



# Fourth Quarter 2019 Earnings Presentation

February 5, 2020



## Forward-Looking Statements

This presentation includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements relate to analyses and other information that are based on management's beliefs, certain assumptions made by management, forecasts of future results, and current expectations, estimates and projections about the markets and economy in which we and our various segments operate. The statements contained in this presentation that are not statements of historical fact may include forward-looking statements that involve a number of risks and uncertainties.

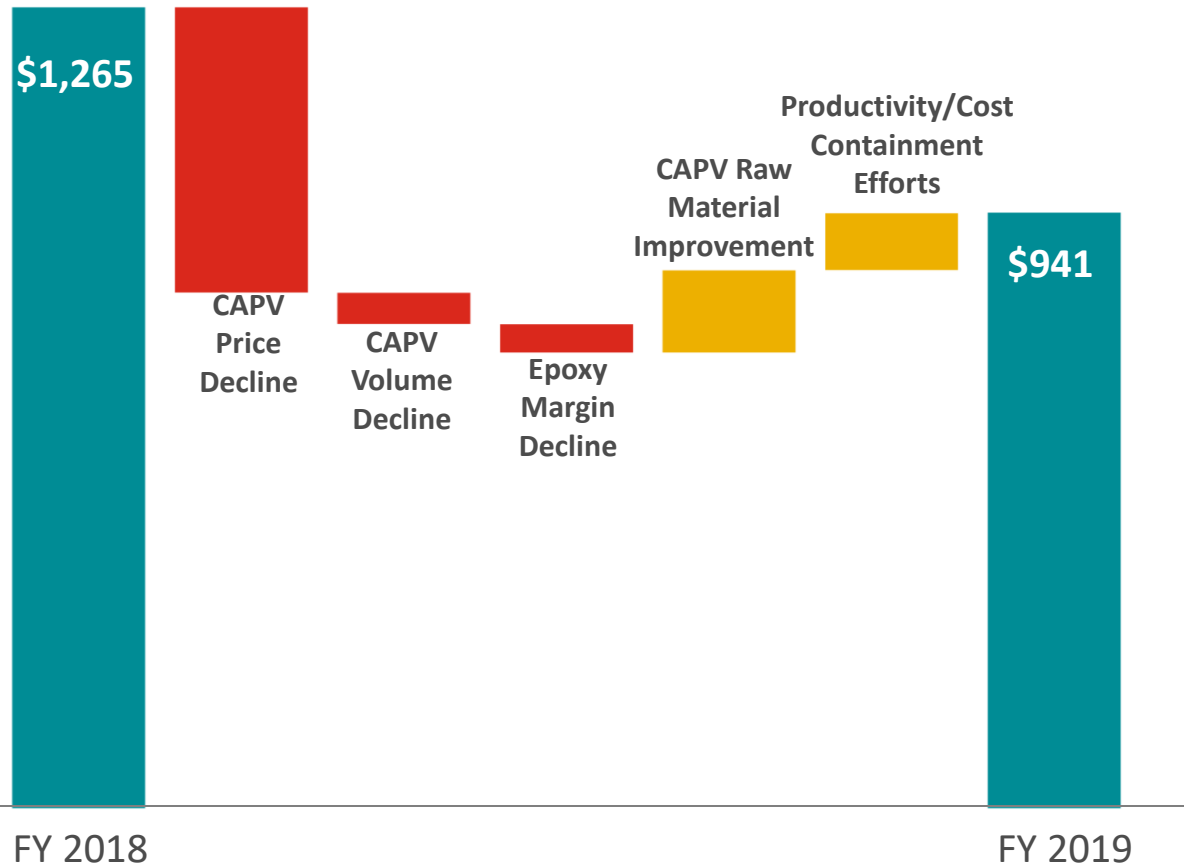
We use the words "anticipate," "intend," "may," "expect," "believe," "should," "plan," "project," "estimate," "forecast," "optimistic," and variations of such words and similar expressions in this presentation to identify such forward-looking statements. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions, which are difficult to predict and many of which are beyond our control. Therefore, actual outcomes and results may differ materially from those matters expressed or implied in such forward-looking statements. All references to expectations and other forward-looking statements are based on expectations at February 4, 2020. Olin undertakes no obligation to update publicly any forward-looking statements, whether as a result of future events, new information or otherwise.

Factors that could cause or contribute to such differences include, but are not limited to: our sensitivity to economic, business and market conditions in the U.S. and overseas; the cyclical nature of our operating results and the supply/demand balance for our products; our reliance on a limited number of suppliers for specified feedstock and services, including third-party transportation services; higher-than-expected raw material, energy, transportation, and/or logistics costs; failure to control costs or to achieve targeted cost reductions; new regulations or public policy changes regarding the transportation of hazardous chemicals and the security of chemical manufacturing facilities; unexpected manufacturing interruptions and outages; complications resulting from our multiple enterprise resource planning systems and the conversion to a new system; changes in, or failure to comply with, legislation or government regulations or policies; the failure or an interruption of our information technology systems; economic and industry downturns; declines in global equity markets and interest rates impacting pension plan asset values and liabilities; unexpected litigation outcomes; adverse changes in international markets; weak industry conditions affecting our ability to comply with credit facility covenants; the failure to attract, retain and motivate key employees; our substantial amount of indebtedness and debt service obligations; environmental investigation, remediation and legal costs; asset impairment charges resulting from the failure to realize our long range plan assumptions; adverse conditions in the credit and capital markets; and the other risks detailed in Olin's Form 10-K for the fiscal year ended December 31, 2018 and Olin's Form 10-Q for the quarter ended September 30, 2019. All of the forward-looking statements should be considered in light of these factors. In addition, other risks and uncertainties not presently known to Olin or that Olin considers immaterial could affect the accuracy of our forward-looking statements. The reader is cautioned not to rely unduly on these forward-looking statements.

## Non-GAAP Financial Measures

In addition to U.S. GAAP financial measures, this presentation includes certain non-GAAP financial measures including EBITDA, and Adjusted EBITDA. These non-GAAP measures are in addition to, not a substitute for or superior to, measures for financial performance prepared in accordance with U.S. GAAP. Definitions of these measures and reconciliation of GAAP to non-GAAP measures are provided in the appendix to this presentation.

Adjusted EBITDA\*  
(in millions)



- Generated approximately \$941 million of adjusted EBITDA, reflecting the challenging market backdrop and significant product price declines during 2019
- Lower caustic soda pricing led the year-over-year EBITDA decline with additional headwinds from HCl and LER
- Reflects lower raw material costs, particularly electricity and ethylene, and productivity improvements

\*2019 full year net loss of \$11.3 million and 2018 full year net income of \$327.9 million. Olin's definition of "Adjusted EBITDA" (Earnings before interest, taxes, depreciation and amortization) is net income (loss) plus an add-back for depreciation and amortization, interest expense (income), income tax expense (benefit), other expense (income), restructuring charges, acquisition-related costs, and certain other non-recurring items. Refer to GAAP to non-GAAP reconciliations



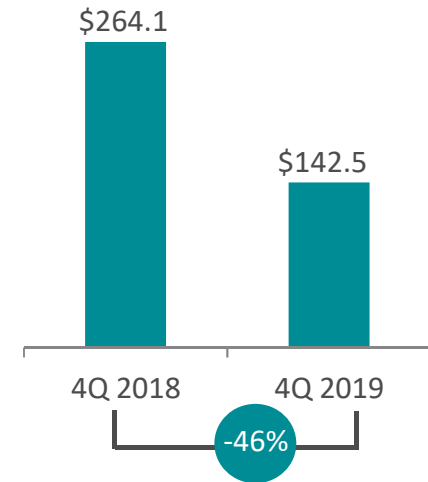
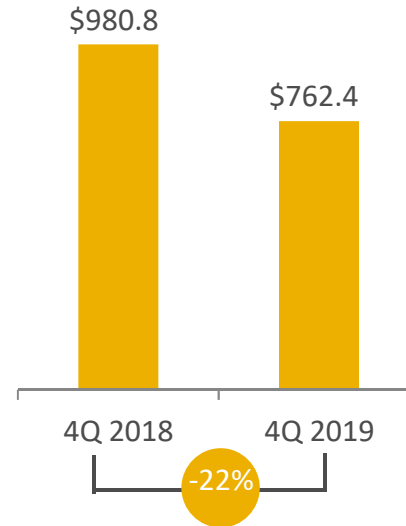
# Chlor Alkali Products and Vinyls Segment Performance

Sales  
(in millions)

Adjusted EBITDA  
(in millions)

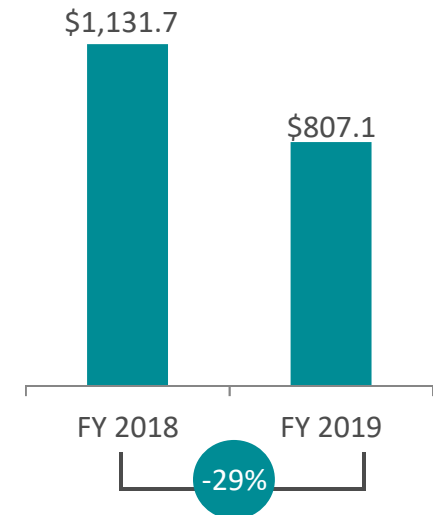
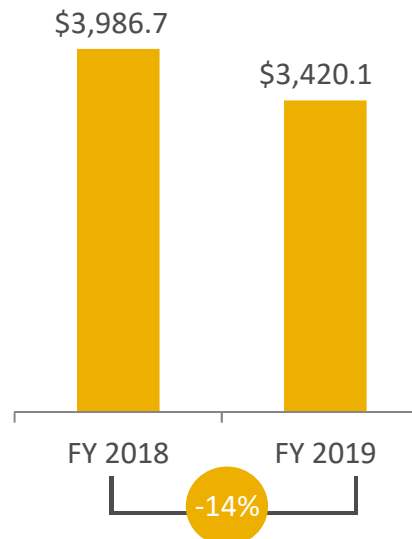
## 4Q19 Performance vs. 4Q18

- Lower caustic soda pricing – declining 24% from 4Q18
- Lower EDC and other product pricing
- Higher maintenance turnaround costs
- Lower volume levels



## FY19 Performance vs. FY18

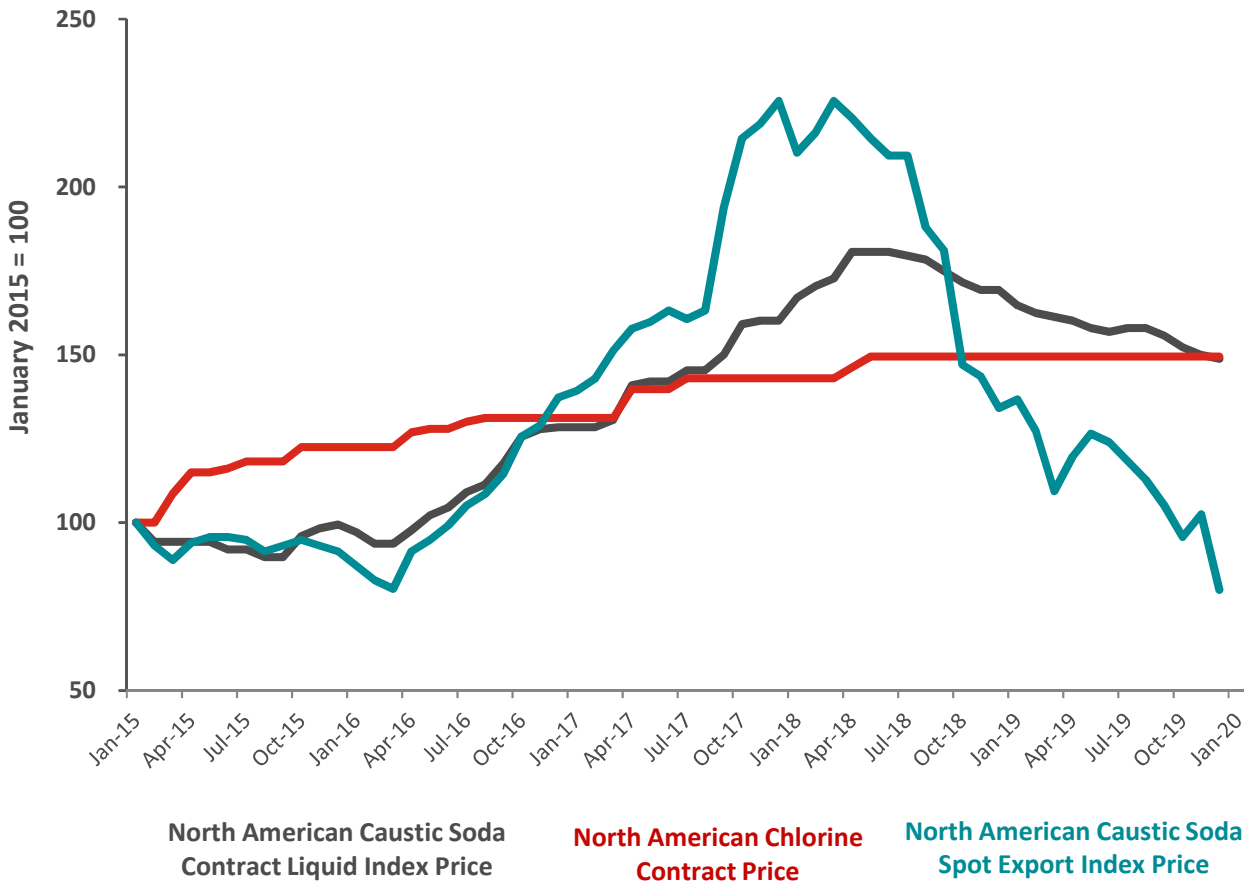
- Lower caustic soda pricing
- Lower HCl and other chlorine derivative pricing
- Lower volumes, on both sides of the ECU, due to pullback in global demand
- Lower raw material costs and operating costs





# Ongoing pullback in demand continues to pressure caustic soda pricing

Caustic Soda and Chlorine Prices  
(through January 2020)

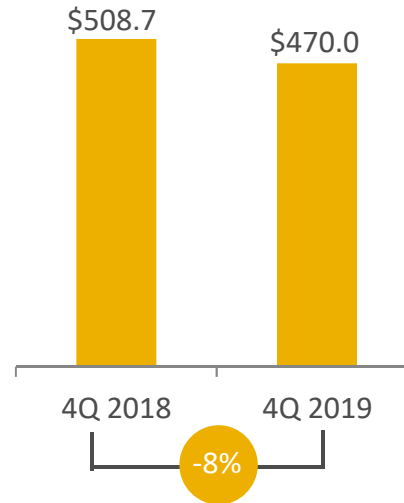


- During 4Q19 and into January 2020, demand weakness in the manufacturing sector continued
- At the same time, chlorine operating rates remained steady supported by strength in the vinyls sector and furthering the supply/demand imbalance that persisted for the last 15 months
- Export prices for caustic soda continued to lead price declines with export pricing reaching its lowest level since 2010
- While domestic pricing also declined; it remains more resistant to large, abrupt price swings

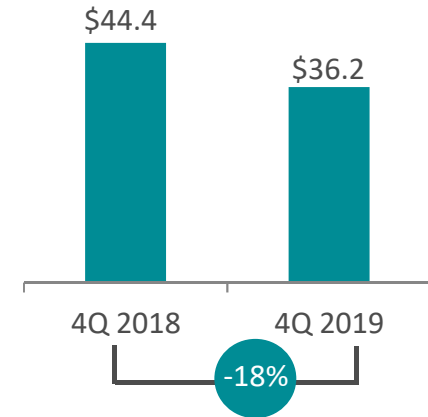
## 4Q19 Performance vs. 4Q18

- Lower pricing, partially offset by lower raw material costs, primarily propylene and benzene
- Higher volume levels
- Lower operating costs

Sales  
(in millions)

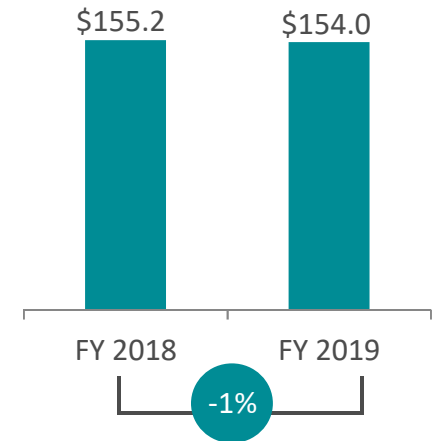
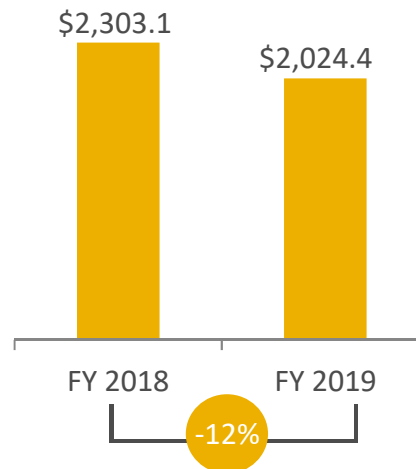


Adjusted EBITDA  
(in millions)

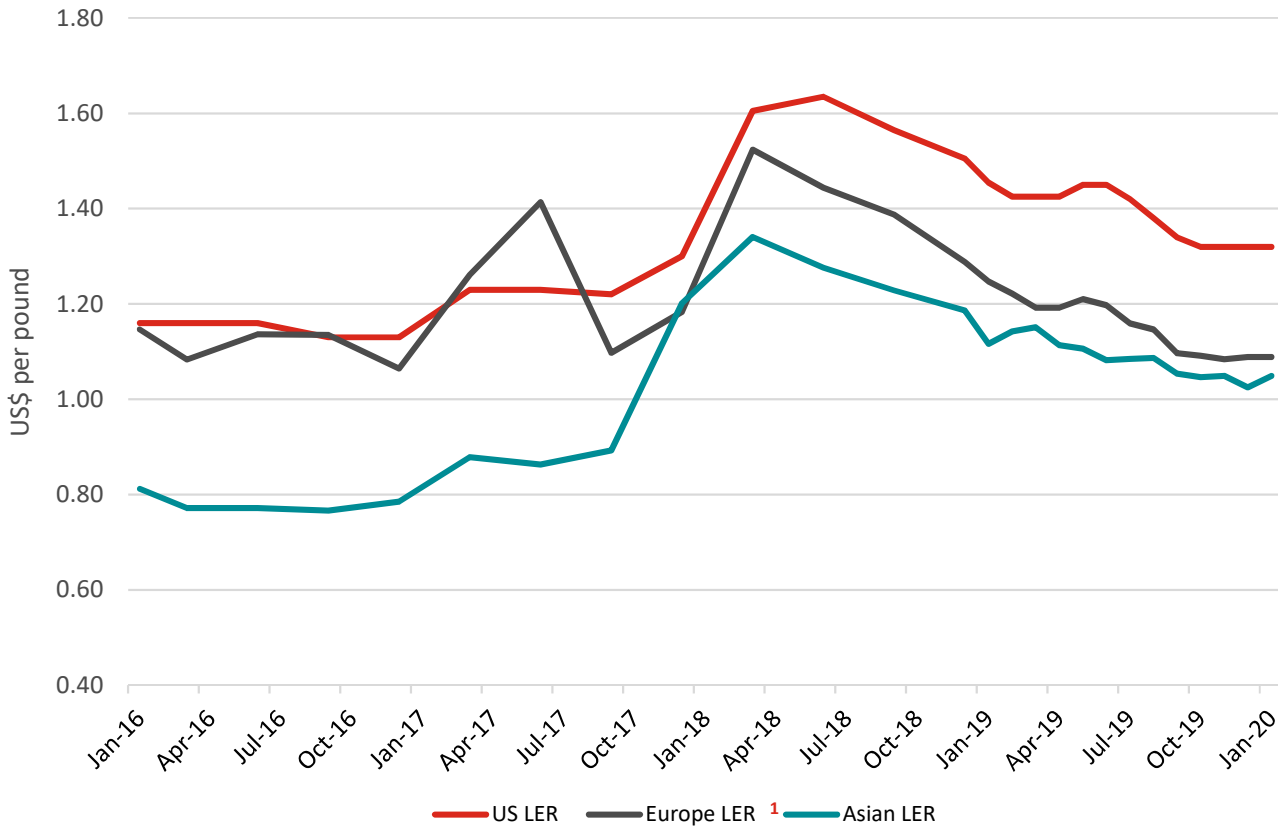


## FY19 Performance vs. FY18

- Lower product pricing and persistent demand weakness
- Lower raw material costs
- Lower maintenance turnaround costs and cost containment efforts



Liquid Epoxy Resin (LER) Pricing  
(through January 2020)



- Demand weakness from global automotive, electrical laminate and industrial coatings customers in 2019
- In 4Q19, LER prices continued to decline, in all regions, with global epoxy resin prices down 20% in 2019
- Price declines outpaced lower raw material costs resulting in margin compression

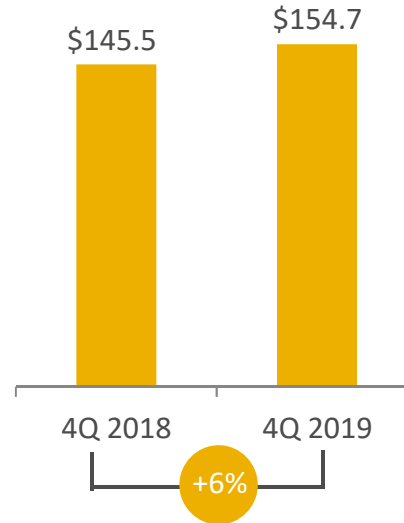
Source: ICIS

1: European liquid epoxy resin (LER) prices reflect a non-market adjustment made in the third quarter of 2017.

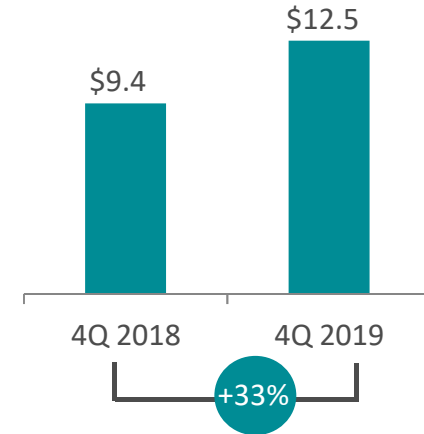
## 4Q19 Performance vs. 4Q18

- Second consecutive quarterly year-over-year increase
- Higher commercial and military/law enforcement volumes
- Lower commodity, other material and operating costs
- Partially offset by lower product pricing

Sales  
(in millions)

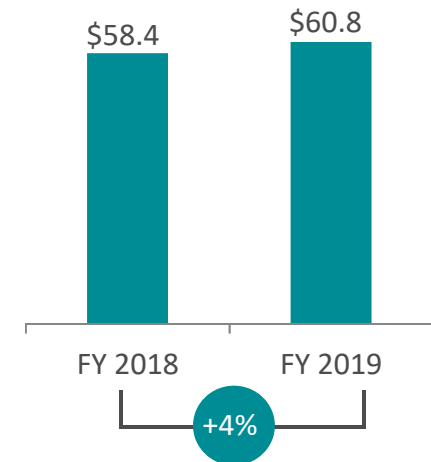
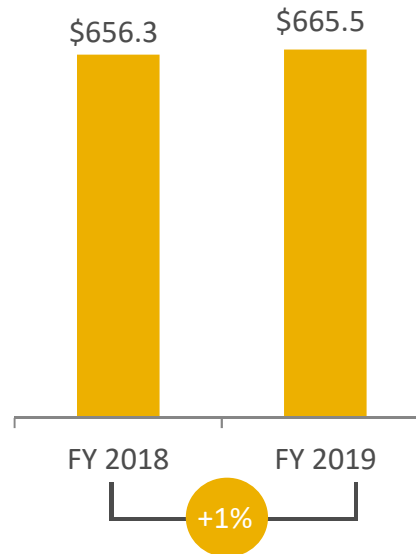


Adjusted EBITDA  
(in millions)



## FY19 Performance vs. FY18

- Modest year-over-year increase driven primarily by cost improvements
- Improved commercial and military/law enforcement volumes in second half of 2019 drove the strong year-end finish

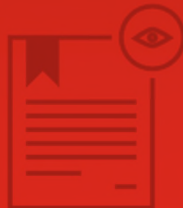




## Market Factors

### Risks

- Entering 2020 with pricing lower than 2019 averages for:
  - Caustic Soda
  - EDC
  - HCl
  - LER
- Volume risk in chemical portfolio
- Higher raw materials and electricity costs



### Opportunities

- + Recovery in caustic soda, EDC and other chlorine derivatives pricing
- + Higher chlor alkali volumes
- + Lower raw materials and electricity costs
- + Higher Epoxy volumes and margin recovery
- + Improved commercial ammunition demand



## Manageable Factors

- + ~\$100 million of lower annual capital expenditures
- + Ongoing cost containment and productivity initiatives
- + Uplift in 4Q20 adjusted EBITDA from Lake City U.S. Army Ammunition contract commencement



Despite current market dynamics, we are constructive on the long-term fundamentals for the chlor alkali and epoxy sectors and are confident that low-cost, global producers will benefit when the market turns

## Chlor Alkali Products and Vinyls

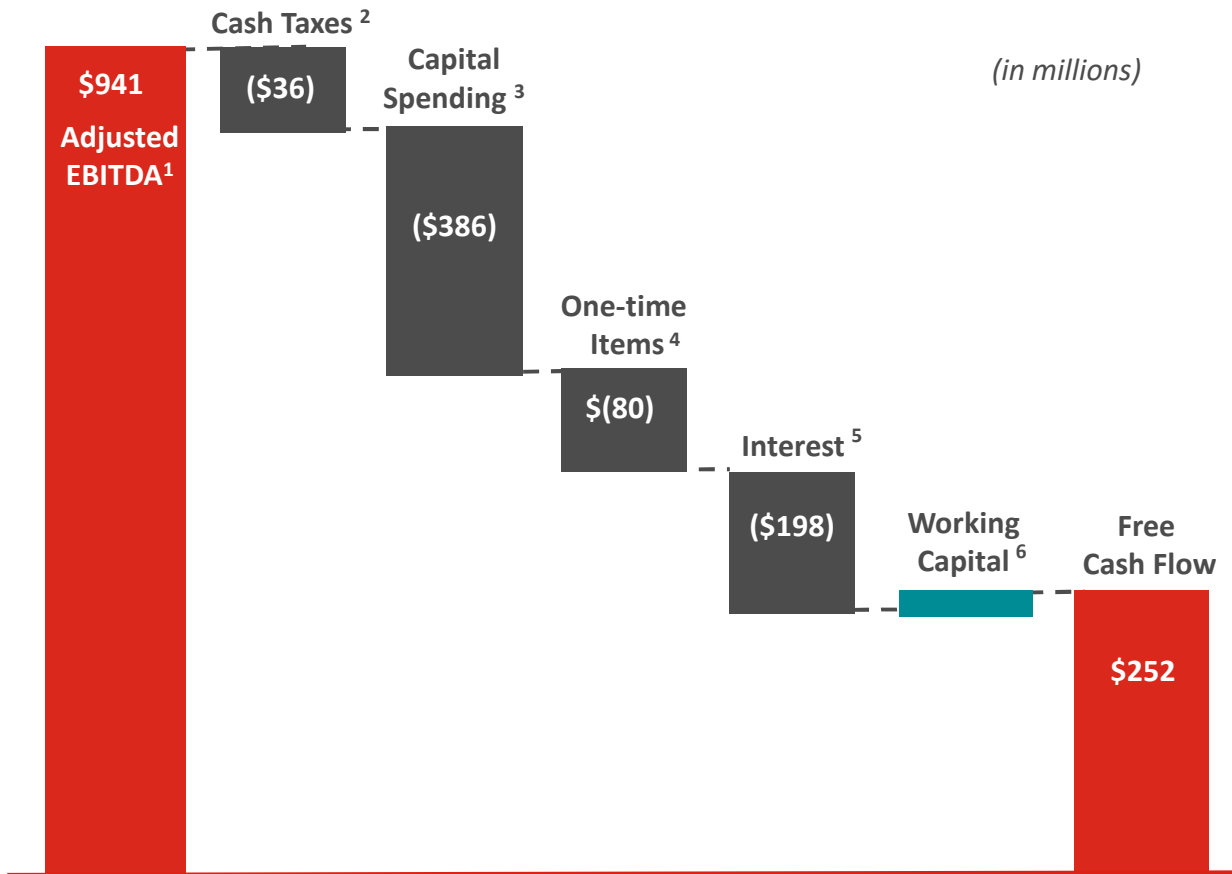


- Demand growth on both sides of ECU
- Minimal global capacity additions and announcements to meet growing demand
- Current industry economics do not support world-scale chlor alkali capital requirements
- Resulting in a positive supply/demand and pricing environment

## Epoxy



- Expect global growth over the long term
- Tightening supply and demand fundamentals expected over same time period
- Minimal announced capacity additions to date



- Olin generated \$252 million of free cash flow during 2019
- Consistent with our capital allocation philosophy, during 2019 Olin:
  - Invested in sustaining and improving our existing asset base
  - Paid our regular quarterly dividend
  - Repaid the remaining repayable debt in conjunction with the July 2019 refinancing
  - Repurchased ~8 million shares of Olin common stock for ~\$146 million

1: 2019 Adjusted EBITDA

2: 2019 cash taxes

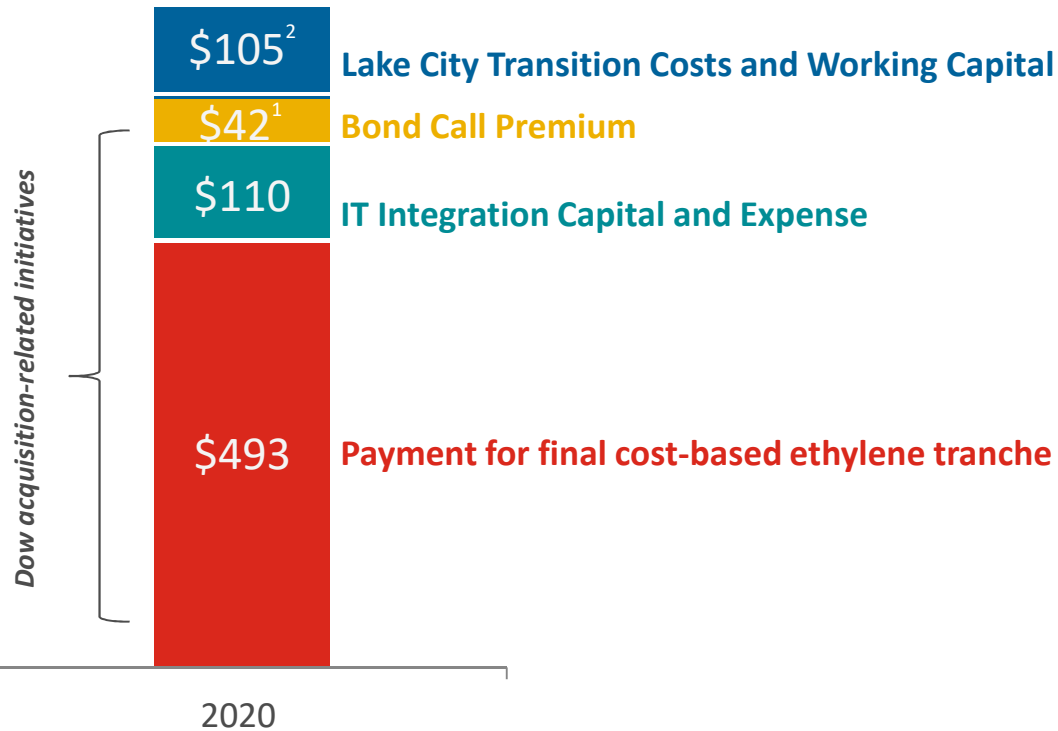
3: 2019 capital spending, which includes \$56 million associated with the information technology project

4: One-time items include the information technology integration project costs, cash restructuring charges and proceeds from the sale of our equity interest in a non-consolidated affiliate

5: 2019 cash interest expense

6: Working capital benefit of \$11 million reflects lower sales in the fourth quarter partially offset by a decrease in receivables sold under our AR factoring arrangement

(in millions)



- In 2020, Olin expects to complete several initiatives:
  - IT integration project introduced in 2017
  - Refinance of the high-cost bonds put in place at the time of the acquisition
  - Third ethylene tranche needed to supply the new VCM contract
- Olin will make the transition cost and working capital investment required for the new Lake City U.S. Army Ammunition Plant contract
- These value-creating investments will position Olin for improved cash generation in 2021

<sup>1</sup>Assumes bonds called at earliest date; October 15, 2020

<sup>2</sup>Includes \$25 million of transitions costs and expected working capital investment of \$80 million



Five initiatives, already in place, are expected to improve annual cash flows by ~ \$250 million, beginning in late 2020/early 2021



Lower Interest Expense

\$50 to \$70 million<sup>1</sup>



Wind down of IT Integration Project

~\$110 million<sup>2</sup>



Initiation of VCM Contract

~\$75 million



Initiation of Lake City Contract

\$40 to \$50 million



VDC and Chlor Alkali Capacity Closures

~\$35 million



---

Total Incremental  
Cash Generation

~ \$250 million

Incremental cash generation is independent of industry conditions

<sup>1</sup>Based on current interest rates

<sup>2</sup>Inclusive of capital spending and project and duplicative expenses



Committed and prudent approach to capital allocation for free cash flow moving forward

## Free Cash Flow

### Since 2015 Acquisition

**\$500 million**

*Debt repaid since 2015 acquisition*

**\$196 million**

*In share repurchase since May 2018, representing a 6% reduction in shares outstanding*

**\$560 million**

*(\$0.20 per share quarterly) in dividends paid*

### 2020 Priorities

Recurring Quarterly Dividends

Refinance high-cost, acquisition-related bonds

Fund the Lake City and Ethylene Investments

### Post-2020 Priorities

Debt Reduction

Recurring Dividends and Share Repurchases

Growth Projects



## Appendix



## Non-GAAP Financial Measures – Adjusted EBITDA <sup>(a)</sup>

Olin's definition of Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) is net income (loss) plus an add-back for depreciation and amortization, interest expense (income), income tax expense (benefit), other expense (income), restructuring charges, acquisition-related costs and certain other non-recurring items. Adjusted EBITDA is a non-GAAP financial measure. Management believes that this measure is meaningful to investors as a supplemental financial measure to assess the financial performance without regard to financing methods, capital structures, taxes or historical cost basis. The use of non-GAAP financial measures is not intended to replace any measures of performance determined in accordance with GAAP and Adjusted EBITDA presented may not be comparable to similarly titled measures of other companies.

(In millions)	Three Months		Years Ended	
	Ended December 31, 2019	2018	December 31, 2019	2018
<b>Reconciliation of Net (Loss) Income to Adjusted EBITDA:</b>				
Net (Loss) Income	\$ (77.2)	\$ 53.3	\$ (11.3)	\$ 327.9
Add Back:				
Interest Expense	64.0	59.2	243.2	243.2
Interest Income	(0.3)	(0.5)	(1.0)	(1.6)
Income Tax (Benefit) Provision	(31.7)	20.8	(25.6)	109.4
Depreciation and Amortization	137.1	150.4	597.4	601.4
<b>EBITDA</b>	<b>91.9</b>	<b>283.2</b>	<b>802.7</b>	<b>1,280.3</b>
Add Back:				
Restructuring Charges (b)	63.8	8.2	76.5	21.9
Acquisition-related Costs	-	-	-	1.0
Environmental Recoveries, Net (c)	-	(1.0)	(4.8)	(89.5)
Information Technology Integration Project (d)	16.9	11.0	77.0	36.5
Certain Non-recurring Items (e)	0.6	-	(10.6)	15.2
<b>Adjusted EBITDA</b>	<b>\$ 173.2</b>	<b>\$ 301.4</b>	<b>\$ 940.8</b>	<b>\$ 1,265.4</b>

(a) Unaudited.

(b) Restructuring charges for both the three months and year ended December 31, 2019 were primarily associated with the closure of a chlor alkali plant and a vinylidene chloride production facility, both in Freeport, Texas. For the three months and year ended December 31, 2019, \$58.9 million of these charges were non-cash impairment charges for equipment and facilities.

(c) Environmental recoveries, net for the year ended December 31, 2019 included \$4.8 million of an environmental insurance-related settlement gain. Environmental recoveries, net for the three months and year ended December 31, 2018 included insurance recoveries for environmental costs incurred and expensed in prior periods of \$1.0 million and \$111.0 million, respectively. The recoveries are reduced by \$21.5 million of legal costs incurred during the year ended December 31, 2018 associated with the environmental recovery actions.

(d) Information technology integration project charges for the three months and years ended December 31, 2019 and 2018 were associated with the implementation of new enterprise resource planning, manufacturing, and engineering systems, and related infrastructure costs.

(e) Certain non-recurring items for both the three months and year ended December 31, 2019 included \$0.6 million of charges related to the Lake City facility transition and for the year ended December 31, 2019 included a gain of \$11.2 million on the sale of our equity interest in a non-consolidated affiliate. Certain non-recurring items for the year ended December 31, 2018 included a \$1.7 million loss on the sale of land, a \$21.5 million non-cash impairment charge associated with our investment in non-consolidated affiliates and an \$8.0 million insurance recovery associated with a second quarter 2017 business interruption at our Freeport, Texas vinyl chloride monomer facility.





## Non-GAAP Financial Measures by Segment <sup>(a)</sup>

(In millions)	Three Months Ended December 31, 2019				Three Months Ended December 31, 2018			
	Income (loss) before Taxes	Non-Recurring Items	Depreciation and Amortization	Adjusted EBITDA	Income (loss) before Taxes	Non-Recurring Items	Depreciation and Amortization	Adjusted EBITDA
Chlor Alkali Products and Vinyls	\$ 32.9	\$ -	\$ 109.6	\$ 142.5	\$ 146.4	\$ -	\$ 117.7	\$ 264.1
Epoxy	15.3	-	20.9	36.2	19.0	-	25.4	44.4
Winchester (b)	7.0	0.6	4.9	12.5	4.3	-	5.1	9.4
	55.2	0.6	135.4	191.2	169.7	-	148.2	317.9
Environmental (Expense) Income (c)	(2.3)	-	-	(2.3)	(0.4)	(1.0)	-	(1.4)
Other Operating Income (d)	0.1	-	-	0.1	-	-	-	-
Other Corporate and Unallocated Costs (e)	(38.5)	16.9	1.7	(19.9)	(33.8)	11.0	2.2	(20.6)
Non-operating Pension Income	4.1	-	-	4.1	5.5	-	-	5.5
Other Income	-	-	-	-	-	-	-	-
<b>Adjusted EBITDA</b>	<b>\$ 18.6</b>	<b>\$ 17.5</b>	<b>\$ 137.1</b>	<b>\$ 173.2</b>	<b>\$ 141.0</b>	<b>\$ 10.0</b>	<b>\$ 150.4</b>	<b>\$ 301.4</b>

(In millions)	Year Ended December 31, 2019				Year Ended December 31, 2018			
	Income (loss) before Taxes	Non-Recurring Items	Depreciation and Amortization	Adjusted EBITDA	Income (loss) before Taxes	Non-Recurring Items	Depreciation and Amortization	Adjusted EBITDA
Chlor Alkali Products and Vinyls (b)	\$ 336.7	\$ -	\$ 470.4	\$ 807.1	\$ 637.1	\$ 21.5	\$ 473.1	\$ 1,131.7
Epoxy	53.9	-	100.1	154.0	52.8	-	102.4	155.2
Winchester (b)	40.1	0.6	20.1	60.8	38.4	-	20.0	58.4
	430.7	0.6	590.6	1,021.9	728.3	21.5	595.5	1,345.3
Environmental (Expense) Income (c)	(20.5)	(4.8)	-	(25.3)	103.7	(111.0)	-	(7.3)
Other Operating Income (d)	0.4	-	-	0.4	6.4	(6.3)	-	0.1
Other Corporate and Unallocated Costs (e)	(156.3)	77.0	6.8	(72.5)	(158.3)	58.0	5.9	(94.4)
Non-operating Pension Income	16.3	-	-	16.3	21.7	-	-	21.7
Other Income (f)	11.2	(11.2)	-	-	-	-	-	-
<b>Adjusted EBITDA</b>	<b>\$ 281.8</b>	<b>\$ 61.6</b>	<b>\$ 597.4</b>	<b>\$ 940.8</b>	<b>\$ 701.8</b>	<b>\$ (37.8)</b>	<b>\$ 601.4</b>	<b>\$ 1,265.4</b>

(a) Unaudited.

(b) Certain non-recurring items for both the three months and year ended December 31, 2019 included \$0.6 million of charges related to the Lake City facility transition. Certain non-recurring items for the year ended December 31, 2018 included a \$21.5 million pretax non-cash impairment charge associated with our investments in non-consolidated affiliates. Earnings (losses) of non-consolidated affiliates are included in the Chlor Alkali Products and Vinyls segment results consistent with management's monitoring of the operating segments.

(c) Environmental expense for the year ended December 31, 2019 included \$4.8 million of an environmental insurance-related settlement gain. Environmental (expense) income for the three months and year ended December 31, 2018 included recoveries from third parties for costs incurred and expensed in prior periods of \$1.0 million and \$111.0 million, respectively.

(d) Other operating income for the year ended December 31, 2018 included a \$1.7 million loss on the sale of land and an \$8.0 million insurance recovery associated with a second quarter 2017 business interruption at our Freeport, Texas vinyl chloride monomer facility.

(e) Other corporate and unallocated costs included charges of \$16.9 million and \$11.0 million for the three months ended December 31, 2019 and 2018, respectively, and \$77.0 million and \$36.5 million for the years ended December 31, 2019 and 2018, respectively, associated with the implementation of new enterprise resource planning, manufacturing, and engineering systems, and related infrastructure costs. The three months and year ended December 31, 2018 is also adjusted for the \$21.5 million of legal fees incurred for the environmental recovery actions.

(f) Other income for the year ended December 31, 2019 included a gain of \$11.2 million on the sale of our equity interest in a non-consolidated affiliate.



## Full year 2020 forecast assumptions

(\$ in millions)

Line Item	Forecast	Key Elements
Capital Spending	\$250 to \$300	~\$100 million lower than 2019 levels. IT project spending ~\$40 million
Depreciation & Amortization	\$550 to \$575	Forecasted expense expected below 2019 levels
Non-operating Pension Income	\$13 to \$18	Expect to be comparable to 2019
Environmental Expense	\$25 to \$30	Expect to be comparable with 2019 levels, excluding 2019 insurance-related settlement gain
Other Corporate	\$90 to \$100	Forecast is an increase from 2019 levels, primarily reflecting higher incentive and stock-based compensation
Restructuring & IT Project Costs	\$80	Information technology integration project and restructuring costs
Book Effective Tax Rate	27% to 33%	Forecast higher than 2019 effective tax rate, excluding benefit from resolution of IRS tax review for 2013 to 2015
Cash Taxes	\$30 to \$40	Forecast similar to 2019 levels, primarily for earnings in foreign jurisdictions

	4Q19 vs.	
	4Q18	3Q19
Chlorine	↔	↔
Caustic Soda	↓	↓
EDC	↓	↘
Bleach	↗	↗
HCl	↓	↓
Chlorinated Organics	↘	↘



## Chlor Alkali annual EBITDA sensitivity

Price Driver	Price Change	Annual EBITDA Impact (in millions)
Chlorine	\$10/ton	\$10
Caustic Soda	\$10/ton	\$30
EDC	\$.01/pound	\$20
Cost Driver	Price Change	Annual EBITDA Impact (in millions)
Natural Gas*	\$1/mmBtu	\$45 to \$55
Ethane*	\$.01/gallon	\$3

\* Excludes affects of hedged volumes



## Olin caustic soda price realization

### Fundamental Principle

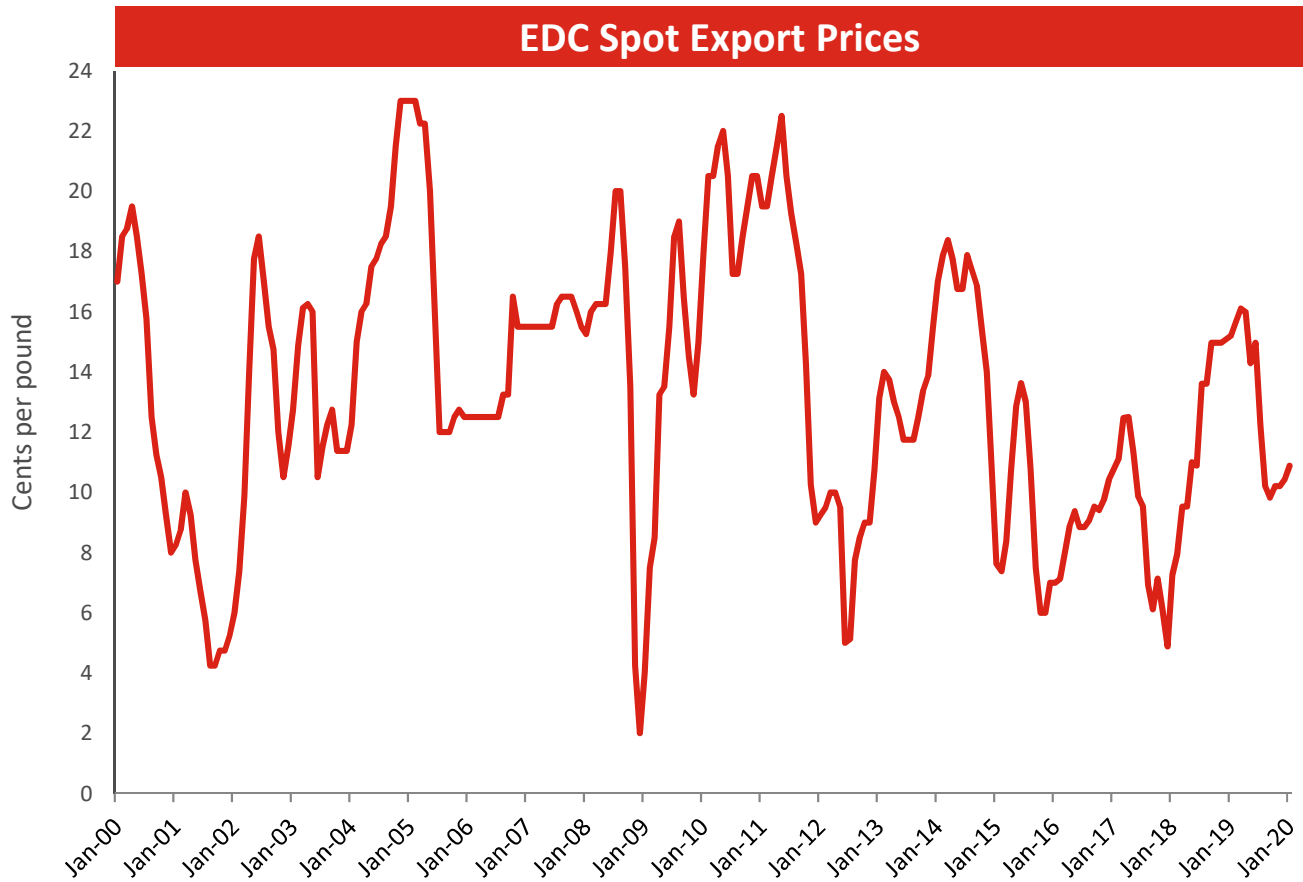
- A \$10 per ton change in Olin's caustic soda selling price changes annual adjusted EBITDA by approximately \$30 million

### Export Sales

- Typically range between 20% and 25% of caustic sales
- Sold on a combination of negotiated sales and export index price
- Realization of index price changes are typically 90% to 100%
- Changes in export index prices are typically realized on a 30 to 60 day lag

### Domestic Sales

- Contracts are made up of a combination of negotiated and index-based pricing terms
- Index price changes typically occur 30 to 60 days post our price nomination
- Realization of index price changes are typically 70% to 100%
- Overall price realization lags index price changes by 0 to 90 days



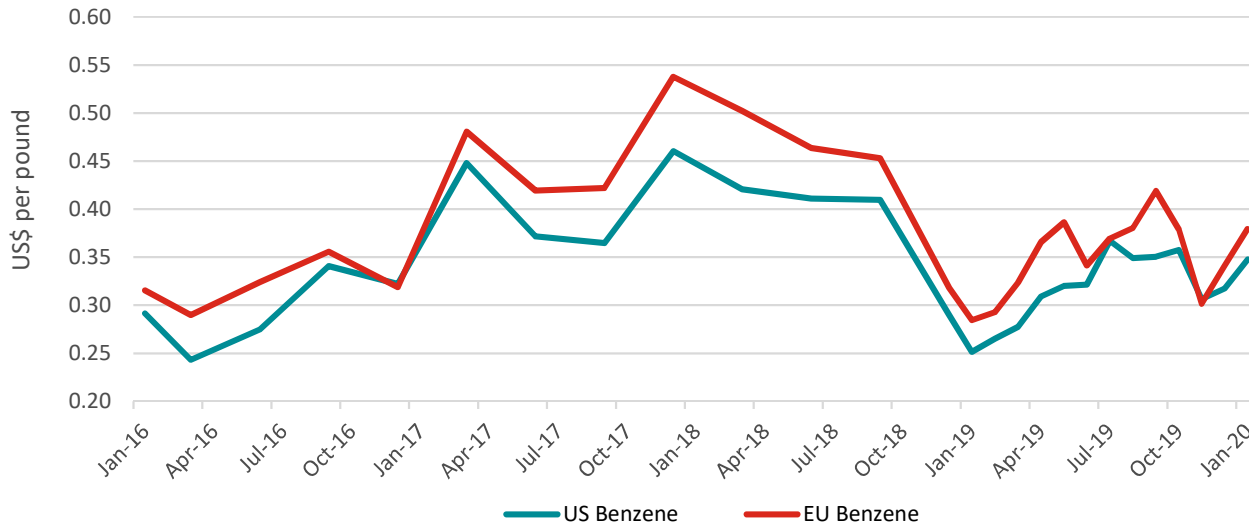
- EDC prices in 4Q19 were modestly below 3Q19
- During 2019, EDC prices declined ~30%
- A one cent change in Olin’s EDC price changes annual Adjusted EBITDA by \$20 million

Source: IHS Markit

# Epoxy raw material costs – Benzene & Propylene pricing

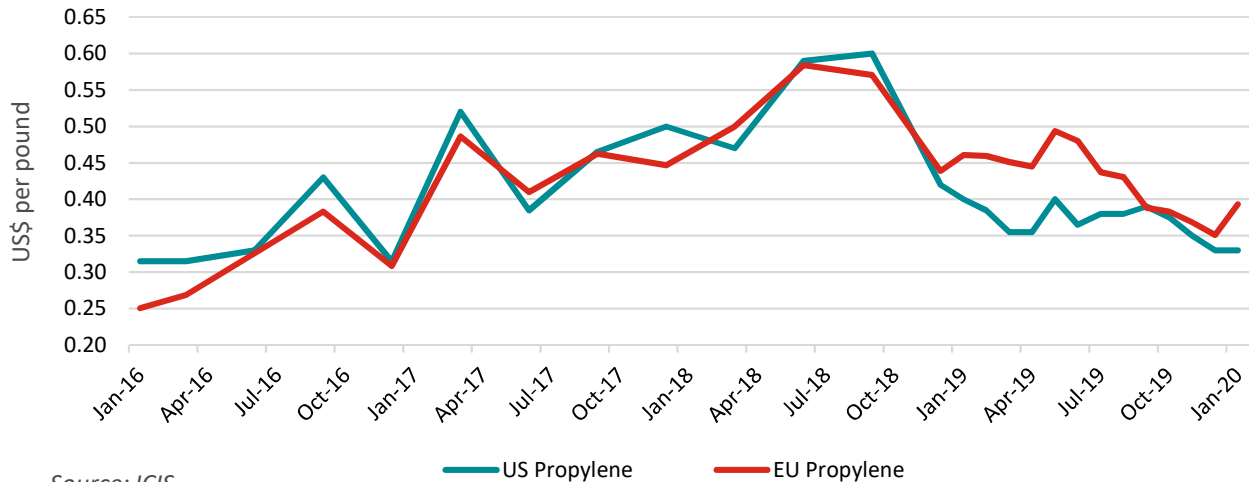
## Benzene Pricing

(through January 2020)



## Propylene Pricing

(through January 2020)



- During 4Q19, average U.S. and European propylene prices declined 31% and 25%, respectively, vs. 4Q18 levels
- Sequentially, average 4Q19 U.S. and European benzene prices decreased 8% and 13%, respectively
- 4Q19 propylene prices tracked lower with U.S. prices falling 8% and European prices declining 12% vs. 3Q19 levels



The Lake City Army contract should significantly improve annual profitability for the Winchester segment starting in 4Q 2020

### Contract Terms and Transition Period

- Assumes full operational control of Lake City facility on October 1, 2020
- Initial term of seven years with option to extend for up to three additional years
- Expect transition costs of ~\$25 million during 1Q20 through 3Q20
- Expect an initial working capital investment of \$80 million in 2H20

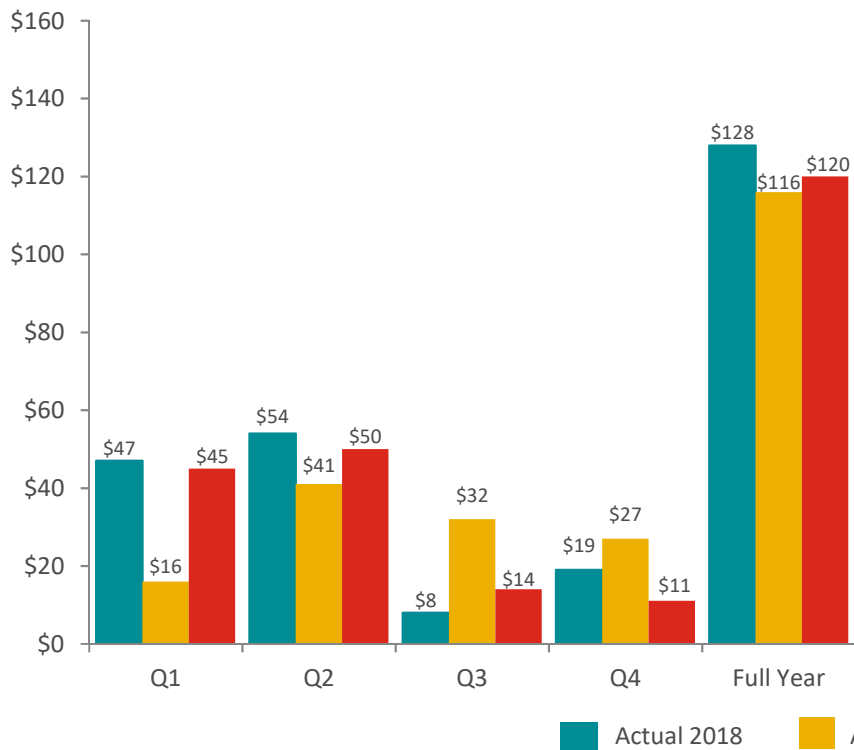
### Ongoing Benefits and Costs to Operate

- Expect incremental annual revenue of \$450 million to \$550 million
- Expect corresponding adjusted EBITDA of \$40 million to \$50 million per year
- Expect modest annual capex of \$10 million annually
- Opportunities to augment revenues further through modernization projects

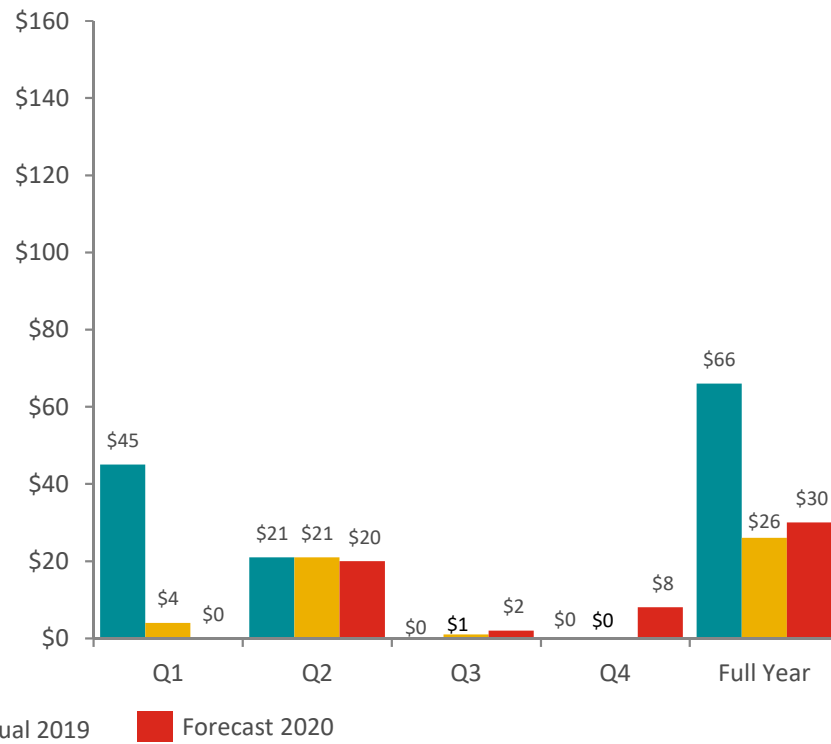


# Maintenance turnarounds costs<sup>1</sup>

Chlor Alkali Products & Vinyls  
(in millions)



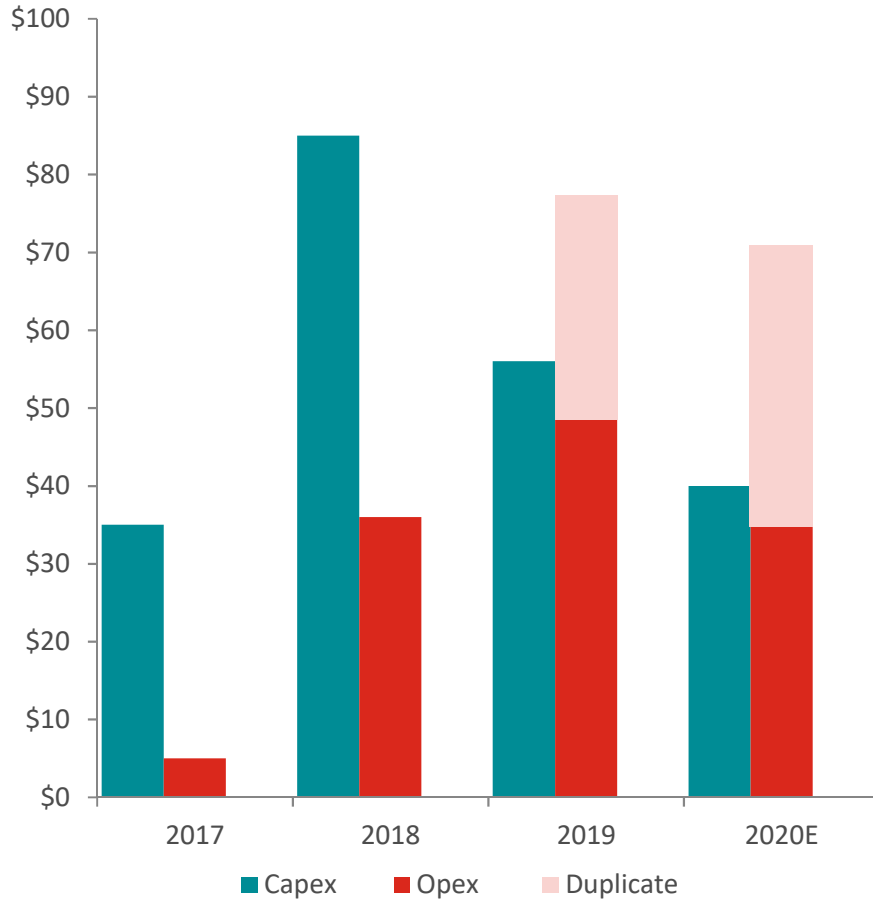
Epoxy  
(in millions)



- Expect FY20 turnaround costs to be ~\$10 million higher than FY19
- 2020 includes the once in three year VCM turnaround, beginning in late 1Q20 and lasting for ~2 months
- Expect heaviest turnaround schedule to be in 2Q20

<sup>1</sup>: Maintenance turnaround costs include maintenance costs and lost volume penalties associated with unabsorbed fixed manufacturing costs from lost sales associated with the turnarounds and outages.

(in millions)



- During 2017, Olin began implementing new enterprise resource planning, manufacturing and engineering systems, and related IT infrastructure
- Objective is to standardize business processes, while maximizing cost effectiveness, efficiency and control across the global chemical operations
- Expect to be substantially complete by end of 2020
  - ~35% of chemical users converted by year end 2019
- Project required due to expiration of IT transition service agreement with Dow
- Expect annual cost savings of ~\$50 million beginning in 2021
- Adjusted EBITDA excludes project-related operational expenses and duplicative costs