

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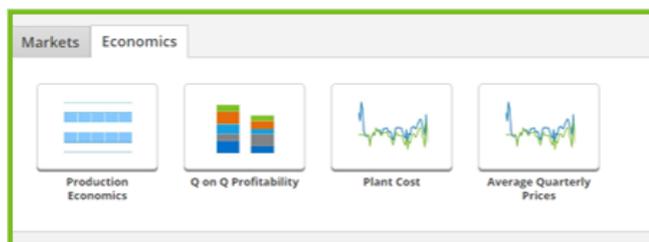
The **Cost of Production Model Handbook** (formerly known as the **Quarterly Business Analysis Supplement**) provides the methodology and assumptions used to generate the archetype cost of production models, included in the QBA reports, which are published at the end of each quarter throughout the year.

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 or www.NexantECA.com

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Key Products Analysed

OLEFINS

Ethylene
Propylene
Butadiene
Mixed C₄s

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

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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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