

## Cost of Production Model Handbook

*Formerly Quarterly Business Analysis Supplement*



NexantECA **Markets and Profitability program** has been supporting clients for nearly 50 years. **Markets and Profitability** provides accurate data, insightful analysis and dependable long-term forecasts of the profitability, competitive position and supply/demand/trade for over 60 petroleum, gas, petrochemical, polymers, chemical intermediates and fertilizer products.

### Quarterly Business Analysis

NexantECA's Quarterly Business Analysis (QBA) reports offer regular analysis of price movements, margins and profitability for a broad range of commodity petrochemicals, polymers of refined oil products. The reports examine recent developments in profitability of the petrochemical industry, focusing on how recent market issues have shaped production economics. Production economics and competitiveness in today's industry environment are placed in context by providing detailed analysis of the evolution of costs and margins for products along the petrochemical industry value chain..

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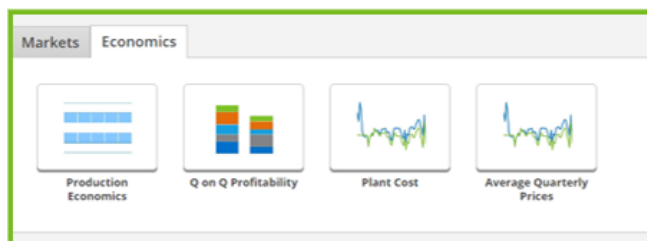
The **Cost of Production Model Handbook** (formerly known as the **Quarterly Business Analysis Supplement**) provides the methodology and assumptions used to generate the archetype cost of production models, included in the QBA reports, which are published at the end of each quarter throughout the year.

This report is specifically geared to provision of technological and cost data, defining the configuration of all archetype plant cost models. Although archetype plants are not modelled directly on any specific production asset, the capacity and process consumption factors of plant models are reviewed, to ensure they reflect the spread demonstrated by actual operating units. The cost of production models presented in this report display the current plant capacity, yield patterns, and utility consumption factors for the models used in the 2022 QBA Program.

The margin analysis makes use of the concept of archetype Leader and Laggard plants whose costs, broadly speaking, span the range of production costs experienced for the product in the regional market. Analysis of production costs and margins for Leaders and Laggards has historically provided valuable insight into the actions of producers and in explaining price movements in petrochemical markets.

Over 600 cost of production models, and the associated profitability analysis, are available to download from the NexantECA Online Database in the client portal.

### NexantECA's Online Database



#### Production Economics

- Models are reviewed annually and pricing data is updated monthly to generate a quarterly average
- Report includes Total Cash Cost and Margin Analysis

#### Average Quarterly Prices

- Historic prices are updated monthly to generate the quarterly average
- Forecast prices are updated annually

In addition to the Quarterly Business Analysis NexantECA also provides long-term profitability and price projections to 2045/50 for the major price setting regions under three distinct crude oil scenarios. NexantECA's robust price forecasting methodology consolidates the many price influences in petrochemical markets.

**For more information contact us at [Markets@NexantECA.com](mailto:Markets@NexantECA.com) or [www.NexantECA.com](http://www.NexantECA.com)**

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## Key Products Analysed

### OLEFINS

Ethylene  
Propylene  
Butadiene  
Mixed C<sub>4</sub>s

### ALPHA OLEFINS

1-Butene  
1-Hexene  
1-Octene  
Higher Alpha Olefins

### AROMATICS

Reformate  
Pygas  
Benzene  
Toluene  
Mixed Xylenes  
Cyclohexane  
Caprolactam  
Ethylbenzene

### POLYOLEFINS

Low Density PE (LDPE)  
Linear Low Density PE (LLDPE)  
High Density PE (HDPE)  
Polypropylene

### BUTADIENE DERIVATIVES

Acrylonitrile Butadiene Styrene  
Styrene Butadiene Rubber  
Butadiene Rubber

### PROPYLENE DERIVATIVES

Acrylic Acid  
Super Absorbent Polymers  
Acrylonitrile  
Cumene  
Phenol  
Acetone  
Bisphenol-A  
Polycarbonate  
Propylene Oxide  
2-Ethylhexanol  
n-Butanol  
i-Butanol  
Ethylene Propylene Diene  
Monomer

### POLYESTER INTERMEDIATES

*para*-Xylene  
*ortho*-Xylene  
Ethylene Oxide  
Mono-Ethylene Glycol  
Purified Terephthalic Acid  
Polyethylene Terephthalate

### STYRENICS

Styrene  
Polystyrene  
Expandable Polystyrene

### POLYURETHANE INTERMEDIATES

Aniline  
Methylene Diphenyl  
Diisocyanate  
Nitrobenzene  
Toluene Diphenyl Diisocyanate

### VINYLS

Chlor-Alkali  
Vinyl Chloride Monomer  
Polyvinyl Chloride

### METHANOL AND DERIVATIVES

Acetic Acid  
Formaldehyde  
Methanol  
Methyl Tertiary Butyl Ether  
Vinyl Acetate Monomer

### FERTILIZERS

Ammonia  
Urea

If you are unable to find a product of interest, please [ContactUs@NexantECA.com](mailto:ContactUs@NexantECA.com)



**NexantECA Subscriptions and Reports** provide clients with comprehensive analytics, forecasts and insights for the chemicals, polymers, energy and cleantech industries. Using a combination of business and technical expertise, with deep and broad understanding of markets, technologies and economics, NexantECA provides solutions that our clients have relied upon for over 50 years.

**Markets and Profitability** tracks over 60 feedstocks, petrochemicals, polymers, chemical intermediates and fertilizers on an ongoing basis and provides regularly updated reports covering all commercial aspects of these global industries. The accompanying database, provides global analysis and forecasts in two major inter-related areas: **Markets and Profitability**.

NexantECA serves its clients from over 10 offices located throughout the Americas, Europe, the Middle East, Africa and Asia.

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