

The Netherlands

Key issues

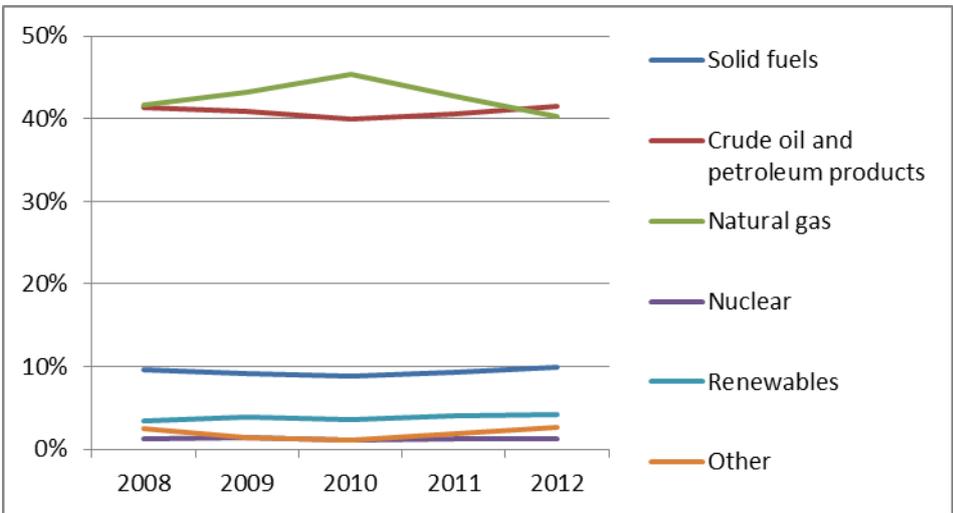
For electricity, at the current pace of development, the Netherlands seems likely to miss its 2020 target for renewables. Implementing the recently established national Energy Agreement for Sustainable Growth ('Energieakkoord') should speed up the development. The problem of insufficient interconnection is seen when the price drops in Germany because of high renewables production, but the price in the Netherlands does not respond.

The increase in earthquake activity has renewed concerns about the decline in Dutch gas production. Following the recent decision to decrease production by 2016, the Netherlands needs now to determine its gas production policy from 2017 onwards.

1. General overview

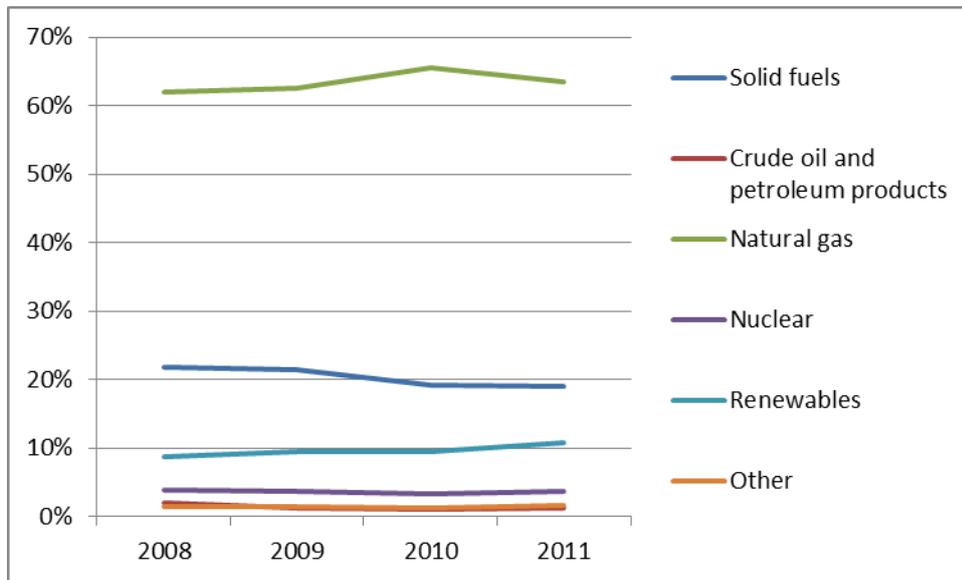
Energy consumption in 2012 (82.0 Mtoe) was based mainly on fossil fuels, notably natural gas, crude oil and petroleum products, and to a lesser extent solid fuels. Renewable energy and nuclear energy were less important in the energy mix (with shares of 4.3% and 1.2%, respectively).

Figure 1: Gross inland consumption mix 2008 – 2012 (source: Eurostat)



The power generation mix in 2011 (113.0 TWh) was dominated by gas-fired power generation (with a share of 63.5%) and by solid fuels (18.9%); renewables represented 10.9% and other sources such as nuclear power (3.6%) were less important.

Figure 2: Gross electricity generation mix 2008 – 2011 (source: EU Energy in Figures – Pocketbook 2012 and 2013)



The Netherlands' 2020 renewables target is 14%, which is lower than the EU average (20%). The renewable share in gross final energy consumption grew slowly from 3.4% to 4.5% between 2008 and 2012.⁵¹³ At this pace, the 2020 target will not be reached.

Cogeneration⁵¹⁴ provided for 32.5% of the total electricity generation in 2011, and it has been at a comparable level for several years. In 2012 electricity demand in the Netherlands decreased by 1.5% in comparison to the 2011 level⁵¹⁵, this decline can be attributable to the economic recession.⁵¹⁶

2. Regulatory framework

General

In September 2013 more than forty social organisations, including central, regional and local government, employers and unions, nature conservation and environmental organisations, and other civil-society organisations and financial institutions – have endorsed the Energy Agreement for Sustainable Growth. The parties to the Energy Agreement aim to achieve a saving in final energy consumption averaging 1.5% annually, and an increase in the proportion of energy generated from renewable sources to 14% in 2020, in accordance with EU arrangements (and a further increase in that proportion to 16% in 2023). It also involves the shutting down by 2016-2017 of the 5 oldest coal

⁵¹³ Eurostat.

⁵¹⁴ The share of electricity produced in combined heat and power plants (CHP).

⁵¹⁵ ACER/CEER, Annual Report on the Results of Monitoring the Internal Electricity and Natural Gas Markets in 2012, November 2013.

⁵¹⁶ Ministerie van Economische Zaken, Landbouw en Innovatie, Monitoringsrapportage Leverings- en Voorzieningszekerheid Elektriciteit en Gas 2012, July 2012.

fired power plants from the 1980s. Beyond 2020, the Energy Agreement includes the long-term goal of an 80 to 95% reduction on greenhouse gases for the whole economy.⁵¹⁷

National Energy Regulator

The Dutch Office of Energy Regulation is part of the Netherlands Authority for Consumers & Markets (ACM). ACM was established on 1 April 2013, and is the new market authority created through the consolidation of the Netherlands Consumer Authority (CA), the Netherlands Independent Post and Telecommunication Authority (OPTA) and the Netherlands Competition Authority (NMa). In 2012, the Dutch Office of Energy Regulation employed approximately 88.5 staff and had an annual budget of EUR 8.2 million.⁵¹⁸

Unbundling

TenneT is the national TSO for the transmission of electricity and Gas Transport Services (GTS) is the TSO for gas. Both are fully owned by the Dutch state. It was announced in October 2013 that privatisation will not be considered for the time being, however the government encourages both TSOs to seek closer cooperation with certified TSOs abroad, which is a commendable approach from an internal market perspective. In December 2013, ACM certified both TSOs under the ownership unbundling model. The TSOs operating the interconnectors BritNed and BBL will also be certified. BBL was certified in August 2013 and the draft decision for BritNed, was received by the Commission in March 2014. Both interconnectors have been granted an exemption for new interconnectors.

Since the end of 2010, all but two DSOs are fully ownership unbundled from the integrated company and are mostly owned by Dutch municipalities and provinces. There are eight DSOs that distribute both gas and electricity and one that distributes gas only. Due to a court decision, part of the law on ownership unbundling of DSOs expired, which led the final two integrated companies to delay unbundling. The Ministry of Economic Affairs appealed to the Supreme Court of the Netherlands and a decision is pending. Following a request for a preliminary ruling the European Court of Justice ruled in October 2013 that the Netherlands could adopt stricter DSO unbundling measures (comparing to the Third package requirements) that constitute restrictions on the free movement of capital if such measures are justified by overriding reasons in the public interest (such as undistorted competition).⁵¹⁹ The Court said it was up to the Dutch Supreme Court to decide if the government's measures passed that test taking into account the criteria that the restrictions at issue need to be appropriate to the objectives pursued and do not go beyond what is necessary to attain those objectives.

3. Wholesale markets

Electricity

The Dutch power generation market is moderately concentrated. Following several successful market coupling projects in North-Western Europe, with years of increasing price convergence, 2012 and 2013 saw a decline. Increasing shares of low marginal cost renewables in Germany have led to an

⁵¹⁷ <http://www.energieakkoordser.nl/>.

⁵¹⁸ In 2012, the energy and transport regulation was combined in one department. The provided data is the energy share of that directorate.

⁵¹⁹ <http://curia.europa.eu/jcms/upload/docs/application/pdf/2013-10/cp130137en.pdf>.

increase in exports to the Netherlands up to the point where the cross-border capacity between the Netherlands and Germany is no longer sufficient to absorb the price difference. Hence, the price convergence in 2012 with Germany declined to 55%, coming from 88% in 2011. In 2012, the two interconnectors BritNed (with the UK) and NorNed (with Norway) successfully implemented new allocation methods for intraday trading.

In 2013, the annual average of wholesale day-ahead power prices on the APX market was EUR 52/MWh, up from EUR 48/MWh in 2012. The annual traded volume of wholesale day-ahead power in 2013 was 47 TWh.

Gas

The production and wholesale gas markets in the Netherlands are highly concentrated due to the exploitation of the large Groningen field by a single producer, the Nederlandse Aardolie Maatschappij (NAM). The gas is produced by NAM is sold exclusively on the wholesale market by the trading company GasTerra. In 2012, the average day ahead gas price at the virtual trading point (the TTF hub) oscillated around EUR 20/MWh in spring and summer months and EUR 23/MWh in autumn and winter. The 2012 average price has been unprecedentedly convergent with average prices on the other major West European hubs. The traded volume of day-ahead gas on the TTF hub increased steeply to 1,818 TWh in 2012.⁵²⁰

The Netherlands is the biggest natural gas producer in the EU. According to Eurostat data, the country accounted for 43.2% of EU-28 gas production in 2012. The country's annual production was 57.4 Mtoe in 2012, down from 57.7 Mtoe in 2011. Dutch gas production is forecasted to decline significantly by 2020. In addition to this long term development, the government also decided in January 2014 to decrease production in the short term due to the increase of earthquakes in the province of Groningen. Through to 2016 production will be reduced by about 10 Mtoe a year from recent production levels. How production will develop from 2017 onwards will be determined over the next couple of years.⁵²¹

Following a decision by ACM in December 2013, European rules on capacity allocation and congestion management were implemented by 1 January 2014. This takes into account rules on auctioning capacity at interconnection points, the surrender of booked capacity, and capacity increase by means of an oversubscription and buy-back arrangement.

A higher utilisation of the cross-border capacity with Germany and Belgium can therefore be expected in 2014 compared to previous years.

⁵²⁰ DG Energy, Quarterly report on European Gas Markets, Market Observatory for Energy, vol. 5 issue 4, 4th quarter 2012, p. 15. For a more in-depth assessment of the liquidity on the Dutch market see ACM's Liquidity Report 2014, <https://www.acm.nl/nl/download/publicatie/?id=11897>.

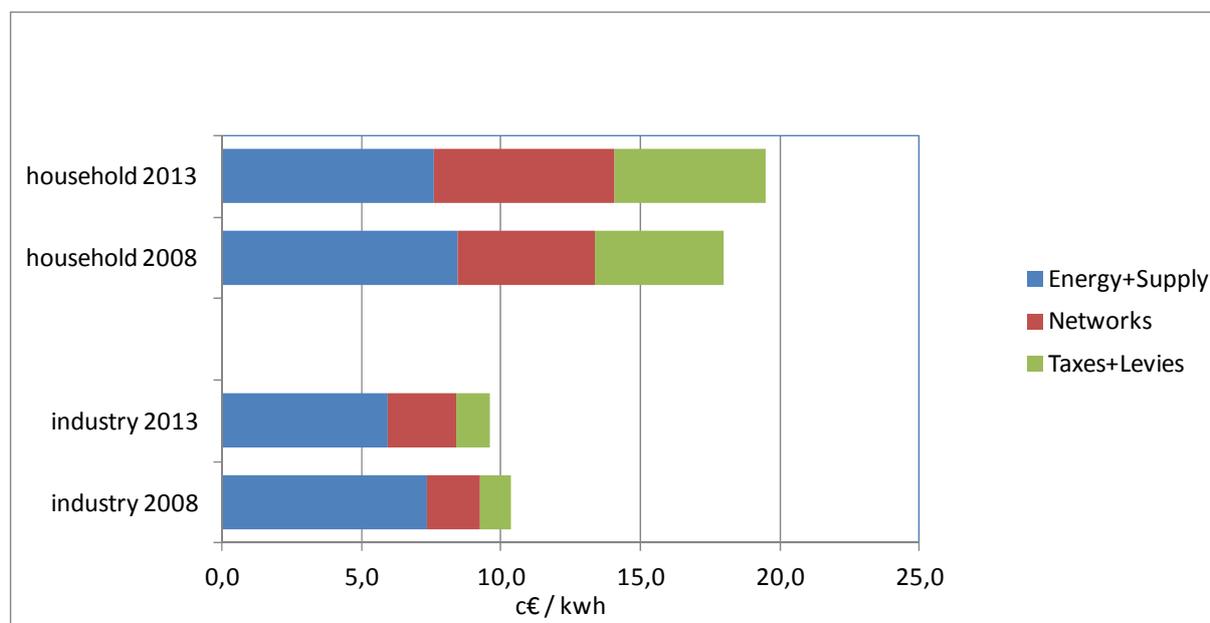
⁵²¹ Minister of Economic Affairs, Letter to parliament "Gaswinning in Groningen", 17 January 2014.

4. Retail markets

Electricity

Market concentration at retail level was high, as the three largest companies covered 83% of the retail market at the end of 2012, while the HHI index was 2,338. For both indices this implies a slight decrease compared to 2011.⁵²²

Figure 3: Electricity price change by component 2008 – 2013 (source: Eurostat, energy statistics)



In 2012, 12.6% of small-scale electricity users switched supplier. This implies an increase compared to previous years and contributes to the trend of increasing annual switching rates over time.

In 2013 the two year small-scale roll-out programme for smart meters came to an end. This programme resulted in 458,182 smart meters being installed by July 2013.⁵²³ Following a positive cost-benefit analysis, the Netherlands are proceeding with the large deployment of smart metering – the expected diffusion rate for electricity is 100% of consumers for electricity and 80% of consumers for gas by 2020. The Netherlands have launched pilot programmes since 2012 and have mandated a large-scale smart metering roll-out to start in 2015 (exact timetable to be confirmed). Relevant legislation for smart metering is pending Parliamentary approval.

Gas

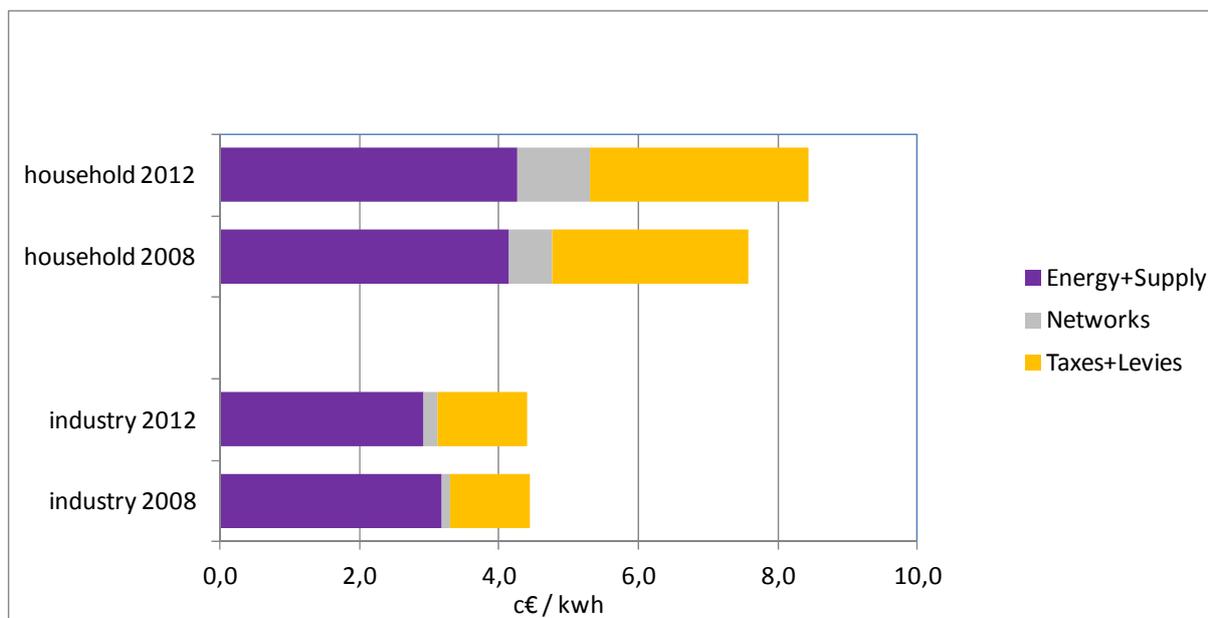
Even though the market is fully liberalised in the Netherlands, market concentration at retail level remains high, as the three largest companies covered 81% of the retail market and the HHI index was 2,258 at the end of 2012.⁵²⁴

Figure 4: Natural gas price change by component 2008 – 2012 (source: EC, EPCR metadata)

⁵²² ACM, National report on energy regulation in 2012, 17 September 2013.

⁵²³ ACM, Monitoringrapportage Kleinschalige Aanbieding Slimme Meter, 7 November 2013.

⁵²⁴ ACM, National report on energy regulation in 2012, 17 September 2013.



The number of small-scale gas users that switched supplier in 2012 (12.3%) increased compared to previous years, as a part of a trend of increasing annual switching rates over time.

5. Consumers

Dutch consumers rate their electricity and gas retail markets above the EU average (76.3 and 75.8 points compared to 72.0 and 74.1⁵²⁵), which corresponds to 9th and 10th place EU-wide, respectively. The assessment of the two markets is also slightly above the average of 31 domestic services markets (13th and 15th respectively). Both markets rank well above average on choice (2nd and 1st highest score in the EU, respectively), switching rates (2nd and 3rd highest) and overall consumer satisfaction. Around 19% of electricity and gas consumers have switched their provider or tariff with existing provider in the past 12 months, almost double the EU average. Especially in the gas market, consumers face fewer problems than the EU28 average; yet virtually all who experienced a problem have complained about it to at least one party (highest percentage in the EU).⁵²⁶

Online price comparison tools for electricity and gas are available and operated by private companies. ACM regularly monitors these tools and publishes the results on the website of the national point of contact, Consuwijzer. Consumers can direct requests for information and complaints to Consuwijzer, run by ACM. ACM also handles complaints. Vulnerable consumers – defined by law as consumers for whom being disconnected from electricity or gas would have very serious health consequences – can never be disconnected. A ‘no-disconnection period’ running from 1 October to 1 April also applies to all households. Low-income households benefit from social support schemes.

⁵²⁵ However the difference is not statistically significant

⁵²⁶ 10th Consumer Markets Scoreboard,

http://ec.europa.eu/consumers/consumer_evidence/consumer_scoreboards/10_edition/index_en.htm

6. Infrastructure

The Dutch authorities should ensure a proper and timely adoption of the measures stemming from Regulation 347/2013 on the trans-European energy infrastructure, including the establishment of the one-stop-shop for PCIs (due by 16 November 2013), and other measures foreseen for 2014 and 2015, including the publication of the manual on the permit granting process for project promoters, and the adoption of legislative and non-legislative measures streamlining the environmental assessment procedures.

Electricity

To accommodate the rise in generation capacity since 2008 (and to reduce the need for congestion management and keeping re-dispatching costs down) the 380 kV grid needs to be expanded. Expansion of the 380 kV grid in the West of the Netherlands ('Randstad 380 kV project') has been under development since 2002. The South ring was completed in September 2013 and the North ring is expected to be completed in 2018. Further expansion of the 380 kV grid is under construction in the North of the Netherlands ('North-West 380 kV project', PCI project) and planned for in the South of the Netherlands ('South-West 380 kV project').

As a result of previous investments and improved coordination, an additional 300 MW of interconnection capacity became available between Belgium and the Netherlands in 2012/2013. The fourth AC interconnector with Germany is planned for 2016 and will increase interconnection capacity by 1.5 GW.

Energy infrastructure investments that are judged to be of national importance are being coordinated by the Minister of Economic Affairs according to the 'Rijkscoördinatierегeling' regulation. Decisions on permits and exemptions are taken simultaneously in coordination between national and local governments.

Gas

The most recent "Open Season" organised by GTS in 2012, showed that no expansion investments are required to accommodate demand for transportation capacity. This experience is consistent with the converging wholesale prices observed at the Northwest European hubs and the low congestion levels.

The seasonal storage system that is being developed by TAQA is due to become operational in 2014. Seasonal storage can deliver the flexibility to meet the seasonal residential gas demand. In December 2013, ACM introduced specific entry and exit tariffs for gas storages to be applicable from January 2014 onwards. One Project of Common Interest has been identified in the gas sector.

7. Security of supply

Electricity

The Dutch market has surplus available (firm) production capacity. This surplus is expected to increase to 11.7 GW in 2020.⁵²⁷ Generation adequacy therefore seems guaranteed for the coming years.

Gas

The Dutch government is preparing itself for when more imports will be necessary with a strategy to become Europe's 'gas roundabout', and diversify supply sources (LNG, countries of origin). As mentioned, production from the Groningen field will be reduced but will still meet the peak demand of low-calorific gas in the Netherlands, Germany, Belgium and France.

Dutch legislation prescribes that GTS is responsible for reserving sufficient transport capacity and gas for the additional demand of gas during days with a temperature below minus 9 degrees Celsius.

8. Key indicators

Electricity		Gas	
Number of companies representing at least 95% of net power generation	800	Number of entities bringing natural gas into country	N/A
Number of main power-generation companies	4	Number of main gas entities	N/A
Market share of the largest power-generation company	N/A	Market share of the largest entity bringing natural gas	N/A
Number of electricity retailers	35	Number of retailers selling natural gas to final customers	32
Number of main electricity retailers	3	Number of main natural gas retailers	3
Switching rates (entire electricity retail market)	12.6%	Switching rates for gas (entire retail market)	12.3%
Regulated prices for households – electricity	No	Regulated prices for households – gas	No
Regulated prices for non-households – electricity	No	Regulated prices for non-households – gas	No
HHI in power-generation market	1,492	HHI in gas supply market	6,455
HHI in electricity retail market	2,338	HHI in gas retail market	2,258
Electricity market value ⁵²⁸ (bn€)	8.706	Gas market value ¹⁵ (bn€)	9.474
Installed generation capacity (MW, 2011)	28,049		
Peak demand (MW)	18,438		
Number of smart meters installed (July 2013)	458,182		

⁵²⁷ Ministerie van Economische Zaken, Monitoringsrapportage Leverings- en Voorzieningszekerheid Elektriciteit en Gas 2013, July 2013.

⁵²⁸ Market value is an estimation of the size of the retail electricity and gas markets. It is calculated using data on electricity and gas consumption in the household and non-household sectors (average bands) and annual average retail prices.