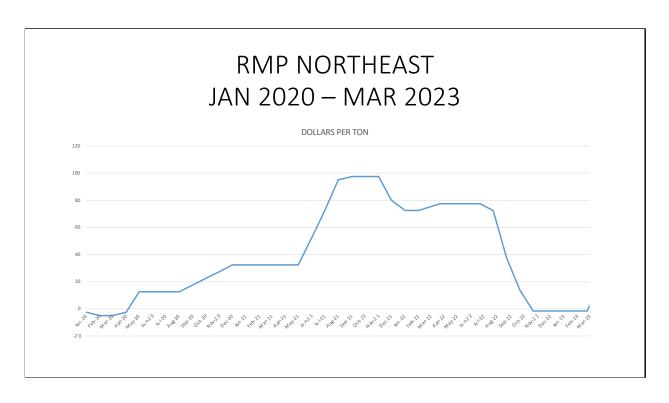
NORTHEAST RECYCLING MARKETS MARCH 2023

Chaz Miller
Connecticut Solid Waste Advisory Committee
April 24, 2023

ALL PRICES AS OF MARCH 31, 2023, UNLESS OTHERWISE INDICATED

PRICE DATA IS FROM RECYCLING MARKETS.NET UNLESS OTHERWISE INDICATED

- ALL PRICES START JAN 31, 2020
- TRENDS MORE IMPORTANT THAN SPECIFIC PRICE DATA



DATA: RECYCLING MARKETS.NET

RMP: IS TAGGING ALONG

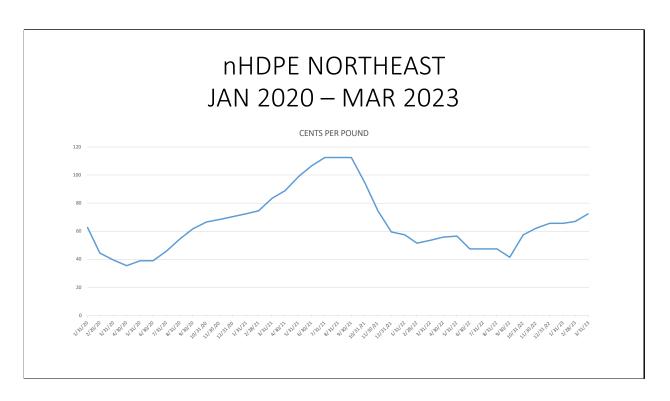
- \$3 PER TON
- UP \$4.50 FROM LAST MONTH (-\$1.50)
- DOWN \$\$74.50 YOY (\$77.50)
- DOWN \$95.50 FROM SEPTEMBER-NOVEMBER HIGH (\$97.50)
- UP \$8 OVER 2020 LOW (-\$5)
- \$1.50 BELOW NATIONAL AVERAGE (\$4.75)
- BELOW NATIONAL AVERAGE LAST 6 MONTHS
- GENERALLY RISES & FALLS AT A DISCOUNT TO OCC
- SPREAD B/W OCC & RMP IS \$34

MARKETS SAME AS OCC ALTHOUGH ALSO CAN BE USED FOR LOWER GRADE PACKAGING

- MOST MILLS USE RMP AS AN ADDITIONAL. NOT A PRIMARY, RAW MATERIAL
- EXPORT MARKETS

HIGH - LOW - BASED ON FIVE YEARS DUE TO NEWNESS OF THIS GRADE

- HIGH 97.50 2021 UP \$2.50 FROM SPRING 2017 HOARDING AFTER NATIONAL SWORD
- LOW FEB MAR 2020 (-\$5)



DATA: RECYCLING MARKETS.NET NATURAL HDPE

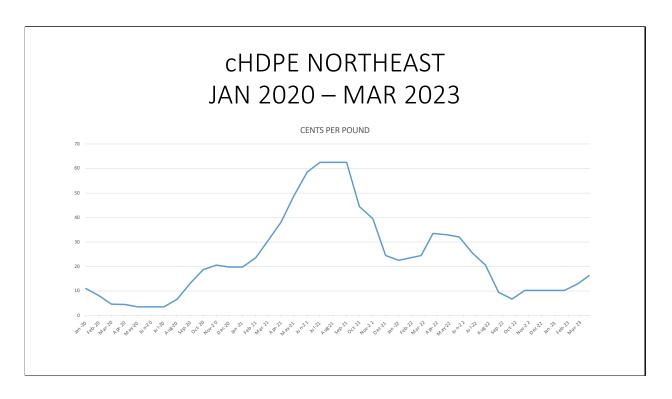
- 72.75 CENTS PER POUND
- UP 5.75 CENTS FROM LAST MONTH (67 CENTS)
- UP 19.25 CENTS YOY (53.5 CENTS)
- DOWN 39.75 CENTS SINCE JUL OCT 21 HIGH (112.5 CENTS)
- UP 37.25 CENTS FROM 2020 LOW (35.5 CENTS)
- UP 59.75 CENTS FROM ALLTIME LOW (13 CENTS)
- 4.28 CENTS ABOVE NATIONAL AVERAGE (68.47 CENTS)
- NORMALLY ABOVE NATIONAL AVERAGE, SOMETIMES BY AS MUCH AS A NICKEL

MARKETS PACKAGING & SOME CONSTRUCTION

- HIGHLY VERSATILE B/C NOT DYED
- USED IN LIMITED NUMBER OF PRODUCTS (MILK & WASTER JUGS, FRUIT JI\INCES)
- BRAND DEMAND DROVE 2021 ABSENT IN 2022
- INFRASTRUCTURE NEEDS LIKELY BEHIND INCREASED PRICE

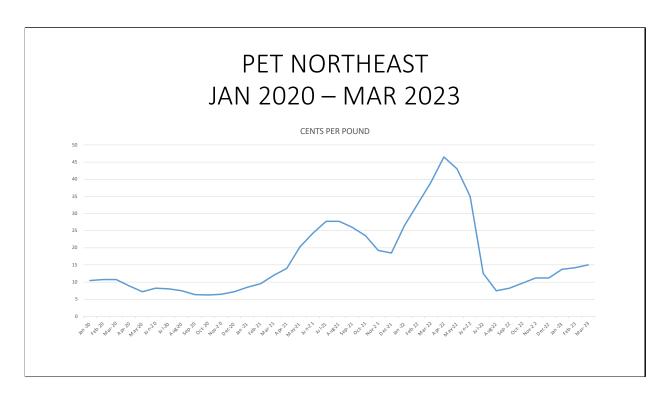
HIGH - 112.5 CENTS - JUL - OCT 2021

LOWS - 13 CENTS (DEC 2008) & 35.5 (POST JAN 2020)



DATA: RECYCLING MARKETS.NET COLORED HDPE

- 16.5 CENTS PER POUND
- UP 3.5 CENTS FROM LAST MONTH (13 CENTS)
- DOWN 17 CENTS YOY (33.5 CENTS)
- DOWN 46 CENTS FROM JULY-SEPTEMBER HIGH (62.5 CENTS)
- UP 13 CENTS FROM 2020 LOW (3.5 CENTS)
- 2.22 CENTS ABOVE NATIONAL AVERAGE (14.28 CENTS)
- NORMALLY ABOVE NATIONAL AVERAGE BY 3 OR 4 CENTS
- SPREAD B/W cHDPE & nHDPE 54 CENTS
- COLORED HDPE IS NOT AS VERSATILE AS NATURAL B/C OF THE COLORANTS MARKETS PRIMARILY CONSTRUCTION USES: PIPES, ETC.
- CONSTRUCTION MARKETS SOFT HIGH LOW – PRESENT TO JUNE 2005
- HIGH JULY-OCT 2021 62.5 CENTS
- LOW JULY 2020 3.5 CENTS

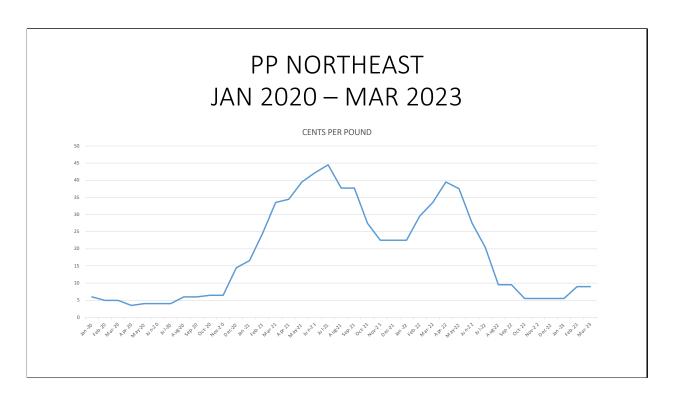


DATA: RECYCLING MARKETS.NET

- 15 CENTS PER POUND
- UP .75 CENTS FROM LAST MONTH (14.25 CENTS)
- DOWN 17.75 CENTS YOY (32.75 CENTS)
- DOWN 31.63 CENTS SINCE ALL TIME HIGH (46.63 CENTS MAY 22)
- UP 8.87 CENTS SINCE 2020 BOTTOM (6.13 CENTS)
- 11 CENTS OVER ALL-TIME LOW (4 CENTS IN 2008)
- 0.94 CENTS ABOVE NATIONAL AVERAGE (14.06 CENTS)
- NORMALLY TRACKS A PENNY OR TWO ABOVE NATIONAL AVERAGE

MARKETS PRIMARILY BOTTLES & FIBER

- BEVERAGE INDUSTRY SALES SEASONAL: MEMORIAL DAY TO LABOR DAY
- BRANDS SHOWING LESS INTEREST IN RECYCLED CONTENT?
- FIBER INDUSTRY CUTTING BACK DUE TO WEAK MARKETS HIGH-LOW PRESENT TO 2005
- PRE-COVID HIGH 2011: \$0.37 (GAS & OIL HIGH) POST 2020 MAY 22 46.6336.88
 CENTS
- LOW DEC 2008:- JAN 09 GREAT RECESSION: \$0.04 POST-COVID LOW \$0.0613 OCT 2020

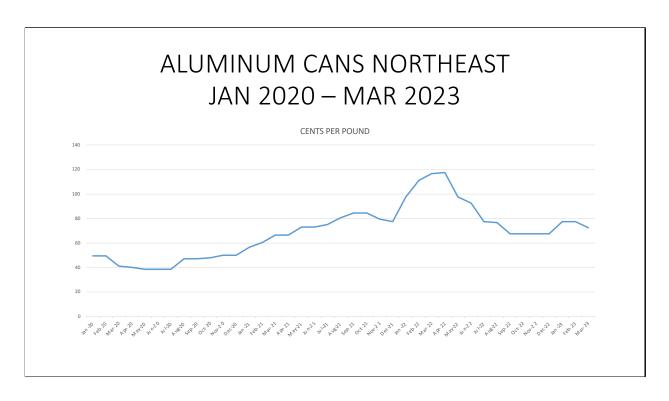


DATA: RECYCLING MARKETS.NET POLYPROPYLENE

- 9 CENTS PER POUND
- SAME AS LAST MONTH
- DOWN 24.5 CENTS YOY (33.5 CENTS)
- DOWN 36.5 CENTS FROM JULY 2021 HIGH (44.5 CENTS)
- UP 6.5 CENTS OVER 2020 LOW (2.5 CENTS)
- 0.81 CENTS ABOVE NATIONAL AVERAGE (8.19 CENTS)
- NORMALLY TRACKS ABOVE NATIONAL AVERAGE

MARKETS CONSTRUCTION

- CONSTRUCTION SPENDING DOWN HIGH-LOW —
- ALL TIME LOW MAY 8 2020 \$0.025
- HIGH JULY 2021 \$0.445



DATA: RECYCLING MARKETS.NET ALUMINUM STILL HIGH BUT COOLED OFF

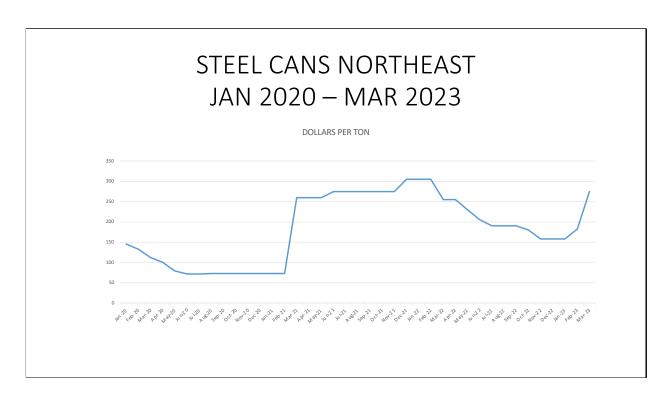
- 72.5 CENTS PER POUND
- DOWN 5 CENTS FROM LAST MONTH (77.5)
- DOWN 44 CENTS YOY (\$1.165)
- DOWN 51.3 CENTS FROM MAR 11 2022 HIGH (1.238)
- UP 33.37 CENTS FROM 2020 LOW (39.13 CENTS)

MARKET: CANS

- CANSHEET PRODUCTION UP 8.4% 2022
- OTHER USE COULD BE CAST ALUMINUM BUT RARE IN NORTH AMERICA

ALLTIME HIGH - \$1.238 MARCH 2022

ALLTIME LOW 39.13 CENTS - JUNE 2020



DATA: RECYCLING MARKETS.NET STEEL

- \$275 PER TON
- UP \$92.50 FROM LAST MONTH (\$182.50)
- UP \$20 YOY (\$255)
- DOWN \$30 FROM ALL TIME HIGH (\$305)
- UP \$203.50 SINCE 2020 LOW (\$71.50)
- \$30.94 ABOVE NATIONAL AVERAGE (\$244.06)
- VARIES ABOVE OR BELOW NATIONAL AVERAGE

MARKET ELECTRIC ARC FURNACES

- 70% US PRODUCTION IS EAF WHICH RELIES ON SCRAP
- STEEL OUTPUT DOWN WORLDWIDE4.3%
- US STEEL PRODUCTION DOWN 5.9% COMPARED TO 2021
- CHIEF EXPORT MARKET, TURKEY, SAW OUTPUT FALL BY 12.9%
- PRICE TOO HIGH FOR TOO LONG, DECLINE WAS INEVITABLE
- SCRAP IRON & STEEL LOST ONE THIRD OF ITS VALUE B/W APRIL & OCTOBER (RCT)

HIGH: DEC 21 – JAN 22 \$305 LOW: WINTER 2015: \$35

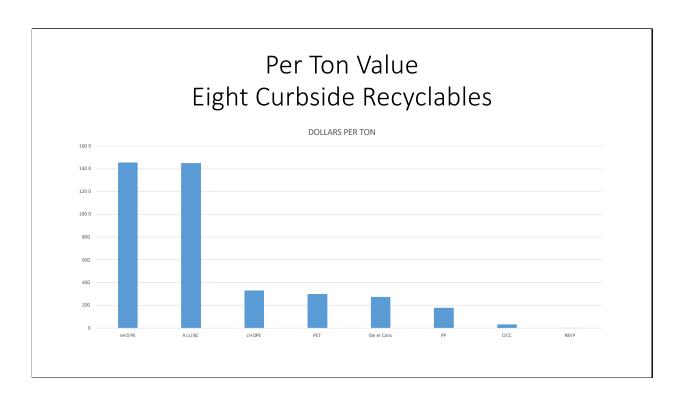
APRIL PRICE CHANGES

OCC: Up \$10 per ton \$42.50 per ton

RMP: Up \$5.50 per ton to \$8.50 per ton

nHDPE: Up 6.5 cents to 79.25 cents per pound PET: Up 0.25 cents to 15.25 cents per pound

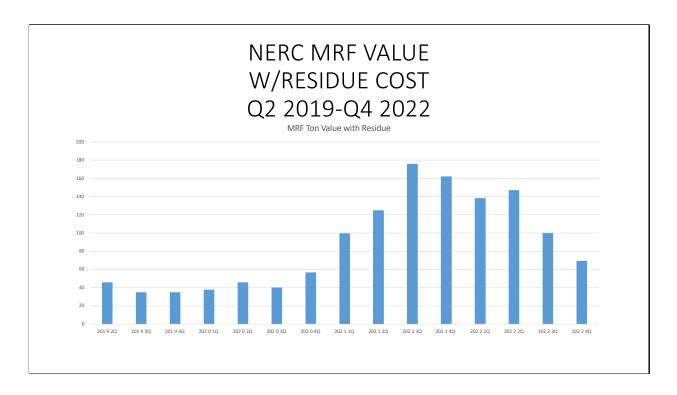
PP: Up 0.5 cents to 9.5 cents per pound



IN MARCH, nHDPE EDGED ABOVE ALUMINUM cHDPE IS NOW MORE VALUABLE THAN PET STEEL CANS INCREASED

FLIP SIDE IS THAT PAPER IS THE BULK - 60% OR SO - OF WHAT IT COLLECTED

- PAPER PRICES DRIVE OVERALL CURBSIDE REVENUES
- THINK OF RECYCLING MARKETS AS A CAKE
- PAPER IS THE CAKE & ALUMINUM, STEEL & PLASTICS ARE THE ICING



NERC HAS BEEN TRACKING THE AVERAGE VALUE OF A TON OF MRF RECYCLABLES SINCE 2019

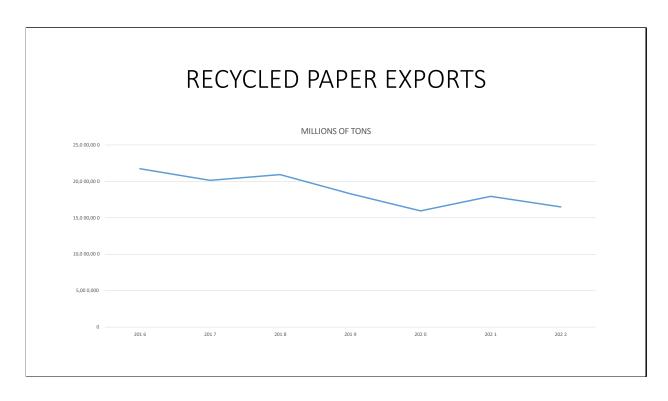
Q4 \$69.35 PER TON

- DOWN \$30.72 FROM Q3 (\$100.07)
- DOWN \$92.92 YOY (\$162.27)
- DOWN \$106.60 FROM ALL TIME HIGH (\$175.95 Q3 2021)
- UP \$34.87 FROM ALL TIME LOW (\$34.85 Q3 2019)

2019-2022 REFLECT THE IMPACT OF THE BAN & COVID 2021-2022Q2 REFLECT HIGHER OCC & RMP PRICESIN PAPRTICULAR 2022 Q3&4 REFLECT WEAKER MARKETS OVERALL, ESPECIALLY PAPER

- CHART SHOWS THE OVERALL IMPORTANCE OF PAPER MARKETS IN THE NORTHEAST
- HALF THE POPULATION IN DEPOSIT STATES ERGO LESS ALUMINUM & PET

MRF QUARTERLY VALUES A <u>LAGGING INDICATOR OF PRICES</u>
INDIVIDUAL RECYCLING PRICES CAN BE A <u>LEADING ECONOMIC INDICATOR</u> BECAUSE
REFLECT PURCHASING AGENT PREDICTION OF FUTURE NEEDS FOR RAW MATERIALS
& BOXES FOR SHIPPING PRODUCTS



EXPORT DATA RESOURCE RECYCLING

https://resource-recycling.com/recycling/2023/02/21/u-s-fiber-and-plastic-exports-continued-to-fall-in-2022/

2022: RECYCLED PAPER EXPORTS:

- 16.5 MILLION TONS, DOWN 8% YOY
- INDIA (24%), MEXICO (15%), THAILAND (12%) & VIETNAM MAJOR IMPORTERS (11%): 62%

FOR RECYCLED FIBER PULP THIS EXPORT DATA INCLUDES BALED U.S. OCC & RMP THAT IS SHIPPED TO MILLS IN SE ASIA TO MAKE THAT PULP FOR CHINESE MILLS

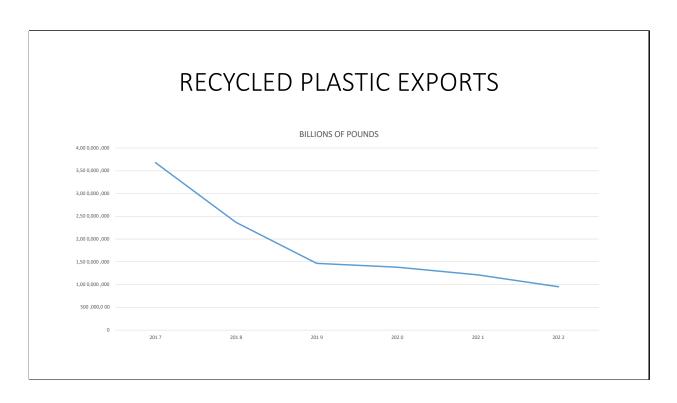
- IT DOES NOT INCLUDE RECYCLED FIBER PULP SHIPPED FROM THE U.S.
- 538,000 TONS SHIPPED IN 2022 UP 17% YOY

SHIPPING RATES FALLING:

- DOWN 24% FROM ALL TIME HIGH LAST AUGUST
- https://recyclingtoday.com/news/ocean-shipping-rates-xeneta-containers-recycling-trading-march-2023/?utm_campaign=Recycling+Today+Global+Report&utm_source=04%2f05%2f2023+-+&utm_medium=email&utm_term=https%3a%2f%2fwww.recyclingtoday.com%2fNews%2focean-shipping-rates-xeneta-containers-recycling-trading-march-2023&utm_content=460611&isid=322872
- WEAKNESS OF CHINESE ECONOMY A DRAG

EXPORTS WILL BE BIG (33.7%) AS LONG AS MANUFACTURING IS "OUTSHORED"

- RESHORING UP 53% FROM 2021 (365,000 MANUFACTURING JOBS) UP 263% FROM 2019
- WSJ ARTICLE ON RETURN OF MANUFACTURING TO U.S.



EXPORT DATA RESOURCE RECYCLING

https://resource-recycling.com/recycling/2023/02/21/u-s-fiber-and-plastic-exports-continued-to-fall-in-2022/

EXPORTS HAVE DROPPED DRAMATICALLY SINCE 2017 WHEN MORE THAN 3.7 BILLION POUNDS WERE EXPORTED

- CANADA (33%) MEXICO (20%) INDIA (10%), MALAYSIA (8%): 71%
- PET & HDPE EXPORTS DECLINING SINCE 2010 AS DOMESTIC MARKETS EXPANDED

2022: RECYCLED PLASTIC EXPORTS

- 952 MILLION POUNDS DOWN 22% YOY
- PRIMARILY FILM & NON-BOTTLE RIGIDS
- NOTE: PAPER & METALS IN MILLIONS OF TONS
- PLASTICS IN BILLIONS, NOW MILLIONS, OF POUNDS

NEW RECYCLED CONTENT CAPACITY: PAPER



PHOTO DOMTAR

SINCE 2017 18 EXPANSIONS OF EXISTING CAPACITY, CONVERSIONS FROM PRINTING PAPER TO PACKAGING OR NEW MILLS.

- NEW CAPACITY OPENINGS HAVE SLOWED DOWN CONSIDERABLY
- 2023: DOMTAR KINGSPORT, TENNESSEE OPENED IN JANUARY
- 2023: ATLANTIC PACKAGING, ONTARIO OPENED IN MARCH
- 2023: CASCADES MILL, VIRGINIA: DELAYED TO Q2: HIGHER COSTS & LABOR & MATERIALS AVAILABILITY
- 2023: NINE DRAGONS, WISCONSIN: DELAYED FROM Q1 OPENING? MAY?
- 2023: PRATT, KENTUCKY: ON TRACK TO OPEN IN Q3

2026: GRAPHICS PACKAGING ANNOUNCED A NEW RECYCLED <u>PAPERBOARD</u> PLANT WILL BE BUILT IN WACO TEXAS

- AS WITH PREVIOUS OPENING OF NEW FACILITY IN KALAMAZOO THIS PLANT WILL REPLACE FOUR EXISTING OLDER FACILITIES
- 5% INCREASE IN TOTAL CAPACITY
- MOTIVATED IN PART BY TREND OF PLASTIC TO PAPER

OTHER ANNOUNCED NEW FACILITIES NOT LIKELY TO BE BUILT

• EXCEPT, MAYBE, RECYCLED FIBER PULP FOR EXPORT

NEW RECYCLED CONTENT CAPACITY: PLASTIC



BUSINESS WIRE EXXONMOBIL PRESS RELEASE

https://www.businesswire.com/news/home/20221214005206/en/PLASTIC:

- 2022: EXXONMOBIL BAYTOWN TX ADVANCED RECYCLING FACILITY OPENED DEC 14
- USES "EXXTEND" TECHNOLOGY TO PROCESS UP TO 80 MILLION POUNDS OF SHREDDED PREPROCESSED PLASTICS RANGING FROM SYNTHETIC ATHLETIC FIELDS TO BUBBLE WRAP TO MOTOR OIL BOTTLES
- PELLETS?
- https://www.plasticsnews.com/materials/exxonmobil-starts-commercial-production-baytown-texas-chemical-recycling-plant?utm_source=pn-material-alert&utm_medium=email&utm_campaign=20221216&utm_content=article3-headline

2023: CIRCULARIX OPENED rPET PLANT IN HATFIELD, PA

- 55 MILLION POUNDS OF PELLET ANNUAL CAPACITY
- OWNED BY FORMER OWNER OF CARBONLITE

2023: ACI PLASTICS OPENED FACILITY IN FLINT MI

- 24 MILLION POUNDS OF POST-CONSUMER PLASTIC FILM PER YEAR.
- FULL CAPACITY END OF YEAR

STARTING TO SEE ANNOUNCEMENTS OF NEW FACILITIES OPENING

• INSTEAD OF PRESS RELEASES ANNOUNCING NEW PROJECTS

REPUBLIC POLYMER CENTER TO OPEN IN LAS VEGAS IN 4TH QUARTER

CHALLENGES USING POST-CONSUMER PLASTIC

User issues (Plastics News survey)

- 19%: No difference
- 19%: Material properties fall short (e.g. additives needed)
- 14%: Can't use (e.g., health care industry wants chain of custody)
- 48%: Other: inconsistent quality & viscosity circularity challenges color matching – availability – cost – black spec contamination – clarity – contamination

Supply side problems: KW

- "Our industry...has never seen more new capacity and yet we can't seem to grow the recycling rate."
- Notes difficult market conditions with plunging virgin resin prices causing many "end markets to compromise their commitments to use PCR"

USER ISSUES: PLASTICS NEWS KICKSTART: APRIL 3, 2023 "CHALLENGES CITED IN USING POST-CONSUMER RECYCLED MATERIAL

SURVEY OF MOLDERS USING POST-CONSUMER RECYCLED CONTENT

SUPPLY A SERIOUS ISSUE

- WE HAVE MADE SIGNIFICANT PROGRESS INCREASING DOMESTIC CAPACITY
- SUPPLY LAGS DUE TO FAILURE TO DEVELOP A RECYCLING CULTURE IN THE U.S.
- NEED TO STOP BELIEVING IN SILVER BULLETS & GET SERIOUS ABOUT AMERICANS & RECYCLING

KW: https://recyclingtoday.com/article/kw-plastics-recycling-division-committed-to-reinvestment/?utm_campaign=Plastics+Recycling+Digital+Edition&utm_source=03%2 f14%2f2023+-

+&utm_medium=email&utm_term=https%3a%2f%2fwww.recyclingtoday.com%2fArticle%2fkw-plastics-recycling-division-committed-to-reinvestment&utm_content=455508&isid=3635D0

MARKETS BEYOND MARCH: DEMAND HINTS

Economy is?

- Inflation down, job growth up
- Recession in 2023?
- ISM US manufacturing activity index 46.3 down from 47.7 (Feb)
- ISM new orders index 44.3 down from 47 (Feb)
- Containerboard production decreased by 8% in Q4 (YOY) & 5% YOY
- Retail sales up in January, down in February
- Consumer sentiment 62 down from 67 (Feb)
- Nucor bullish Infrastructure Act will increase in steel demand by 3 5 million tons a year for the next decade

ISM & CONSUMER CONFIDENCE DATA

https://www.ismworld.org/supply-management-news-and-reports/reports/ism-report-on-business/pmi/march//

https://www.conference-board.org/topics/CEO-Confidence

https://tradingeconomics.com/united-states/business-confidence

http://www.sca.isr.umich.edu

 OVERALL, OUR DATA REVEALED MULTIPLE SIGNS THAT CONSUMERS INCREASINGLY EXPECT A RECESSION AHEAD

CEO CONFIDENCE UP BUT 93% SAY THEY ARE PREPARING FOR A RECESSION IN THE NEXT 12-18 MONTHS (DOWN FROM 98% Q4 2022 SURVEY)

MARKETPLACE: FEB 10 "PEOPLE ARE CAUTIOUSLY OPTIMISTIC ABOUT THEIR OWN ECONOMIES BUT TOTALLY UNCERTAIN ABOUT WHAT THE FUTURE HOLDS FOR THE *ECONOMY* ECONOMY."

CONTAINERBOARD: https://www.afandpa.org/news/2023/afpa-releases-q4-2022-containerboard-quarterly-report

NUCOR: <a href="https://recyclingtoday.com/news/steel-ferrous-scrap-recycling-prices-higher-march-2023/?utm_campaign=Recycling+Today+Newsletter&utm_source=03%2f14%2f2023+-+&utm_medium=email&utm_term=https%3a%2f%2fwww.recyclingtoday.com%2fNews%2fsteel-ferrous-scrap-recycling-prices-higher-march-2023&utm_content=455646&isid=3635D0

MARKETS MARCH & BEYOND DEMAND HINTS: PAPER

2023 Q1 Containerboard report out at end of month

- Demand down
- 2022 Q4 shipments down 8.4%
- Industry operating rate down 5 percent yoy.
- Mill Q4 operating rates in 80s & some cases the high 70s
- · Linerboard prices down since October

Nine Dragons Old Town ME & Fairmont WV mills take "extended" downtime starting mid-April

New capacity competing for paper

Older, more expensive facilities will close

E-commerce steady but using less paper

Exports buoyed by lower shipping prices

MOST CONTAINERBOARD GRADES EXPERIENCED DOUBLE-DIGIT PERCENTAGE DECLINES IN Q4.

- DROPS IN PRODUCTION CONTRIBUTED TO OPERATING RATES IN THE 80S & HIGH 70S
- BRINGING THE 2022 OPERATING RATE FIVE POINTS BELOW THAT OF 2021

https://www.afandpa.org/news/2023/afpa-releases-q4-2022-containerboard-quarterly-report https://www.recyclingtoday.com/news/cardboard-box-demand-output-plummets-in-early-2023/?utm_campaign=Recycling+Today+Newsletter&utm_source=02%2f17%2f2023+-

+&utm_medium=email&utm_term=https%3a%2f%2fwww.recyclingtoday.com%2fNews%2fcardboard-box-demand-output-plummets-in-early-2023&utm_content=450691&isid=3635D0

CONTAINERBOARD PRICES: Linerboard prices fall another \$20 on domestic market in North America <a href="https://www.fastmarkets.com/insights/linerboard-prices-fall-on-domestic-market-in-north-america?utm_source=linkedin&utm_medium=social+media+organic&utm_term=media+%26+communications&utm_content=9100950353&utm_campaign=f-fp_ppp-volatility&linkId=204218490

Fastmarkets March 28

 SINCE OCTOBER, HIGH PERFORMANCE LINERBOARD DOWN \$70, REYCLED LINERBOARD DOWN \$80 & CORRUGATED MEDIUM DOWN \$110

NINE DRAGONS: OT 60-90 DAYS STARTING MID-APRIL. FAIRMOUNT ALREADY IN DOWNTIME

- https://www.bangordailynews.com/2023/03/28/news/bangor/nd-paper-mill-shutting-downextended-period/
- BLAMED ON HIGH INVENTORIES AT CHINESE MILLS

E-COMMERCE LOSING RETAIL MARKET SHARE TO IN-STORE BUT STILL IMPORTANT

- PEAKED SECOND QUARTER 2020 16.1/15.1—ADJUSTED VS NOT- ADJUSTED
- NOW 14.7/16 https://www.census.gov/retail/mrts/www/data/pdf/ec current.pdf
- USING LESS BOXES MORE FLEXIBLE PLASTIC, PAPER OR MIXED PACKAGES

MARKETS: MARCH & BEYOND: DEMAND HINTS: PLASTICS

Resin production down 7.3% in Feb from Jan but up 2% yoy

"Massive global over-capacity in polyethylene"

 26 MT of surplus capacity means global operating rates expected at 79% in 2023 (2000-2022 average: 86%)

New house construction down 2023

Infrastructure spending will increase market for construction uses as it does for steel European recycled plastic prices continue decline

- Economic downturn along with competitively priced virgin & less expensive plastic scrap
- · Demand well below normal levels

Brent crude \$84.31

• 52 week range \$70.12 - \$125.19

Henry Hub \$2.18

• 52 week range \$1.97 - \$10.03

RESIN PRODUCTION: https://www.americanchemistry.com/chemistry-in-america/news-trends/press-release/2023/acc-releases-resin-production-and-sales-data-for-february-2023

US production of "major" plastic resin production 7.5 billion pounds Feb 2023 Down 7.3% from Jan, up 2%

ICIS_https://www.icis.com/chemicals-and-the-economy/2023/04/recycling-can-secure-the-future-for-us-chemical-companies/

NEW HOUSE CONSTRUCTION DOWN

- https://www.wsj.com/articles/lumber-prices-fall-back-to-around-their-pre-covid-levels-11664239652
- NAHB FORECAST DROP TO744,000 SF UNITS IN 2023 & REBOUND TO 925,000 IN 2024
- https://www.plasticsnews.com/news/housing-outlook-downturn-2023-recovery-2024?utm source=pn-daily-

report&utm_medium=email&utm_campaign=20230217&utm_content=article5-headline BRENT CRUDE AT \$84.94 up from 81.04

- https://markets.businessinsider.com/commodities/oil-price Mar 10 824am
- HENRY HUB \$2.23 = 2.18 -10.03
- https://markets.businessinsider.com/commodities/natural-gas-price Mar 10 824am

RECYCLED RESIN PRICES IN EUROPE CONTINUE TO DROP APRIL 5 2023

https://www.plasticsnews.com/news/r-pet-prices-fall-faster-lacklustre-demand?utm_source=pn-daily-report&utm_medium=email&utm_campaign=20230405&utm_content=article6-headline

MARKETS BEYOND MARCH: PREDICTIONS

Paper companies predicting "modest" improvement in OCC prices for this year

- Excess supply of recyclable paper vs lower demand for packages & products Plastic prices depend on economy & infrastructure needs
- · Increase in pricing appears to reflect inventory buildup
- Brent crude (oil) and Henry Hub (natural gas) down from highs

Bottles vs fiber for rPET

- Plastic Recycling Conference panelist predicted competition will heat up between the two
 Shrinkflation: smaller package with less product but at the same price as the pre-shrinkflation package
 Glass: mixed glass increased in value to-\$15 per ton in Northeast
- National average -\$20.94 per ton
- · Color-separated prices also higher
- · Why?

IT'S WINTER

- MARKETS ARE NORMALLY SOFT AFTER THE HOLIDAY CONSUMPTION SPREE BUT
- SEASONAL DEMAND FOR BEVERAGE CONTAINERS SHOULD START TO KICK IN
- SOME INDICATIONS MARKETS STARTING TO REVIVE

SHRINKFLATION AN INTERESTING TREND

- SAME PRICE SMALLER AMOUNT SMALLER PACKAGE
- https://www.marketplace.org/2023/03/01/new-smaller-size-same-great-price-the-products-webuy-are-shrinking-and-so-is-the-

value/?utm campaign=20230301 Marketplace&utm medium=email&utm source=sfmc It%27s% 20not%20just%20Americans%20who%20love%20SUVs&utm content=Plus:%20your%20%22shrink flation%22%20stories&utm term=219878168

rPET COMPETITION

https://www.plasticsnews.com/news/competition-heat-over-recycled-pet-supply?utm_source=pn-kickstart&utm_medium=email&utm_campaign=20230307&utm_content=content-link-1

SHRINKFLATION: SMALLER PACKAGE WITH LESS PRODUCT BUT AT THE SAME PRICE AS THE PREVIOUS PACKAGE

GLASS: BEST PRICE FOR MIXED GLASS -\$11 PER TON FROM MARCH 2014 TO OCTOBER 2016

- MIXED GLASS AT -\$27.50 PER TON FROM MARCH 2020 TO FEBRUARY 2023
- NORTHEAST MXED GLASS PRICE NORMALLY TWO OR THREE DOLLARS BELOW NATIONAL AVERAGE

GOOD READS

Competition to heat up over recycled PET

Plastics News Mar 7

Plastics Recycling Conference 2023: Analyzing trends in plastic recycling

· Recycling Today, March 9

Recyclers face increasing number of challenges

· Plastics News. March 15

WM and Republic move forward on major plastic plans

• Resource Recycling, March 27

Plastics recycling undergoing tremendous change

· Plastics News March 30

Box demand, output plummets

Recycling Today Magazine March 2023

Replace and Replenish: Several of the nation's largest steelmakers are following through on plans to expand or modernize their U.S. capacity

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THESE COMPANIES & PUBLICATIONS ARE EXCELLENT SOURCES OF INFORMATION ABOUT MARKET TRENDS

CONTACT

Chaz Miller

chazmiller9@gmail.com

301-346-6507