

This document includes a report summary, a table of contents, report format and price information, and an order form.

Report Summary

This 106 page report covers the physical and commercial aspects of the Dutch natural gas market, and its role in the wider European gas market. Key market trends, including the growth of trading liquidity, are highlighted in 35 tables, 28 charts and 5 maps.

Chapter 1 – The Trading Market: this chapter reviews the development and state of trading liquidity in the Dutch gas market. It assesses the total volume of trading on exchanges and in the OTC broker and bilateral trading markets. The contracts and instruments traded are reviewed, along with the exchange platforms and OTC markets in which they are traded. The practicalities involved in physical gas trading are discussed – balancing, capacity, quality conversion and flexibility. The chapter concludes with a review of price formation in the Dutch market, and the development of both wholesale and end-user gas prices.

Chapter 2 – Energy Policy and Regulation: this chapter reviews Dutch energy policy and outlines relevant energy market legislation. The history of the Dutch gas industry, including the role of the state in the industry, is briefly described. The chapter also reviews the European gas directives and energy regulation, and the Dutch experience in the implementation of gas market liberalisation.

Chapter 3 - Gas Market Fundamentals: this chapter provides an overview of the fundamentals of Dutch gas supply and demand. The production of gas, policies and prospects for future gas production and upstream activity by major players are discussed. The chapter reviews the consumption of gas within the Netherlands, including analysis of new gas-fired power projects. It concludes with a review of import and export flows and sources of gas system flexibility.

Chapter 4 - Infrastructure: this chapter describes the gas system infrastructure in the Netherlands, including the pipeline network, the new Gate LNG terminal being built in Rotterdam, as well as existing and planned storage facilities.

Chapter 5 – Market Participants: this chapter provides profiles of the key players in the Dutch

gas market, and includes a review of important mergers and acquisitions over the past few years.

Chapter 6 – Appendix: this chapter describes the different qualities and types of natural gas, and explains the units, unit conversion factors and rounding conventions used in this report.

We estimate that the total volume of gas changing hands in all TTF-related trading activity during 2010 was nearly 5,400 TWh (including exchange-traded spot and futures contracts, cleared OTC trades, and bilateral OTC trades). Volumes have increased almost 20-fold in the last five years and by 59% between 2009 and 2010.

*To order this report
please fill in the
last page and fax it
to us on
+44 20 7900 3844*

Table of Contents

1	The Trading Market	8
1.1	European Gas Trading Context	8
1.2	Traded Instruments	11
1.3	Dutch Trading Volumes	15
1.4	Markets and Exchanges	18
1.4.1	Title Transfer Facility	18
1.4.2	Exchange Trading	20
1.4.3	APX Gas NL	22
1.4.4	Endex	25
1.4.5	ICE Futures Europe	26
1.4.6	EEX	28
1.4.7	OTC Trading	29
1.5	Physical Trading Practicalities	32
1.5.1	Balancing Obligations	32
1.5.2	Access to Transmission Capacity	35
1.5.3	Quality Conversion	39
1.5.4	Access to Storage and Flexibility	40
1.6	Gas Price Trends and Drivers	41
1.7	End-User Gas Prices	46
2	Energy Policy and Regulation	49
2.1	Dutch Energy Policy	49
2.1.1	Upstream Legislation	51
2.1.2	Downstream Legislation	52
2.1.3	Gas Industry Structure	53
2.2	Development of Regulation	55
3	Gas Market Fundamentals	58
3.1	Gas Reserves and Production	58
3.1.1	Gas Reserves	58
3.1.2	Gas Production	60
3.1.3	Production Policy and Outlook	63
3.1.4	Upstream Activity	64
3.1.5	Unconventional Gas	65
3.1.6	Upstream Market Participants	66
3.2	Gas Consumption	70
3.2.1	Dutch Gas Demand	70
3.2.2	Power Sector Demand	72
3.3	Imports and Exports	75
3.4	Gas System Flexibility	77
4	Infrastructure	80
4.1	Gas Transport Network	80
4.2	LNG Terminals	87
4.3	Storage Facilities	87
5	Market Participants	93
5.1	European Market Players	93
5.2	Dutch Trading Market Participants	94
5.3	Dutch Gas Suppliers	98
5.3.1	GasTerra	98
5.3.2	Essent (RWE)	99
5.3.3	Eneco	100
5.3.4	Nuon Energy	100
5.3.5	Delta	101
5.3.6	GDF Suez	101
5.3.7	DONG Energy	101
5.3.8	Distrigas	101
5.4	Mergers and Acquisitions	102
6	Appendix	103
6.1	Qualities and Types of Natural Gas	103
6.2	Units and Conversions	103
6.3	Rounding	105

Tables

Table 1	European Gas Hub Nominated Trading Volumes, 2009 - 2010	8
Table 2	NW European Gas Hub Nominated Trade Volumes, 2006 - 2010	10
Table 3	Total Dutch Gas Trading Volumes, 2006 - 2010	16
Table 4	Exchange-Traded Products in the Dutch Gas Market, 2011	21
Table 5	Dutch Gas Exchange Trading Volumes, 2006 - 2010	22
Table 6	APX Gas NL Exchange Trading Fees	23
Table 7	Endex TTF Gas Futures Exchange Trading Fees	25
Table 8	ICE TTF Gas Futures Exchange Trading Fees	27
Table 9	EEX TTF Gas Spot Exchange Trading Fees	29
Table 10	Major Brokers in the Dutch Gas Market, 2011	31
Table 11	Key Reference Prices in the TTF Market	41
Table 12	Dutch Gas Reserves, as of January 2010	59
Table 13	Dutch Gas Production, 2009 - 2010	62
Table 14	Dutch Gas Production Forecasts, 2010 - 2034	64
Table 15	Market Share of Major Dutch Gas Producers, 2010	67
Table 16	Dutch Gas Consumption by Sector, 2009 - 2010	72
Table 17	Dutch Major Power Plant Projects, as of April 2011	74
Table 18	Dutch Gas Imports and Exports, 2009 - 2010	76
Table 19	Seasonal Flexibility in Northern Europe, 2010	78
Table 20	GTS Network Licensed Shippers, as of April 2011	83
Table 21	BBL Registered Shippers, as of April 2011	85
Table 22	Major Dutch Cross-Border Gas Network Interconnections, 2011	86
Table 23	Dutch Planned LNG Terminal, 2011	87
Table 24	Dutch Gas Storage Facilities, 2011	88
Table 25	Alkmaar PGI Bundled Storage Services, for year beginning April 2011	89
Table 26	Grijpskerk Bundled Storage Services, for year beginning April 2011	89
Table 27	Dutch Planned Gas Storage Facilities, 2011	90
Table 28	Existing German Storage Connected to the Dutch Network, 2011	91
Table 29	Planned German Storage Connected to the Dutch Network, 2011	91
Table 30	Top 10 Companies by European Gas Sales, 2010	93
Table 31	Dutch Gas Hub and Exchange Participants, as of April 2011	95
Table 32	Dutch Gas Market Participants, 2010	98
Table 33	Dutch Gas Mergers and Acquisitions Since Full Market Opening, as of April 2011	102
Table 34	Gas Units and Conversion Factors	104
Table 35	Energy Content of European and Dutch Gas	104

Charts

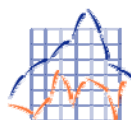
Chart 1	NW European Gas Hub Nominated Trade Volumes, 2006 - 2010	10
Chart 2	Dutch Trading Volumes, 2006 - 2010	15
Chart 3	Monthly Trading Volume at TTF, Jan 2003 to Mar 2011	19
Chart 4	Dutch Gas Exchange Trading Volumes, 2006 - 2010	22
Chart 5	APX Gas NL Monthly Gas Trading Volumes, Jan 2006 to Apr 2011	24
Chart 6	Endex Monthly Gas Trading Volumes, Mar 2006 to Apr 2011	26
Chart 7	ICE Monthly TTF Gas Trading Volumes, Mar 2010 to Apr 2011	28
Chart 8	Estimated Share of OTC Clearing in Dutch Gas Trade, 2006 - 2010	30
Chart 9	Western European Average Gas Transport Tariffs, 2010	36
Chart 10	TTF, NBP and NCG Day-Ahead Gas Prices, Apr 2006 to Apr 2011	42
Chart 11	UK NBP and German Border Gas Prices, Jan 2005 to Apr 2011	44
Chart 12	European Household Gas Prices, 2H 2010	47
Chart 13	European Industrial Gas Prices, 2H 2010	48
Chart 14	Dutch Gas Industry Structure Prior to Liberalisation	53
Chart 15	Dutch Gas Industry Structure in 2011	54
Chart 16	European Gas Reserves by Country, as of January 2010	58
Chart 17	Dutch Estimated Total Remaining Gas Reserves, 1980 - 2010	60
Chart 18	European Gas Production by Country, 2010	61
Chart 19	Dutch Gas Production, 1980 - 2010	62
Chart 20	Dutch Exploration Activity, 1990 - 2010	64
Chart 21	Dutch Natural Gas Revenues, 1970 - 2014	70
Chart 22	European Gas Consumption, 2010	71
Chart 23	Dutch Gas Consumption by Sector, 2010	72
Chart 24	Dutch Power Generation Fuel Mix, 2009	73
Chart 25	Dutch Gas Exports by Country, 2010	76
Chart 26	Seasonal Flexibility in Northern Europe, 2010	78

Chart 27	Dutch Cross-Border Gas Connections Schematic, 2011	82
Chart 28	Top 10 Companies by European Gas Sales, 2010	93

Maps

Map 1	North-West European Gas Hubs, 2011	9
Map 2	Dutch Gas Fields and Upstream Pipelines, 2011	59
Map 3	Key Dutch Gas Transmission Pipelines, 2011	81
Map 4	Dutch Cross-Border Gas Connections, 2011	84
Map 5	Dutch Gas Storage Facility Locations, 2011	88

About the Authors



**Kingston Energy
Consulting**

Mary Jackson and Nigel Harris are independent energy market consultants. Each has over 20 years experience of working with energy traders, providing analysis, training, information and technology services to companies engaged in the oil, gas and electricity markets. Mary and Nigel regularly write, speak and lecture on the gas markets and energy trading. Analysts at Prospex Research developed the report structure and assisted Mary and Nigel during the project. Kingston Energy Consulting is a consulting company that specialises in energy markets and energy market information. Its services are aimed at companies that trade in the oil, gas and power markets and at the information and software companies that serve them.

Kingston Energy Consulting Ltd

tel: +44 (0) 870 751 0680
fax: +44 (0) 870 751 0681
e-mail: info@kingstonenergy.com
web: www.kingstonenergy.com

About Prospex Research



Prospex Research analyses the European energy business, focusing on wholesale markets for power, gas, coal and emissions allowances. Prospex is independent and committed to relevant, accurate and unrestricted reporting and analysis. It does not accept sponsorship that would compromise this commitment.

Prospex Research Ltd

tel: +44 (0) 20 3239 9905
fax: +44 (0) 20 7900 3844
e-mail: info@prospex.co.uk
web: www.prospex.co.uk

Other Recent Reports

European Power Trading 2011, May 2011

This 152 page report offers a comprehensive analysis of the European power trading market, the leading exchanges and brokers, top trading players, power industry fundamentals, and EU power market policies. The market's scale and trends are tracked in 35 tables and 42 charts.

European Emissions Trading 2011, January 2011

This 80 page report offers a comprehensive analysis of the emissions trading market, the brokers and exchanges, global and EU policies, and more. The market's dimensions and trends are profiled in 26 tables and 34 charts.

European Gas Trading 2010, October 2010

This 257 page report offers a comprehensive analysis of the trading market, the brokers and exchanges, EU competition and environmental policy factors, top industry players, and more. The market's dimensions and trends are profiled in 94 tables and 63 charts.

German Gas Market 2010, May 2010

This 123 page report covers the physical and commercial aspects of the German natural gas market, and its role in the wider European gas market. Key market trends, including the growth of trading liquidity, are highlighted in 33 tables, 24 charts and 9 maps.

UK Gas Market 2010, May 2010

This 104 page report covers the physical and commercial aspects of the UK natural gas market and its role in the wider European gas business. Key market trends are tracked in 33 tables, 25 charts and 6 maps.

European Coal Trading 2010, December 2009

This 100 page report covers the global coal market context of European trading, market fundamentals inside Europe, the emissions policy factor, trading volumes, products and players, and more. It is based on wide-ranging research and interviews with leading players in all major European markets. Market and industry indicators are also provided in 31 tables and 52 charts.

Report Format and Price and Info



Dutch Gas Market 2011 will be sent to you by e-mail in electronic format (Adobe Acrobat) in one of two different versions, depending on your needs:

- **Individual User:** one electronic file for individual use only. The file may be printed only once and cannot be copied or redistributed in any format. This version costs **£895** (pounds sterling) or ~ €1,034 (euros).
- **Multiple User:** this version can be used by more than one person or, in the case of five or more users, even placed on your company's intranet. See the table below for multiple user pricing and savings in pounds sterling.

Number of users	2	3	4	unlimited
Full price, £ (pound sterling)	1,790	2,685	3,580	4,475
Multiple user savings on cover price	251	463	746	1,197
Multiple user price	1,539	2,222	2,834	3,278
10% discount for previous buyers	154	222	283	328
Multiple user price for previous report buyers	1,385	2,000	2,550	2,950

[
]

A 10% discount is available to previous report buyers.

Value Added Tax (VAT): UK purchasers please add 20% VAT. Purchasers from any other EU member state must state their VAT registration number on the order form.

