



PQ Corporation

Investor Presentation

December 2017

Important Information

Non-GAAP Financial Measures

This presentation includes certain non-GAAP financial measures. These non-GAAP financial measures should be considered only as supplemental to, and not as superior to, financial measures prepared in accordance with GAAP. We believe that the presentation of these financial measures enhances an investor's understanding of our financial performance. Non-GAAP measures should be read only in conjunction with consolidated financials prepared in accordance with GAAP.

We further believe that these financial measures are useful financial metrics to assess our operating performance from period to period by excluding certain items that we believe are not representative of our core business. We also believe that these financial measures provide investors with a useful tool for assessing the comparability between periods of our ability to generate cash from operations sufficient to pay taxes, to service debt and to undertake capital expenditures. We also use these financial measures for business planning purposes and in measuring our performance relative to that of our competitors. We believe these financial measures are commonly used by investors to evaluate our performance and that of our competitors. However, our use of these financial measures may vary from that of others in our industry. These financial measures should not be considered as alternatives to operating income (loss), net income (loss), cash flow from operations or any other performance measures derived in accordance with GAAP as measures of operating performance or operating cash flows or as measures of liquidity.

Non-GAAP Financial Measures – Business Combination

On May 4, 2016, we consummated a series of transactions to reorganize and combine the businesses of PQ Holdings Inc. and Eco Services Operations LLC under a new holding company, PQ Group Holdings Inc. In this presentation, we present unaudited pro forma information for the years ended December 31, 2016 and 2015 and for the nine months ended September 30, 2016, which gives effect to the business combination and the related financing transactions as if they occurred on January 1, 2015. In addition, information for all periods prior to the year ended December 31, 2015 is presented using the standalone results of PQ Holdings Inc. and Eco Services Operations LLC. Such information is illustrative and not intended to represent what our results of operations would have been had the business combination and related financing transactions occurred at any time prior to May 4, 2016 or to project our results of operations for any future period. Such information may not be comparable to, or indicative of, future performance.

Zeolyst Joint Venture

Our zeolite catalysts product group operates through Zeolyst International and Zeolyst C.V. (our 50% owned joint ventures that we refer to collectively as our "Zeolyst Joint Venture"), which we account for as an equity method investment in accordance with GAAP. The presentation of our Zeolyst Joint Venture's total net sales in this presentation represents 50% of the total net sales of our Zeolyst Joint Venture. We do not record sales by our Zeolyst Joint Venture as revenue and such sales are not consolidated within our results of operations. However, our Adjusted EBITDA reflects our share of the earnings of our Zeolyst Joint Venture that have been recorded as equity in net income from affiliated companies in our consolidated statements of operations for such periods and includes Zeolyst Joint Venture adjustments on a proportionate basis based on our 50% ownership interest. Accordingly, our Adjusted EBITDA margins are calculated including 50% of the total net sales of our Zeolyst Joint Venture for the relevant periods in the denominator.

Supply Share and Industry Information

Certain statistical information used throughout this presentation is based on independent industry publications, reports by research firms or other published independent sources. Some statistical information is also based on our good faith estimates, which are derived from management's knowledge of our industry and such independent sources referred to above. Certain supply share statistics, ranking and industry information included in this presentation, including the size of certain markets and our estimated supply share position and the supply share positions of our competitors, are based on management estimates. These estimates have been derived from our management's knowledge and experience in the industry and end uses into which we sell our products, as well as information obtained from surveys, reports by research firms, our customers, distributors, suppliers, trade and business organizations and other contacts in the industries into which we sell our products. We believe these data to be accurate as of the date of this presentation. However, this information may prove to be inaccurate because this information cannot always be verified with complete certainty due to the limitations on the availability and reliability of raw data, the voluntary nature of the data gathering process and other limitations and uncertainties. Unless otherwise noted, all of our supply share position information presented in this presentation is an approximation based on management's knowledge and is based on our, or, in the case of our zeolite catalysts product group, our Zeolite Joint Venture's, sales volumes relative to the estimated sales volumes for the year ended December 31, 2016 in relevant products or end uses into which we sell our products and represent our estimated global supply share positions for each of our product groups, except that the estimated supply share position for our refining services product group reflects our estimate of only our supply share position in the United States and excludes volume attributable to manufacturers who produce primarily for their own consumption. References to our being a leader in a supply share position or product group refer to our belief that we have one of the leading supply share positions, unless otherwise indicated or the context otherwise requires. In addition, references to various end uses into which we sell our products are based on how we define the end uses for our products.

Certain monetary amounts, percentages and other figures included in this presentation have been subject to rounding adjustments. Accordingly, numerical figures shown as totals in certain tables or charts may not be the arithmetic aggregation of the figures that precede them. In addition, we round certain percentages presented in this presentation to the nearest whole number. As a result, figures expressed as percentages in the text may not total 100% or, as applicable, when aggregated may not be the arithmetic aggregation of the percentages that precede them.

Constant currency information reflects comparative local currency financial information at the average foreign exchange rates for the nine months ended September 30, 2017 for all historical periods. This measure provides information on sales and Adjusted EBITDA assuming that foreign currency exchange rates had not changed between current and historical periods.

Forward-Looking Statements

Some of the information contained in this presentation and any discussions that follow constitutes "forward-looking statements". Forward-looking statements can be identified by words such as "anticipates," "intends," "plans," "seeks," "believes," "estimates," "expects," "projects" and similar references to future periods. Forward-looking statements are based on our current expectations and assumptions regarding our business, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict. Our actual results may differ materially from those contemplated by the forward-looking statements. We caution you, therefore, against relying on any of these forward-looking statements. They are neither statements of historical fact nor guarantees or assurances of future performance. Important factors that could cause actual results to differ materially from those in the forward-looking statements include, but are not limited to, regional, national or global political, economic, business, competitive, market and regulatory conditions, currency exchange rates and other factors, including those described in the sections titled "Risk Factors" and "Management Discussion & Analysis of Financial Condition and Results of Operations" in the final prospectus for our initial public offering, dated September 28, 2017, which is available on the SEC's website at www.sec.gov. Additional information will be made available by our quarterly reports on Form 10-Q and other filings that we make from time to time with the SEC. Any forward-looking statement made by us in this presentation and any discussions that follow speaks only as of the date on which it is made. Factors or events that could cause our actual results to differ may emerge from time to time, and it is not possible for us to predict all of them. We undertake no obligation to update any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by applicable law.

The PQ Story

We are a leading global provider of specialty catalysts, chemicals, materials and services



Our products and solutions help companies produce vehicles with improved **FUEL EFFICIENCY** and **CLEANER EMISSIONS**



Our Materials are **CRITICAL INGREDIENTS IN CONSUMER PRODUCTS** that make teeth brighter, skin softer, and wounds heal faster



We produce **HIGHLY ENGINEERED MATERIALS** that make highways and airports safer for drivers and pilots

Investment Overview

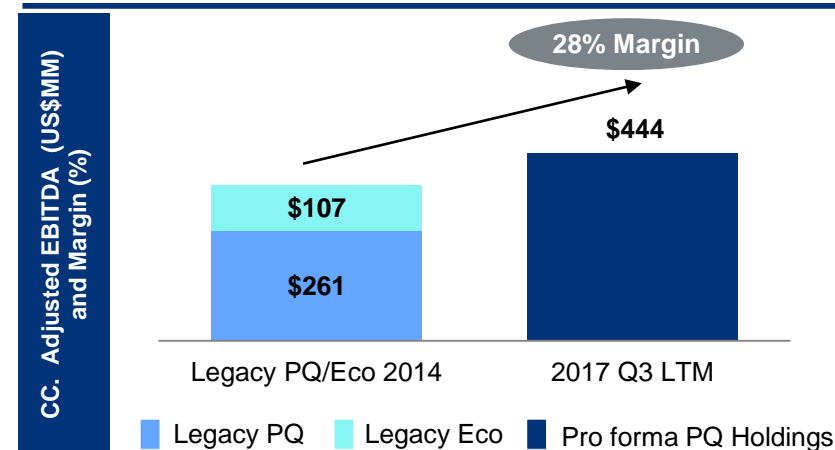
An established, well-diversified industry leader strategically positioned for sustained growth

- ✓ PQ Corp provides innovative niche products that address a highly diversified set of large end markets with #1 or #2 supply positions attributable to 90% of total revenue
- ✓ Products are customized, high value-add inputs critical to performance but a small part of the final product cost
- ✓ Our portfolio supports secular trends which drive growth rates in excess of GDP

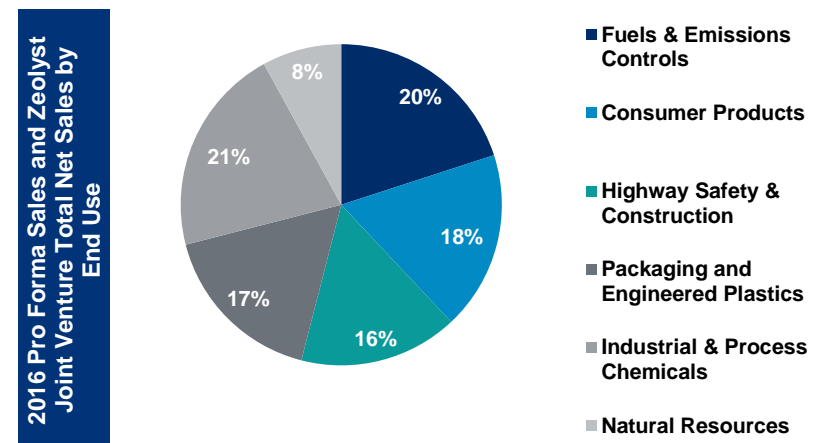
- Mix shift to higher octane fuels
- Tightening global diesel emission requirements
- Increasing Highway Safety Standards

- ✓ Diversified portfolio of products and a focus on execution produce consistent EBITDA margins of at least 26%
- 28.3% year-to-date EBITDA margin
- ✓ Strong free cash flow provides financial flexibility to rapidly deleverage and fund growth opportunities

Strong Historic Growth and Margins








Diversified End Use Exposure



PQ Group Segment Summary

Highly diversified producer of catalysts, specialty materials and chemicals, and services with leading supply positions across the portfolio

	Environmental Catalysts & Services			Performance Materials & Chemicals	
Product Groups	Silica Catalysts	Zeolite Catalysts	Refining Services	Performance Chemicals	Performance Materials
					
Key Financials	2016 Pro Forma CC. Adj. EBITDA ¹ : \$221MM CC. Margin: 38%			2016 Pro Forma CC. Adj. EBITDA ¹ : \$229MM CC. Margin: 24%	
Product Type	Catalysts, Catalyst Supports, and Precursors			Ingredients / Additives	Engineered Materials
End Uses	<ul style="list-style-type: none"> ■ Packaging and Engineered Plastics 	<ul style="list-style-type: none"> ■ Fuels & Emissions Controls 	<ul style="list-style-type: none"> ■ Fuels & Emissions Controls ■ Industrial & Process Chemicals 	<ul style="list-style-type: none"> ■ Consumer Products ■ Industrial & Process Chemicals 	<ul style="list-style-type: none"> ■ Highway Safety and Construction ■ Industrial & Process Chemicals ■ Natural Resources
Growth Strategy	<ul style="list-style-type: none"> ■ Plastics growth ■ Lightweighting ■ Shale gas 	<ul style="list-style-type: none"> ■ Cleaner fuels ■ Sulfur and NOx standards ■ Lubricant dewaxing 	<ul style="list-style-type: none"> ■ Octane demand ■ Regen outsourcing 	<ul style="list-style-type: none"> ■ Environmentally friendly products ■ Higher mileage ■ Safety / non-toxic 	<ul style="list-style-type: none"> ■ Highway safety ■ Lightweight automotive

US\$MM unless otherwise noted.

¹ Excludes a combined \$33M of Corporate Costs for 2016 Pro Forma CC. Adj. EBITDA

PQ Equity Value Creation Drivers

1 Continued mid single digit organic growth in Environmental Catalysts & Services

- High growth markets driven by global regulatory drivers (emissions control, fuel efficiency)
- PQ wins through materials science leadership & world class operating capabilities

2 Accelerating organic growth in Performance Materials & Chemicals




- Growth driven by new products addressing demand for increased highway safety & safer consumer products
- PQ's #1 supply share, production technology, & diverse customer relationships drive consistent profitability through cycles

3 Significant near term improvement in Free Cash Flow

- IPO debt reduction drives significant interest savings; well invested capital base & several opportunities to improve cash conversion
- Disciplined cash deployment strategy focused on deleveraging to 3.0x-3.5x EBITDA, high return organic growth projects, and tuck-in M&A

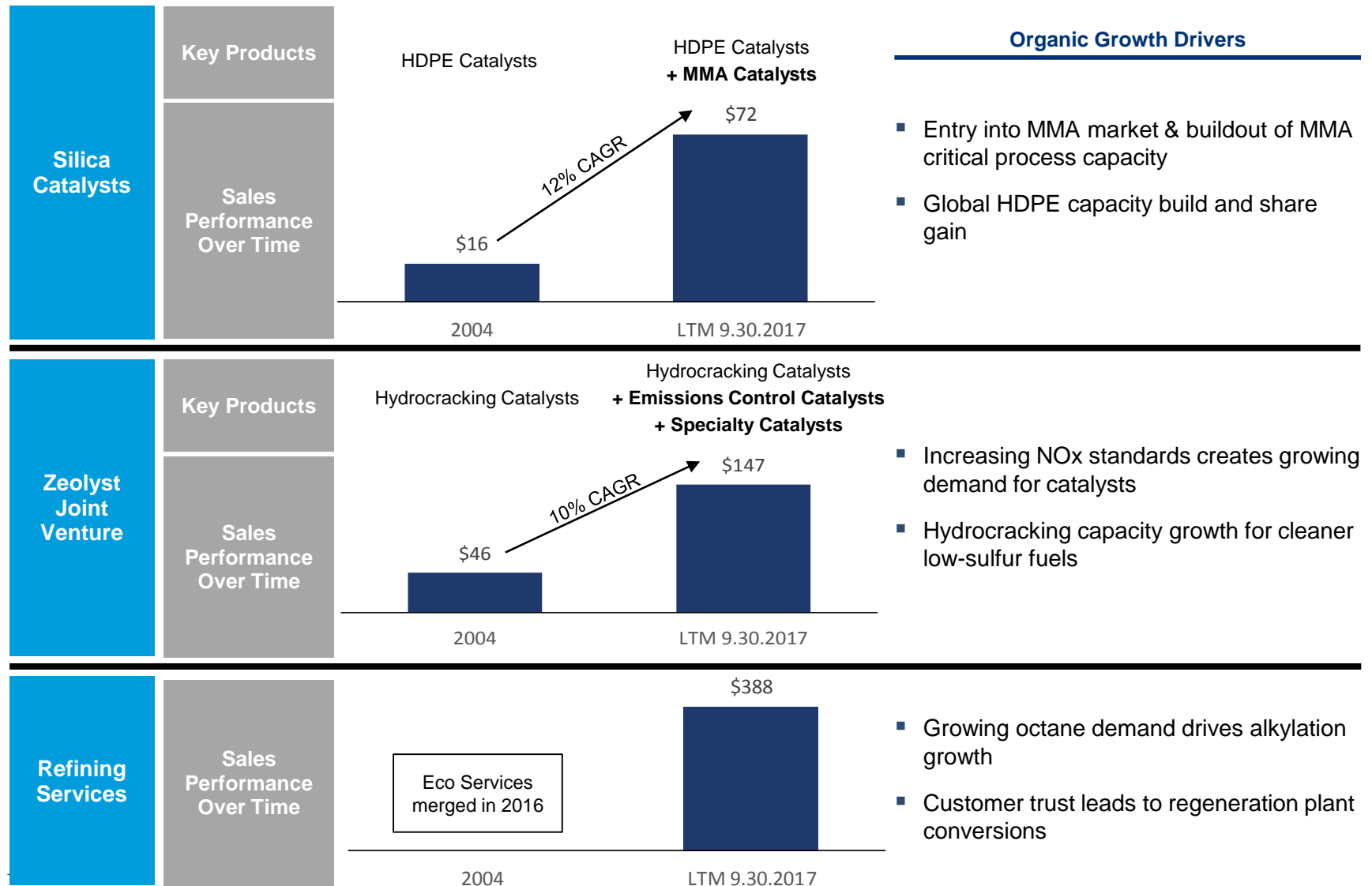
Environmental Catalysts & Services

Leading catalyst platform with strong material science and refinery focus

	Silica Catalysts	Zeolite Catalysts	Refining Services
Product Groups			
Who We Are	<ul style="list-style-type: none"> ■ #2 primary supply position ■ Global leader in MMA catalysts ■ Strong competitive position in PE catalysts and catalyst supports 	<ul style="list-style-type: none"> ■ #1 or #2 primary supply position ■ Leading global supplier in Diesel NOx emissions control catalysts ■ Leading supplier of hydrocracking catalysts 	<ul style="list-style-type: none"> ■ #1 primary supply position ■ Leading supplier in refinery alkylation catalyst regeneration services ■ 53% U.S. regeneration supply share (substantially larger than nearest competitor)
How We Win	<ul style="list-style-type: none"> ■ Silica materials science leader with leading intellectual property ■ Custom catalyst formulation capability 	<ul style="list-style-type: none"> ■ Zeolite materials science leader with leading intellectual property ■ Integrated, scale production capabilities ■ A longstanding global partner 	<ul style="list-style-type: none"> ■ Reliability and safety builds customer trust ■ Ideal plant locations (Gulf Coast, CA) ■ End to end service

Environmental Catalysts & Services

Significant organic sales growth driven by new catalyst development and attractive regulatory drivers



Silica Catalysts are Critical and Tailored Products

Our products improve polyolefins and MMA production costs and efficiencies



Silica Catalysts

Polyolefin Catalyst Supports

Select Applications



MMA Catalysts



Customer Need

Catalyst supports for catalysts to be delivered to catalyst users (i.e. their customers)

Leading Process to Produce MMA

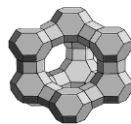
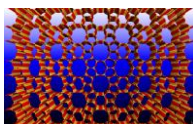
PQ Capabilities

- Ability to “Dial-in” required properties through flexible process
- Rapid / frequent customer dialogue

- Pilot facilities
- Multi-year collaboration to implement and extend the technology

Result

- Catalyst support is critical to final catalyst performance
 - Pore sizes can range from 4-500 angstroms
 - Surface areas can be manipulated from 200-1,000 meters per gram



Critical Process Catalyst Supplier

- ✓ Enables the elimination of 2 reaction steps reducing capital and operating costs
- ✓ Enables the use of a lower cost raw material sources, ethylene and methanol.
- ✓ Eliminates byproducts which improves variable costs

Zeolite Catalysts Are Performance Enablers

PQ products reduce emissions and increase refinery output and profitability



Zeolite Catalysts

Zeolyst Joint Venture



Vertical Integration

Catalysts, Precursors, and Formulations

Emissions Control

Control Emissions in HDD and LDD Vehicles



At the Tailpipe

Fuel

Maximize Output of Jet and Diesel Fuels

Increase Yield in Refining

Specialty Refinery Applications to Maximize Refinery Output



At the Refinery

Market Solutions

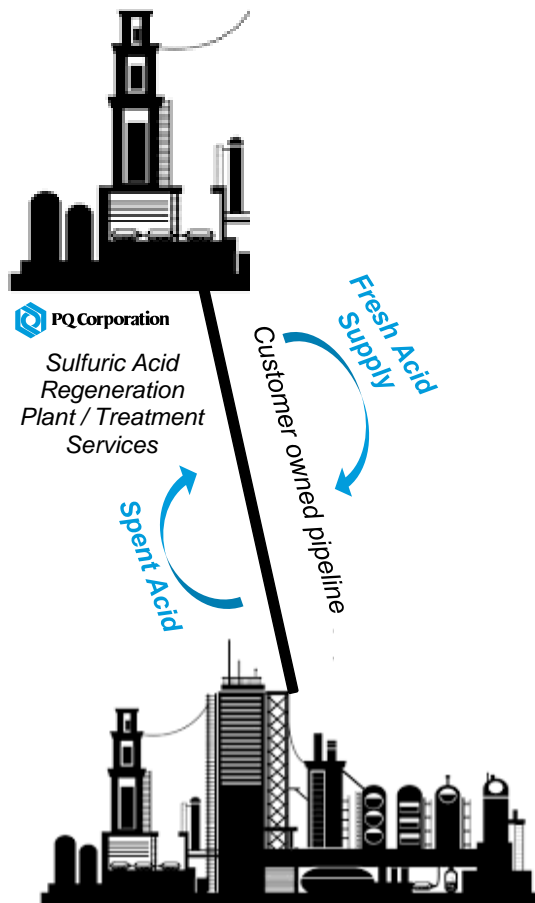
End-to-End Services Platform

Consistent business model and performance focused on key refining markets
(Gulf Coast and California)



Refining Services

Service Model Analogous to Industrial Gas Industry



High intimacy
yields strong
contracts

Contract Structures Provide Consistency and Long-Term Customer Relationships

- Long contract terms and cost pass-through provisions reflect criticality of services to customers
 - Regen Services: 5-10 year terms with long (1-2 year) termination notice periods
 - Virgin Acid: 1-5 year terms, with larger customers favoring longer terms and contracts for 100% of their sulfuric acid requirements
- Contracts feature take-or-pay provisions
- Quarterly price adjustments for commodities, labor, natural gas and Chemical Engineering Plant Cost Index

Refining Services Critical to Address Alkylate Demand and Fuel Regulations

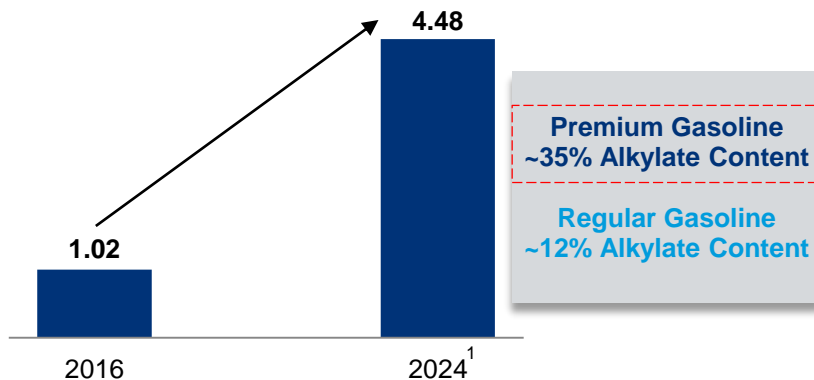


Refining Services

Sulfuric acid is a critical catalyst for refiners to meet new standards

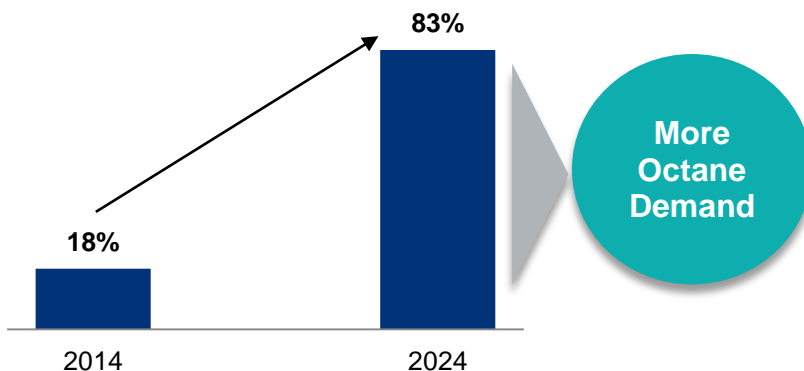
Growth in Premium Gasoline

Premium Gasoline Barrels Per Day (MM)

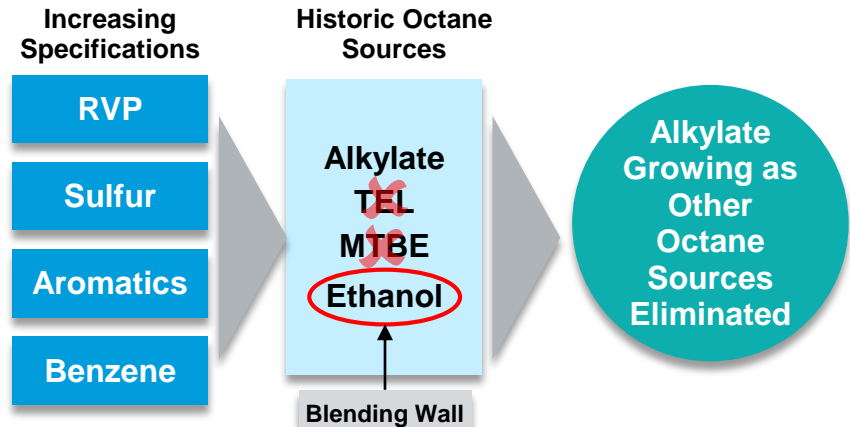


Growth in Turbocharged Vehicles

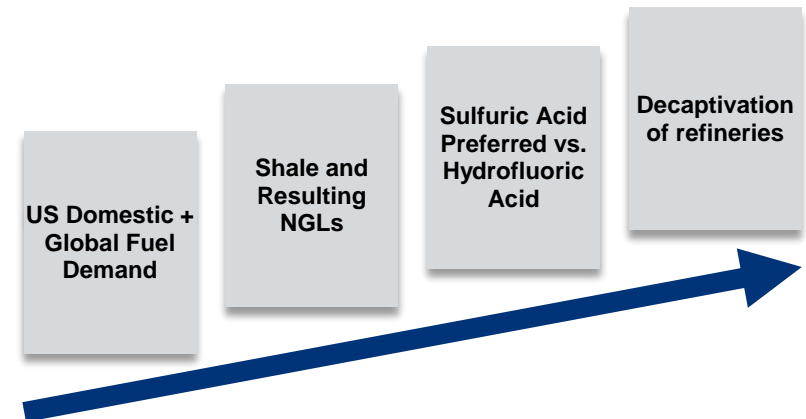
% Share of Turbocharged LDV Vehicles in USA



Fuel Regulations



Other Factors to Growth in Alkylate / Refinery Services



¹ Calculation based on EIA LDV forecast

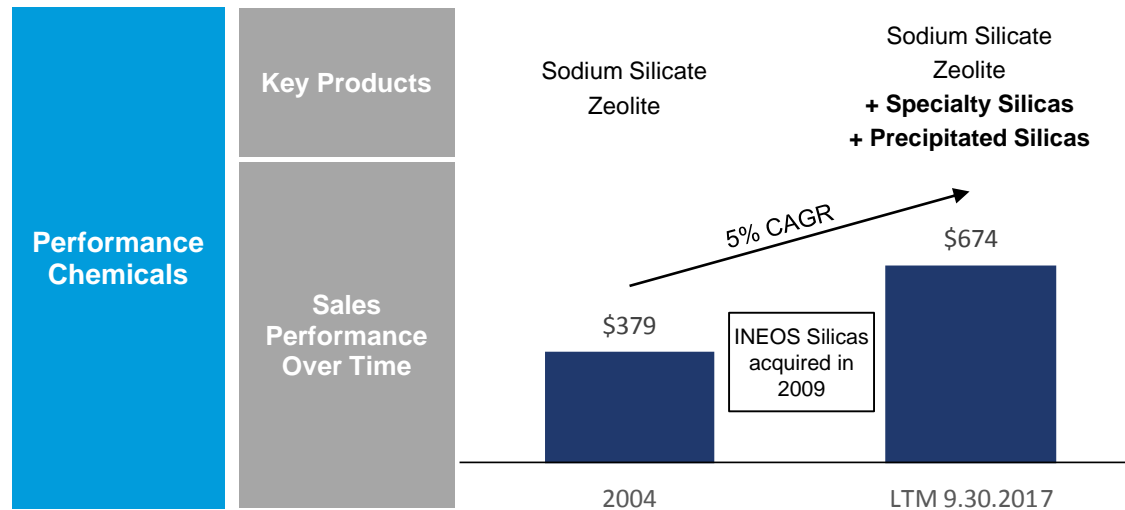
Performance Materials & Chemicals

Clear opportunity to extend an already strong global leadership position

Product Groups	Performance Chemicals 	Performance Materials 
Who We Are	<ul style="list-style-type: none">■ #1 primary supply position■ Only global silicates producer who can supply all of the major regions■ Sodium silicates supply share 3x nearest competitor	<ul style="list-style-type: none">■ #1 primary supply position■ Industry leader in microspheres across North America, Europe, South America, and Asia (excluding China)
How We Win	<ul style="list-style-type: none">■ Leader in silicate chemistry with strong technical service■ Local production scale near key customers – significant logistics cost advantage■ 50+ year customer relationships	<ul style="list-style-type: none">■ Leader in glass bead production technology■ Applications technology leader■ Scale operations in each region■ Track record of quality and service

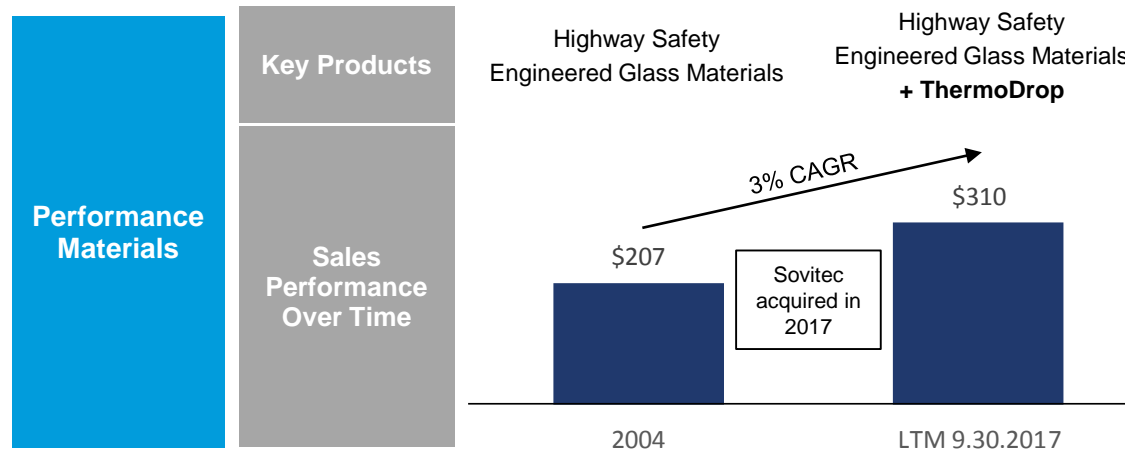
Performance Materials & Chemicals

Significant sales growth driven by product line expansion/innovation and tuck-in acquisitions



Organic Growth Drivers

- Silicates and derivative products displacing other chemistry (personal care, green tires, cleaning products)
- New applications (water treatment, coatings, catalysts)



- Regulations require better visibility = more beads
- ThermoDrop application technology grows highway safety
- Light-weighting demand in plastic applications

Performance Chemicals Growth Drivers

PQ's products increase and enable customer performance; low cost-in-use

Performance Chemicals



Customers Demand for Environmentally-Friendly Products



Sodium Silicate (For Green Tire Applications)

Replaces carbon black to lower rolling resistance in tires



Specialty Silicas

Displaces non-biodegradable plastic microbeads; also enables removal of volatile organic compounds in UV/High-solids coatings



EcoDrill / ONG

Displaces diesel-based organic muds/impure ceramic spheres made from fly ash



Other

Replace phosphates in cleaning products and lead stabilizers in PVC

Customer Demand for Performance



Precipitated Silicas

Effective abrasive and thickener



Specialty Silicas

Gloss control in high performance coatings



Silica Gels

Clarifies to ever increasing purity requirements

Performance Materials Growth Drivers

PQ products exposed to many attractive end markets



Performance Materials

Highway Safety & Construction

- Demand for enhanced “dry and wet” visibility of road and airport markings to improve safety
- Drive for weight reduction in cements

Introduction of ThermoDrop®

- Melts 2x faster than conventional product
- Longer and more safe storage life
- Ramping production after successful commercialization in February 2017
- Material EBITDA contributor based on anticipated customer demand

Acquisition of Sovitec

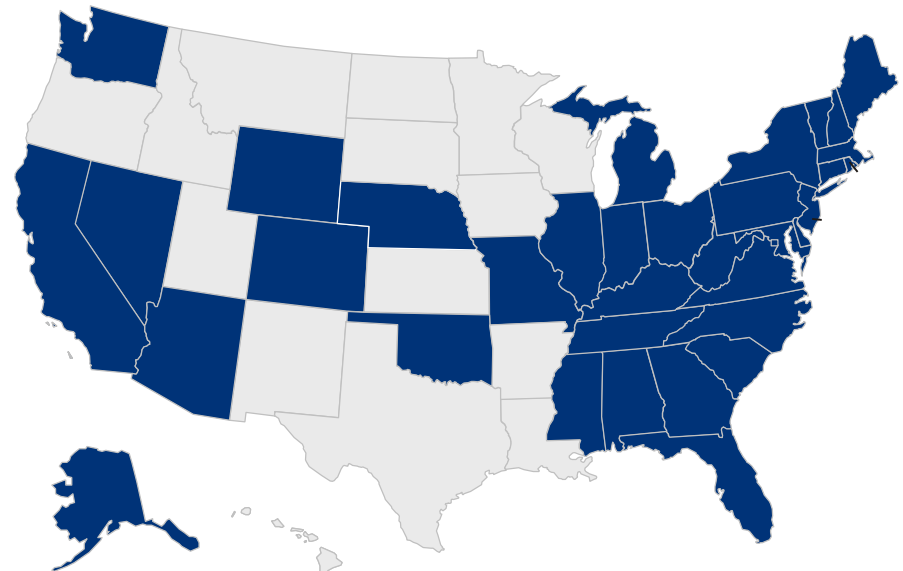
- Manufacturer of glass beads serving the road striping, metal finishing, resin, and general industrial end markets
- Increases breadth and capability of glass bead business
- Broadens geographic footprint in Europe

Natural Resources

- Upside from global oil drilling

Example: Wider Lines

- Eight U.S. states have mandated wider lines on all roads and additional 30 states are using wider lines in some fashion
- Many of these states are moving from a 4-inch line to a 6-inch line width standard (requiring 50% more beads)



■ States with Wider Lines



Financial Summary

PQ Financial Overview

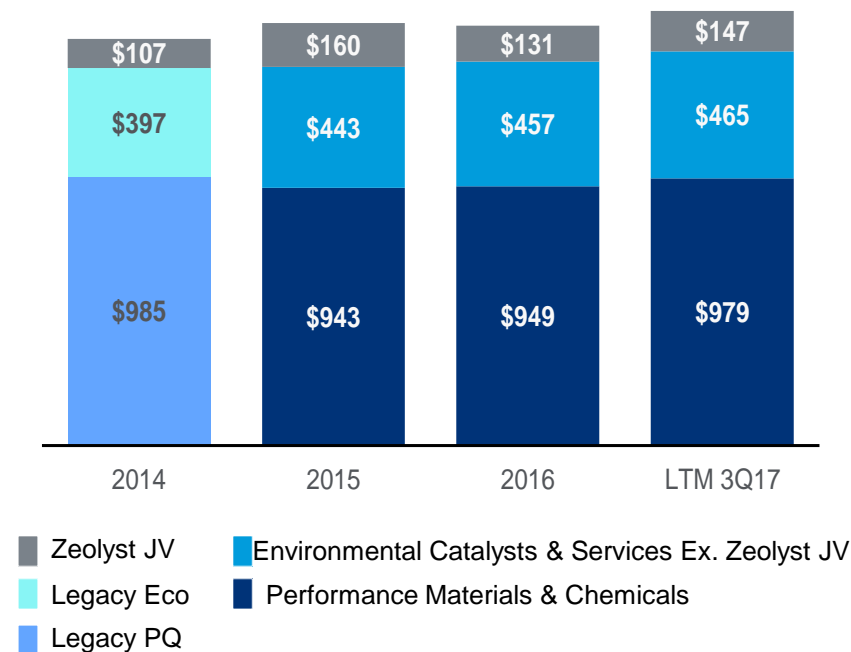
Financial strategy based on maximizing shareholder value

- 1** *Demonstrated consistent and high margins as a foundation*
- 2** *Strong growth outlook supported by secular trends and mix shift to higher margin products*
- 3** *Deleveraging via IPO proceeds provides balance sheet flexibility; high cash generation provides additional flexibility to deleverage and fund growth initiatives*
- 4** *Focused on value enhancing capital allocation policy (returns vs. cost of capital)*

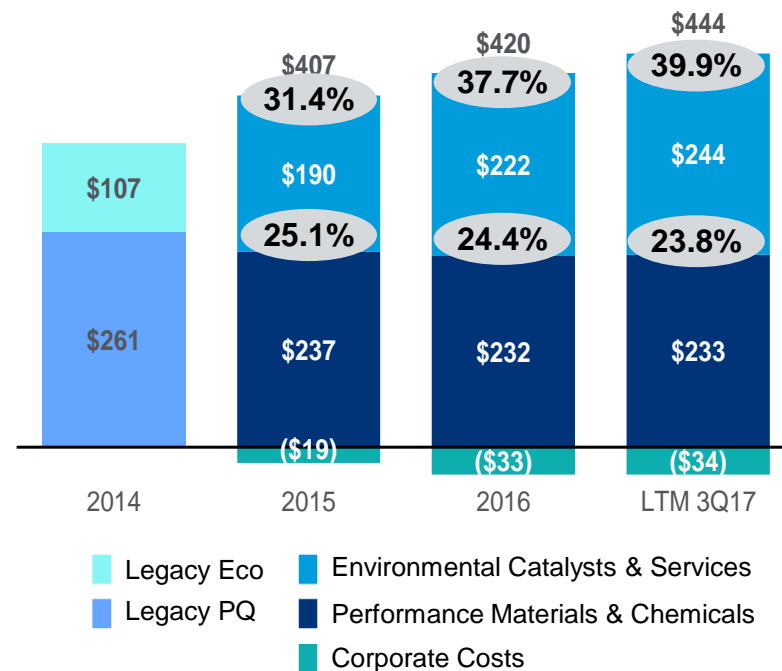
Historical Financial Performance

Balanced business with consistent growth

CC. Sales and Zeolyst JV Sales



CC. Adj. EBITDA and EBITDA Margins



US\$ mm unless otherwise noted.

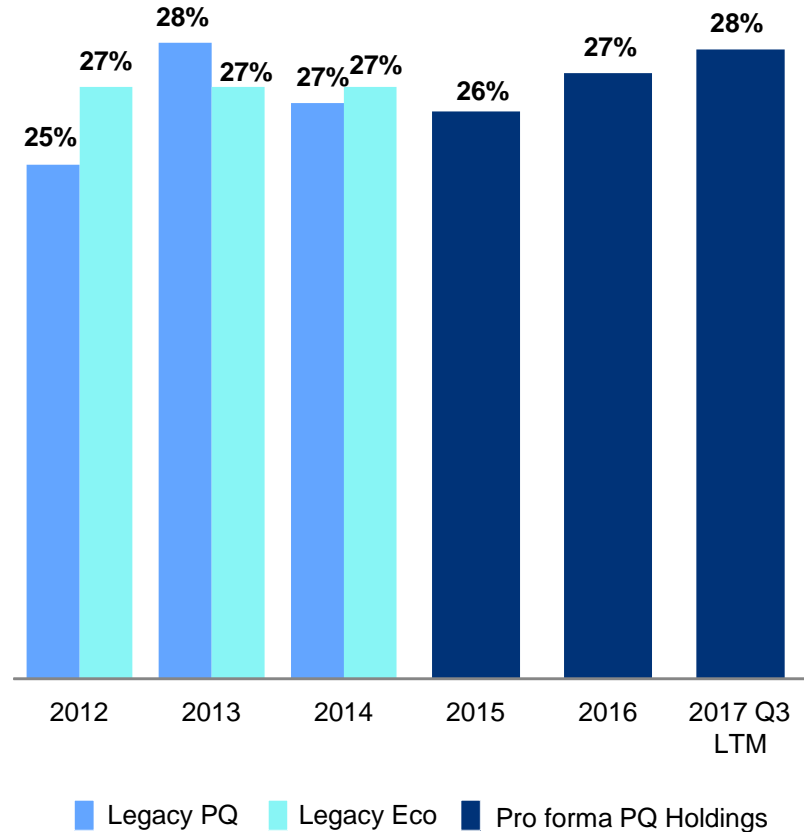
Consistently Attractive Margins

Diverse business model and specialty / high value-add products have combined to support stable margins through economic cycles and strong growth in EBITDA

Consistent Margins

- High value-add products
- Strong and long-standing customer relationships and value proposition supported by leading technology, operations and product capabilities
- A proportion of contracts are index-linked contracts (pass-through) and adjustment provisions in sales contracts mitigate impact of raw material cost fluctuations, representing:
 - 45% of 2016 North American silicates pro forma sales
 - 94% of 2016 refining services product group pro forma sales
- Business reorganization and focus on high value end use applications expected to drive further margin improvement over time

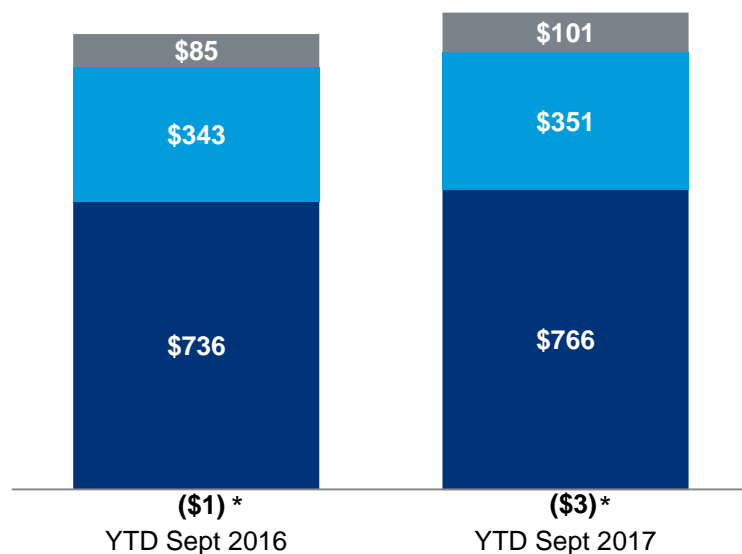
Historical Margins¹



YTD Sept 2017 Financial Update

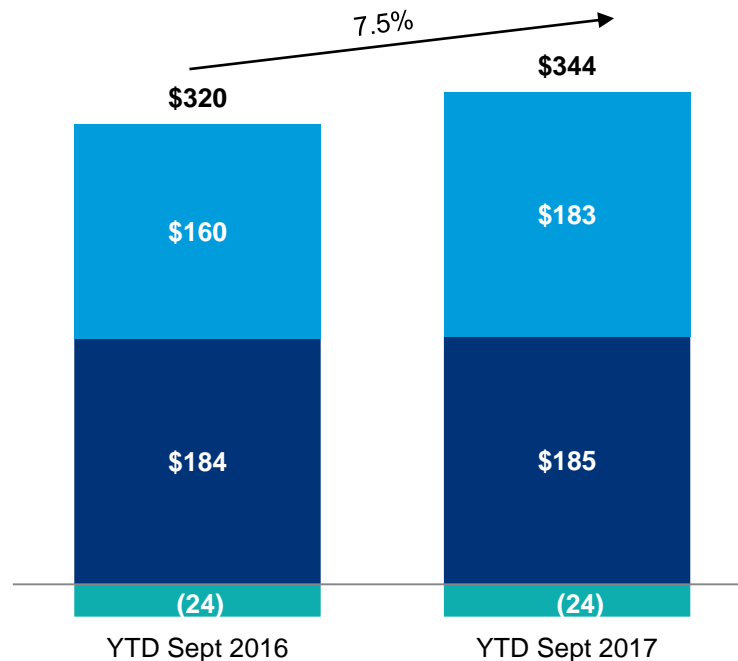
Strong YTD Sept 2017 performance with both CC. sales and CC. Adj. EBITDA growing over YTD Sept 2016

CC. Sales and Zeolyst JV Sales



- Performance Materials & Chemicals
- Environmental Catalysts & Services Ex. Zeolyst JV
- Zeolyst JV
- Inter-segment Sales Eliminations*

CC. Adj. EBITDA



- Performance Materials & Chemicals
- Environmental Catalysts & Services
- Corporate Costs

US\$ mm unless otherwise noted.

Full Year 2017 Guidance

(\$ in millions)

Net Sales (including Zeolyst JV)	\$1,585 - \$1,605
Adjusted EBITDA	\$447 - \$453
Depreciation	\$120 - \$125
Amortization	\$53 - \$55
Interest Expense	\$176 - \$178
Capital Expenditures	\$140 - \$150
Weighted Average Diluted Shares¹	108.8 million

The weighted average diluted shares for Q4 2017 is estimated to be 133.8 million

Cash Flow Summary

Excellent outlook for future value creation through strong sustainable cash flow

Cash Flow Highlights

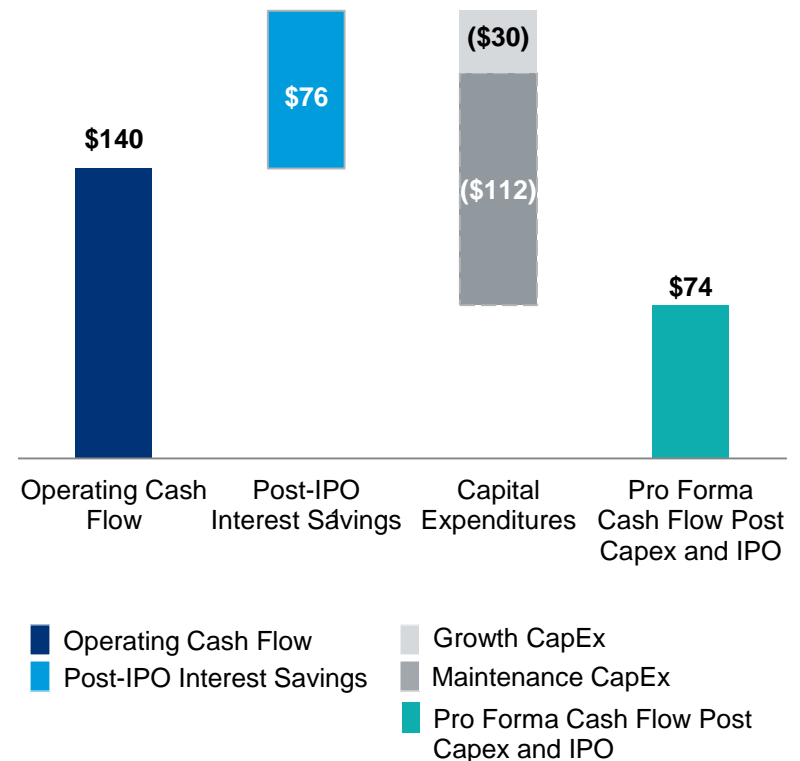
- Further cash flow enhancement:
 - **2018 cash interest projected to be \$115 - \$120 million**
 - Increasing earnings
 - Rising JV dividends

Valuable Tax Attributes (As of Dec 31, 2016)

- Low cash taxes given NOL position – \$27MM cash taxes paid for LTM Q3 2017
- NOL carryforwards of ~\$383MM available
- Realized \$671MM of identified intangibles and goodwill from the Business Combination transaction

Sizable Present Value of Tax Attributes

Cash Flow Summary LTM Q3 2017



Reflects interest reduction of \$53.9mm from partial repayment of the L+1,075bps floating rate senior notes due 2022 from proceeds from the IPO, \$12.4mm in term loan repricing, savings, and \$9.3mm in savings from the new 5.75% bond issuance paying off the 8.5% Notes due 2022 and remaining L+1,075bps floating rate senior notes.

Capital Structure

Ongoing capital structure improvements support future equity value appreciation

Strong Balance Sheet

- IPO proceeds used to repay highest cost debt
- No long-term debt maturities until 2021 / 2022

	Interest Expense	Weighted Average Cost of Debt
Before IPO	\$192MM	7.2%
After IPO and Refi ⁴	\$116MM	5.1%

Capitalization

(\$ in millions)	Interest	Floor	As of 9/30/2017	Proforma ⁵ as of 9/30/2017	Maturity
Cash & Cash Equiv.			\$69	\$62	
Secured Debt:					
ABL Facility	Various		35	35	2021
USD Term Loan	L+325bps		919	919	2022
EUR Term Loan	E+325bps	0.75%	331	331	2022
6.75% Notes	6.75%		625	625	2022
NMTC and Other ¹	Various		68	68	
Unsecured Debt:					
5.75% Notes	5.75%		0	300	2025
Floating Rate Notes	L+1,075bps		525	0	2022
8.5% Notes	8.50%		200	0	2022
Net Debt ³			2,566	2,148	
LTM Q3 2017 CC. Adj. EBITDA			444	444	
Net Leverage ^{2,3}			5.8x	4.8x	

US\$MM unless otherwise noted.

¹ Debt assumed from Sovitec acquisition

² Net debt excludes \$52MM of NMTC which is excluded under our credit agreement and \$16mm of Other debt

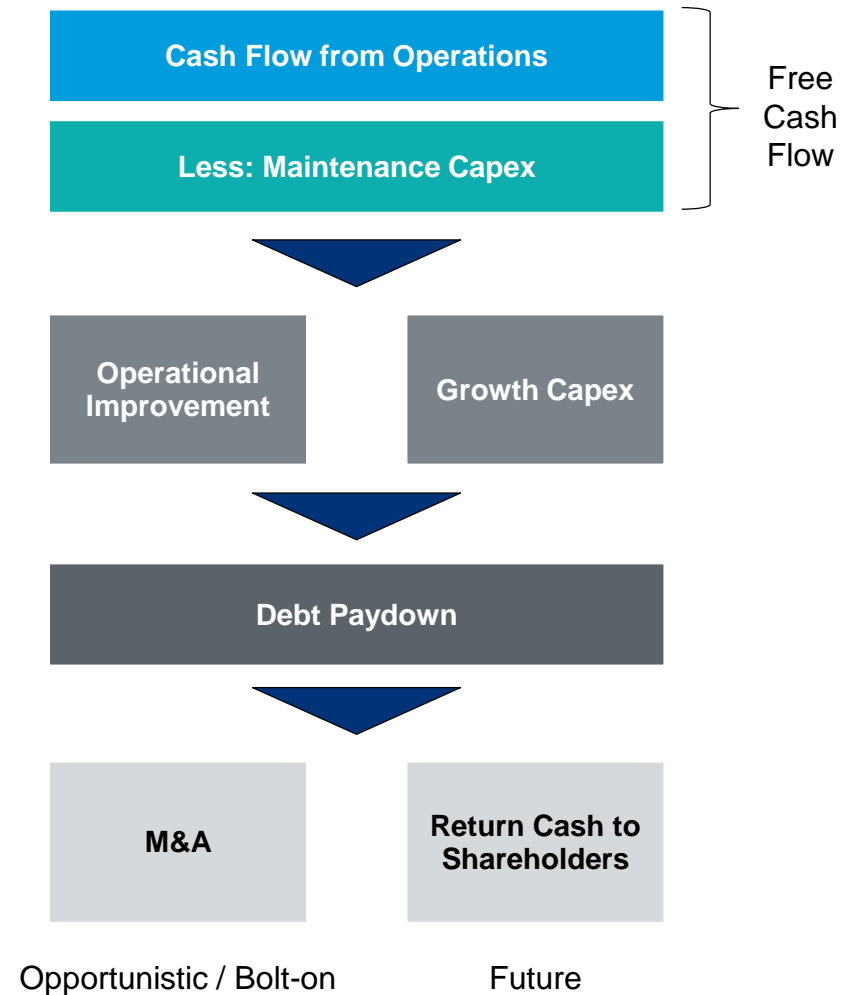
³ Post-IPO leverage is based on LTM 9/30/2017 Adjusted EBITDA and assumes \$507MM IPO, \$32MM of debt-prepayment fees, \$5MM of additional fees, \$3MM of accrued interest and \$21MM of underwriting discount

⁴ Includes expected issuance of our senior unsecured notes due 2025 and subsequent repayment of floating rate notes due 2022 and senior notes due 2022 and the benefit from the August repricing of term loans

⁵ Proforma for the IPO and assumed completion of the offering of our senior unsecured notes due 2025 and related repayment of debt

Capital Allocation Policy

- PQ has strong foundation of operating cash flow
- Moderate maintenance capex allows for funding of growth opportunities
- Strict project management discipline
 - Risk and benefits assessed through stage-gate processes
 - Assessed against ROA target of 20-25%
 - Paybacks have reasonable time frame of 3-5 years
- Debt reduction driven by target leverage:
 - Net debt at 3.0x – 3.5x
- Flexibility to consider bolt-on M&A
 - Attractive returns
 - Portfolio benefit vs. risk profile





Appendix

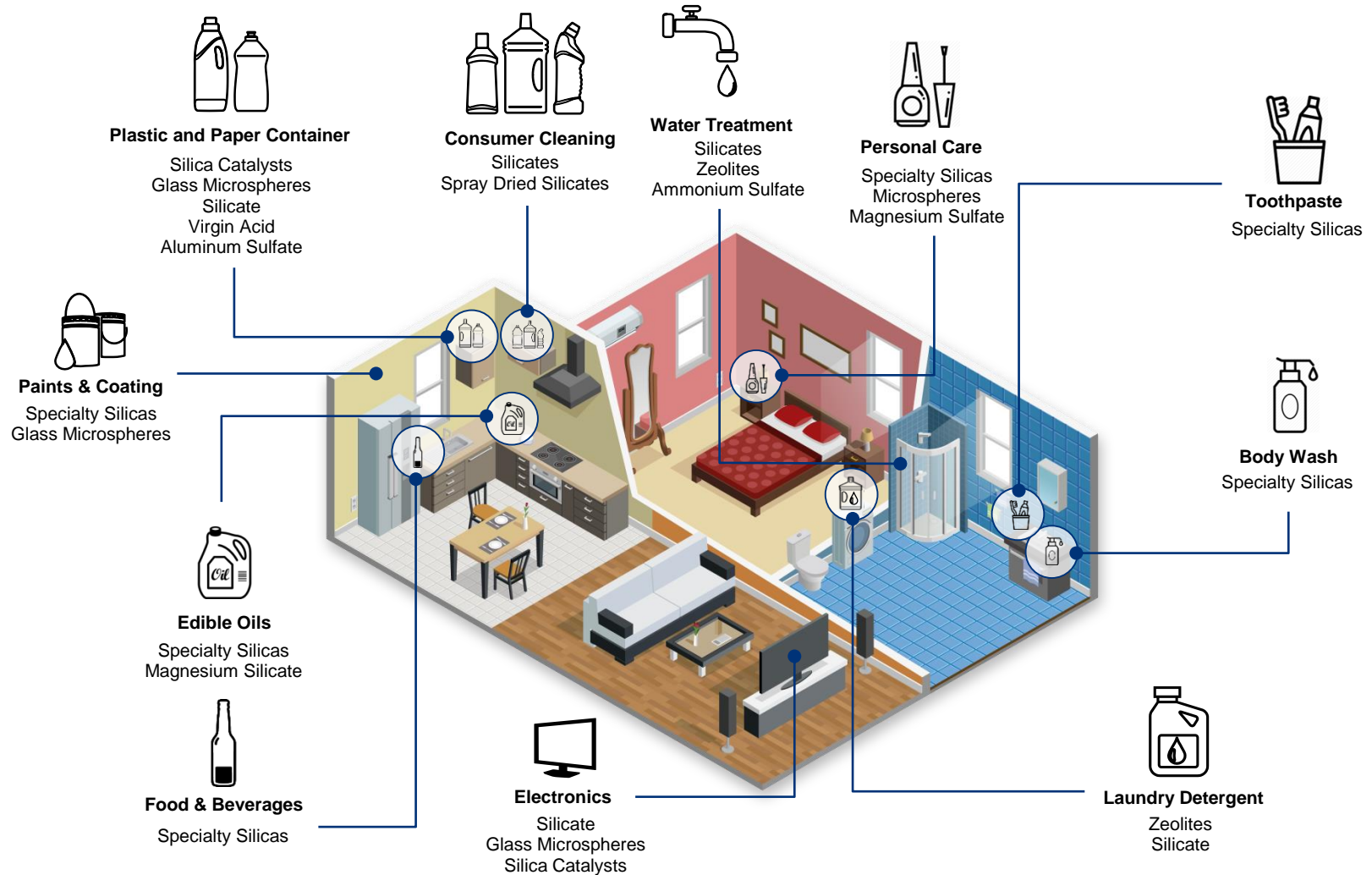
PQ's Products Across the Transportation Industry

Growth driven by more stringent regulatory requirements, performance, and safety



PQ's Products Across the Home

Growth due to increasing customer preferences for high performance and environmentally friendly products



The Road to Cleaner Transportation

PQ Will Benefit Regardless of the Path Taken

		Environmental Catalysts & Services			Performance Materials & Chemicals	
Product Groups		Silica Catalysts	Zeolite Catalysts	Refining Services	Performance Chemicals	Performance Materials
Product Type		Catalysts, Catalyst Supports, and Precursors			Ingredients / Additives	Engineered Materials
Hybrid / Electric	BEV				Green Tires	Highway Safety
	HEV/PHEV	Vehicle Light Weighting	Lubricant Dewaxing	Smaller Turbo Charged Engines		AV Guidance Vehicle Light-weighting
Diesel	Heavy Duty Diesel	Low Sulfur Fuel			Green Tires	Highway Safety
	Light Duty Diesel	Vehicle Light Weighting	NOx Reduction Lubricant Dewaxing			AV Guidance Vehicle Light-weighting



Cleaner Fuel and Hybrid Electric Vehicles Drive PQ Growth

PQ products support multiple trends in clean transportation

Cleaner Combustion Vehicles

- ✓ Majority of emission control sales derived from heavy duty diesel (HDD) vehicle growth
 - HDD 10x catalyst consumption compared to LDD
- ✓ More stringent emission regulations drive higher catalyst consumption in HDD and LDD vehicles
- ✓ Increased demand for hydrocracking catalysts to lower sulfur content in diesel fuels
- ✓ Increased usage of alkylate as more efficient, turbocharged engines require higher octane fuels

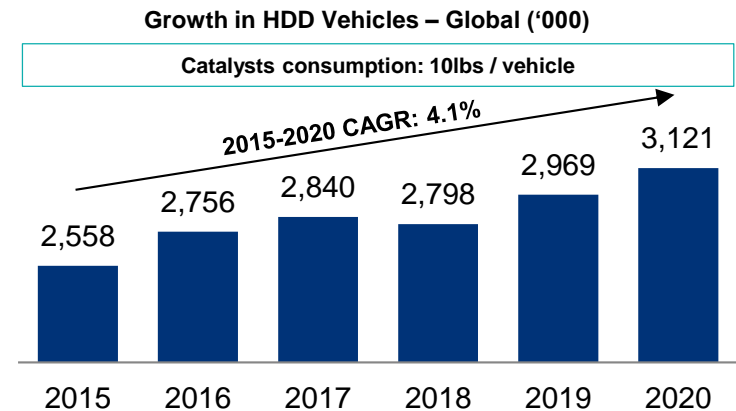
Hybrid Electric Vehicles

- ✓ Higher usage of lightweight plastics to improve performance
- ✓ Adoption of green tires
- ✓ Small turbocharged engines

Estimated Zeolite Consumption Per HDD Vehicle Produced

	Prior	Current	Future Standards
United States	0 lbs pre-2010	10 lbs post-2010	10+ lbs
Europe	0 lbs pre-2013	10 lbs post-2013	10+ lbs
Emerging Markets (primarily India and China)	0 lbs	0 to 5 lbs	5 to 10 lbs

Source: Company Estimates



Source: Industry Reports

Customer Innovation | ThermoDrop®

Years of collaboration has resulted in new road-marking material



Performance Materials

ThermoDrop® Performance

■ No dust



■ Continuous operations



■ Melt time ~50% faster



■ Perfect line with higher retroreflectivity



Value Proposition

- ✓ Continuous manufacturing process
- ✓ Melts 2x faster than conventional product
- ✓ Longer and more safe storage life
- ✓ Reduction in packaging

- Ramping up production after successful commercialization in February 2017
- New capacity planned given strong demand
- Material EBITDA contributor near term based on anticipated customer demands

GAAP Reconciliation

CC. Sales and CC. Adj. EBITDA

	2015	2016	YTD Sep '16	YTD Sep '17	2017 Q3 LTM
CC. Sales					
PM&C net sales	966.1	947.2	738.1	765.9	975.0
(-) Constant currency adjustment	23.0	(2.1)	1.7	-	(3.8)
CC. Sales	943.1	949.3	736.4	765.9	978.8
EC&S Net Sales					
EC&S Net Sales	447.1	457.9	343.7	350.8	465.0
(-) Constant currency adjustment	3.6	0.9	1.1	-	(0.2)
CC. Sales	443.5	457.0	342.6	350.8	465.2
CC. Adjusted EBITDA					
EBITDA	326.1	352.8	250.7	271.0	373.1
Joint venture depreciation, amortization and interest	7.9	10.3	7.9	8.1	10.5
Amortization of investment in affiliate step-up	6.6	5.8	15.3	6.9	(2.6)
Amortization of inventory step-up	-	4.9	5.8	0.9	-
Impairment of long-lived and intangible assets	0.4	6.9	-	-	6.9
Debt extinguishment costs	-	1.8	-	0.5	2.3
Net loss on asset disposals	5.5	4.8	2.9	6.4	8.3
Foreign currency exchange loss (gain)	21.1	(9.0)	1.0	21.6	11.6
Non-cash revaluation of inventory, including LIFO	(2.1)	1.3	0.8	3.2	3.7
Management advisory fees	5.6	5.3	4.0	3.8	5.1
Transaction and other related costs	13.2	2.6	5.3	5.3	2.6
Equity-based and other non-cash compensation	4.2	6.5	4.4	3.9	6.0
Restructuring, integration and business optimization expenses	8.6	17.9	16.2	8.0	9.7
Defined benefit plan pension cost	6.1	2.8	4.0	2.2	1.0
Transition services	4.9	-	-	-	-
Other	5.1	6.0	3.2	2.1	4.9
Adjusted EBITDA	413.1	420.7	321.5	343.9	443.1
(-) Constant currency adjustment	5.9	0.4	1.1	-	(0.7)
CC. Adjusted EBITDA	407.2	420.3	320.4	343.9	443.8

US\$ mm unless otherwise noted.

GAAP Reconciliation (Cont'd)

CC. Sales and CC. Adj. EBITDA

	2014 Legacy PQ	2014 Legacy Eco Successor	2014 Legacy Eco Predecessor
CC. Sales			
Net Sales	1,114.9	35.5	361.8
(-) Constant currency adjustment	129.7	-	-
CC. Sales	985.2	35.5	361.8
CC. Adjusted EBITDA			
EBITDA	206.8	(10.6)	87.7
Joint venture depreciation, amortization and interest	6.9	-	-
Amortization of investment in affiliate step-up	2.4	-	-
Amortization of inventory step-up	-	3.5	-
Impairment of long-lived and intangible assets	-	-	-
Debt extinguishment costs	2.5	-	-
Net loss on asset disposals	0.7	-	-
Foreign currency exchange loss (gain)	23.4	-	-
Non-cash revaluation of inventory, including LIFO	0.8	-	-
Management advisory fees	5.0	0.04	-
Transaction and other related costs	24.4	15.5	-
Equity-based and other non-cash compensation	-	-	0.5
Restructuring, integration and business optimization expenses	4.6	0.2	-
Defined benefit plan pension cost	1.8	-	-
Transition services	-	-	-
Other legacy Eco adjustments	-	-	9.8
Other	8.7	0.5	-
Adjusted EBITDA	288.1	9.1	98.1
(-) Constant currency adjustment	27.1	-	-
CC. Adjusted EBITDA	261.0	9.1	98.1

US\$ mm unless otherwise noted.