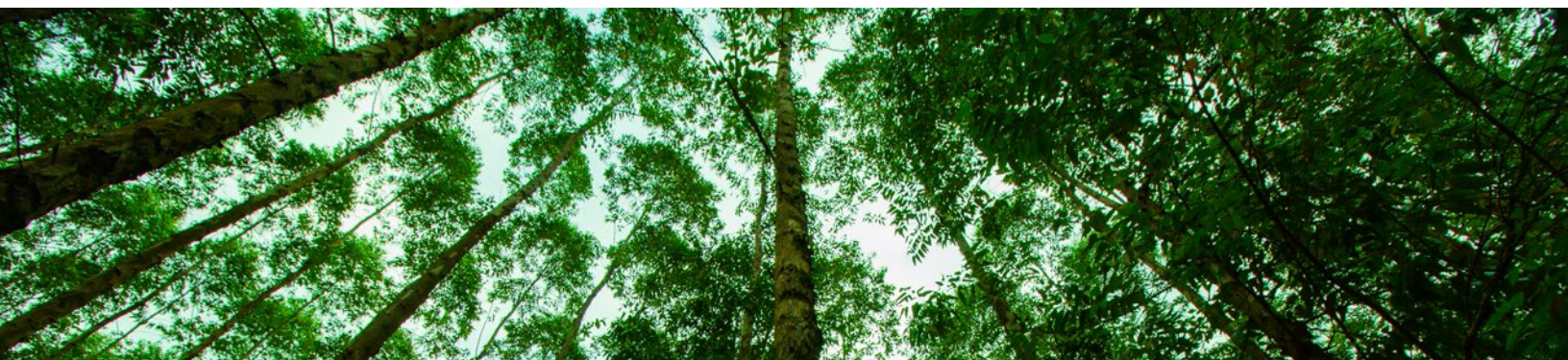
- Voluntary REDD+ Credits.....2
- Blue Carbon Credits.....3
- Afforestation/Reforestation Credits.....4
- Forestry Credits Averages.....5
- Co-benefits Standards.....6
- CORSIA Eligible Offsets.....6
- California Carbon Offsets.....6
- Market Analysis.....6
- Core Carbon Credits.....7
- Carbon Neutral Fuels Index.....7
- News.....8
- Carbon Offsets Trades.....10

© 2022 Oil Price Information Service, LLC. All rights reserved. 2099 Gaither Road, 5th Floor, Rockville, MD 20850-4000. The Global Carbon Offsets Report is published each business day. OPIS does not guarantee the accuracy of these prices. Reproduction of this report without permission is prohibited. To order copies or a limited copyright waiver, contact us.

OPIS Global Carbon Offsets Report answers the demand for transparent voluntary carbon market pricing. A daily PDF provides full-day physical assessments for 27 voluntary carbon offset credits and 10 compliance carbon offset credits, including REDD+, CORSIA Eligible Offsets and California Carbon Offsets. This report serves as a key benchmark across the industry, supporting market participants in contract negotiations, investment decisions and supply agreement structuring.

How We Help:

- Discover the baseline cost for providing environmental services to counterparties
- Agree on a fair price premium for retiring carbon credits to attain carbon neutrality in the fuel supply chain
- Secure investment for new and existing emissions reduction projects using a transparent pricing index
- Stay informed on nature-based project developments and offset credits issuances
- Determine the cost impact of climate initiatives aligned with Paris Agreement goals





ETHANOL & BIODIESEL INFORMATION SERVICE

Stay in-the-know on biofuel developments via real-time news alerts, a daily market overview and a weekly newsletter including price assessments.

Government regulations continue to favor biofuels, making them a critical sector of the fuel business, but one with little price discovery or market reporting devoted to it. As a result, the market offers less transparency for buyers and sellers.

OPIS Ethanol & Biodiesel Information Service provides an unparalleled combination of news and pricing on renewable fuel markets in the U.S. – not only for primary biofuel products but also for the secondary markets that contribute to ethanol and biodiesel production.

How We Help:

- Learn major pricing moves in biodiesel, ethanol and RINs as they happen with email news alerts
- Increase profitability through a wide range of daily price discovery
- Leverage your spot and wholesale fuel transactions
- Discover arbitrage opportunities
- Monitor the cost of compliance with clean fuel programs
- Understand how traditional fuel markets are interacting with biofuels
- Enjoy “on-the-go” access anytime, anywhere via smartphone app

Ethanol & Biodiesel Information Service

Pricing, News and Analysis for Buying and Supplying Ethanol-Blended Fuel and Biodiesel

OPIS
A COWI COMPANY

Ethanol Futures (cts/gal contract price)

	September 2022	October 2022	November 2022	December 2022
CBOT	216.10	216.10	216.10	216.10

Settlement Thursday, August 25, 2022 Source: Chicago Board of Trade

Ethanol & Gasoline Component Spot Market Prices

U.S. RINs (prices in U.S. \$/RIN)

	Fri. 08/19	Mon. 08/22	Tues. 08/23	Wed. 08/24	Thurs. 08/25	Wkly. Avg.
U.S. Ethanol RINs						
Current Yr	1.6200-1.6200	1.6200-1.6200	1.6300-1.6450	1.6150-1.6550	1.6100-1.6300	1.62350
Previous Yr	1.6200-1.6200	1.6200-1.6400	1.6200-1.6650	1.6150-1.6650	1.6100-1.6400	1.62850
U.S. Cellulosic RINs						
Current Yr	2.8500-2.9000	2.8000-2.9000	2.8500-2.8900	2.8500-2.8900	2.8700-2.8800	2.86800
Previous Yr	3.3500-3.3900	3.3300-3.3600	3.3500-3.3800	3.3500-3.3800	3.3600-3.3800	3.36300
U.S. Biodiesel RINs						
Current Yr	1.7400-1.7600	1.7450-1.7700	1.7600-1.8000	1.7650-1.8050	1.7500-1.7600	1.76550
Previous Yr	1.7900-1.8100	1.7850-1.8300	1.8100-1.8500	1.8200-1.8500	1.7900-1.8200	1.81550
U.S. Advanced Biofuel RINs						
Current Yr	1.7300-1.7600	1.7350-1.7700	1.7500-1.8000	1.7550-1.8050	1.7400-1.7600	1.76550
Previous Yr	1.7800-1.8100	1.7750-1.8300	1.8000-1.8500	1.8100-1.8500	1.7800-1.8200	1.81050

Chicago (prices in U.S. \$/gal)

	Fri. 08/19	Mon. 08/22	Tues. 08/23	Wed. 08/24	Thurs. 08/25	Wkly. Avg.
Ethanol	2.5950-2.6250	2.6400-2.6500	2.7100-2.7200	2.6450-2.6500	2.5900-2.6200	2.64450
DP ETH	2.5900-2.6000	2.6400-2.6500	2.7100-2.7200	2.6450-2.6500	2.5900-2.6200	2.64150
B100 SME	7.2700-7.5100	7.4000-7.5900	7.4700-7.6600	7.6000-7.8400	7.5800-7.7800	7.57000
RB08 LHI	3.1875-3.2175	3.0262-3.0612	2.9630-2.9880	2.8207-2.8607	3.0274-3.1124	3.02546
RB08 Pre	3.7825-3.8125	3.6212-3.6562	3.5930-3.6280	3.4607-3.5007	3.5924-3.6774	3.63246
CB08 LHI	2.8425-2.8725	2.6812-2.7162	2.6530-2.6880	2.5357-2.5457	2.6524-2.7374	2.69246
USD	3.6480-3.7505	3.7062-3.8262	3.8119-3.8819	4.0307-4.0407	4.0348-4.0448	3.87757

Chicago Rule 11 (prices in U.S. \$/gal)

	Fri. 08/19	Mon. 08/22	Tues. 08/23	Wed. 08/24	Thurs. 08/25	Wkly. Avg.
Current Yr	2.5500-2.6000	2.5700-2.6300	2.7100-2.7200	2.6300-2.6500	2.6000-2.6400	2.63000

[See page 2 for more spot pricing locations ▶](#)

Ethanol Market Overview:

Bulky supply, demand concerns cool ethanol spot gains

For the second straight week it appeared that government-reported ethanol industry figures impacted the market, with the midweek release of higher inventory coupled with some data points that added big question marks to blending demand taking some steam out of spot ethanol values.

Ethanol bulk trading continued to appear slow in August, but the more active Chicago-area market had nearby in-tank transfers fetching up to \$2.72/gal early last week – the highest spot price in eight weeks – before the midweek release of weekly EIA figures appeared to help usher in some selling that quickly cut spot trades back to \$2.645/gal. Light selling continued into Thursday, dropping Argo values back to \$2.615/gal – trading that represented as much as a 10.5cts drop off the week's highs.

While trading well off the higher prices that opened last week, nearby Chicago ethanol prices holding around the low \$2.60s/gal still clung to week-to-week gains that amounted to more than 4.6cts at last look Thursday.

Backwardation remained in the Chicago spot market last week, and market sources speculated that it may be enough to dull prompt buying. Some forward talks indicated any-September ethanol priced at about a 3cts discount against August values and there were even some trade sources willing to peg any-October value at another 7-9cts cheaper than September.

continued on page 3

In Each Issue ...

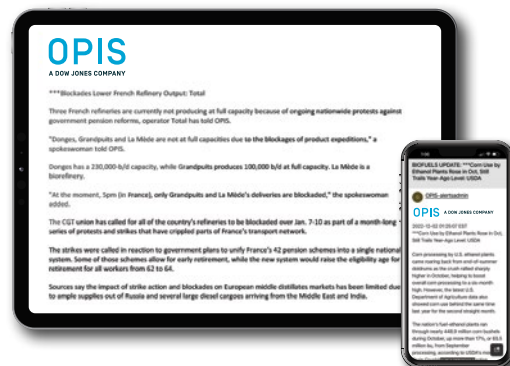
Ethanol Market Overview	1	Renewable Fuels Averages.....	5	Biodiesel/Ethanol Plant Profitability	10
Ethanol and Gasoline Component Spot Prices	1-3	Biofuels Stock Performance.....	6	Renewable Fuel Feedstock/Co-Product Price Index	11
Block Term Contract Prices in Key Markets.....	4	Government Policy.....	7	European and Brazilian Markets	13
Bulk Truck Spot Prices in Key Markets.....	4	Key Supply and Demand Statistics	8	News of the Week	15
		In Key Commodity Markets	9		

OPIS Ethanol & Biodiesel Information Service is published by OPIS | www.opisnet.com | 888.301.2645

BIOFUELS NEWS ALERTS

Receive breaking news on renewable fuels via email.

Plus a daily market overview that provides closing spot ethanol and biodiesel assessments, all four types of RIN values, LCFS values and a natural gasoline (denaturant) spot snapshot. Useful features include a mobile app, push notifications, custom view, story archive and forwarding capability.



BIODIESEL RACK PRICE REPORT

Access thousands of wholesale biodiesel prices.

ALEXANDRIA, NH **OPIS GROSS WHOLESALE BIODIESEL PRICES** 02/23/2019									
		TERMS	LONG	LONG	LONG	LONG	ULSD	ULSD	Move
			ULTRA	ULTRA	ULTRA	ULTRA	ULSD	ULSD	
ADP Energy	u	B-10	236.39	236.79	236.79	236.79	236.79	236.79	- 0.55
Cenex	b	1-10	232.49	232.89	232.89	232.89	232.89	232.89	0.24
Flint Hills	u	B-10	239.83	239.83	239.83	239.83	239.83	239.83	- 0.50
Hartland	u	W-10	232.39	232.39	232.39	232.39	232.39	232.39	- 0.50
MOLCOlog	u	B-10	238.00	238.25	238.25	238.25	238.25	238.25	- 2.00
SingleStar	b	1-10	233.86	233.86	233.86	233.86	233.86	233.86	- 0.89
SingleStar	u	1-10	233.86	233.86	233.86	233.86	233.86	233.86	- 0.89
Tesoro	u	B-10	230.00	230.40	230.40	230.40	230.40	230.40	- 2.00
WorldFuel	u	B-10	232.61	232.61	232.61	232.61	232.61	232.61	- 2.56
LOW RACK			230.00	230.40	230.40	230.40	230.40	230.40	
HIGH RACK			239.00	239.35	239.35	239.35	239.35	239.35	
AVG RACK			239.11	239.49	239.49	239.49	239.49	239.49	
COMT AVG			239.11	239.49	239.49	239.49	239.49	239.49	
COMT LOW			230.00	230.40	230.40	230.40	230.40	230.40	
COMT HIGH			239.00	239.35	239.35	239.35	239.35	239.35	

Wholesale biodiesel prices are available for more than 200 rack locations, enabling complete price visibility into the wholesale market for use in negotiating supply contracts and reconciling invoices. Biodiesel prices are posted with and without RINs by percentage of biodiesel blend and by feedstock. OPIS is the benchmark index for wholesale fuel prices.

APAC SOLAR WEEKLY

Rely on fair and transparent solar materials pricing and market news.

From upstream polysilicon, wafers and cells to downstream panel prices, stay on top of price trends and forward prices for solar materials with the first report to use an assessment methodology that follows IOSCO (International Organization of Securities Commissions) requirements for fair and transparent pricing. Receive a weekly PDF with polysilicon, wafer, cell and module price assessments, historical price data and expert insight to put it all in context.

OPIS APAC SOLAR WEEKLY									
1 USD = 1.01 USD 1 USD = 142.23 JPY 1 USD = 6.83 CNY 1 USD = 76.80 HKD									
PLM™ Polysilicon Index									
Price change (Jan 2)	38.278	USD/kg	0%						
Price change (Jan 2)	10.378	37.100%							
Average Mono grade in China	339.00	\$/kg	0.00%						
Price change (Jan 2)	0.000	1.000%							
Price change (Jan 2)	81.000	36.170%							
Average Multi grade in China	180.000	\$/kg	0.00%						
Price change (Jan 2)	0.000	2.871%							
Price change (Jan 2)	80.000	80.000%							
Price change (Jan 2)	0.000	-2.012%							
Price change (Jan 2)	0.000	3.571%							
CMM™ Chinese Market Index									
Price change (Jan 2)	0.000	0.000%							
Price change (Jan 2)	0.000	0.000%							
CONTENTS									
SPOT PRICING & INDEX	P1								
POLYSILICON Forward Pricing	P2								
WAFER Historical Pricing	P3								
CELL Historical Pricing	P4								
MODULUS Forward Pricing	P5								
MODULUS Historical Pricing	P6								
PSM and CMM Historical Graphs	P7								
OPIS Alerts - News Stories	P8-10								
Spot Prices & Sentiment Outlook									
Sentiment outlook based on industry players' market sentiments									
Polysilicon	High	Low	Average	Change	% Change	Next week	Next Month	Next 3 months	
China Multi Grade (PLM/kg)	339.00	339.00	339.00	0.00	0.00%	0.00	0.00	0.00	
China Mono Grade (PLM/kg)	339.00	339.00	339.00	0.00	0.00%	0.00	0.00	0.00	
Wafers (PLM/kg, 150x150x0.18mm)	High	Low	Average	Change	% Change	Next week	Next Month	Next 3 months	
Wafers G1	0.821	0.821	0.821	0.00	0.00%	0.00	0.00	0.00	
Wafers G2	0.821	0.821	0.821	0.00	0.00%	0.00	0.00	0.00	
Wafers G3	0.821	0.821	0.821	0.00	0.00%	0.00	0.00	0.00	
Wafers G4	0.821	0.821	0.821	0.00	0.00%	0.00	0.00	0.00	
Cells (PLM/kg, 150x150x0.18mm)	High	Low	Average	Change	% Change	Next week	Next Month	Next 3 months	
Cells G1	0.821	0.821	0.821	0.00	0.00%	0.00	0.00	0.00	
Cells G2	0.821	0.821	0.821	0.00	0.00%	0.00	0.00	0.00	
Cells G3	0.821	0.821	0.821	0.00	0.00%	0.00	0.00	0.00	
Cells G4	0.821	0.821	0.821	0.00	0.00%	0.00	0.00	0.00	
Modules	High	Low	Average	Change	% Change	Next week	Next Month	Next 3 months	
Modules G1	0.821	0.821	0.821	0.00	0.00%	0.00	0.00	0.00	
Modules G2	0.821	0.821	0.821	0.00	0.00%	0.00	0.00	0.00	
Modules G3	0.821	0.821	0.821	0.00	0.00%	0.00	0.00	0.00	
Modules G4	0.821	0.821	0.821	0.00	0.00%	0.00	0.00	0.00	

The key to profit in the growth industry for recycled plastics is access to transparent pricing that provides a single frame of reference in a fragmented market. From grades to locations, Recycled Plastics Weekly standardizes a wide array of inputs for the current values and insights you need.

- Recent spot deals including commodity, price, location, volume and municipal bale sales
- U.S. import and export data on plastic scrap
- Graphs and tables with historical price moves
- Exclusive news on force majeure and other plant disruptions, openings, expansions



Circular Plastics Service helps companies reformulate business strategy during the process of eliminating plastics waste and extracting maximum value from long-term resource use.

- Anticipate future recycling volumes under different scenarios
- Compare competing chemical process technologies and understand which may prevail
- Evaluate consumer demand in different markets
- Calculate carbon emissions and unit costs based on different infrastructure types
- Understand different regulatory regimes





A DOW JONES COMPANY

OPIS, a Dow Jones company, provides price transparency across the global fuel supply chain, enabling stakeholders to buy and sell energy commodities with confidence.

We do this via multi-platform access to accurate data, real-time news, powerful software and educational events. OPIS brands include Chemical Market Analytics, PetroChem Wire, McCloskey and Axxis.

Our commitment to reliability is reinforced by personalized customer service and constant innovation. OPIS listens to what energy stakeholders need and responds with flexible and easy-to-use products. Navigating world fuel markets is complex – OPIS makes it simpler.

Request a free trial or demo

energy@opisnet.com

+1 888.301.2645 | +1 301.284.2000

www.opisnet.com/Energy-Transition