

Planning and economics of refinery operations

19–22 October 2010, London, UK

EI member £2,585.00 inc VAT Non-member £2,820.00 inc VAT*

*includes complimentary Affiliate membership to the Energy Institute



This intensive, 4-day course will enable delegates to understand the essential elements of refinery operations and investment economics, to review the various parameters which affect refinery profitability and to develop a working knowledge of the management tools used in the refining industry.

Course content

Technical resumé

Review of petroleum products' applications, characteristics and specifications. Main refining process units. Refining schemes.

Basic economics of the various process units.

Refinery margins and costs

Crude oil, product markets and prices. Analysis of refining costs.

The calculation of refining margins. How refining margins have developed.

Refinery simulation

Simulation of product manufacturing using spreadsheets. Analysis of the main constraints affecting product manufacturing.

Present situation of the refining industry

The development of refining capacities, product demand, different refining schemes and conversion plants.

Optimisation of refinery operations

Basics of Linear Programming (LP). The 'Simplex' method. Simplified example of refinery modelisation. Analysis of an LP solution: material balance, marginal costs, opportunity costs, incentives to construction. Sensitivity analysis.

Construction of a new process unit:

Economic evaluation

Basics of profitability analysis.

Case study: construction of a new isomerisation unit

– simulation of material balance

– cash flow calculation

– investment and cost

– Internal Rate of Return calculation

Scheduling of refinery operations

Review of scheduling problems.

Control of results and practical application in a refinery.

How to improve refinery profitability

Future of the refining industry. Forecast development of oil consumption.

Environmental constraints. Impact on refining economics.

Delegates will learn:

- How to assess the latest trends in product specifications, process unit yields and refining schemes
- How to calculate product value, refinery margins and process unit margins
- How costs and margins compare
- How to simulate refinery operations and product blending
- How to optimise refinery operations, crude oil selection and product manufacturing
- How to analyse marginal costs from the optimisation of an LP model
- How to schedule refinery operations from the monthly plan to daily operations
- How to evaluate the profitability of a new process unit.

Who should attend?

- Technical, operating and engineering personnel working in the refining industry
- Analysts and planners
- Trading and commercial specialists



Registration form

To register, by post or fax, please complete this registration form in BLOCK CAPITALS and return it to the address below, together with payment of all fees.

Nick Wilkinson, EI Oil and Gas Training, Energy Institute, 61 New Cavendish Street, London W1G 7AR, UK
 f: +44 (0)20 7255 1472

To register by email, please provide the same contact details (shown below), together with the relevant course details and send to: nwilkinson@energyinst.org To book online, visit: www.energyinst.org

I am/my employer is a member of the EI and entitled to the EI member's rate. EI Membership Number:

Family name: Mr/Mrs/Miss/Ms/Dr/Other:

Given name(s): Name to be used on badge:

Job title or present position:

Company/Organisation:

Name and address against which an invoice should be raised:

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Mailing address for joining instructions (if different to invoice address above):

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Please indicate if you have any particular dietary requirements:

I confirm that I have read and agree to the conditions of registration as specified in the General Information section.

Signature: Date:

Under UK Excise Regulations, delegates from all countries are required to pay VAT on any course taking place in the UK.

Course Title:

Course date: Cost of course: £

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Course date: Cost of course: £

Less 10% discount for each **subsequent** delegate from the **same** company attending the **same** course on the **same** date £

TOTAL PAYMENT £

The total amount may be paid by Sterling Cheque or Draft drawn on a bank in the UK.

I enclose my remittance, made payable to the Energy Institute, for: £inc VAT

To pay by Credit or Charge Card, circle appropriate card name and give card details below:



Card No: _ _ _ _ / _ _ _ _ / _ _ _ _ / _ _ _ _ Start Date _ _ / _ _ Expiry Date _ _ / _ _

Please enter your 3-digit* security code above. This will be deleted upon authorisation. *4-digits for Amex users.

Credit/Charge card holder's name and address:

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General information

Payment

Full payment must be received before a place can be guaranteed. Under UK Excise Regulations, delegates from all countries are required to pay VAT on any event taking place in the UK. Please note that VAT may be liable to amendment. All prices are correct at the time of going to press, but may be subject to change without prior notice.

Acknowledgement of registration

Confirmation of registration and a VAT receipt will be sent to all delegates. Joining instructions will be sent out prior to the start date of the course. If you have not received your acknowledgement seven days prior to the start date of the course, please contact EI Oil and Gas Training at the Energy Institute to confirm your booking.

Language and course materials

All presentations, course materials and supporting documentation will be presented in English.

Cancellation

In the event of a delegate cancelling, a refund of the registration fee less a 20% administration charge will be made provided that notice is received in writing at least 28 days before the date of the course. No refunds will be paid after that date. However, course papers, as supplied to attendees, will be provided after the event.

Substitution

If you are unable to attend, a substitute delegate may attend in your place, provided that EI Oil and Gas Training is notified in advance.

Enquiries

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About the course provider

The Energy Institute (EI) is the leading professional body for the energy industries, representing almost 12,000 professionals both nationally and internationally.

A Royal Charter membership organisation, the Energy Institute serves society with independence, professionalism and a wealth of expertise in energy matters, creating a home for energy professionals and a scientific and technical reservoir for industry. It is licensed by the Engineering Council (UK) to offer Chartered, Incorporated and Engineering Technician status to engineers.

The Energy Institute (EI) cannot accept any liability for any loss, cost or expense suffered or incurred by

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DATA PROTECTION ACT

The EI will hold your personal data on its computer database. This information may be accessed, retrieved and used by the EI and its associates for normal administrative purposes. If you are based outside the European Economic Area (the 'EEA'), information about you may be transferred outside the EEA. The EI may also periodically send you information on membership, training courses, events, conferences and publications in which you may be interested. If you do not wish to receive such information, please tick this box

The EI would also like to share your personal information with carefully selected third parties in order to provide you with information on other events and benefits that may be of interest to you. Your data may be managed by a third party in the capacity of a list processor only and the data owner will at all times be the EI. If you are happy for your details to be used in this way, please tick this box