



The Brattle Group

Energy Mergers: What Really Matters to the Competition Authority?

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What Really Matters?

- Merger approval a complex legal process
 - ▶ Form-filling, timetables and deadlines, data requests, lengthy reports etc
- But underlying almost any merger is a very small number of key issues
 - ▶ Analytically—while many parts are routine, there is typically a tough “analytical core” of difficult issues
 - ▶ Politically—not all authorities will start off with an open mind (and even then, “an open mind is not an empty mind...”)
- Economic expertise key to dealing effectively with the “analytical core”

Energy mergers: three case studies

Three recent cases, in each case identify key issues:

- **GdF/Suez**
 - ▶ Access to infrastructure
- **Nuon/Essent**
 - ▶ Cross-border competition
- **Gas Natural/Endesa**
 - ▶ Gas-electric convergence
 - ▶ Retail competition between gas and electric incumbents

The Sector Inquiry was the backdrop to GdF/Suez...

- February 2006, DG Comp publishes preliminary findings of the Sector Inquiry.
On gas markets:
 - ▶ *“At the wholesale level, markets generally maintain the high level of concentration of the pre-liberalisation period.”*
 - ▶ *“Lack of liquidity and limited access to infrastructure prevent new entrant suppliers from offering their services to the consumer.”*
 - ▶ *“Cross-border sales do not presently exert any significant competitive pressure.”*
- Ongoing internal discussions in Commission leading to January 2007 Energy Package
 - ▶ Sector Inquiry findings very influential
 - ▶ Access to infrastructure, ownership unbundling, ISOs central to the discussions
- May 2006, GdF/Suez notified to the Commission

...and had major influence on the merger process and remedies.

- Easy to guess DG Comp perception at time of merger notification
- *“Belgium exemplifies the problems we have found*
 - ▶ *and GdF is the only significant entrant*
 - ▶ *time to get tough!*
- *Suez controls Belgian infrastructure*
 - ▶ *focus on remedies that address infrastructure*
 - ▶ *(as icing on the cake, they can provide a blueprint for ‘third package’ proposals)”*

GdF/Suez: supply activities in Belgium

<u>Pre-merger</u>			<u>Post-merger (and remedies)</u>		
	Gas	Electricity		Gas	Electricity
GdF	GdF SPE	SPE	GdF/Suez	GdF ECS	Electrabel
Suez	Distrigaz ECS	Electrabel	SPE	SPE	SPE
			Distrigaz	Distrigaz*	

*Distrigaz pre-contracted to sell gas to ECS, Electrabel

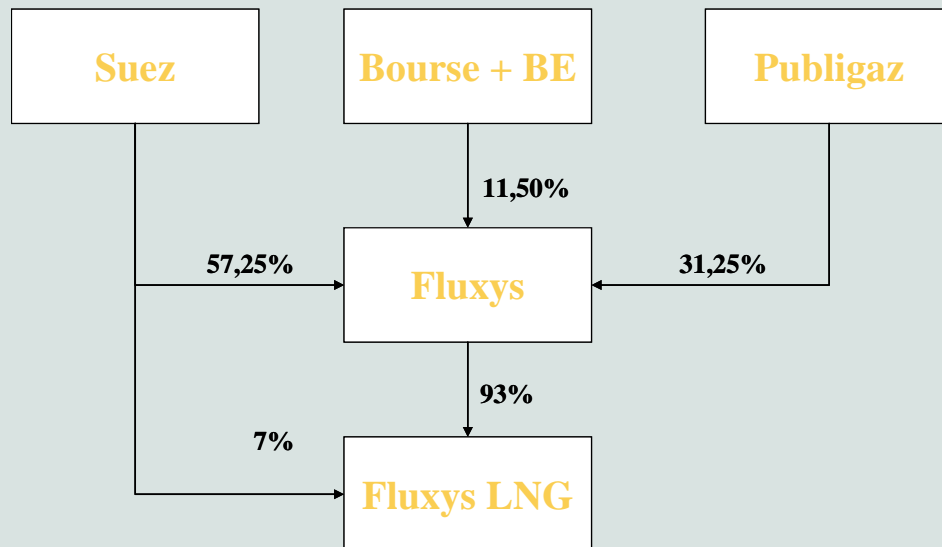
GdF/Suez remedies: gas infrastructure in Belgium

	<u>Pre-merger</u>
Transmission	Fluxys
Transit	Distrigaz & Co
Storage	Fluxys
LNG	Fluxys LNG

<u>Post-merger (and remedies)</u>
Fluxys
Fluxys
Fluxys
ownership: Fluxys International
control: Fluxys

GdF/Suez remedies: gas infrastructure ownership

Pre-merger



Post-merger (and remedies)

- Fluxys and Fluxys LNG re-organise as:
 - Fluxys (operates all regulated infrastructure)
 - Fluxys Intl
- GdF/Suez owns max 45% of Fluxys
- GdF/Suez owns max 60% of Fluxys Intl

Remedies linked to January Energy Package

Elements of ownership unbundling

- GdF/Suez no longer majority shareholder in Fluxys, and no longer the largest shareholder (Publigaz also 45%)
- Detailed commitments to limit influence over Fluxys
 - ▶ No more than 7/21 representatives on Board
 - ▶ Board gives significant autonomy to executive committee within Fluxys, in particular w.r.t. management and investment decisions

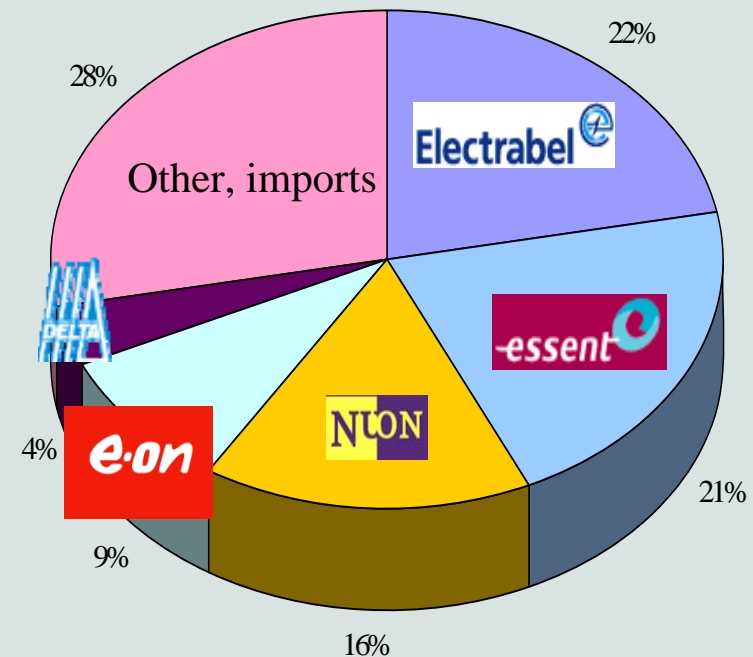
Independent System Operator

- Zeebrugge LNG belongs to Fluxys Intl, but Fluxys operates
- Fluxys executive committee determines investment plan for LNG terminal
- Fluxys Intl has limited rights to reject plan
- If it does reject plan, Fluxys can look to third parties for funding, including if necessary by opening capital of Fluxys Intl

Nuon/Essent: cross-border competition

- Proponents of a Dutch power sector “national champion” argue that:
 - ▶ Nuon and Essent merger is last chance to preserve a strong Dutch player
 - ▶ Dutch power market is part of a regional market, so no competition concerns
- Most competition economists’ instinct:
 - ▶ If the market is the Netherlands, then Nuon/Essent merger is a major concentration
 - ▶ If the market is much bigger then merger is much less likely to cause problems

Shares of Dutch peak market, by capacity



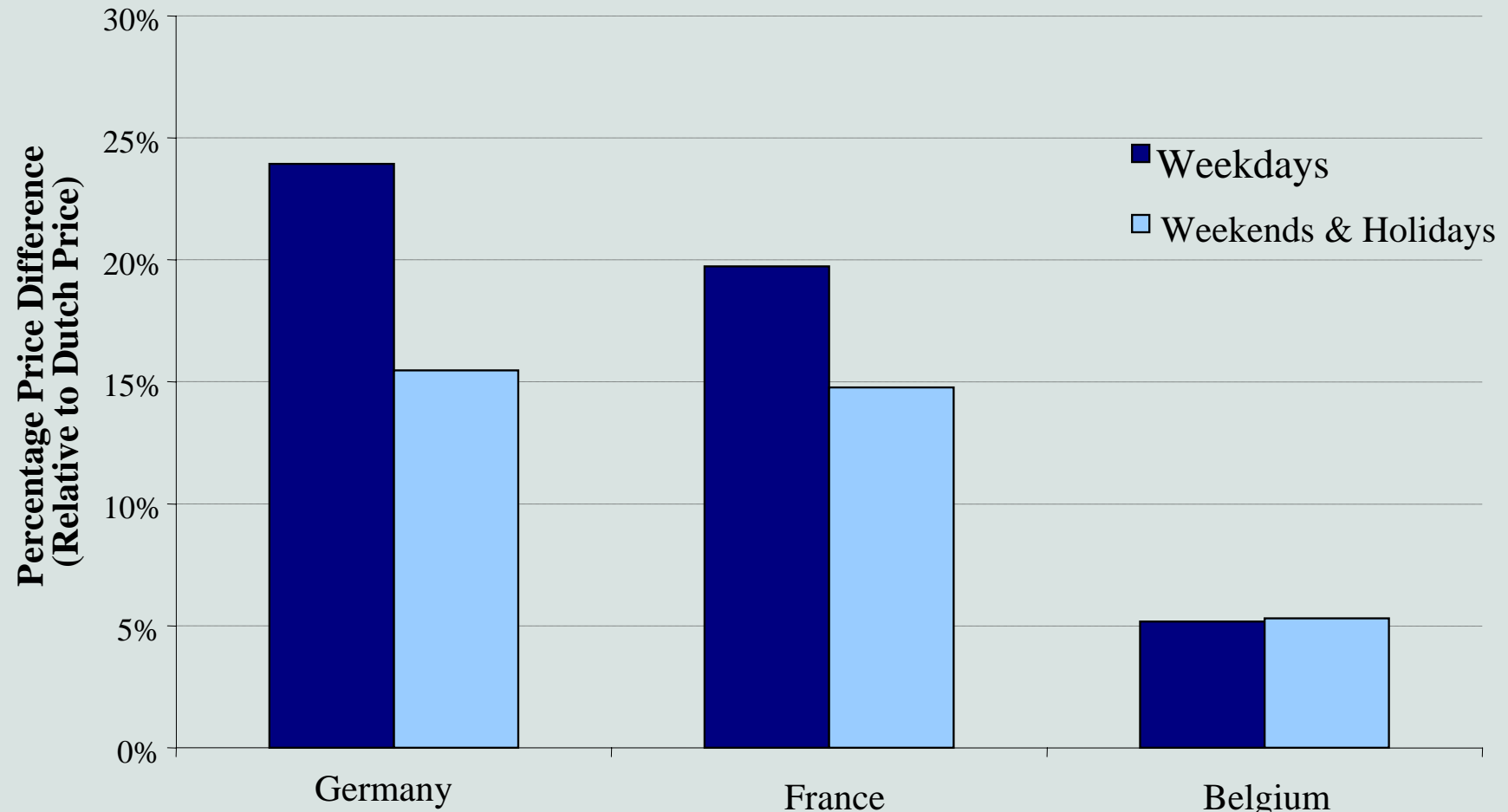
Nuon/Essent

- The cross-border competition issue pre-dated merger notification.
 - NMa retained Brattle to study the issue, published study¹ (co-author Prof Newbery, Cambridge University)
- June 2006, consulted on “*Mergers on the Energy Markets in the Netherlands and a Possible North-West European Market*”
- Key focus of Brattle report: is the relevant market national or regional?
- 17 March 2007: Nuon and Essent notify NMa of proposed merger²

1. http://www.nmanet.nl/Images/Brattle%20Group%20NMa%20Geog%20rapport%20fusies%20energiesector%20June%202006_tcm16-87916.pdf

2. **Note that The Brattle Group has not advised NMa/DTe or any party on the notified merger. This presentation reflects only publicly available information.**

Evidence from historic prices (2005)

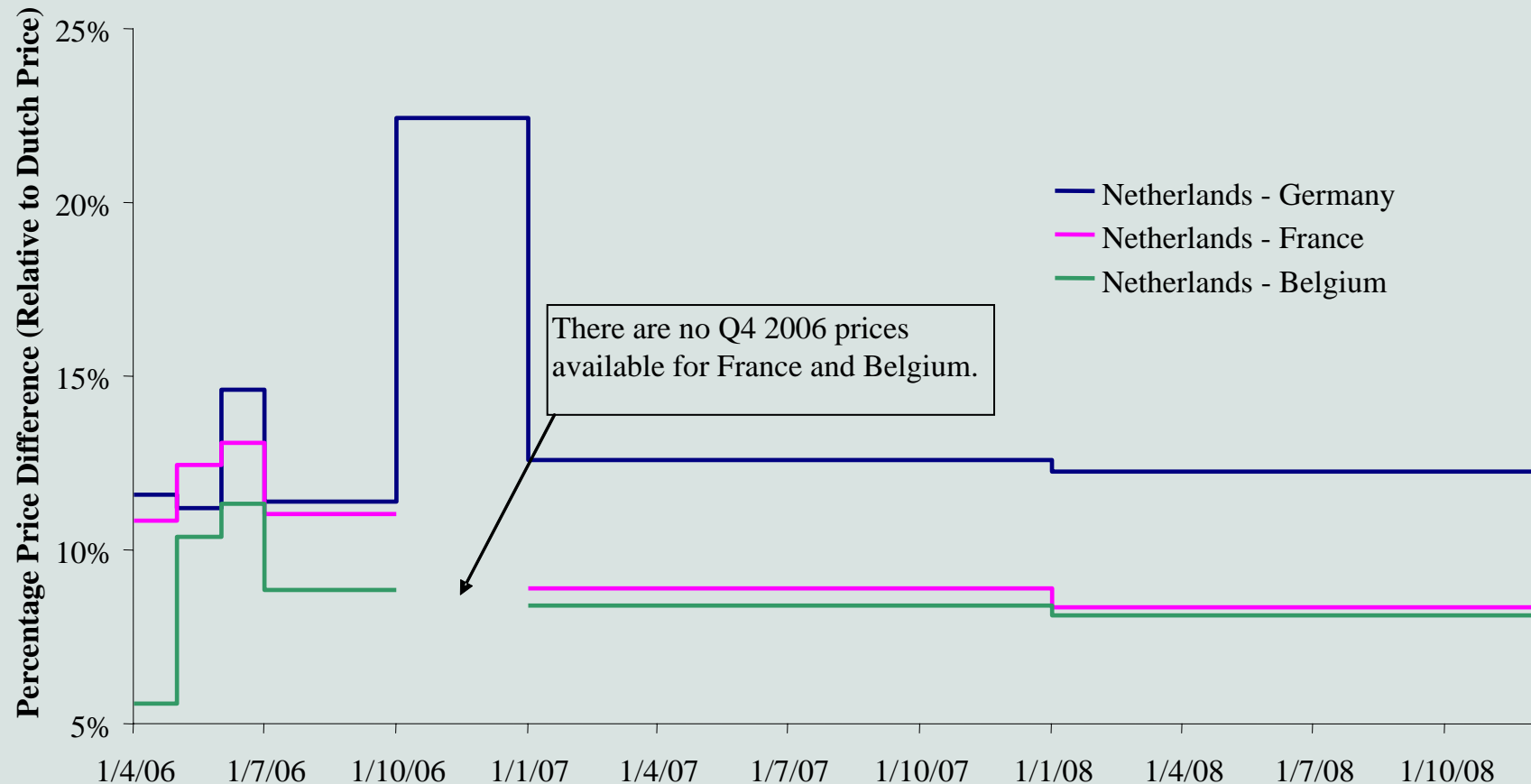


Source: Platts.

Note: A positive price difference indicates the price in the Netherlands exceeding the price in the neighbouring country.

Market evidence suggested price differences would persist

Cross-Border Forward Power Price Differentials 2006-2008

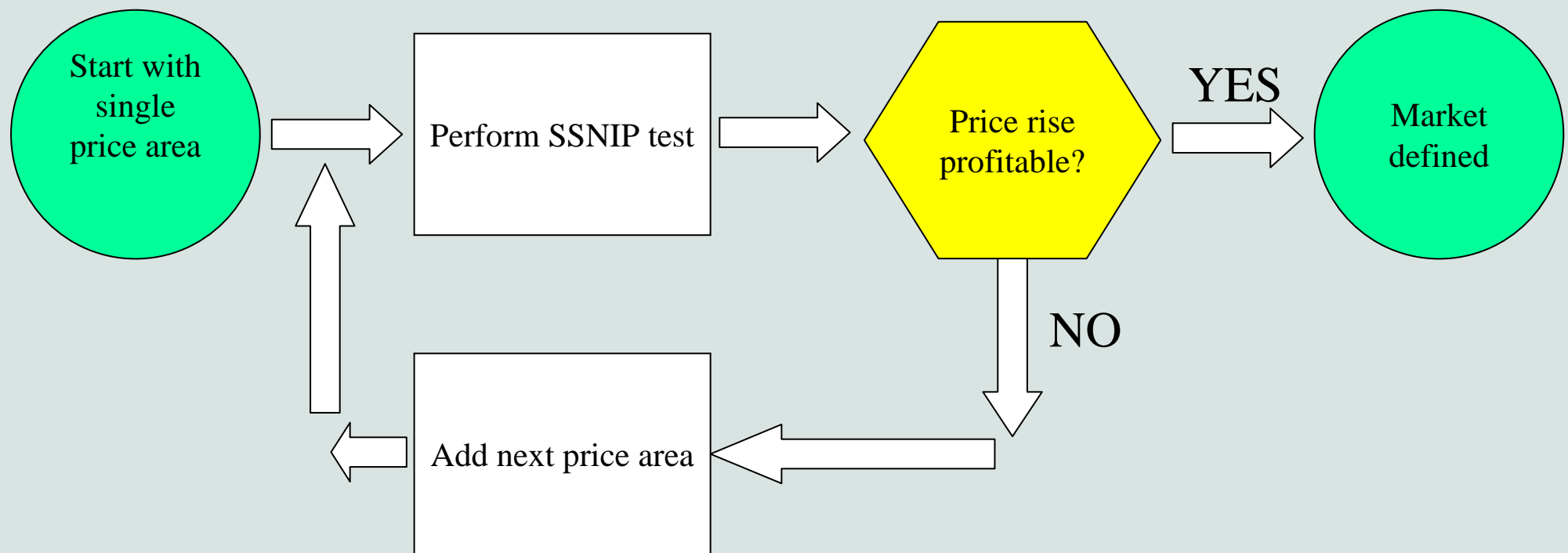


Source: Platts European Power Daily, March 21, 2006.

Note: A positive price difference indicates the price in the Netherlands exceeding the price in the neighbouring countries.

‘Small but Significant and Non-transitory Increase in Price’ test

- The SSNIP test defines geographic and product markets:
 - An area defines a geographic market if competitive pressure from outside it cannot sufficiently constrain price rises.

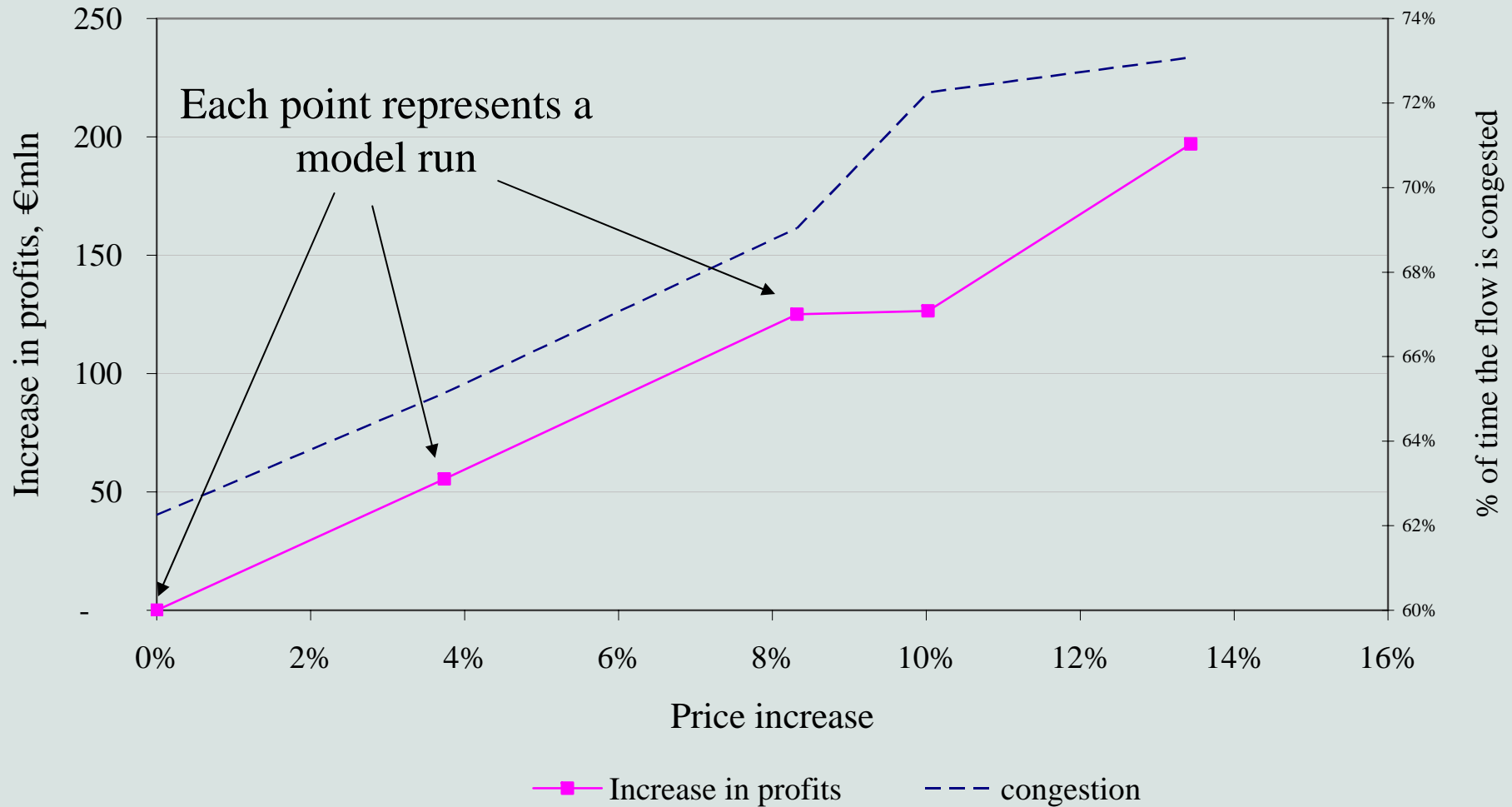


Key points for market definition in wholesale power

The key factors in determining the geographic area are:

- Interconnector capacity and the current level of constraints – is there spare capacity for imports?
- The supply curve outside the area – are there cheaper imports waiting?
- We used our proprietary electricity market model to apply the SSNIP test to the Dutch market
- The model reports the change in profits as a hypothetical Dutch monopolist raises its offer price for electricity
- We found that for ‘peak’ hours, the Netherlands defines the market

SSNIP test: increase in profit as a function of price increase, 2008



Gas Natural/Endesa

- What really counted: mostly this was politics, politics, politics!
- But...Spanish court decisions were based on the merits of the case
 - ▶ On the merits, two key analytical issues
- First, retail competition (i.e., households and small commercial users)
 - ▶ typically the electricity incumbent has one credible competitor: the gas incumbent, and vice versa
 - ▶ In Cataluna this meant Gas Natural and Endesa
- Second, vertical integration between gas supply and power generation

Gas-electric vertical issue

Gas Natural (GN) is able to raise the price of gas in Spain:

- Other gas suppliers cannot satisfy the market without GN's gas
- Their supplies are constrained by LNG import contracts
- New import contracts would take around 30 months to arrange

Increasing gas prices raises GN's profits via two channels:

The gas market

- Most obviously, higher gas prices earn GN higher profits on gas sales

The electricity market

- In Spain, gas-fired plant are “marginal” (so set electricity prices) in nearly all hours
- Raising gas prices will therefore raise electricity prices
- Profits will increase for GN's “inframarginal” generating units

The merger would increase GN's incentive to raise Spanish gas prices

Before the merger

- GN has only 4,000 MW of plant; the gas market is the main source of extra profits from raising gas prices.

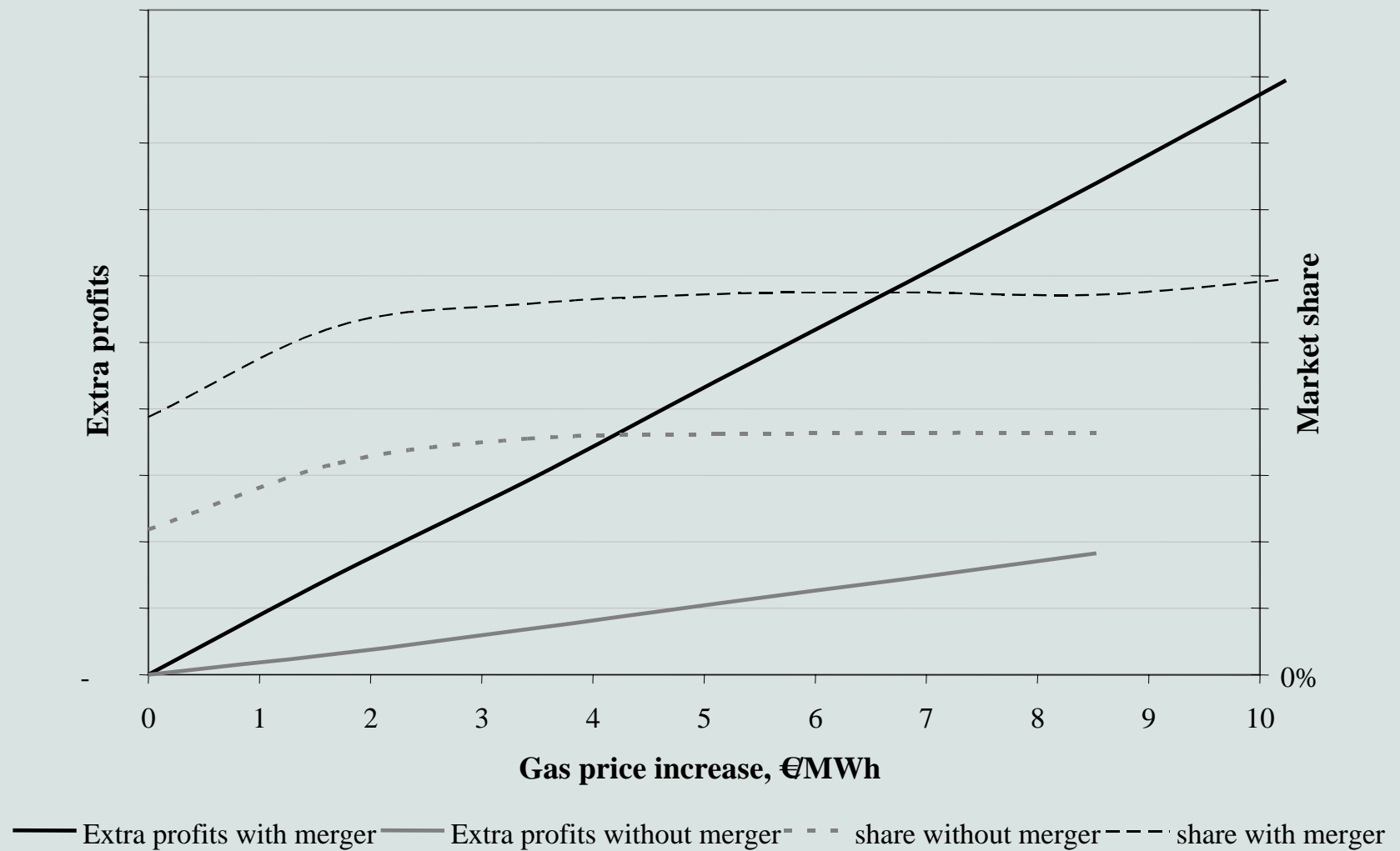
After the merger

- GN acquires 21,400 MW of Endesa plant. The electricity market is a significant source of extra profits from raising gas prices.

GN's acquisition of Endesa's plant would increase GN's incentive to raise gas prices in Spain.

- We performed quantitative modelling of this effect.

GN and GN/Endesa's market shares and profits in the Power Sector (2007), as a function of gas price increases



Conclusions

- Efficient approach to gaining regulatory approval involves
 - ▶ Identifying upfront the “issues that really matter” to authorities
 - ▶ Understanding authorities’ concerns (and make sure they understand yours)
 - ▶ Addressing pro-actively, if necessary through design of remedies
- Role of the economic expert:
 - ▶ Identify the issues that really count analytically
 - ▶ Provide rigorous analysis (will be subject to intense scrutiny)
 - ▶ Help in design of remedies, and provide supporting analysis (further intense scrutiny)
 - ▶ Strengthen overall case by displaying rigour and independence